The Informal Market for Fashion Braces in Thailand

By:

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Abstract

Background: Fashion braces first appeared around 2006 in Thailand (Vachirarojpaisan 2009). It has been a current dental phenomenon in Thailand whereby people seek to wear a brace for non-therapeutic purposes. They might be provided by qualified and regulated dentists, but often by unqualified, unregulated non-dentists or are attached by the person themselves (i.e. do-it-yourself or DIY dentistry). However, there has been evidence that some people expect treatment outcomes from such non-therapeutic fashion braces. Over recent years, fashion braces have spread to other countries in Southeast Asia, including Malaysia, Cambodia and Indonesia, as well as to other parts of the world, such as Jamaica and Saudi. However, to date, there have been few research studies in this field.

Aim: To explore the informal market for fashion braces in Thailand.

Method: This thesis consists of two qualitative studies. Study 1 was a netnographic study in a Thai online community called Pantip.com where people discussed fashion braces. Threads were retrieved using keywords related to fashion braces in Thai on the community search feature. Threads were included if they talked about fashion braces or were posted by those who sought Fashion braces and/or had experience of fashion braces, resulting in 136 threads in Thai being selected and translated to English. Heading posts in these 136 threads were analysed by structural analysis.

Study 2 involved narrative interviews with 18 participants aged 14 years and above, who had experience with wearing fashion braces (past or present) or had decided against wearing fashion braces. Four recruitment strategies were applied: flyers, gatekeepers, social media and snowballing. Online interviews were carried out via Facebook messenger and Line application; participants had the option to use video calls or voice calls. The resulting data were analysed by thematic analysis.

Results: The findings of Study 1 suggested that users who started threads on the online community for three reasons. The most frequent reason was information-seeking (71%), by those thinking about wearing a fashion brace, followed by help-seeking threads (26%) started by those who were wearing Fashion braces and seeking help. The least common reason for starting a thread was to share experiences by people who had quit wearing Fashion braces (3%). The analysis suggested there were four meanings of fashion braces by those posting to the online community: as a fashion object, as a distraction from body dissatisfaction, an alternative to orthodontic treatment, orthodontic treatment could not meet desires. The analysis divided life with fashion braces into three stages: before, during and after wearing fashion braces. This enabled the researcher to see aspects related to the informal market framework, such as customers and providers, information, and peer and family.

In Study 2 the analysis of participant's lives with fashion braces was also divided into three stages: 1) Road to the world of fashion braces, 2) Wearing fashion braces and 3) Escaping from the world of fashion braces. Four meanings of fashion braces were found: fashion braces as a fashion object, fashion braces as a tool to hide the appearance of teeth, fashion braces as a tool to improve one's smile, and cheap braces for treatment. Wearers reported a number of benefits from fashion braces such as, gaining confidence. However, alongside these positive reports, there were a number of negative impacts that participants reported; pain was the most commonly reported impact. Whilst the negative consequences impacted participant's life, some still kept wearing the fashion brace. Interestingly, some participants who quit wearing fashion braces returned to fashion braces for a second time primarily because they wanted to keep appearance of wearing them.

Conclusion: The findings from the studies in the PhD thesis suggest that fashion braces served a number of purposes for participants; both non-therapeutic and therapeutic. The participants reported many positive benefits from wearing fashion braces including psychological, social as well as functional. However, a number of negative impacts were also mentioned, most notably pain. The findings lend support to understanding customer's perspectives within an informal market system in Thailand, and as such provide some insights into how dental professionals and dental policy makers in the country may develop educational resources for potential wearers.

Chapter 1

Introduction

1.1 Background

Fashion braces or fake braces are a current phenomenon involving dentistry in Thailand in that people seek brace products and instalment services mainly for non-therapeutic purposes. The purpose is to use them as a fashion statement and status symbol (Rityoue and Sasiwongsaroj, 2009; Vachirarojpaisan, 2009; Razak, 2015). These products usually are supplied by unqualified and unregulated non-dentists or by the person themselves (i.e., do-it-yourself (DIY)). This is called "jud-fun-fashion" in Thailand, which can be literally translated into English as fashion braces. The term fashion braces first appeared in 2006 in Thailand (Vachirarojpaisan, 2009) and has spread within countries in Southeast Asia, including Malaysia (Razak, 2015; Wahab et al., 2019), Cambodia (Nass and Sreyleap, 2016) and Indonesia (Zakyah et al., 2016), as well as to other parts of the world such as Jamaica (Watson, 2016) and Saudi Arabia (Alhazmi et al., 2021; Hakaami et al., 2020)

Fashion braces often feature in news articles worldwide; however to date, there have been a limited number of studies that have investigated the motivation for and use of fashion braces (Pothidee et al., 2017; Hakami et al., 2020; Rityoue and Sasiwongsaroj, 2009; Zakyah et al., 2016; Wahab et al., 2019; Alhazmi et al., 2021).This literature includes a quantitative study investigating the oral health-related quality of life of fashion braces wearers from Saudi Arabia (Hakami et al., 2020), the factors associated with the use of fashion braces and braces from non-dental professionals (Alhazmi et al., 2021; Zakyah et al., 2016), and fashion braces awareness in higher education students (Wahab et al., 2019). Only two investigators have conducted in-depth interviews with fashion brace wearers about the characteristics, services, and reasons to have fashion braces, as well as the potential consequences of wearing fashion braces (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009). These two articles were conducted on the Thai population.

This thesis consists of two studies to explore people's experiences of seeking out and wearing fashion braces. Qualitative methodologies were used in both studies, using different analytical methods.

- **Study 1 (How people talk about fashion braces)** investigated threads on the subject of fashion braces in an online community, and data were analysed using a combination of structural analysis and thematic analysis.

- **Study 2 (The experiences of fashion braces wearers in Thailand)** 18 participants aged over 14 years old from across Thailand were interviewed using narrative online interviewing and the data were analysed using a thematic analysis.

1.2 Research questions, Aims and Objectives

Research questions:

1. What do fashion braces mean to people? (addressed by Study 1 and 2)

2. How do individuals use online communities to talk about fashion braces? (addressed by Study 1)

3. What are the experiences of those were seeking fashion braces, wearing fashion braces and who have stopped wearing fashion braces? (Addressed by Study 1 and Study 2)

4. What are the characteristics of the informal market of fashion braces in Thailand? (addressed by Study 1 and 2)

Aim: To explore the informal market for fashion braces in Thailand

Objectives:

1. To explore the meanings of fashion braces for Thai people

2. To analyse social media talk about fashion braces in an online forum (Pantip.com)

3. To explore people's experience with fashion braces

1.3 Summary of the research methodology and methods

The informal market framework (Bloom et al., 2011; Cross and MacGregor, 2010; Gaudiano et al., 2007; Durham et al., 2015) was employed to explore the current knowledge of fashion braces worldwide (Figure 16). Later, it was used as the conceptual framework to investigate factors that influence the existence of fashion braces in two studies. This thesis only focused on the "core" element of the framework (p.79). This was because of changes made to the thesis plan due to the COVID-19 pandemic which occurred during the data collection.

The original plan was to conduct Study 1 to obtain various elements of the informal market as applied to fashion braces including demand, supply, and other elements through fashion braces wearer's points of view. In addition, Study 2 was originally planned to seek perspectives from stakeholders (e.g., sellers, organisations, regulators, and dental professionals). It was originally envisaged that the findings of Studies 1 and 2 would help devise recommendations to dental public health officials for campaigns

on reducing fashion brace use through focusing on the impacts to individuals. However, during 2020 and 2021 the COVID-19 pandemic meant that Study 2 had to be re-designed as travel to and within Thailand was not possible for participant recruitment and in-person data collection from all stakeholders. As such, Study 2 shifted to focus on the informal market through the wearer's point of view.

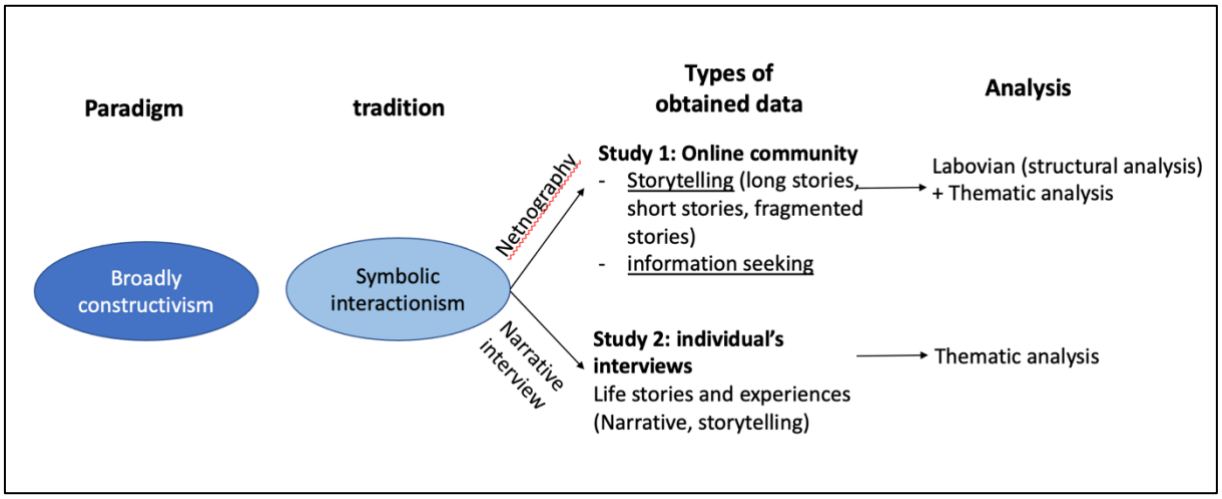


Figure 1 The summary of research methodology and methods used in this thesis.

As can be seen in Figure 1, in the first study, I observed social interactions among fashion braces wearers and their peers, the constructed meanings of fashion braces, and their journey with fashion braces through stories told online. Therefore, symbolic interactionism was chosen to investigate participant's self and their actions towards fashion braces that they assigned meanings. Labov's or Labovian model or structural analysis was used to analyse as the aim of study 1 could be explored by this analysis method (Cousineau, 2020; Patterson, 2011; Arendholz, 2010; Arendholz, 2013).

Study 2 further investigated the experiences of individuals using narrative interviews to better understand their lives with fashion braces. The interviews were conducted online and analysed with thematic analysis.

The version of these current two studies (storytelling in online space and narrative interviewing) could partly fulfil knowledge of the informal market of fashion braces. Still, it provided a better understanding and increased the amount of the voices of participants to be heard than previous literature. However, further investigation related to stakeholders is needed to deeply understand the economics of fashion braces.

1.4 Structure of the Thesis

To address the thesis aim, two studies were carried out using different methods starting from an unobtrusive position working towards a more active strategy. The first study was conducted in the Thai online community. Data were gathered from heading messages in threads which talked about fashion braces. Study 2 was online narratives interviews with 18 people across Thailand to explore their experiences with fashion braces.

The thesis is constructed as follows:

Chapter 1 provides an overview of the research

Chapter 2 provides an overview of the literature related to fashion braces in Thailand, including orthodontics, health schemes and orthodontics service in Thailand, fashion braces' definitions and characteristics of fashion braces in Thailand, strategies and laws to regulate fashion braces in Thailand and the informal market framework to employ as the theoretical framework.

Chapter 3 details the first study of the thesis, which was a structural analysis (Labov's model) of threads talked about fashion braces in the online community

Chapter 4 details the second study of the thesis. This study explored the people's lives with fashion braces using narrative interviews with people who were wearing fashion braces or had worn fashion braces.

Chapter 5 highlighting the key findings, meanings of fashion braces, the ambiguous terms of fashion braces, the informal market for fashion braces, current laws, regulations and strategies used to control fashion braces in Thailand, strength and limitations.

Chapter 6 highlights the major conclusions the recommendations arising from the research.

Chapter 7 lists the references

Appendix I: lists of research documents from Study 1

Appendix II: Lists of research documents from Study 2

1.5 My interest in fashion braces

Fashion braces are the central topic of interest in this research project. Fashion braces may have different meanings or purposes for others, including as a fashion statement or as a cheaper alternative to traditional orthodontic treatment. Whichever meaning they have for individuals, they are typically provided by non-dentists in Thailand, often in shopping malls.

My interest in the issue of fashion braces developed as a dental undergraduate student in Thailand almost ten years ago. It started from seeing stalls in shopping malls offering braces; my thought was *'For what??*'; until I had a patient who came into the dental teaching hospital to remove their fashion braces. Then, my thinking moved to: *'Hmm, it was mischievous and why do people want it?*'. When I graduated from Dental School, I saw no patients seeking help due to the consequences of fashion braces. However, I heard a lot of news and saw several cases from my friends' Facebook pages that detailed patients of theirs who were visiting them because of problems with fashion braces. As a result, I created information boards about fashion braces, including their negative consequences, to inform patients receiving dental services at my workplace.

Today, the issue of fashion braces still exists despite the fact that many Thai organisations (such as the Thai Dental Council and the Office of Consumer Board Protection) have employed several proactive strategies focusing on both the fashion brace providers and individuals to eliminate fashion braces. During my initial search of the literature, it became clear that very few studies have been published in this area (N=6). These studies have explored the perspectives of individuals who wore fashion braces only – rather than the providers. Besides, all included only those who were already wearing fashion braces. Three articles, recently, have been published in the Saudi Arabian and Malaysian populations in the past three years. These have shown that the phenomenon of fashion braces has grown worldwide.

Chapter 2

Literature review

This chapter reviews the literature on fashion braces to elucidate the current knowledge and gaps in understanding regarding the topic. The chapter begins by discussing fashion braces, the dental specialty of orthodontics, health schemes, and orthodontic services in Thailand, and then it explores strategies, regulations, laws, and health policy. Next, an overview of health-related markets and the role of informal health providers within these markets is provided. The chapter then highlights the existing gaps in knowledge regarding fashion braces and describes the rationale for the current research project.

2.1 Fashion braces

In Thailand, some individuals seek brace products and instalment for non-therapeutic purposes, such as making a fashion statement or displaying a status symbol. Instalment of these braces is performed by non-dentists (informal providers) or by the individuals themselves ("do it yourself"; DIY). This phenomenon is called "jud-fun fashion" in Thailand, which can be translated into English as "fashion braces". Alternatively, the news and literature have referred to the phenomenon as "fake braces". Fashion braces first appeared in 2006 in Thailand (Vachirarojpaisan, 2009) and have since spread throughout Southeast Asia, including Malaysia (Razak, 2015), Cambodia (Nass and Sreyleap, 2016), and Indonesia (Zakyah et al., 2016), as well as other parts of the world, such as Jamaica (Watson, 2016) and Saudi Arabia (Hakami et al., 2020; Alhazmi et al., 2021)

This section reviews the current knowledge of fashion braces, describing definitions and terms, the appearance of fashion braces, providers and settings, procedures, factors influencing decision-making about obtaining fashion braces, and perceptions of fashion braces.

2.1.1 Definitions of fashion braces

In this section, the terms "jud-fun fashion" and "fashion braces" are used to introduce debates regarding the ambiguity of terms and definitions surrounding the phenomenon. There is only one term in the Thai language—"jud-fun fashion"—which can be interpreted as orthodontics for fashion or braces for fashion. Therefore, this is the term generally used to refer to devices that look like but do not function as standard orthodontic appliances.

As this phenomenon has spread to other regions of the world, various synonyms have been used in published studies and news articles, including "fashion braces" (Pothidee et al., 2017; Nass and Sreyleap, 2016; Sorooshian and Kamarozaman, 2018; Alhazmi et al., 2021; Hakami et al., 2020), "fake

braces" (Watson, 2016; Razak, 2015; Murphy, 2019; Dicker, 2013), and "pseudo-orthodontics" (Rityoue and Sasiwongsaroj, 2009). However, these various terms have led to debates about what the devices should be called and the typology for what is referred to as "fashion braces" in this study.

The first term, "fashion braces", or "jud-fun fashion" in the Thai language, may originate in the primary purpose of the devices: a fashion statement (Vachirarojpaisan, 2009). The term was first used for the original iteration of fashion braces, which involved beads and household wire that were adapted to simulate the appearance of orthodontic devices (ibid), and it has since been used to refer to these devices.

Fashion braces were defined by the Thai Consumer Protection Board 1/2561 (Thailand, 2018) as follows:

> *Jud-fun fashion equipment is products or materials (i.e., wires or bands) that tie or bond within the oral cavity, on teeth, or in other similar actions. Purposes are for aesthetic reasons without therapeutic purposes. (p. 1)*

Sorooshian and Kamarozamna (2018), researchers from Malaysia, defined fashion braces as devices that

> *look very comparable to real orthodontic braces but are not operative. They do not have any therapeutic purpose.* (Sorooshian and Kamarozaman, 2018, p. 1)

The definition form the Thai Consumer Protection Board specifies the material used for non-treatment purposes, while the latter definition focuses on the appearance of the devices (i.e., similar to orthodontic braces). However, the phrase "without therapeutic purposes" is potentially ambiguous. The NHS (2020) and Thai Association of Orthodontists (n.d.) defined orthodontic treatment (usually with braces) as services used to improve dental appearance and alignment and correct malocclusion issues. In comparison with this definition, "without therapeutic purposes" means neither to improve dental appearance, correct malocclusion, nor move the teeth. However, if devices referred to by laypeople as "fashion braces" can move the teeth (intentionally or unintentionally) or if an individual also wants the device for treatment purposes, this definition does not clarify whether the term "fashion braces" is still appropriate.

Conversely, Hakami and colleague (2020) defined fashion braces as follows:

> *Unique or aesthetic bracket designs serve as fashion statements without any therapeutic effects of conventional braces. Fashion braces are largely provided by dental professionals. (p. 2)*

This definition adds an important element regarding providers who are dental professionals but provide braces for fashion. In adding this component, the definition increases the complexity of the current debates, as fashion braces have typically been acknowledged as being provided by non-dentists.

Another term, "fake braces" has been utilised among international news articles (Watson, 2016; Razak, 2015; Murphy, 2019; Dicker, 2013). For example, Murphy (2019), a journalist, stated,

> *Fake braces are basically made of materials you'd find at home or in your local department store. They are not placed by orthodontists, and they do not operate like actual braces. (p. 1)*

In this statement, the journalist provides another perspective on fashion braces or fake braces, highlighting the use of household materials rather than orthodontic braces, while emphasising the non-function of fashion braces.

On colgate.com, Sandilands (2018) wrote,

> *Fake braces are made from a piece of wire with brackets that are glued to the wearer's teeth. . . . Unlike real braces, these are fitted personally by the wearer, by local beauty salons, and by unauthorised street vendors.*

Here, the use of the phrase "wire with brackets", which is also used in orthodontics, suggests that the only difference between fake braces and orthodontic treatment is the provider and the appliance or appliance materials.

Wahab and colleagues (2019) used the term "fake braces":

> *Some of them tend to seek fake braces, which is way cheaper compared to orthodontic treatment.*

In other words, some people diverted their need for braces because of the price of standard orthodontic treatment.

Rityuoue and Sasiwonsaroj (2009) introduced another term similar to "fashion braces" and "fake braces": "pseudo-orthodontics", which can be defined as "the use of tools to imitate the real orthodontic" (p. 8).

However, this term is rarely used; only one published article (Rityoue and Sasiwongsaroj, 2009) has used the term.

Given these differing definitions and terms, no agreed consensus exists regarding what fashion braces are. Moreover, as the current definitions were mostly established by dental professionals and dental

bodies/institutions, what fashion braces mean to the people who are deciding whether to obtain them or those currently wearing them remains unclear. Indeed, fashion braces or fake braces have typically be understood from practitioners' and the government's point of view. This thesis contributes to the field of fashion braces by adopting a social-scientific approach to the meaning of fashion braces.

This section has illustrated the ambiguities of fashion braces, or fake braces. Neither term can fully explain the complexity of fashion braces, as they indicate the devices are merely a fashion statement. The term "fake braces" suggests that the products are counterfeit, and the literature has suggested that non-dentists are providers of non-therapeutic outcomes. However, the term "fashion braces" has also been used to describe orthodontic braces provided by dentists for fashion purposes. This section emphasised that these definitions have been provided by governments, ignoring the wearers' point of view. Exploring the users' perspectives may allow the public to learn about the various meanings of fashion braces or fake braces, which could be varied and complex (as shown in this section).

2.1.2 Relevant studies on fashion braces

A literature search was conducted to explore the current research on fashion braces. Both Thai and English keywords referring to jud-fun fashion were employed, including "fake braces", "fashion braces", "จัดฟันแฟชั่น" and "ดัดฟันแฟชั่น" (synonyms of jud-fun fashion), and "รีไร้เหงือก" (or "re-rai-nguak"; one subtype of jud-fun fashion) (Figure 2). These keywords were used to search international and Thai electronic databases and Google Scholar, as well as all Thai dental journals (by hand). The international databases included Web of Science and Medline Via Ovid, while Thai databases included ThaiLis and ThaiJo. The exclusion criteria were articles that did not focus on fashion braces according to the above definitions (see p. 16) and were not published in either the Thai or English language.

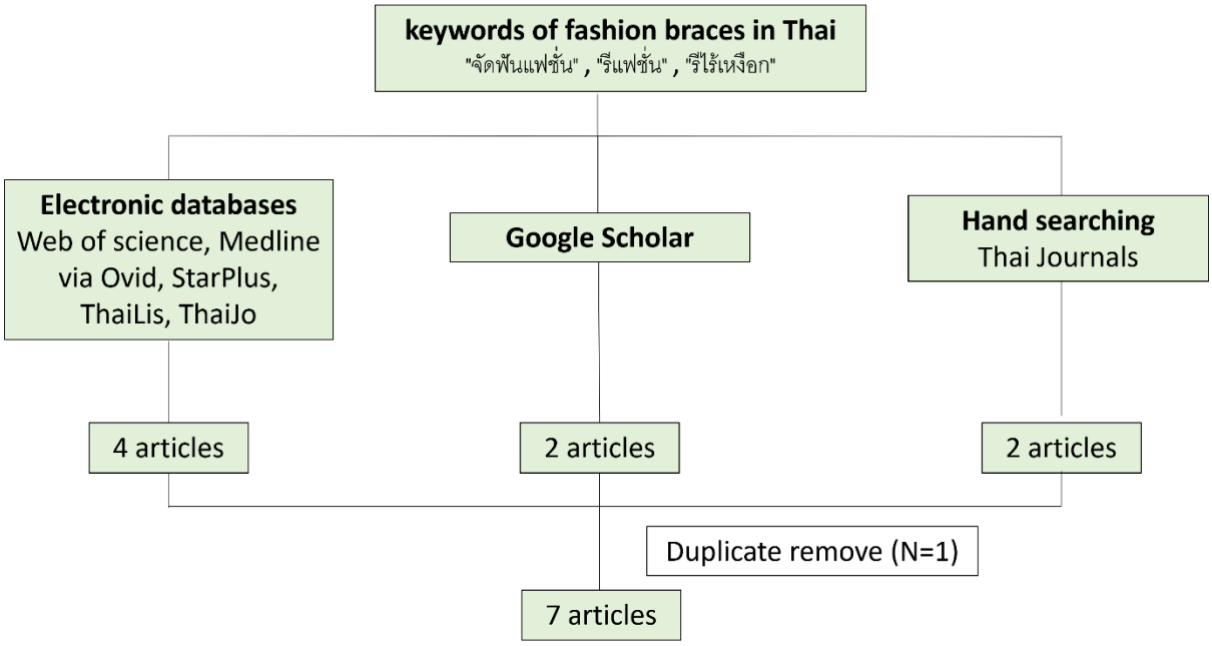


Figure 2 Flow chart for the review strategy

Table 1 Summary of studies on fashion braces and fashion brace appliances

No.	First author (year)	Country	Setting	Participants/sample			Sampling	Methodology	Methods of data collection	Aims
				N	Male: Female	Age range				
1	Rityoue (2009)	Thailand	Bangkok Metropolitan Region	20	2:18	15–20	N/A	Qualitative content analysis	In-depth interview, observation	To discover the effects of fashion braces
2	Pothidee (2017)	Thailand	A secondary school in Northern Thailand	7	0:7	13–15	N/A	Qualitative content analysis	In-depth interview, observation, focus group	1. Explore students' opinions on fashion braces services 2. Examine the accessibility of fashion braces
3	Zakyah (2016)	Indonesia	Bandung City	30	3:27	11–46	Convenience	Quantitative cross-sectional	Questionnaires -directly given -indirectly given (online survey)	Understand the influencing factors to obtain orthodontics from dental quacks
4	Hakami (2022)	Saudi Arabia	Across Saudi Arabia	1,141 (divided into 3 groups - therapeutic braces (N= 384) -fashion braces (N = 39) - control (N = 718)	41.9:58.1	26.9 ± 7.46	Snowballing	Quantitative cross-sectional	- Online survey - OHIP 14 -3 groups (Control/OT/fashion braces)	To investigate the relationship between types of braces patients and OHRQoL
5	Alhazmi (2021)	Saudi Arabia	Jazan (uni, secondary school students)	406 (divided into 3 groups) -fashion braces (N = 40)	fashion braces= 2:1	> 13	Convenience	Quantitative HBM	Questionnaires	To address and understand health-related behaviour of young people using fashion braces

No.	First author (year)	Country	Setting	Participants/sample			Sampling	Methodology	Methods of data collection	Aims
				N	Male: Female	Age range				
				-intended to use (N = 97) -no use (N = 269)	Intended to use = 44:53				3 groups (fashion braces/intended/no use)	
6	Wahab (2018)	Malaysia	University students	170	2:15	19–25	N/A	Quantitative cross-sectional	Questionnaires	To investigate awareness of fake braces in Y gen
7	Sriarunotai (2016)	Thailand	N/A	Gr.1:2 standard bracket (3M) Gr. 2: 4 cheap brackets (Local market, online shops)	N/A	N/A	N/A	Each group of brackets was split to immerse in artificial saliva at pH 3.75 and 6.25 for 28 days 1. EDS: surface characteristic and components 2. ICP-OES measure of released metal ions		To measure metal ions released from fashion braces and standard orthodontics brackets in artificial saliva

Table 1 shows all studies published on fashion braces and fashion brace appliances. The seven articles on fashion braces were from Thailand (N = 2), Indonesia (N = 1) (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017; Zakyah et al., 2016), Saudi Arabia (N = 2), and Malaysia (N = 1)(Hakami et al., 2020; Alhazmi et al., 2021; Wahab et al., 2019). The one study on the quality of fashion braces' equipment and materials was from Thailand (Sriarunotai and Boonyagul, 2016).

Five of the studies involved people who had fashion braces or braces fitted by non-dentists (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017; Zakyah et al., 2016; Hakami et al., 2020; Alhazmi et al., 2021), while two studies reported braces fitted by dentists (Hakami et al., 2020; Alhazmi et al., 2021). One study did not use the term "fashion braces" but referred to the device as a "custom-made orthodontic appliance". This study was included because the orthodontic appliances were provided by non-dentists (so called "dental quacks"), and the authors stated that the aim of the study was to examine braces used for lifestyle/aesthetic purposes (Zakyah et al., 2016).

Of the included studies, two employed qualitative methods (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009) including in-depth interview and observation, with one incorporating a focus group alongside interviews (Pothidee et al., 2017). The number of participants in these studies was between 7 and 20, with an age range from 13–20 years.

The remaining four studies employed quantitative methods. One study focused only on individuals wearing fashion braces (Zakyah et al., 2016), who were asked to complete a survey questionnaire (N = 30; aged 11–46 years). Two studies compared wearers of fashion braces with those who did not have fashion braces using OHIP-14 (Hakami et al., 2020) and health-related behaviour questionnaires (Alhazmi et al., 2021). Finally, one study focused on the awareness of fashion braces in the Y generation without stating the number of wearers who participated (Wahab et al., 2019).

The settings of the five studies were as follows: the Thai studies were conducted in the Bangkok area (the capital city) and one school in Northern Thailand, the Indonesian study occurred in Bandung City, and the Saudi Arabian and Malaysian studies were conducted among university students and secondary school students.

Two studies had a majority of female participants (Rityoue and Sasiwongsaroj, 2009; Zakyah et al., 2016), and one study had only female participants (Pothidee et al., 2017). Conversely, a group of individuals wearing fashion braces in the Saudi Arabian studies had more male than female participants. For recruiting participants, three studies collected data via face-to-face methods, and three used online questionnaires. All participants were recruited from a specific geographic area, and

most were children or adolescents. The key characteristics of the seven studies can be seen below (Table 2).

Six themes emerged from the included studies, six of which included human participants and one that was conducted in the laboratory:

1. Types of fashion braces and installation procedures
2. Motivations for seeking fashion braces
3. Providers and places where the services were given
4. Access to fashion braces services
5. Quality of fashion braces
6. Impacts of fashion braces

Table 2 Characteristics of studies relating to fashion braces

Characteristics	Rityuoe (2009)	Pothidee (2017)	Zakyah (2016)	Hakami (2020)	Alhazmi (2021)	Wahab (2019)	Sriarunotai (2016)
Terms	Pseudo-orthodontics, fake orthodontics	fashion braces	Custom-made fixed orthodontic appliances	fashion braces	fashion braces	fake braces	fashion braces
Type of fashion braces	Fixed and removable fashion braces	Fixed and removable fashion braces	Fixed only (no description of characteristics)	Fixed (orthodontic) for fashion purposes	Not specified	N/A	-
Subjects	human	human	human	human	human	human	materials
Procedures	✓	✓	-	-	-	-	-
Providers	Non-dentists	Non-dentists, students	Non-dentists ("dental quacks")	Dentists, unknown providers	Not specified	-	-
Places which provide the service	- Booths in the market - Beauty salon - Denture-making shops	1. Inside school: - toilets - classroom 2. Outside school: - shop near the school - doorstep service - rental booths	-	- Government clinics - Private clinics	-	-	-

Other findings	1. Participants' demographic data - Education - Parents' occupation and income 2. Oral health consequences of fashion braces	1. 5A's accessibility of fashion braces	1. Demographic data • Occupations • Income • No. of visits	1. Demographic data - education - family 2. Factors associated with the use of fashion braces	1. Demographic data - education - family The application of HBM	1. Awareness of fake braces usage in those who have no experience with fashion braces	1. Metal ions released 2. Quality of fashion braces' brackets

2.1.2.1 Types of fashion braces and installation procedures

The various types of fashion braces have evolved over the last 10 years. Initially, fashion braces in Thailand were made from beads and household metal wires and were installed by the wearers as do-it-yourself (DIY) braces (Vachirarojpaisan, 2009). To date, two studies, which were published in the Thai language, have explained the physical characteristics of fashion braces (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009). These studies employed interviews (Rityoue and Sasiwongsaroj, 2009) and a focus-group discussion (Pothidee et al., 2017) to investigate the characteristics of fashion braces. Both studies identified two main types of fashion braces: fixed fashion braces and removable fashion braces.

2.1.2.1.1 Fixed fashion braces

Rityoue and Sasiwongsaroj (2009) interviewed participants aged 15–20 and found two patterns of fashion braces, referred to as “o-ring” and “chain” by participants. Almost a decade later, Pothidee and colleagues (2017) obtained two additional characteristics of fashion braces: “coloured tube” and “wire”. Therefore, fixed fashion braces can be divided into four subtypes” 1) o-ring, 2) chain, 3) coloured tube, and 4) wire (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017).

The o-ring type, shown in Figure 3, is comparable in appearance to the standard fixed appliance, consisting of brackets and wire tied with elastomeric ligatures. However, this type is attached at only 6–8 brackets rather than the full mouth (as in the standard treatment). Brackets are only bonded from the canine or first premolar of one quadrant to that of another quadrant (Rityoue and Sasiwongsaroj, 2009).

Figure 3 The o-ring type (fixed fashion braces) (Pothidee et al., 2017)

The chain type, shown in Figure 4, has similar characters to o-ring braces, as the brackets are only attached to 6–8 anterior teeth. However, power chains are fitted over each bracket, and there is no wire underneath brackets in some cases (Pothidee et al., 2017).

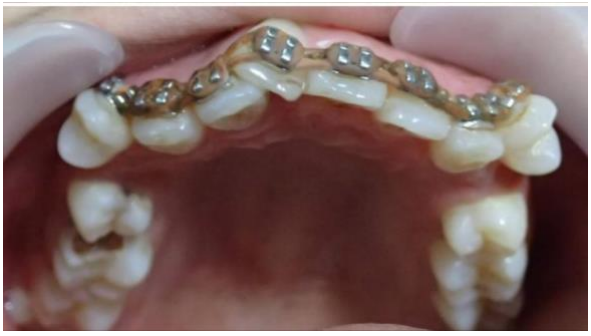


Figure 4 The chain type (fixed fashion braces) (Dental no.10, 2017)

The final two types are similar. In the coloured tube type, the wire is inserted in a coloured tube (Figure 5), whereas the wire type has a non-coloured tube insertion. Common features of these types include two brackets that are adhered at the end of the wire and are attached from the first premolar to another premolar. These types are easily bought from online shops, as they are pre-formed and can be installed by the individual.

Figure 5 The coloured tube type (fixed fashion braces)

In conclusion, fixed fashion braces imitate fixed orthodontic appliances in that brackets are attached to the teeth with bonding substances. Rityuoe and Sasiwongsaroj (2009) found that the procedure begins with a buyer selecting a set of colourful elastomeric rings from the provider. The buyer then lies down on a salon bed, and cotton pallets with blue liquid are applied at the anterior surfaces of 6–8 teeth (canine/first premolar to canine/first premolar). Then, the liquid is wiped out with dry cotton pallets. The teeth are dried with a hairdryer, and the glue is applied. Subsequently, the brackets are placed, and a laser is used to dry the glue.

2.1.2.1.2 Removable fashion braces

Removable fashion braces allow wearers to remove the braces whenever they want. The designs are modified from removable passive retainers, and these removable fashion braces are characterised by

an acrylic plate that acts as a connector. A study by Pothidee and colleagues (2017) referred to these braces as “fashion retainers” and “re-rai-nguak” (“re” stands for retainers, and “rai-nguak” means “no plate”), classifying them as follows:

1. Removable fashion braces with the plate are fashion retainers (Figure 6).
2. Removable fashion braces without the plate are re-rai-nguak (Figure 7).

Removable fashion braces with a plate are similar in appearance to Hawley-type retainers, but modifications are added to make people look like they are wearing fixed orthodontic appliances (Figure 6). Two main components include the acrylic plate and the wire, which might be inserted in a coloured tube (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017). Some of the modifications are decoration of the acrylic plate with cartoon figurine pictures and glitter, various colours of acrylic plates, and brackets that adhere to the wire.

Figure 6 The removable fashion braces with a plate (source: an online fashion braces shop)

Removable fashion braces without a plate comprise only one wire and may be decorated with brackets with coloured rings or a coloured tube (Figure 7) (Pothidee et al., 2017). No acrylic plate is present. The wire consists of clasps at both ends of the wire that wrap around molars. This type is mostly prefabricated and can be purchased online or from on-site shops.

Figure 7 Removable fashion braces without a plate, or re-rai-nguak

2.1.2.2 Motivations for seeking fashion braces

Grey literature, including news articles, has reported people's desire to wear fashion braces to attain improved social status or make a fashion statement (Hsu, 2013; Sumitra, 2012; Silverstein, 2013; Dicker, 2013). Further, five studies with human participants have addressed the motivations for wearing fashion braces using quantitative (Zakyah et al., 2016; Alhazmi et al., 2021; Wahab et al., 2019) and qualitative methods (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009).

For example, Rityoue and Sasiwongsaroj (2009) conducted a qualitative study by interviewing participants (N = 20) about their reasons for wearing fashion braces, both fixed and removable. Of the 20 participants, 15 chose fixed-fashion braces because they looked identical to orthodontic braces. Five of these participants believed that fashion braces could close anterior spaces at affordable prices. In contrast, five participants selected removable fashion braces because they were a status symbol and were easy to clean. This study showed, in contrast to popular opinion that fashion braces are non-functional (as stated in previous definitions of fashion braces), that participants perceive them as an affordable form of treatment.

However, whilst the authors reported their findings in numbers and percentages, this is not the usual approach with qualitative data from such small sample sizes. Although numbers can be used to indicate the frequency of participants' answers (Hannah and Lautsch, 2011a), qualitative methods typically focus on exploring how meaning varies in relation to the field under study to generate insights. Whilst some researchers, for example, Maxwell (2010), have argued that presenting numbers can potentially help researchers identify the diversity of perceptions or beliefs, it should be interpreted with caution due to the sample size. For Rityoue and Sasiwongsaroj's study, the numbers guided knowledge of what motivations may drive Thai teenagers in Bangkok to wear fashion braces—as a fashion statement, a status symbol, or an alternative to orthodontic treatment. All these reasons were cited as benefits of fashion braces, but there may have been other perceived benefits and meanings that lead people seek fashion braces not explored within the study.

Zakyah and colleagues (2016) conducted a survey in the Bandung population in Indonesia. Their aim was to understand the factors that influenced this population to obtain fixed braces from non-dentists. Thirty participants were recruited by convenience sampling with ages ranging from 11–45 years. The participants were asked to complete a questionnaire, and the results were split into two categories: reasons for wearing fashion braces and the purpose for having fashion braces. How the authors differentiated between these categories is unclear.

As with the study discussed above, Zakyah and colleagues reported their findings in terms of the number of participants and percentage reporting particular reasons. The main reasons influencing participants' decision-making were found to be improving appearance and/or improving function (73% and 33%, respectively), improving appearance by having colourful braces (47%), and following fashion trends (30%). Thus, they found that fashion braces can carry denotative meaning (to improve alignment and function) and connotative meaning (to improve looks because of braces and to make a fashion statement).

Furthermore, the participants reported other reasons for receiving fixed braces from non-dentists, including cheap prices (63%), uncomplicated procedures (43%), peers' suggestions (43%), and imitating peers (43%). Only 10% wanted fashion braces because of a parent's suggestion. The authors concluded that the affordable price of fashion braces was the most influencing factor for Indonesian adolescents to seek braces from non-dentists. Overall, the study suggested that personal desires drove participants to wear braces, but prices, procedures, and peers urged them to select fashion braces.

In this study, the questionnaire design, content, and validation were not detailed by the authors. Additionally, the figures within the paper added up to more than 100% with no explanation. Presumably, the respondents could give more than one reason and purpose for wearing braces, but this was not made clear by the authors. As such, identifying the prime motivation for participants to wear fashion braces was not possible. In addition, the sample size was small (N = 30), as was the lack of justification for where participants were recruited.

A more recent publication by Alhazmi and colleagues (2021) surveyed factors associated with the use of fashion braces in Saudi Arabia. The definition of fashion braces was not clearly provided, but in the literature review, the authors seemed to embrace the idea that fashion braces were provided by non-dentists and were of inferior quality. The questionnaire included 27 items that contained six variables of the Health Belief Model (HBM) framework: perceived susceptibility, perceived risk severity, perceived benefits, perceived barriers, perceived cues to action, and perceived self-efficacy. For this study, 406 participants, which included high school students and first-year university students, were recruited. However, only 40 participants (9.9%) had experience with fashion braces. Among those who

did not have fashion braces, 97 intended to have fashion braces. In other words, the majority of participants had never worn fashion braces (N = 269). The results were reported by variables with three categorised scores: low, medium, and high levels of certain variables. The findings suggested that most participants had a low to fair attitude of perceived susceptibility in relation to oral diseases, such as dental caries, gum diseases, and tooth discolouration. Low to fair-level perceived risks of severity of ulcers and root resorption were found. While the perceived benefits of fashion braces, such as the belief that fashion braces would not cause oral problems if dentists were consulted first, were considered low, high, and fair in 43.8%, 32.5%, and 23.6% of the participants, respectively. Moreover, 64.5% said they would pursue fashion braces even though their family was negative about them. Perceived cues to action, such as "I know where to get fashion braces", were low in half of the participants, with rather equal percentages at fair and high levels. Last, perceived self-efficacy, such as "I feel confident that I can use fashion braces", was low in 60% of participants. Therefore, this study suggested that Saudi Arabian youth lacked knowledge regarding fashion braces and their potential consequences, which may lead some to seek fashion braces without awareness. However, the first limitation of the study was that they did not compare variables between those who had fashion braces, those who intended to have them, and those who did not have fashion braces. Therefore, the findings did not reflect differences in variables between groups. Second, in perceived susceptibility, questions were asked about tooth decay, gum disease, and tooth discolouration. Other consequences of fashion braces, such as crooked teeth and pain, were not addressed.

Another study found that youth in Malaysia tend to lack knowledge about the adverse consequences of fashion braces (Wahab et al., 2019), though all participants (N = 170) were studying health-related fields. The results showed that 90% of participants had dental check-up experiences but lacked information about dental treatment fees and the duration of orthodontic treatment. The authors argued that the lack of knowledge about the consequences of fashion braces could play a role in youth's seeking fashion braces. However, the participants in the study had no previous experience with fashion braces. Therefore, this conclusion might not be certain. A prospective longitudinal study design is needed to confirm whether this lack of knowledge could lead individuals to seek fashion braces. Based on the limited and low-quality studies available to date, several factors may drive the motivations for fashion braces. Therefore, this project aims to explore the motivations for fashion braces using different methods and a novel perspective.

2.1.2.3 Providers and places where the services are rendered.

While standard orthodontics are provided by orthodontists or dentists, fashion braces are provided by those who have no dental qualification—that is, non-dentists (Pothidee et al., 2017; Sorooshian and Kamarozaman, 2018; Rityoue and Sasiwongsaroj, 2009). In this study, the knowledge of these

providers is considered to lack understanding of the materials used to install and create fashion braces. For example, the blue liquid, which may refer to the etchant, was wiped out with cotton pallets (Rityoue and Sasiwongsaroj, 2009). If this procedure had been performed by dentist or orthodontists, the liquid would be cleaned with water and air-dried. Additionally, some evidence has shown that hot glue is used to attach brackets to the teeth (Vachirarojpaisan, 2009).

In terms of locations where services are rendered, Rityoue and Sasiwongsaroj (2009) observed several places where fashion braces were provided, including market stalls, beauty salons, and denture-making shops. At one fashion brace shop in the marketplace, providers wore white gowns and face masks. The authors assumed that providers attempted to build a credible image by dressing like health professionals. However, the authors had no direct interaction with providers; therefore, their findings may be insufficient to suggest that the providers were non-dentists.

Pothidee and colleagues (2017), who explored fashion braces in a secondary school, found that two students who participated were providers of fashion braces. In addition, the participants obtained fashion braces from people who operated near the school. Thus, this study confirmed that operators were not dentists. Zakyah and colleagues (2016) also supported the assumption that providers are non-dentists, as they focused on braces provided by “dental quacks”.

The locations where fashion braces are provided are typically illegal establishments; accordingly, the providers are non-dentists. People can access fashion braces services from market stalls, beauty salons, denture making shops (Rityoue and Sasiwongsaroj, 2009), inside the school (e.g., classroom and toilets), and outside the school (e.g., residential house and facilities nearby the school) (Pothidee et al., 2017). Zakyah and colleagues (2016), who studied Indonesia, did not investigate where people could find fixed braces from non-dentists.

Hakami and colleagues (2020), who conducted a study on the impacts of fashion braces on oral health-related quality of life, found that 39 out of 1141 participants wore orthodontic braces for fashion purposes. The participants received these braces from legal establishments, such as government and private dental practises. The majority of providers in the study were orthodontists (43.3%), followed by unidentified providers, dentists, and dental assistants, who accounted for 33.3%, 20%, and 3.3%, respectively.

However, the two studies from Thailand discussed above explored differing contexts: the Bangkok area (Rityoue and Sasiwongsaroj, 2009) and a school outside Bangkok (Pothidee et al., 2017). Therefore, the different characteristics of the providers may have been influenced by the study locations. Other studies investigated the decisions to obtain fashion braces in Indonesia (Zakyah et al., 2016) and in

Saudi Arabia (Alhazmi et al., 2021; Hakami et al., 2020), but these studies did not explain the characteristics of providers.

Besides physical settings, another essential source of fashion braces is the internet (Pothidee et al., 2017). For example, many providers use social media, such as Facebook and Instagram, to distribute fashion braces tools and equipment to wearers and other fashion brace providers. However, this setting (i.e., the online space) has not been explored in previous literature. Internet was confirmed by recent studies (Wahab et al., 2019; Alhazmi et al., 2021) that found that the internet was a popular source of fashion braces, followed by local stores, kiosks, and shopping malls.

2.1.2.4. Access to fashion braces services

Only one study has investigated access to fashion braces services: Pothidee and colleagues (2017) conducted a qualitative study to examine this access. The study aimed to explore the opinions regarding fashion braces services of students in a Northern secondary school in Thailand. Seven pupils aged 13–15 years who were wearing fashion braces were recruited and interviewed. The time frame for data collection was October 2016–February 2017. Penchansky and Thomas's (1981) theory of access was adopted to develop the scope of the interviews: the use of fashion braces services, and the acceptance of services.

First, the participants were asked about their use of a fashion braces service, including their experiences using the service, the provided locations, the reasons for selecting the locations, the frequency of using the service, the modes of travel, and the costs of the services. The second topic was matters related to services, providers, procedures, and locations. Finally, the acceptance of services and accommodation issues, such as time and appointment, were investigated.

The findings regarding the use of the service were as follows. There was no queuing because there were at least 7–8 providers. Several types of fashion braces were available, as the students desired, and additionally, there was a high level of competition between providers, leading to cheaper fees to attract customers. Promotions and deals were distributed through online modes, such as Facebook and Line. The locations where the students could get the fashion braces were in the city and were not far from the school. Therefore, the students could visit by walking and riding motorcycles. The services provided by students to other students were even more convenient; they could make an appointment during breaks and install fashion braces in the school toilets. The working hours could be negotiated—mainly via Facebook, Line, and phone calls—for any time at which providers and buyers were available. In terms of affordability, fashion braces services were cheap; prices ranged from 100–600 THB (£2–12) for fixed fashion braces, which could be paid by credit.

Some students acknowledged and accepted the low quality of fashion braces, while others thought that braces from informal providers were the same as those from dentists and that the braces were clean. The providers' skills were also accepted by the participants, who perceived that the providers had expertise because of their installation tools and the speed with which they changed the elastomeric rings.

Pothidee and colleagues' study (2017) provided some evidence that fashion braces services are accessible and that several marketing strategies are used to attract customers. Although this study was conducted in a specific local setting, it showed that fashion braces are often used as a substitute for orthodontic treatment in rural areas where people are unable to access traditional orthodontic treatment.

The Internet has increased access to fashion braces as found in a few recently published studies (Wahab et al., 2019; Alhazmi et al., 2021)

2.1.2.5 The quality of fashion braces

A recent in vitro study concerning the quality of fashion braces brackets was conducted by Sriarunothai and Boonyagul (2016). They compared the release of chemical elements from fashion brace brackets to the release from standard ones after placement in artificial saliva at pH values of 3.75 and 6.25 for 28 days. After measuring various elements that were released into the artificial saliva, the researchers found that there were no significant differences in the quantities of five chemical elements—iron (Fe), chromium (Cr), carbon (C), nickel (Ni), and copper (Cu)—between brackets used for conventional orthodontic treatment and those used for fashion brackets when the brackets were stored at pH 3.75 for 28 days immersion and pH 6.25 for 28 days. However, they did find significant differences in toxic ion release. Several elements were released from fashion brackets in higher quantities than from standard brackets; for example, Ni ion was released from fashion brackets in amounts 100 times greater when stored at pH 6.25 and 200 times greater when stored at pH 3.75. Indeed, the amount of released Ni ion was sufficient to stimulate an allergic reaction. The authors claimed that the manufacturing processes might differ, potentially affecting the metallurgical properties of the brackets. This was the first empirical study to compare the release of chemical elements from fashion brackets with that from standard brackets. Further research is needed to validate these results using larger samples.

While Sriarunothai and Boonyagul (2016) investigated the quality of braces, an unpublished report from the Thai Dental Council (TDC) in 2017 tested the toxicities of wires, brackets, elastomeric ligatures, and coloured tubes. Forty-seven samples were collected from two online shops and one supplier. The release of the toxic elements lead (Pb), cadmium (Cd), mercury (Mg), and chromium (Cr)

was analysed using the Toxic Element Test in Packaging (ETP), and arsenic (As) was analysed by arsenic content. The tests showed that two products (pink tube and black tube) contained 695 mg/kg of cadmium, which was in the acceptable range, while the rest (45 samples) did not contain cadmium. However, these results must be interpreted with caution because the Toxic Element Test in Packaging aims to analyse toxic elements in the packaging (SGS, n.d.), and it might not be an appropriate method to detect heavy metals in dental products. Additionally, toxicity occurs when elements are released. Thus, it would be better if the TDC described how the Toxic Element Test in Packaging was adapted to test dental products and whether fashion braces products were tested in the simulated oral cavity environment (e.g., an in vitro study) (Mikulewicz et al., 2012; Wendl et al., 2017).

These two pieces of literature (one published article and one piece of grey literature) suggested that heavy metal elements contained in fashion braces (including the brackets, elastomeric rings, and tubes) are in the acceptable range and are not significantly different from standard orthodontic brackets. This implies that fashion braces' brackets, wire, and elastic ligatures may be distributed from acceptable suppliers with an adequate grade of equipment, although high levels of Ni that could lead to an allergic reaction have been shown (Sriarunotai and Boonyagul, 2016). Some evidence has suggested that the components of fashion brackets and standard brackets do not differ. For example, Santiwongkarn (2017) stated that some fashion braces equipment came from the same source as dentists' equipment. This is supported by the case of an online fashion braces supplier who, during interrogation, said that she had two companies: one for selling fashion braces and another for selling to dentists. Her products were from the same place, mainly AliExpress.

However, instruments used for placing, adjusting, and removing fashion braces tend to be ordinary household equipment; for example, nail clippers or wire clippers are used to cut wire instead of the wire cutters used by orthodontists (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017), and the bonding adhesive is often cheap (Pothidee et al., 2017). In some cases, super glue is used (Vachirarojpaisan, 2017).

In conclusion, the literature, social media, and Thai government reports suggest that fashion braces can imitate the characteristics of formal orthodontic appliances, but the quality, safety, and hygienic levels are below those of standard devices. No studies to date have examined quality from a patient-centred perspective.

2.1.2.6 Impacts of fashion braces

2.1.2.6.1 Physical Impacts

Only two studies have examined the impacts of fashion braces, particularly on oral health (Rityoue and Sasiwongsaroj, 2009; Hakami et al., 2020). Rityoue and Sasiwongsaroj (2009) conducted interviews

with 20 participants on the consequences to their oral health following fashion brace placement. Of the 20 participants, 15 selected fixed fashion braces, while the rest chose removable fashion braces. The results showed that most participants (18 out of 20 participants) had pain after wearing braces, which they had been told by providers is a common side-effect and would be reduced after 3 days. Thus, both fixed and removable fashion braces can move teeth. Half of the participants had ulceration from poor-fitting wires and wires' chafing the lips and cheeks. The adolescents thought that it was a common side-effect and not of concern. Additionally, some said that they had difficulty cleaning their teeth. Whilst these side effects are connected to fashion braces, the same effects have been reported for standard orthodontic appliances (Littlewood and Mitchell, 2019).

Hakami and colleagues (2020) used OHIP-14 to explore the impact of fashion braces. Although more than 1100 participants were included, only 3.4% had fashion braces. In this study, "fashion braces" was defined as orthodontic braces fitted for a fashion purpose, and they were fitted by dentists (which differed from the rest of the studies).

In this study, the participants did not report serious consequences, including toxicity, unhygienic procedures, increased risk of dental caries and periodontal disease, tooth mobility, increased malalignment, and life-threatening infections. Instead, the authors reported these effects after reviewing the literature, suggesting that the toxicity of the substandard equipment was because of heavy metal substances, such as lead, antimony, chromium, and arsenic.

Whilst toxicity is a consequence that has been used to raise people's awareness of harm from fashion braces, according to Sriarunothai and Boonyakul (2016), no significant differences exist between components of standard orthodontic appliances and those of fashion braces (Section 2.1.2.5). However, nickel ion from fashion braces was released over the critical value when immersed in artificial saliva at pH 3.75 and 6.25, potentially leading to an allergic reaction.

The hygiene and sterile procedures associated with fashion braces were not reported as concerns to either providers or customers (Rityoue and Sasiwongsaroj, 2009). Although the providers did not wear gloves and used an improper technique to clean tools and equipment (such as washing in water) (ibid), adolescents appeared to accept the sub-standard procedure, believing it was a proper cleaning method (Pothidee et al., 2017).

Only one study has examined the issue of undesirable teeth movement leading to more malalignment of teeth; however, this risk was not apparent to the adolescent participants (Rityoue and Sasiwongsaroj, 2009). Several dentists and news reports have attempted, through social media and

online channels, to warn people about the risks of wearing fashion braces with images of undesirable teeth movement (see example in Figure 8).

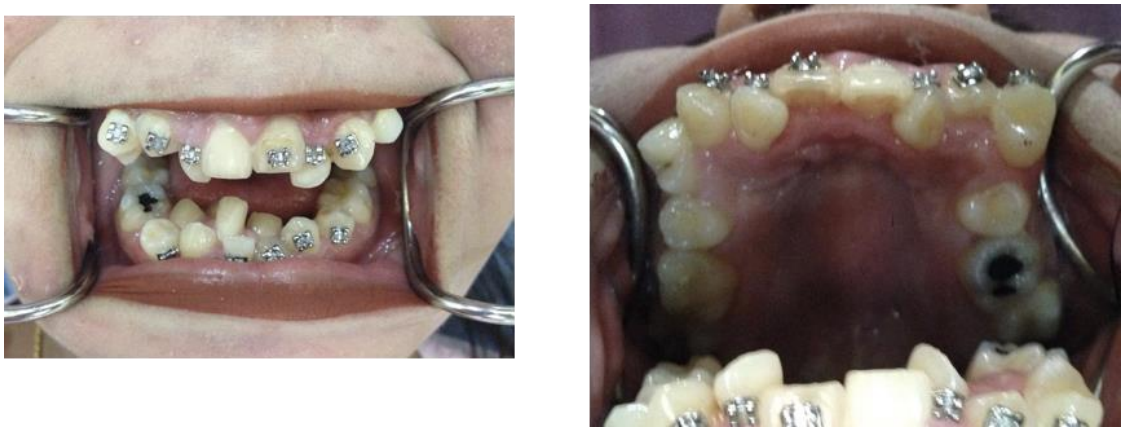


Figure 8 The undesirable teeth movement resulted in severe malalignment in the patient who wore fashion braces in Thailand (Laopatarakasem, 2017).

In worst-case scenarios, life-threatening consequences can occur. For example, a 14-year-old girl died after wearing fashion braces from a provider at a market (Komchadluek, 2009). This case affected adolescents' perspectives in various ways. Despite numerous media reports, stories, and discussions on online forums, many of the participants in the study by Rityoue and Sasiwongsaroj (2009) showed a lack of concern because no such serious consequences had happened to them. However, others felt nervous because of these reports yet still decided to wear fashion braces because they believed the adverse consequences to be rare.

2.1.2.6.2 National impacts

All the consequences examined in the limited studies to date have been individual, person-level impacts. However, other consequences of fashion braces exist at the national level. The Thai Dental Council has suggested that the serious adverse effects of fashion braces, such as dental caries, periodontal disease, tooth mobility, and life-threatening conditions, will increase the burden on the healthcare system in Thailand. As almost all Thai citizens are insured by three health schemes provided by the Thai government (see section 2.3.2), the cost of treatment for any dental or health problems resulting from wearing braces would fall on the government. To date, despite government reports, evidence on which to base a discussion regarding the national impact, prevalence, and consequences of fashion braces in Thailand is lacking.

2.1.3 Limitations of the fashion brace literature

As shown above, the literature in the area of fashion braces is limited in both quantity and quality (N = 7). There are three main problems surrounding this literature: 1) defining what is meant by the term "fashion braces", 2) sampling a relevant population, and 3) limited study designs.

First, the inconsistency in the definitions regarding fashion braces was outlined in Section 2.1.1. No consensus exists regarding the criteria for fashion braces, and as such, problems of definition leave the idea of fashion braces contested. Without clarity as to the definition of the concept under study, planning and developing research studies within the area are difficult. Such studies need to define fashion braces and develop studies to examine the motivations for and decision-making processes around these braces.

The second issue is the problem of sampling. In the quantitative study by Zakyah and colleagues (2016), only 30 participants were recruited, and of these, the majority were female. No details were given as to the design, development, or testing of the questionnaire, nor its content or validity. Whilst Alhazmi and colleagues (2021) and Hakami (2020) recruited a large number of participants, they included a low proportion of those who had fashion braces. The study by Alhazmi and colleagues (2021) recruited 406 participants to explore the factors associated with the use of fashion braces; however, only 40 participants (10%) had experience with fashion braces. Although the authors categorised participants into three groups (use fashion braces, intend to use fashion braces, and no experience of fashion braces), only the overall results were reported, not those by group.

As such, the findings of these studies must be interpreted with caution due to their questionable reliability, validity, and generalisability. Regarding the quality of the qualitative studies, the importance is not the small sample size but the depth of the data acquired, the statistical methods used, and whether data saturation was reached (Fusch and Ness, 2015). Examination of studies by Rityoue and Sasiwongsaroj (2009) and Pothidee and colleagues (2017) suggests that the data may not have been fully explored (O'Reilly and Parker, 2013). However, given the paucity of detail within the studies, it cannot be ascertained either way.

The third limitation was in the methods employed in the studies. Two studies used interviews and observations (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009), and four studies conducted a survey questionnaire (Zakyah et al., 2016; Alhazmi et al., 2021; Wahab et al., 2019; Hakami et al., 2020). Rityoue and Sasiwongsaroj (2009) conducted qualitative research by in-depth interviews using a semi-structured questionnaire. Their results reported the motivations for fashion braces using numbers and frequency rather than descriptions exemplified by direct quotes from participants. This suggests that some motivations were not considered or raised by all interviewees (Hannah and Lautsch, 2011b).

In summary, literature on fashion braces is limited, and the studies have been of poor quality.

The exploration of dimensions of quality was very limited. Information regarding the motivations for fashion braces as indicated by the users is lacking, as are the perspectives of laypeople on fashion braces and the decision to wear them. Despite increasing discussions about fashion braces online, no studies have explored online forums to understand how people discuss and seek information and support about fashion braces (Robinson, 2007). However, such online spaces could yield potentially important information about fashion braces that could be employed to develop further strategies for managing fashion braces. All of above limitations formed the main rationale for Study 1 in this PhD research, which was to explore what people discuss regarding fashion braces in an online space.

However, analysis of Study 1 revealed a few limitations regarding collecting the existing data from the online community. Furthermore, given that all qualitative studies had some method pitfalls and were focused on specific topics, Study 2 was conducted using narrative interviews to explore people's experiences with fashion braces.

As both studies were conducted in the context of fashion braces in Thailand, it is important to understand how health policy and laws work in the area of fashion braces in Thailand. Therefore, these will be discussed in the Section 2.4.

2.2 Orthodontics

2.2.1 Orthodontic overview

This section provides an overview of orthodontics, the dental specialty dealing with managing variations from what might be considered normal arrangements of the teeth and jaws. This specialty requires sophisticated knowledge to assess, diagnose, and manage problems (Figure 9). As with any form of dental or medical treatment, patients can experience significant adverse effects when undergoing conventional orthodontic treatment. Therefore, treatment is best provided by dentists who have had additional clinical training in the specialty.

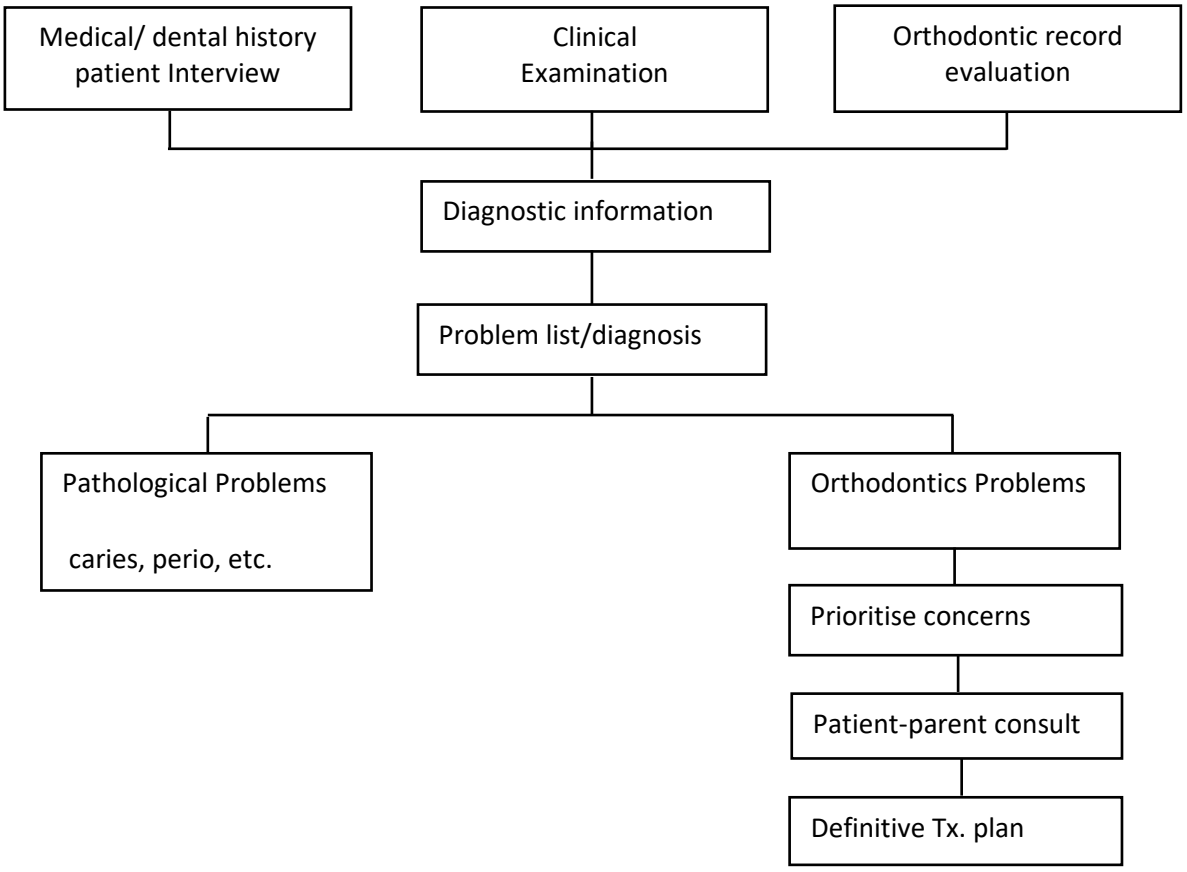


Figure 9 The process of orthodontic diagnosis and treatment plan (adapted from Mitchell [2019] **and Proffit** [2013])

There are two types of orthodontic appliances, removable and fixed appliances, which differ according to patients' ability to remove the appliance from their mouth. The two types are removable and fixed appliances. With removable appliances, patients can take removable appliances out of their mouth (Proffit, 2013), whilst fixed appliances are attached to the teeth and cannot be removed (Littlewood and Mitchell, 2019). Each design type also differs in tooth movement capabilities, with a fixed appliance allowing more complex tooth movement than a removable appliance (Proffit, 2013). The design of a removable appliance is less complex compared to a fixed appliance, and removable orthodontic appliances can be both active and passive depending on their design and purpose.

Duration of orthodontic treatment with fixed appliances is, on average, 19.9 months (ranging from 14–33 months) (Tsichlaki et al., 2016), and the treatment duration is longer in cases, for example, earlier start of treatment in Class II division 1 malocclusion and impacted maxillary canine cases (Mavreas and

Athanasiou, 2008). The duration is also influenced by the patient's compliance and clinician's skill (ibid).

Benefits from orthodontic treatment can be divided into four categories: oral function, oral hygiene, psychological well-being, and social well-being (Benson, Javidi and Dibiase, 2015). In addition, some studies have associated orthodontic treatment with improved self-image and self-confidence (Barbosa de Almeida, Leite and Alves da Silva, 2019; Atisook and Chuacharoen, 2014a). Orthodontic treatment (appliances) may therefore be associated with a range of outcomes. First, it may link with denotative meaning to improve teeth alignment as per the original intention. Second, braces could have connotative meanings for someone who wants them for reasons other than the original purpose, for example, as a fashion statement, a status symbol, and/or an accessory. These connotative meanings of braces might be adopted alongside the market failure of orthodontic treatment, including expensive objects and unmet need. More detail on the informal market and market failure of orthodontics can be found in Section 2.5.1. The next section will explore the need and demand for orthodontic treatment and compare them with the demand and desires for fashion braces.

2.2.2 Need and Demand

Need has a variety of meanings that may change over time and depend on people's point of view. Bradshaw (1972) explored the concept of needs and identified four components: normative need, felt need, expressed need, and comparative need. Normative need is a need identified by norm or standard and is typically defined by (healthcare) professionals. In contrast, felt need (or want) is what people ask for, and expressed need (or demand) is the person's action as influenced by their felt need. Comparative need is the need that occurs when there is an imbalance in receiving a service between similar groups of people.

Wright, Williams, and Wilkinson (1998) categorised need through a medical lens, dividing it into needs, demands, and supply (Figure 10):

- Need: the capacity to benefit from an intervention
- Demand: what the patient asks for
- Supply: what healthcare is provided

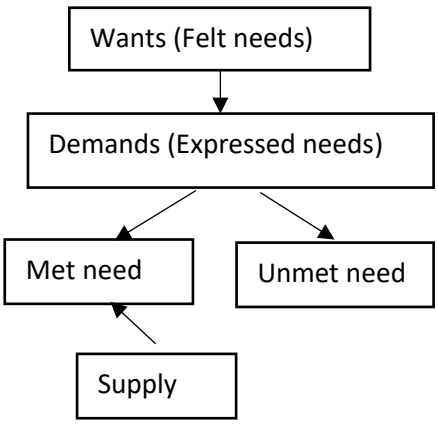


Figure 10 Different aspects of needs (Wright, Williams, and Wilkinson, 1998)

If people's demand for healthcare and the ability of the health service to provide that care or service is imbalanced, it is called unmet need. Unmet need is defined as "covering a spectrum of healthcare needs that are not optimally met", ranging from unexpressed demand (i.e., those who have healthcare needs but are not aware of them) to expressed demand that is inappropriately met (The Academy of Medical Sciences, 2017).

Need for orthodontic treatment has been measured by orthodontic indices, such as the Dental Aesthetics Index (DAI), Peer Assessment Rating Index (PAR index), and the Index of Orthodontic Treatment Need (IOTN), which consider the risk to dental health from malocclusion and the possible risks and benefits of orthodontic treatment (Littlewood and Mitchell, 2019; Agarwal, 2012). The indices are also used to manage demand and support prioritisation through some form of rationing, as is the case in the UK: The National Health Service (NHS) of the UK offers free orthodontic treatment in some cases by using IOTN as a tool to assess the need for treatment, thereby screening people who may be eligible for funding (British Orthodontic Society, n.d.). In contrast, in Thailand, the need for orthodontic treatment has not been considered. These needs for orthodontic treatment are assessed by professionals. Demand for orthodontic treatment, a need expressed by patients, will be discussed the next section. Therefore, needs and demands may not match, leaving an individual's demand to become an unmet need.

2.2.2.1 Demand for orthodontic treatment and motivational factors

Expressed need is the most obvious need and may be influenced by several motivational factors. For example, Samsonyanová and Broukal (2014) conducted a systematic review to explore motivating factors for orthodontic treatment in parents and young people and the impact of facial attractiveness

on quality of life. The authors used keywords including “teasing”, “motivation”, “quality of life”, “smile attractiveness”, and “smile aesthetic perception” to search electronic databases (e.g., the Medline database, EMBASE, and Google Scholar). The final electronic search was concluded in May 2013. Nine hundred ninety-seven articles were initially found, but after the screening process, only 11 articles were included in the final review. All the included articles were quantitative, using questionnaires. The 11 included studies involved over 2,700 patients and 1,300 parents. The authors reported that adolescents considered aesthetics the main factor for undergoing orthodontic treatment. The main issues included crowding and a large overbite, together with dissatisfaction with their dental appearance. In addition, the authors found that participants hoped that having orthodontic treatment would provide them with a better quality of life, including the opportunity to find partners. Parents’ main motivational factors were similar to those of adolescents, with aesthetics being the most important factor.

While the systematic review did identify some of the key motivational factors for orthodontic treatment, a number of limitations may have influenced the findings. First, the search terms included facial attractiveness, even though the aim of the review was not specific to facial attractiveness. Second, the authors did not clarify the exclusion and inclusion criteria. Finally, the 11 articles included in the review were not assessed for quality. Nevertheless, despite these limitations, the systematic review did identify some key motivating factors that could be explored further.

Similar findings have been reported in Thailand, where aesthetics is the prime motivation for orthodontic treatment. Atisook and Chuancharoen (2014b) recruited 450 adolescents aged 12–14 years in Bangkok, Thailand. They administered a questionnaire consisting of yes/no questions on the demand for orthodontic treatment. Additionally, multiple-choice questions explored 10 aesthetic factors and 10 functional factors. The data were analysed using descriptive, chi-square, and multivariate analyses. First, the respondents were categorised as demand (N = 332) and not demand (N = 117). The results found that all of the 10 aesthetic factors and many functional factors were associated with demand, and there were high percentages of aesthetic motivational factors influencing demand. Ninety-seven percent of all those demanding treatment expressed a desire for beautiful teeth in good alignment; 85.9% were concerned about crooked teeth, crowding, and spacing; and 85.9% felt worried when speaking and smiling. Functional problems were also associated with demand: 86.4% had difficulty in cleaning and food impaction, 82.8% had lip and cheek biting, and 60.5% had pronunciation problems.

Although the study did provide some interesting findings, the methods had a number of issues—most notably the conceptual ambiguity about key concepts. For example, teasing from others, feeling

worried when speaking and smiling, breathing, and halitosis were all categorised as aesthetic factors. However, teasing and feeling worried should be psychological or social well-being issues, while breathing and smell are functional.

While aesthetics has been reported as the prime motivational factor more often than functional factors (Samsonyanová and Broukal, 2014; Atisook and Chuacharoen, 2014a), and aesthetic desires have been associated with deciding to receive orthodontic treatment (Pittman et al., 2017), psychological factors and social influence seem, according to many studies, not to raise concern. However, a few scholars have argued that psychological factors and social influences are associated with demand.

For example, Bayat and colleagues (2017) proposed a model for predicting treatment demand and need (Figure 11). Their participants were 150 Swedish adolescents, aged 13 years, who were randomly recruited in Uppsala, Sweden. A questionnaire completed at one time comprised a number of self-assessment measures, such as dental and global self-esteem and social influences, various aspects of malocclusion, and 11 items of treatment demand. Treatment need data were retrieved from participants' dental records, and the data were analysed by path analysis using Mplus. The authors' findings (Figure 11) indicated that better global self-esteem and social influence were associated with greater dental self-esteem, which in turn, was linked to greater demand for treatment. The questionnaires measuring global self-esteem, social influence, and dental self-esteem consisted of items related to psychological aspects (e.g., participant's feelings and being a part of society). The authors suggested that psychological and social influences were important factors related to the demand for orthodontic treatment. While the study had many strengths, including testing a theoretical framework and clear operationalisation of concepts within the framework, it needs to be validated further in other countries using longitudinal data; with cross-sectional data, no cause and effect can be assumed.

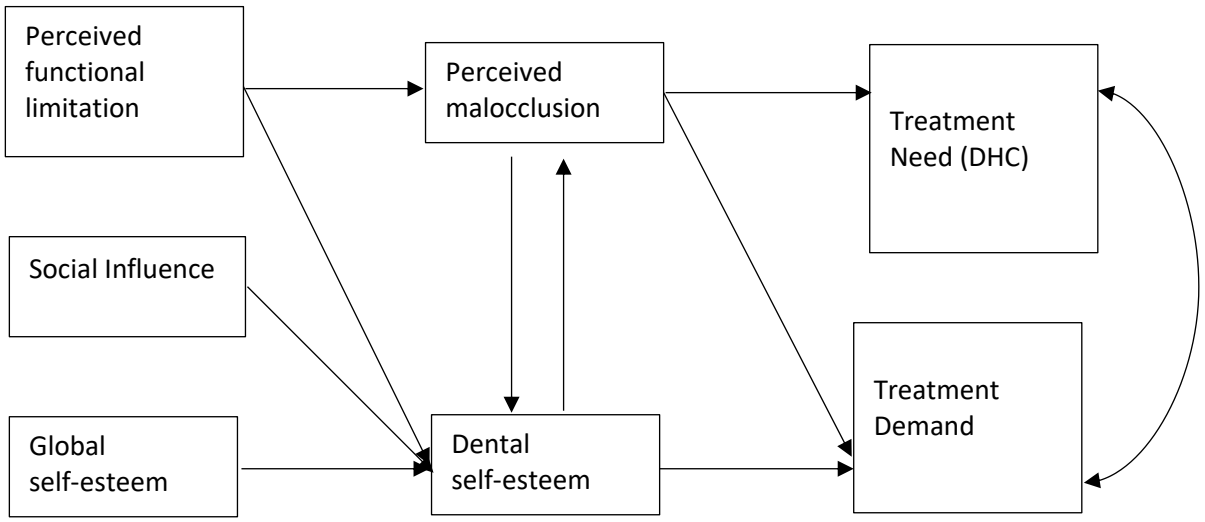


Figure 11 Path model explaining orthodontic treatment need and demand (Bayat et al., 2017) **(redrawn by the researcher)**

Overall, these studies presented improved dental appearances, facial appearance, and smile aesthetics as the main outcomes patients expect from orthodontic treatment (Twigge et al., 2016; Atisook and Chuacharoen, 2014a; Pabari, Moles and Cunningham, 2011). Functional problems can also drive the demand for orthodontic treatment, such as food impaction, cleaning difficulty, a large overbite, and a deep bite (Atisook and Chuacharoen, 2014b; Samsonyanová and Broukal, 2014). Additionally, global self-esteem and social influence have been associated with demand for orthodontic treatment (Bayat et al., 2017).

Whilst many studies have investigated the demand for orthodontics and the factors associated with this demand using quantitative approaches, a number of qualitative studies have also been published on the topic, adding important details to the understanding of the demand, as discussed in Section 2.2.2.2.

2.2.2.2 Decision-making to undergo orthodontic treatment

Many studies have employed qualitative methodologies to investigate motivational factors and develop frameworks related to the demand for orthodontic treatment (Imani, Jalali, Ezzati, Heirani, and Dinmohammadi 2018; Pittman, Bennett, Koroluk, Robinson, and Philips 2017). Imani et al. (2018) examined a grounded theory by conducted semi-structured interviews with 18 Iranian participants aged 14–45 years. Fifteen of the participants were patients, while the rest were a mother, a father, and an orthodontist. The guided questions were “How did you choose to use orthodontics?”, “What happened to make you feel you needed to choose this treatment?”, “What was involved in your decision-making?”, and “Who can help with decision-making?” The data were analysed by grounded

theory as suggested by Strauss and Corbin: open coding, axial coding, and selective coding. The authors found a dynamic process of decision-making, including nine main categories and 22 sub-categories (see Table 3). The factors that initiated the process of decision-making were distorted self-image, hoping to look more attractive, and inappropriate interactions with peers and family. Other effective factors included the family's view of the problem, social conditions, financial constraints, and hope for a better life.

Table 3 Categories and subcategories involving the decision to receive orthodontic treatment in 18 Iranians (Imani et al., 2018)

	General categories
Antecedents	Distorted mental self-image
	Hope to look attractive
	Inappropriate interactions with family and friends
Effective factors	Family's views of the problem
	Social conditions
	Financial constraints
	Hope for a better future
Mechanism	Challenges in the family
Consequences	Decision-making to undergo the treatment

Similar to Imani et al., Pittman et al. (2017) investigated decision-making to obtain orthodontic treatment but used a different method called netnography. In their study, they examined several forums in which people were asking for information to determine whether to purchase orthodontic treatment. Phrases such as "I think I need braces", "braces forums", "not sure about orthodontic forum", "can't decide if I should get braces", "are braces worth it", and "should I get braces" were searched in Google. Threads containing 2,000 or more words with at least four blog participants, in-depth explanations, and threads spoken English were selected for analysis (N = 15 threads). Qualitative data analysis was performed, and a list of codes was pre-determined based on the previous qualitative orthodontic studies. However, new codes were developed as concepts emerged. Finally, all threads were coded, and the codes were finalised as dimensions and sub-dimension. Ten domains and 54 dimensions were identified across the data set (Table 4).

Table 4 Domains and dimensions associated with decision-making to undergo orthodontic treatment (Pittman et al., 2017).

Domain	Dimension
Individual aspects	Desires
	Self-perception
	Viewpoints
Societal attitudes	Societal views of aesthetics
	Societal views of orthodontics
Child-specific influences	Parenting
	Differences in aesthetic threshold
Medicalisation	Treatment plan
	Diagnosis
Finances	Cost
	Mitigating factors
Inconveniences	Effort
	Discomfort
	Challenging for adults
Risks of treatment	Long treatment time
	Pain
	Temporary poor aesthetics
Function	Improved (bite, cleaning, periodontology, TMD, total health)
	Not for aesthetics
Aesthetics	Improved (teeth, smile, overall)
	Character
	Cosmetic necessity
Psychological	Confidence
	Internal effects (self-concept, project true self)
	External effects (personal life, professional life)

As seen in Table 4, multiple factors influenced the decision to undergo orthodontic treatment, including functional, psychological, and social reasons. By using a netnography, the study enabled a

detailed examination of these factors in the public domain—rather than with patients waiting for or undergoing orthodontic treatment in dental clinics or hospitals. This allowed the authors to gain detailed insight that may not have been possible using face-to-face methods, such as questionnaires or semi-structured interviews.

In addition, this study produced a conceptual framework for decision-making (Figure 12) based on current medical decision-making models and previous orthodontic qualitative research, and new insights were integrated. The authors cautioned that this framework should be considered as the overall picture rather than representing individuals because each patient is different and cannot include all dimensions and domains. The authors did not justify how this framework was developed or in what way the new domains were fitted into the framework.

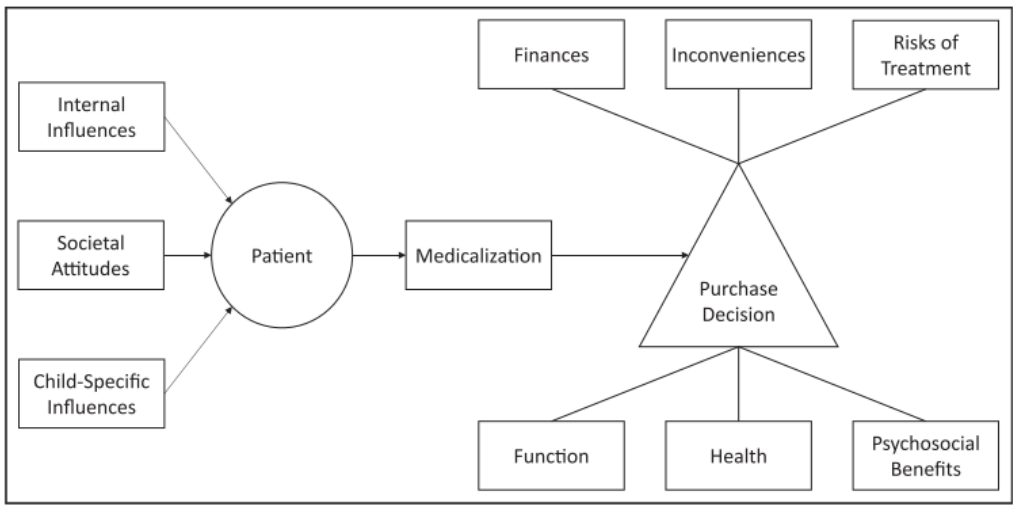


Figure 12 The conceptual framework of decision-making to receive orthodontic treatment (Pittman et al., 2017)

2.2.2.3 Summary

Demand for orthodontic treatment is influenced by various factors: aesthetic (e.g., facial appearance and dental appearance), functional, psychological, and social. The above factors are people's expectations that orthodontics might help them in these areas. However, the benefits and outcomes of orthodontic treatment might be different from expectations. Therefore, the next section will discuss the potential benefits of orthodontic treatment.

2.2.3 Benefits of orthodontic treatment

A number of studies have examined the potential benefits of orthodontic treatment using a range of methodological approaches, including qualitative methods (Barbosa de Almeida, Leite, and Alves da Silva, 2019; Patel et al., 2016), mixed methods (Twigge et al., 2016), quantitative methods (Arrow,

Brennan, and Spencer, 2011; Kenealy et al., 2007), and literature reviews (Benson, Javidi, and Dibiase, 2015; Samsonyanová and Broukal, 2014). The vast majority of the findings from these studies have agreed on the potential benefits of orthodontic treatment. These benefits have centred on improvements in oral function and hygiene, psychological well-being, and social well-being.

2.2.3.1 Oral function and hygiene

Malocclusion affects oral hygiene and function, causing difficulty with cleaning teeth, increasing the risk of trauma, and leading to chewing and biting problems (Patel et al., 2016). In contrast, orthodontic treatment can improve oral health and function (Benson, Javidi and Dibiase, 2015; Twigge et al., 2016). According to a comprehensive literature review by Benson et al. (2015), the benefits to individual dental health are the prevention of dental caries and periodontal disease, improvement in mastication and function, prevention and treatment of temporomandibular joint disorders, prevention of dental trauma, treatment of impacted teeth (if detected early), and reduction of speech problems. A meta-analysis found that oral health slightly improves from pre-treatment to post-treatment (Javidi, Vettore, and Benson, 2017).

For example, regarding caries prevention, Chen and Zhou (2015) conducted a longitudinal study to assess the relationship between orthodontic treatment and dental caries in China. Participants were those who required a single orthodontic jaw treatment (N = 60). Inclusion criteria included an age range of 15–16.25 years at the end of active treatment, the use of Hawley retainers in the upper arch for approximately 2 years, similar crowding in both jaws, and attendance of a 7-year follow up. They recruited 60 participants (28 men and 32 women) aged 11–13 years at T1 from the orthodontic department, Wenzhou Medical School. The dental caries for each tooth were recorded based upon the decayed, missing, and filled surfaces (DMFS) at pre-treatment (T1), post-treatment (T2), and 7 years after T1 (T3). The results showed that at T1, there was no significant difference in dental caries between the treated arch and un-treated arch in all teeth. At T3, they found that untreated arches had higher DFMS than the treated group in second premolars, first molars, and second molars, while there were no significant differences in the anterior teeth. Therefore, this study suggested that orthodontic treatment can reduce the chance of dental caries development. However, one limitation of the study was that the crowding level at pre-treatment was not clarified. In addition, one jaw received treatment whilst the other did not, even though the authors stated that both jaws had similar crowding at more than 4 mm. Moreover, other contributing factors likely affect caries development, such as individual susceptibility, oral hygiene, and dietary and health education. In one patient, an upper arch was treated whilst the lower arch was untreated; therefore, the levels of health education, diet, and oral hygiene were similar for both. The only difference then was crowding, suggesting that the reduction

of caries in the treated arch may be because straight teeth are easier to clean, leading to less tooth decay.

2.2.3.2 Psychological well-being

Huppert (2009) stated,

> *Psychological well-being is about lives going well. It is the combination of feeling good and functioning effectively. (p. 137)*

Psychological well-being has a positive relationship with self-esteem and body image. Self-esteem is one aspect of psychological well-being that is popular among psychological wellbeing-related research (Dubey and Sharma, 2016; Bayat et al., 2017; Kenealy et al., 2007; Huppert, 2009). Self-esteem is a product of an individual's life as it is influenced by several factors, including age, gender, and education (Orth, Trzesniewski, and Robins, 2010). They found that self-esteem increases during young to middle age and decreases after 60 years old. Further, self-esteem is higher in men than women and in people with a higher level of education.

Dental aesthetics is another factor associated with self-esteem; several studies have found a relationship between improved dental appearance (as a result of orthodontic treatment) and increased psychological well-being. For example, Twigge and colleagues (2016) reported that better dental appearance could improve self-confidence in the short and long term, 59% and 23%, respectively, while the expectation of improving self-worth over the short and long term were 50% and 27%, respectively, in 105 participants. Similarly, Bayat and colleagues (2017) found that perceived malocclusion impacted dental and global self-esteem.

In contrast, other studies have found only weak associations between self-esteem and dental status. For example, a 20-year longitudinal study by Shaw and colleagues (2007)evaluated the potential psychological health benefit from orthodontic treatment. The participants were children from Wales aged 11–12 years at recruitment in 1981 and 30–31 years at follow up in 2001. The number of participants in 2001 was 337. Following entry into the study, they were categorised into four groups:

1. Need for treatment in 1981, received treatment by 2001
2. Need for treatment in 1981, no treatment by 2001
3. No need for treatment in 1981, received treatment by 2001
4. No need for treatment in 1981, no treatment by 2001

The total number of participants answering all assessments was 332; 150 out these had received treatment by 2001, and 182 had received no treatment. Several comparisons were made between 1981 and 2001 using pre-validated questionnaires, including psychological health, health-related

quality of life, individual and demographic differences, and physical appearance. The participants' dental status was evaluated through a self-rating of attractiveness (single-item 100 mm visual analogue scales), satisfaction with appearance (single-item rating scales), judged assessment of facial and dental attractiveness (single-item 100 mm visual analogue scales), awareness of satisfaction with dental status (5-point scales from much worse to much better), and perception of general oral health (5-point scale from poor to excellent). The results showed that self-esteem (measured by RSE 2001) in those who received treatment was significantly higher than in participants who did not receive treatment (F = 7.95, *p*-value = 0.05). Of the dental-specific measures, only self-rating of teeth and self-rating of other's views of teeth were reported considerably better in those who had orthodontic treatment compared to those that had not (F = 5.75, *p*-value = 0.017; F = 4.83, *p*-value = 0.029, respectively). The other domains related to dental status, such as the ICON aesthetic component, self-rating of attractiveness, and satisfaction with facial attractiveness, did not significantly differ between those who did or did not have treatment. The authors concluded that self-esteem in adults is weakly predicted by dental status but strongly predicted by psychological factors, such as quality of life, emotional health, and self-perception of attractiveness.

To date, the study detailed above is the longest follow-up longitudinal study conducted in the field of orthodontics. Its findings suggest that psychological well-being is influenced by many factors in adulthood and that dental status is only one, weakly related factor.

Conversely, a few studies have reported on the relationship between wearing an orthodontic appliance and self-confidence (Barbosa de Almeida, Leite, and Alves da Silva, 2019; Atisook and Chuacharoen, 2014a). Recent results from Barbosa de Almeida and colleagues (2019), for example, found that psychological well-being was improved not only by orthodontic treatment but also by the orthodontic appliance itself. The two-phase qualitative study investigated perceptions of orthodontic treatment in 142 Brazilian children, aged 12–15 years, who were recruited from four public and four private schools. In the first phase, all participants were asked two questions and required to answer short sentences using the word-association technique (WAT) regarding 1) opinions on braces and 2) opinions of their friends' wearing braces. Answers from this first phase were themed to develop questions for the next phase focus groups. In the focus-group discussion, 71 students (M:F = 23:48) were equally divided between public and private schools. The results showed that 34% of focus group participants said the appliances could improve social relationships, followed by the aesthetic outcome from coloured-ligature (28%). The study also found that participants reported perceived attractiveness from actually wearing the appliance. For example, the coloured-elastic ligature encouraged Brazilian adolescents to seek orthodontic treatment. Additionally, 10% of participants mentioned that wearing orthodontic appliances could project a more favourable social status.

These results were consistent with another study that found that the appliances drove peoples' desire for orthodontic treatment (Atisook and Chuacharoen, 2014a). This cross-sectional study included Thai adolescents to assess the need and demand for orthodontic treatment in Bangkok as well as factors influencing demand for orthodontic treatment. Four hundred and fifty participants aged 12–14 years who had never had orthodontic treatment were recruited for the study by cluster sampling from three high schools in Bangkok. A self-reported questionnaire was used to assess demand for orthodontics, and 10 aesthetics factors and 10 functional factors were related to the demand for orthodontic treatment. The index of orthodontic treatment need (IOTN) was used to assess the participants' need for orthodontics. Of the 450 participants, 333 expressed a demand for orthodontic treatment. Among them, 247 wanted orthodontic treatment to look like others and for fashion purposes.

In contrast, a cross-sectional study in the UK (Jeremiah, Bister, and Newton, 2011) explored 130 undergraduate students' opinions on different types of fixed orthodontic appliance. The participants were aged 18–25 years. Pictures of a woman wearing five types of fixed appliances were distributed, and the participants were asked their opinions of the woman's characteristics, social competence, and intellectual ability. The study found that the participants thought having no orthodontic appliances or wearing clear aligners was more attractive than conventional appliances (chi-square 18.8, significance 0.01).

In relation to psychological well-being, the findings are mixed, as might be expected given the different age ranges, countries, and methodologies that have been employed. Studies have found that orthodontic treatment (and appliances) may be positively associated with improved self-esteem and confidence, while others have found no such association. In other studies, adolescents see orthodontic appliances as accessories to improve their appearance and act as a status symbol, while others have found adolescents may have negative feelings towards those who wear appliances. Although limited in number, the qualitative research has suggested that the relationship between orthodontic treatment and orthodontic appliances and psychological well-being is complex and determined by a host of factors, including social norms and culture—which vary by country and age.

2.2.3.3 Social and Emotional well-being

As reviewed by Benson and colleagues (2015), a number of studies have examined the relationship between malocclusion and social well-being (e.g., individuals' interaction with others in communities, judgment from others, societal norms, and bullying). Overall, adolescents expect that orthodontic treatment would improve their social and emotional well-being, such as to being able to smile, laugh, and talk in public and bring happiness (Twigge et al., 2016; Imani et al., 2018; Patel et al., 2016; Barbosa de Almeida, Leite, and Alves da Silva, 2019).

Orthodontic treatment has also been found to improve oral health-related quality of life, which includes both social and emotional well-being (Javidi, Vettore, and Benson, 2017). Javidi et al. conducted a systematic review with meta-analysis to investigate the relationship between orthodontic treatment and improved oral health-related quality of life in those under 18 years of age. Thirteen studies were included in the qualitative analysis, with six included in the meta-analysis. None of the studies was assessed as a high-quality study, and six were identified as moderate quality. Three studies in this systematic reviews, the findings suggested that social and emotional well-being—as measured by the Child Perception Questionnaire (CPQ) 11-14—were moderately improved post-treatment compared to pre-treatment scores with standardised mean difference improvements of -0.61 (95% CI, -0.80 to -0.41) and -0.62 (95% CI, -0.82 to -0.43), respectively.

Jaeken and colleagues (2018) investigated the change in oral health-related quality of life (OHRQoL) before, during, and after treatment in Belgium. Participants were patients aged 11–16 years and their parents, who consulted for the treatment at the Department of Oral Health Sciences. They were asked to complete a series of self-reported questionnaires, including the CPQ 11-14, which is used to examine social and emotional well-being alongside oral symptoms and functional limitations. The data were collected at three phases: T0, before treatment; T1, 1 year after starting treatment; and T2, 1 month after treatment ended. A large sample size (N = 498) was included at baseline (T0); however, there was a high dropout rate (with only 232 patients attending at T2). The authors reported that CPQ social well-being was significantly improved between T0 (1, 95% CI, 2.4–3.1) and T2 (3.8, 95% CI, 3.5–4.2) ($p < 0.0001$) as well as CPQ total between T0 (14; 95% CI, 15.9–18.1) and T2 (21; 95% CI, 4.0–14.0) ($p < 0.0001$). Emotional well-being significantly increased from T0 to T1 and T1 to T2. The authors suggested that the decreasing emotional well-being score (i.e., improved well-being) was due to the increased satisfaction from wearing braces.

The two studies above showed that orthodontic treatment could improve oral health-related quality of life, including social well-being. However, emotional well-being may need further investigation, as the results from those two studies differed. However, participants in some studies have reported that improved dental appearance would bring them a better life in terms of getting a job (Twigge et al., 2016; Imani et al., 2018) and having a greater chance of getting married (Imani et al., 2018).

2.2.4 Summary

This section has detailed the procedure and process related to orthodontic treatment to compare these to that of fashion braces. As seen from the studies above, a large range of factors are related to the demands for orthodontic treatment. The next section outlines the complexity of health schemes

and orthodontic services in Thailand, providing context for understanding the reasons for the growth in fashion braces.

2.3 Health schemes and orthodontic services in Thailand

This section explores the health context in Thailand, including orthodontic services. Understand health schemes in Thailand is essential due to the complexity of reimbursement; the dental benefits of each scheme are different. Subsequently, the section discusses orthodontic services in Thailand. Dental education and orthodontic training in the country are explained to elucidate the characteristics of orthodontic operators.

The section also describes some relations between health schemes and orthodontic services in Thailand, which may involve the introduction of fashion braces.

2.3.1 General information

Thailand is located in Southeast Asia, which covers 513,120 square kilometres. The population in 2010 was 65.98 million, with an equal proportion of males (32.53 million) and females (33.63 million) (Population Statistics Group, 2012). According to economic status, the average monthly household income in 2017 was 26,946 Thai baht (THB) or c.£650, and the average expenditure was 21,346 THB or c.£508 (National Statistical Office, 2018).

2.3.2 Health schemes in Thailand and dental benefits

There are three public health insurance schemes related to the government in Thailand that cover the majority of the Thai population:

- Universal Health Coverage Scheme (UHC)
- Social Health Insurance Scheme (SHI)
- Civil Servant Medical Benefit Scheme (CSMBS)

These three health insurances are administrated by different organisations and national budgets (Jongudomsuk et al., 2015), and they offer various health benefits to eligible groups of people. The majority of the Thai population are covered by the UHC, followed by the SHI and the CSMHS, which accounted for 74%, 16%, and 7% of the population, respectively (National Statistical Office 2017) (Figure 13).

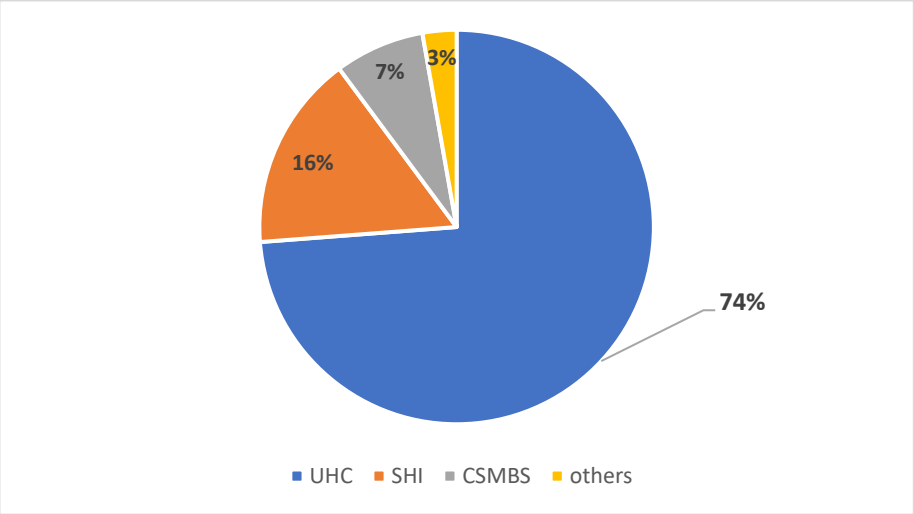


Figure 13 The proportion of the Thai population in each health insurance scheme. (UHC: the Universal Coverage Scheme, SHI: the Social Health Insurance Scheme, and CSMBS: the Civil Servant Medical Benefit Scheme) (Source: original)

First, the Universal Health Coverage Scheme (UHC) was introduced in 2002 (Jongudomsuk et al., 2015). It is the standard health insurance for Thai citizens who are not entitled to any other government health schemes. Those who are eligible can use the health service without payment but at registered public hospitals only. Currently, 49.83 million people, or around 75% of the Thai population, are funded by the UHC (National Statistical Office, 2017). Dental health services are rather limited and are reimbursed as follows (TDC, 2008):

- oral examination
- oral health education and advice
- dental treatments
    - filling, tooth extraction, and scaling
    - pulpotomy and pulpectomy in deciduous teeth
    - complete denture
    - palatal obturator placement in cleft palate patients
    - preventive dentistry, such as fluoride gel and varnish and sealant

Second, the Civil Servant Medical Benefit Scheme (CSMBS) is the health scheme for civil servants and their dependents (parents, spouse, and a maximum of three children aged under 20 years old), as well as retired civil service pensioners. The scheme, which is reimbursed for 5 million people (National Statistical Office, 2017), is administrated by the Comptroller General's Department and is funded by the general tax (Jongudomsuk et al., 2015). In terms of dental services, the government partially covers

the payment of a wide range of dental treatments, including advanced treatments. The treatments covered can be divided into four groups: oral surgery, restorative dentistry, endodontics, and periodontology. In addition, one special dental service is for cleft lip and palate patients and includes orthodontic treatment (TDC, 2008) (Table 5).

The Social Health Insurance Scheme (SHI) covers workers in private business. This scheme is a tripartite contribution: employees, employers, and the government are required to pay a monthly deposit to a retirement pension and health fund (similar to the UK National Insurance). This health scheme covers approximately 11 million people (National Statistical Office, 2017). Basic dental treatment, including tooth extraction, fillings, scaling, and surgical removal, is reimbursed at a rate not exceeding 900 THB per year (or £21.2). In the case of removable dentures, the rate of reimbursable is varied from 1,300–4,400 THB (£30.6 – £103.6) within 5 years (Social Security Office, 2017).

As stated, these three public health insurance schemes cover the majority of Thai people with different dental benefits. Orthodontic services are not covered by any of the schemes, except for people who have a cleft lip and/or palate and are covered by the CSMHS (Table 5). This can be compared with the UK National Health Service (NHS), in which orthodontic treatments are funded for adolescents up to 18 years who have a malocclusion assessed as grade 4 or 5 on the Index of Orthodontic Treatment Need (IOTN) Dental Health Component (DHC) or grade 3 with an aesthetic component of 6 or above (The National Health Service 2017). Health schemes and their orthodontic benefits both in Thailand and the UK are summarised in Table 5.

Table 5 The comparison of dental benefits, including orthodontics, among health schemes in Thailand and the UK (The National Health Service, 2017; National Statistical Office, 2017; Social Security Office, 2017; TDC, 2008)

Thailand				UK	
Insurances	**Reimbursement**	**Benefits**		**Schemes**	**Orthodontics benefits**
		Dental healthcare	**Orthodontics**		
1. Civil Servant Medical Benefit Scheme (CSMBS) - civil servants, dependents - pensioners	Partially government-funded (general tax, non-contributory scheme)	More than 100 dental treatments	Only in cleft lip and palate pt.	National Health Service (NHS) -For everyone	Free for those under 18 years who have IOTN in Grade 4 or 5 or 3 with an AC of 6 or above
2. Social Health Insurance Scheme (SHI) - Employees in the private sector	Tripartite contribution : a rate not exceeding 900 THB/year	- tooth extraction - filling - scaling - surgical removal	N/A		
3. Universal Coverage Scheme (UHC) - All Thai citizens who do not belong to other health schemes	Fully funded (general tax)	- fillings - tooth extraction - scaling - pulpotomy and pulpectomy (in deciduous teeth) - complete denture - obturators in cleft palate pt. - topical fluoride application - sealant	N/A		

Table 5 demonstrates that orthodontics is for those who can afford it in Thailand, as none of the health schemes reimburses orthodontic treatment. These funding arrangements have important

consequences for both the training of orthodontists and the availability of services, which is discussed in the following sections (2.3.3 and 2.3.4)

2.3.3 Dental education and training

In 2017, the number of registered dentists in Thailand was 15,951 (TDC, 2018) with the proportion of dentists per population being 1: 9,425 (Strategy and Planning Division, 2018).

2.3.3.1 Undergraduate dental education and training

Dentists in Thailand undertake a 6-year dental education to obtain a Doctor of Dental Surgery Degree (DDS) (Komabayashi, Srisilapanan, and Korwanich, 2007). Komabayashi and colleagues found a small number of hours in orthodontic subjects compared with the whole curriculum; didactic hours in orthodontic subjects range from 30–60 hours, while laboratory and clinical sessions vary from 0–90 hours. Therefore, dental students attend orthodontics subjects on didactic sessions only 2% of the 6-year course and laboratory and clinical sessions on orthodontics only 1% of the course. This small percentage seems insufficient for providing the knowledge and skills required to provide orthodontic treatment to patients.

2.2.3.2 Postgraduate orthodontic training programmes

Indeed, to provide orthodontic treatment effectively and ethically, additional postgraduate education and training is required. Several formal orthodontics training programmes exist in Thailand, such as master's degrees in orthodontics (2–4-year course) (Faculty of Dentistry Chulalongkorn University, 2018; Faculty of Dentistry Chiangmai University, 2018; Mahidol University, 2019) and orthodontic residency programmes (at least 3-year course) (Royal Thai Dental College, 2018). The curriculum of the residency-training programme in orthodontics was developed by the Royal Thai Residency College to act as a guideline for training institutions, as shown in Table 6.

Table 6 The summary of formal orthodontic training and private training in Thailand (Faculty of Dentistry Chulalongkorn University, 2018; Faculty of Dentistry Chiangmai University, 2018; Mahidol University, 2019; Royal Thai Dental College, 2018)

Information	**Formal training**		**Private training**	
	Master's	**Residency program**	**Course A**	**Course B**
Curriculum	Credits are different depending on institutions CMU*: > 63 credits MU*: > 46 credits CU* : > 42 credits Can separate into 4 sections 1. General and orthodontic specialist-specific knowledge 2. Dental seminar 3. Clinical practice 4. Thesis	Section A Knowledge 1. Generic knowledge 2. Orthodontic specialist-specific knowledge Section B Clinical practice Section C thesis	Section A Knowledge (7 days) Section B practice (5 days) Wire bending exercise	Advanced training Practising in patients
Responder	Universities	Royal Thai Dental College	N/A	N/A
Training Years	3 years	3–5 years	12 sections (8 hours/section)	2 years 6 months (1 time/month)
Fees	800,000 THB/Course	180,000–300,00 THB/year	450,000 THB/course	200,000 THB/course

* CMU = Chiangmai University, MU= Mahidol University, CU=Chulalongkorn University

Practitioners can take several pathways to become qualified as an orthodontist. On the one hand, orthodontic trainees sit an examination to be awarded a diploma from the Thai Board of Orthodontics. On the other hand, general dentists can apply for this diploma but under special conditions. For example, if a person is a general dentist, requirements for applying to the board are practising in orthodontics for at least 5 years and submission of a portfolio as evidence to be considered for the diploma (Thai Association of Orthodontists, 2018).

Limitations of approved institutions to train orthodontists, such as the capacity to train orthodontists per year and a duration of a least 3 years, may cause the inception of informal orthodontic training for general dentists who want to practice orthodontics.

Informal training, or private orthodontic training, has various durations and a range of disciplines. Some courses might take a couple of days, while others might take 2 years part-time. Training course fees also vary depending on training modes, such as lecture and lab-based or lecture and practical. The courses are developed by orthodontists, some of whom are former orthodontic lecturers in dental schools. The private training courses are not regulated or approved by the Royal Thai Dental College or the Thai Dental Council. However, despite the unregulated private training courses, several dentists have attended them to provide orthodontic care for the Thai population, thus increasing the accessibility of orthodontic treatment in the country over the past decade.

2.3.4 Orthodontic services in Thailand

The Thai population can seek orthodontic services from general hospitals, university hospitals, and private dental practices; however, they must pay for it themselves, as none of the Thai health schemes covers orthodontic services. Orthodontic treatment costs may start from 32,000 THB (approximately £740 to £840) in public hospitals, which is relatively high when compared to the average household income in Thailand (26,946 THB per month per household, or £625) (Strategy and Planning Division, 2018). Therefore, a decision to undertake orthodontic treatment is economically significant and is well beyond many households. In other words, obtaining orthodontic treatment is not only related to the need but also the ability to pay. This limitation may lead some people who desire orthodontic treatment to choose fashion braces instead, hoping they will provide the same outcome.

In Thailand, orthodontic treatment can be legitimately practised under the Dental Professional Act B.E. 2537 (Thailand 1994) by general dentists, as well as those who have undertaken further training to become specialist orthodontists. However, whether general dentists are able to practice orthodontics, when they are only trained by informal institutes, is debated. The curriculums are short-term and are not approved by an authorised organisation, such as the Thai Dental Council or Royal Thai Residency College (Table 6).

The number of orthodontists who were members of the Thai Association of Orthodontists in 2018 was 628 (Thai Association of Orthodontists, 2018); however, only one-third of them worked in the public sector (Atisook and Chuacharoen, 2014b). In contrast, the number of general dentists who practise orthodontics is four times higher than the number of orthodontists (approximately 2,000–3,000 dentists) (Wongsamuth, 2016), but only specialist orthodontists are allowed to practise in public hospitals.

Therefore, orthodontic services in private dental practices seem more available, as there are more of them compared to services in public hospitals. However, the potential of private clinics to offer orthodontic treatment may be restricted because of limited facilities, staff, and the operators' capacities, especially when the operators are general dentists. Moreover, although public hospitals carry a range of treatments (from uncomplicated to complicated), such as orthognathic surgery and orthodontics in cleft lip and/or cleft palate patients, fewer orthodontists work at these locations, leading to a long waiting list in these hospitals.

Thus, several barriers exist for to accessing orthodontic services in Thailand: the shortage of providers, the unaffordable cost of treatment, and long waiting lists. These barriers are starkly contrasted with the rising demand for orthodontic treatment, and some may have therefore led to the existence and rise in interest in fashion braces in Thailand. For example, some people who want orthodontic treatment are unable to access services due to their limited availability and cost. They may, in turn, consider fashion braces as a suitable alternative. These issues are discussed in the next section.

2.4 Strategies, Regulating laws, and Health Policy: Fashion Braces in Thailand

Several attempts to manage the ethical issues of fashion braces have been enacted by the Thai government, using four approaches to regulate fashion braces activities: laws, health education, free fashion braces removal campaigns, and building a health policy.

2.4.1 Laws regulating fashion braces

The Thai government has determined that fashion braces are illegal and has issued a new law to control the issue. The aim is to ban products related to fashion braces and arrest fashion brace providers using four regulated laws, which are discussed below.

1. **Consumer Protection Act B.E. 2522 (1979): Revision B.E. 2556 (2013)**

The Consumer Protection Act is regulated by the Office of the Consumer Protection Board (OCPB). This act is the main umbrella of law to protect consumers from harmful goods and services. It was

established in 1979, and the latest version was revised in 2013 to ensure sensible consistency with modern society and the economy. The latest version also heightened the intensity of punishments by increasing the duration of imprisonment and amount of fines.

To protect people from the negative consequences of fashion braces, the government launched three specific Consumer Protection Board orders in 2006, 2009 and 2018 under the power of Section 36, which stated,

> *When there is a reasonable cause to suspect that any goods may be harmful to the consumers, the Board may order the businessperson to have such goods tested or verified. If the businessman does not proceed to test or verify the goods or delays in so doing without justification, the Board may arrange for the verification at the expenses of the businessman.* (Thailand, 1979, p. 13)

Offenders under Section 36 of the Consumer Protection Act (revision 2013) can be imprisoned for up to 5 years, fined up to 500,000 THB (approximately £12,000), or both.

The first order 1/2549 (2006) temporarily banned the purchase of wires for making fashion braces. The government suspected the quality of the products was poor and could contain toxic elements. Testing showed that the materials contained heavy metal substances, such as lead, antimony, selenium, chromium, and arsenic (Vachirarojpaisan, 2009). As a result, the office of the Consumer Protection Board launched the next order in 2009 (Thailand, 2009), which permanently banned the purchase of fashion braces wires. However, these orders did not clarify the definition of fashion braces. Therefore, the recent 2018 order uses the terms “fashion braces equipment” to enable broader coverage of products and materials (e.g., wires, elastomeric bands which attach on teeth and in the oral cavity for non-therapeutic purposes). In the other words, the recent order does not ban the materials but the practices of fitting braces with no therapeutic purpose.

2. Dental Professional Act B.E. 2537

The Dental Professional Act B.E. 2537 is regulated by the Thai Dental Council (TDC), which plays a role in the supervision of practising dentistry. This act was created because some fashion braces activities may involve direct access to and operation in the oral cavity by non-qualified providers. Section 28 of the Dental Professional Act B.E. 2537 states,

> *No one, who is not a practitioner of dentistry, shall practice dentistry or any practice which would make others misunderstand that he or she has the right to be a practitioner of dentistry without being registered or holding a license.* (Thailand, 1994, p. 13)

The penalties for practising dentistry without a dental professional licence are up to 3 years' imprisonment, a fine of up to 30,000 THB (approximately £715), or both.

This act existed before the phenomenon spread; however, the government has attempted to apply this act to the phenomenon since fashion braces providers have no dental qualification. This act can be used only when providers directly approach customers, such as the instalment of fixed fashion braces (Vachirarojpaisan, 2009). Selling fashion braces equipment and fulfilling orders to make fashion retainers without the direct approach are not covered by this act.

3. Sanatorium Act B.E.2541 (1998) (Medical Premises License Act)

The Sanatorium Act B.E. 2541 falls under the Bureau of the Sanatorium and Art of Healing. Section 16 of the Medical Facilities Act states that no person shall operate the health facility unless the medical institutions are licensed and relicensed under Sanatorium Act 1998 (Ratchakitcha, 1998; Jongudomsuk et al., 2015). Those who are arrested regarding this act can be imprisoned for up to 3 years, fined up to 60,000 THB (£1,430), or both (Ratchakitcha, 1998).

The government used this act to control locations for providing services; fashion braces services are illegal in markets, rental booths, and residential houses.

4. Direct sale and Direct marketing Act B.E. 2545 (2002): Revision B.E. 2560 (2017)

The Direct Sale and Direct Marketing Act B.E. 2560 defined direct marketing as the communication of marketing or a service that is directed to particular individuals over distance (Thailand, 2017). This includes online shopping. Section 27 states,

> *Nobody shall carry on direct marketing except merchants who are registered in the direct marketing business.*

Those who break this law can be imprisoned for up to 1 year, fined up to 100,000 THB (approximately £2380), or both.

This act protects customers by requiring registration of the websites that provide the service; websites that sell illegal products cannot be registered with the regulating organisation.

2.4.2 Strategies to manage fashion braces

Besides using laws to regulate fashion braces, the government has attempted to stop the growth in popularity of fashion braces through three other strategies:

1) Health education
2) Free removal of fashion braces campaigns
3) Health policy

First, the Thai Dental Council (TDC) provides health education through several sources. Posters and leaflets are distributed to public hospitals and private dental practices to be accessible to the general public. Additionally, the TDC works actively through social media, such as the Facebook page named "Dental Quack Buster", to raise awareness about illegal activities in dentistry (The National Health Commission Office, 2018; Vachirarojpaisan, 2017).

Second, the free fashion braces removal campaign was initiated by the Ministry of Public Health in 2009 through cooperation between public hospitals and the TDC (Thairath, 2009). However, this was a temporarily government-centred strategy, and there has been no evidence showing its success or effectiveness. In 2016, the Public Health Office of Chumporn Province reinstated this campaign within the province (Hfocus, 2016). Currently, whether this approach is employed depends on the decision-making of each provincial public health office. This campaign might be useful for encouraging fashion braces wearers to return to the health system. For instance, after the braces are removed, the wearers would be offered proper basic dental treatment under their health schemes and would receive dental health education.

The public health policy is the latest strategy to deal with this issue, proposed by the Office of the Council of State. According to the 11th Thai National Health Assembly, consumer protection in dental services, including fashion braces, was raised as an area of concern (2018). To tackle this problem effectively requires cooperation among the following stakeholders:

1. The Food and Drug Administration (FDA) as the authority exercising the Medical Device Regulation Act B.E. 2551
2. Dental laboratories and Thai Dental Technician Associations, which should play a role in the regulation of dental device fabrication. Dental labs shall be registered with the Thai FDA.
3. The Thai Dental Council, the dental professional representative that should regulate dental professionals and protect customers from the harm caused by non-dentists. In addition, the council should raise people's awareness through health education and social media.

4. Pharmacists and dental professionals who work in the provincial public health offices. These professionals should conduct surveillance and be aware of the laws regulating fashion brace providers.
5. The Office of the Consumer Protection Board (OCPB), which should play a role in managing unsafe materials, such as the use of a fashion braces service, according to Consumer Protection Board Order 1/2561.
6. The Department of Health Service Support. This department enforces Sanatorium Act B.E. 2541 against fashion braces shops that run their business without receiving permission.
7. The Consumer Protection Police Division, which includes the authorised staff who work under the laws related to consumer protection.
8. The Office of the National Broadcasting and Telecommunications Commission, which plays a role in controlling advertising and direct marketing.

In conclusion, as no data have been collected to date, ascertaining whether these strategies have been effective in reducing the number of these practices is impossible. No evidence has evaluated the strategies or examined how stakeholders influence the existence of fashion braces. Further, there is no consideration for improving the affordability of real braces.

2.4.3 Summary

This section showed that activities related to fashion braces are illegal. As such, the exchange of fashion braces between fashion braces buyers and providers is defined as an illegal act in Thailand. The transaction therefore occurs in an illegal (Beckert and Wehinger, 2011) or informal market (Portes, 2010).

In this PhD, the fashion braces market is considered an example of an “informal market”. The next section introduces the idea of informal markets and illustrates why the informal market approach can be useful for understanding fashion braces. Initially, when this research started, finding an appropriate framework through which to develop a systematic understanding of the wider processes driving this phenomenon was challenging. My background as a graduate of Dental Public Health gave me the sensitivity to ponder the social determinants that may be shaping the use of fashion braces. The existing literature on fashion braces is individualised and downstream. I wanted to draw on a more upstream framework that might help make sense of this phenomenon. My review of the literature on healthcare markets led me to the framework of informal markets, which I will now introduce. However, due to the COVID-19 pandemic in 2020–2021, changes to the study design and data collection had to be made, which meant that not all aspects of the informal market could be investigated in this PhD project as originally planned.

2.5 The informal market for fashion braces in Thailand

As discussed in the previous section, fashion braces services provided by non-dentists have been shown to have a number of harmful effects. These include personal oral health effects, such as improper teeth movement, material toxicity, and non-hygienic procedure (Rityoue and Sasiwongsaroj, 2009; Vachirarojpaisan, 2009). The current strategies to manage fashion braces have specific focuses, such as raising awareness and enforcing laws (Section 2.4).

There is no evidence that research has analysed this problem holistically, and current strategies seem not to have fixed the root of the cause. As a result, the problem still exists and has not been reduced. This project proposes viewing this problem as one health market system in which the informal market is one gear. Such a viewpoint allows this issue to be examined beyond customer and provider to include other actors who may be influencing the fashion braces market. This section discusses health markets, informal health markets, and a framework that facilitates viewing this problem through a larger conceptual framework.

2.5.1 Health Market

In economics, a market is a dynamic space where the exchange between buyers and suppliers occurs (Guinness and Wiseman, 2011). Besides buyers and suppliers, many actors and stakeholders play roles that influence the market; these are called a market system. All market systems share the same structures: 1) demand-supply, 2) rules, and 3) supporting functions (Elliot, Gibson, and Hitchins, 2008).

In economic theory, an ideal market can allocate resources efficiently; however, this is rare in reality. This includes healthcare markets, largely because of insufficient resources allocation, which leads to market failures. In terms of healthcare, market failures are characterised by monopoly, externalities, public goods, and imperfect information (Guinness and Wiseman, 2011) that result from formal and informal arrangements to compensate for market failures (Bloom et al., 2011).

Fashion braces fit this schema; they act as an informal good to compensate for market failure in orthodontics. A fashion brace market may arise because the orthodontics market cannot offer the service for everyone and/or the issues comprise a lack of orthodontists, high cost of treatment, and long waiting lists (as discussed in Section 2.3.2 Health schemes in Thailand and dental benefits), as well as a lack of knowledge. For these reasons, some braces wearers might consider fashion braces as an alternative to orthodontics (Zakyah et al., 2016; Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017).

However, the majority of fashion braces buyers in Thailand tend to pay for the devices for other reasons, including making a fashion statement, aesthetic purposes, improved social relations, and as

a status symbol. An initial conclusion, therefore, is that fashion braces involve issues of informality and illegality in several ways. Fashion braces are practised outside Thai laws (illegal activity) and are provided by non-dentists (informal providers), and they may be an informal arrangement to fill the gap in demand that the orthodontic market cannot meet. Therefore, the next section will discuss the concept of informal and illegal markets.

2.5.2 Informal health markets

2.5.2.1 Illegal versus Informal markets

As mentioned above, market systems consist of three components: the core, rules, and supporting functions. The core is the systems where the transactions between demand and supply occur. Hence, markets can be classified as formal and informal based on the legality (Beckert and Wehinger, 2011) or formality (Portes, 2010) of products and exchange activities within the core.

Beckert and Wehinger (2011) introduced the typology of illegal markets as follows:

1. Products and exchanges are illegal (e.g., the exchange of child pornography and illegal drugs).
2. Products or services are legal, but the exchange on the market is illegal (e.g., organ transplants if the organ is transferred for some valuable benefit).
3. Products and services are illicit because of stolen products or counterfeit products, and the transaction is illicit (e.g., counterfeit medicine).
4. The process of production and distribution violates legal stipulations (e.g., the employment of illegal labour).

However, another concept overlaps that of illegal markets: the informal economy. Baxarres and Le Hersan (2011) distinguished “formal” markets, which are imposed by governments, from “informal markets”, in which the government is not involved. Another clarification of the concept of informal markets is found studies focusing on market activities; “formal” means the activity is legislated by law or a legally regulatory organisation, while “informal” means unregulated or ungoverned (Cross and MacGregor, 2010).

The exchange of fashion braces is illegal if it is considered through the framework of Beckert and Wehinger (2011), and informal if it is considered through the framework of Cross and MacGregor (2010). However, this PhD project would label the fashion braces market as informal rather than illegal simply to avoid stigmatising users and blaming them for their consumption of fashion braces. Conversely, labelling this practice as illegal can make it difficult to study the underlying phenomenon because it might make it more difficult to speak to users and conduct research.

2.5.2.2 Informal health market

Many studies have explored informal markets in healthcare (Bochi, 2015; Cross and MacGregor, 2010; Baxerres and Le Hesran, 2011), as well as informal providers (Bochi, 2015; Gautham et al., 2014; WHO, 2006; George and Iyer, 2013). In healthcare specifically, there are similarities to general markets; there formal and informal health markets. Bloom et al. (2011) described the process of developing an "informal health market": It begins with an imbalance between demands and supplies—one type of market failure. When demands increase but a government lacks the capacity to manage this demand, a supply inefficiency ensues. As a result, non-state provision grows to manage this undersupply through two approaches. First, the state cooperates with non-for-profit providers to establish a private market, called a formal approach. Alternately, an informal approach develops to compensate for the inefficiency by increasing the number of informal providers, such as unlicensed practitioners and drug pedlars, to provide services (Bloom et al., 2011).

The lack of well-functioning institutions is one cause of the development of informal health markets. Baxerres and Le Hesran (2011) explored informal pharmaceutical markets in Benin, focusing on the supply, availability, and distribution of the market. Their participant observation occurred in three vendors in Cotonou's market (Benin) for 69 days (4 hours/day), and five formal wholesalers were interviewed. The results showed that people could access lower-priced drugs from the informal market without prescriptions. These medicines were distributed by various modes, including the importation of drugs from neighbouring countries (Ghana and Nigeria), where those drugs were legal to buy without prescription; purchasing through river and sea routes to avoid custom checkpoints; and leaking them from individuals who legally transported drugs from western countries through familiar and social networks. The authors claimed that the different regulations on the drug distribution between the Benin government and Ghana and Nigeria governments created the informal market in Benin. They mentioned that drugs could be bought from legal storekeepers in Ghana and Nigeria, leading to providers who could supply drugs easily. However, the Benin government should consider their regulations on the drug markets as parallel strategies to manage this issue; this point was not mentioned in the study.

Information asymmetries occur when one person in a transaction has more relevant information than others (Guinness and Wiseman, 2011). For example, if patients have inadequate information regarding treatment choices, providers may provide overtreatment or poor treatment (Bloom et al., 2011). Insufficiency of health workers is another challenge influencing informal health markets. Informal healthcare providers (IHPs) are vital for poor populations in rural areas of low or middle-income countries, such as India (George and Iyer, 2013; Gautham et al., 2014; Ahmed, Hossain and Chowdhury, 2009), Nigeria (Abimbola et al., 2016; Baxerres and Le Hesran, 2011), Uganda (Pariyo et al., 2011), and

Myanmar (Sudhinaraset et al., 2013). Considerable variations in the size of the IHP sector have been found, ranging from 51– 96% in some countries (Sudhinaraset et al., 2013). In India, the proportions of IPs and professional doctors to the general population are 1:2299 and 1:9599 in Tehri and 1:1941 and 1:5412 in Guntur (Gautham et al., 2014), while a study in Bangladesh reported more than 500 IHPs and 1 qualified doctor at their study sites (George and Iyer, 2013).

2.5.3 Informal health providers (IHPs)

While there is no universally agreed-upon classification for IHPs, Cross and MacGregor (2010) developed a definition based on the work of Sarah Pinto (2004), who stated that "IPs are those who practice on the margins of legitimacy". Therefore, they identified IHPs as those who sell medical goods and services and dispense information on health, without the endorsement or permission of biomedical and development institutions or state authorities.

Sudhinaraset et al. (2013) created a taxonomy of IHPs by considering four main criteria: training, payment, registration, and professional affiliation. To be identified as IHPs, people should meet two out of these four criteria:

1. Training: IHPs have not obtained formally recognised training.
2. Payment: IHPs collect payment from patients, not from institutions.
3. Registration and regulation: IHPs are not registered with any government regulatory body and practice outside registrations.
4. Professional associations, if they exist, are primarily focused on networking and business activities.

The taxonomy by Sudhinaraset et al. (2013) provided a broader definition of IHPs than Cross and MacGregor (2010). This taxonomy covers not only unqualified and unregistered practitioners but also concerns transactions between providers and customers and their connections. Fashion braces providers have some characteristics that meet at least two of these four criteria. First, the providers have no dental qualification; they learn by doing. Many of them were trained by their network, relatives, and other providers (Pothidee et al., 2017; Vachirarojpaisan, 2009), or learned from online tutorials, such as YouTube. Second, informal providers collect money directly from patients. Finally, the providers are not registered with government organisations, as they practice outside the law, including the Thai Dental Professional Act (Thailand, 1994), which states,

> *No one, who is not a practitioner of dentistry, shall practice dentistry or any practice which would make others misunderstand that he or she has the right to be a practitioner of dentistry without being registered or holding a license*. (Thailand, 1994, p. 13)

Many research studies have investigated a range of variables regarding informal providers, such as their roles (Sudhinaraset et al., 2013), training and education (Gautham et al., 2014; George and Iyer, 2013), strategies for improvement (Pariyo et al., 2011; Bloom et al., 2011), and the relationship with community or social embeddedness (Abimbola et al., 2016).

2.5.3.1 Roles of informal providers

Sudhinaraset and colleagues (2013) conducted a systematic review to explore the roles of IHPs. A wide range of terms referring to IHPs (e.g., alternative healers, drug sellers, folk medicine, healer, homoeopath, dental quacks, and informal providers) were searched in electronic databases and grey literature, and 122 studies were included. The authors found that IHPs conducted a wide range of practices; some provided multiple disease treatments, while others operated disease-specific ones (e.g., malaria, HIV/AIDS, TB, mental health, and asthma). The most common type of IHPs was drug sellers, according to 45 published papers, followed by articles discussing multiple kinds of IHPs (N = 30) and traditional birth attendants (TBAs) (N = 18). Some IPs have specific names to identify their roles, such as traditional birth attendants (TBAs), who play a crucial role in maternal care in rural areas. IHPs tended to practise by providing treatments rather than preventive medicine.

Sudhinaraset et al. concluded that the scope of practice depended on the strength of the regulatory framework, enforcement mechanisms, formal health infrastructure, and demand for the service. However, quantifying the number of providers was difficult, as they counted the number of studies rather than the number of participants.

George and Iyer (2013) investigated how the informal market operates from the informal health provider's point of view. Data were collected from 60 villages in Koppol district, India. This area has a high level of poverty, the caste system, and gender hierarchies. Three data sets were gathered: 1) healthcare utilisation for self-reported morbidity from a household survey in 2002, 2) informal provider (IHPs) information from a private provider census in 2004 in the particular study areas and markets nearby, and 3) field notes from a 2004 ethnographic study and unconstructed observations. Only informal allopathic providers or RMPs (registered medical practitioners) were interested by the authors. Characteristics of RMPs, such as origin, caste, source of training, affiliation, places and modes of practice, referral, and motivation, were investigated, as well as how the market and community influenced their behaviours. Of 546 IHPs, 91 were RMPs, while the majority were traditional birth attendants (TBAs) (N = 178) and provision stores (N = 152). Various modes of service delivery were found.

A study conducted in two different terrains in India by Gautham and colleagues (2014) found that characteristics of landscapes might influence delivery modes of services. Most IHPs in Tehri (a

mountainous area) tended to provide services at clinics, while 40% of those in Guntur (a flat area) provided doorstep services.

As shown above, informal health providers in South Asia play essential roles as alternative services in rural areas where access to health services is poor. Many types of informal providers are registered and well accepted by institutions. The delivery modes of services may be influenced by the geographical surface characteristics.

Similarly, fashion braces providers in Thailand are located in geographical areas where there is poor access to orthodontists. However, fashion braces can also be found in Bangkok (Rityoue and Sasiwongsaroj, 2009), and urban areas tend to have a high density of orthodontists rather than rural areas. This suggests that other mechanisms have resulted in the demand for fashion braces. Nevertheless, evidence on the numbers of informal health providers in Thailand and other characteristics is lacking, as these providers are not accepted by authorisations and practice outside laws. Therefore, gathering information about and access to informal health providers is challenging.

2.5.3.2 Education and training

Some literature has explored informal providers' education and training and attempted to improve the quality of informal providers by providing knowledge (Gautham et al., 2014; Sudhinaraset et al., 2015; George and Iyer, 2013). For example, Gautham and colleagues (2014) studied the characteristics of informal health providers, including their education and training, practices, patient profiles, performance, and treatment costs. Two rural districts in India from the north (Tehri) and the south (Guntur) were selected. The study included 368 IHPs in Guntur and 263 in Tehri, who completed a structured questionnaire by interview focusing on their education, training, and practice. Furthermore, their performance was observed using patient-provider observation tools. The results showed that 93% of Tehri's IHPs obtained a diploma and certificate related to health, while only 35.6% of Guntur's IHPs held certifications. Although the number of trained IPs was higher in Tehri, not all of the degrees were approved by formal institutions. Conversely, of the lower numbers of trained IPs from Guntur, most had recently attended the formal courses called "community paramedic". Apart from attending health-related educations, being apprenticed was another pathway that more than 90% IPs from Guntur followed, while only 50% from Tehri did so. Thus, this study highlighted the various forms of training available for IHPs. According to the authors, different relationships exist between IHPs and formal sectors in the two districts. In Guntur, IHPs tend to have a better relationship with formal sectors such as doctors, perhaps because these IHPs began their training by being apprenticed rather than applying for educational training. In addition, the authors reported that a more robust affiliation might promote opportunities to gain improvements. An IHP associations in Guntur made an

agreement with the local government to train its members, aiming to certify them through a state paramedic council, while there was no support from the government in Tehri.

Another study focused on RMPs (one type of IHPs) from India and found that 49 of 91 RMPs had no degrees, while 42 had unrecognised degrees. Those who had no degree were trained by being apprenticed to relatives or other providers, whereas those who held unrecognised degrees trained through technical training (George and Iyer, 2013). These IHPs were unqualified providers, as their training occurring by attending unrecognised degrees and learning from apprenticeships. A study by Gautham and colleagues (2014) demonstrated clear results comparing two areas, which have different characteristics of IHPs and varied government perspectives towards IHPs. Indeed, producing the workforce may be late for the current health situation, which has a high demand for healthcare, but the formal sector cannot supply effectively. This study showed that the strength of the IHP associations plays a role in improving their performance and negotiating with the public sector.

The above articles showed that informal providers are trained by several approaches, including apprenticeships and short training and courses by approved institutions. Further, some may learn from their relatives. However, Cross and Macgregor (2010) were concerned that the interventions of improving knowledge often to be a bundle of knowledge but lack of the practical questions such as when, how or in which contexts would advise to a specific customer.

2.5.3.3 Quality, knowledge, and performance of IHPs

Education and training are related to the performance of informal providers. Ahmed, Hossain, and Chowhury (2009) stated that informal providers' knowledge generally tends to be poor even with experiences of short training programmes. Gautham et al. (2014) observed performance by using patient-provider observation tools (history taking, physical examination, diagnosis and treatment) for three conditions: diarrhoea, fever, and respiratory. The providers were given a knowledge questionnaire and received a score of 1 if they answered correctly. Ninety IHPs (out of 263) from Tehri and 100 (out of 368) from Guntur were observed at their practice. The results showed that both the mean knowledge and performance of IPs in Guntur were insignificantly higher than in Tehri. However, whether the short training course is efficient for providing knowledge and improving the performance of informal providers is uncertain.

2.5.3.4 The reasons for using IHPs in informal markets

Naidu and colleagues (2003) investigated the reason for visiting "dental quacks", or unqualified dental providers. A closed and opened-end questionnaire was used to interview people attending healthcare services but not dental treatment in public hospitals in Trinidad. Two hundred and two people participated with an equal gender distribution between male (N = 94) and female (N = 107). The results

demonstrated that 136 out of the 220 participants had received dental services from dental quacks. The most common service they had received was an extraction, which accounted for 61% of treatment, followed by medication to treat, for example, swelling, filling, and denture making (17%, 15%, and 10%, respectively). Those who had visited dental quacks perceived that dentists provided higher-quality services than the quacks, including safer or less painful treatment (N = 36), services backed by better training and more knowledge (N = 48), and more hygienic processes and sterile instruments (N = 14). However, 13 participants mentioned the high cost of treatment by dentists was the main barrier to visiting the professionals.

Indeed, over half of those who saw dental quacks identified the cost of treatment (53%) as a barrier, followed by the unavailability of dentists (20%). Therefore, affordability and availability may affect the decision-making process to visit dental quacks. People know that services from dentists are likely to be higher quality than those from dental quacks.

Another study in Bangladesh (George and Iyer, 2013) examined RMPs who provided remedies for cold/fever; musculoskeletal, gastrointestinal, neurological and respiratory tract diseases; and diarrhoea. They found that 65% of participants (total N = 765) from Chakaria, a remote rural area, sought treatments from village doctors, while 12% visited qualified doctors. One reason for visiting these village doctors was that state sectors did not provide sufficient healthcare services to their people. Thus, people first tended to seek healthcare services from IHPs, especially in the rural area (George & Iyer, 2013). These results were consistent with those of the systematic review by Sudhinaraset and colleagues (2013), who revealed three reasons for using IHPs: convenience, affordability, social impacts, and cultural effects. IPs also had flexible working hours (Sudhinaraset et al., 2013), and some of them made doorstep visits (Gautham et al., 2014; Pothidee et al., 2017). IPs are more affordable than the private sector and may even be cheaper than the public sector.

2.5.3.5 Summary

Informal providers fill gaps in healthcare delivery, making it more affordable either through a reduced cost of treatment or by indirect means, such as shorter travel times (Sudhinaraset et al., 2013; Naidu, Gobin and Newton, 2003; Gautham et al., 2014; Durham et al., 2015). In the drug market in Benin, people can find cheaper generic and original drugs from street vendors than from professionals (Baxerres and Le Hesran, 2011). However, as many studies have demonstrated, the IHPs lack knowledge and practice (Bloom et al., 2011; Sudhinaraset et al., 2013), leading to concerns about the quality of practice and potential harm to customers (Godlonton and Okeke, 2016; Omaswa, 2006). Several efforts have been made to improve the quality of informal providers; for example, one district in Bangladesh (Gautham et al., 2014) worked with the local government to provide IHPs proper

training. Bloom and colleagues (2011) suggested three interventions to improve the quality of informal providers: increasing knowledge, improving the livelihoods of informal providers, and engaging key stakeholders.

2.5.4 Summary

The theory of informal providers and the informal market is useful for this project. Cross and Macgregor (2010) suggested that informal providers should be better understood as market players. However, one challenge of this thesis is the lack of opportunities to locate and access informal providers. However, even though informal providers will not participate in this project because of the pandemic, other players who are related to informal providers can be examined to eliminate this issue.

According to Omaswa (2006), regulation and supervision are important for controlling informal providers, many of which may trade in dangerous drugs. The information asymmetry between providers and buyers may be increased when trust in informal providers reduced individuals' awareness (Redmond, 2018). Pothidee and colleagues (2017) revealed that fashion braces buyers tend to trust informal providers as opposed to dentists, which suggests a problem of accessibility regarding dentists and dentistry for many communities. Therefore, increasing health literacy (Omaswa, 2006) might reduce the information asymmetry, but more basic research is needed to establish if health literacy is, in fact, worthwhile.

Not only do fashion brace services provided by informal providers affect individuals at a personal level, but there are also population-level consequences. Therefore, both the transaction between providers and buyers and the market, where several stakeholders play important roles, should be considered. Given the multitude of stakeholders involved in the illegal provision of fashion braces, this section has highlighted how fashion braces can be considered an informal market. The next section integrates current knowledge of informal markets into a conceptual framework for use within this study.

2.6 Conceptual framework

2.6.1 Informal market framework

In terms of the informal health market, not many frameworks have been proposed to understand the healthcare system through the market lens. One framework commonly mentioned when organisations want to alter informal healthcare markets for poor people is M4P, which stands for "making markets better for the poor" (The UK Department for International Development [DFID] and The Swiss Agency for Development and Cooperation [SDC], 2008).

This project aims to investigate a specific issue in Thailand referred to as “fashion braces”. According to a review of previous relevant articles, the concept of access by Penchansky and Thomas (1981) was employed in the study by Pothidee et al. (Pothidee et al., 2017). The studies focused only on customers who were wearing fashion braces, investigating the reasons why they decided to utilise these devices and observing the procedure for installing fashion braces (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009).

Evidence regarding fashion braces as an illegal product in the market is lacking. To view fashion braces as a product in the market allows the public to understand the complexity and dynamics of this problem. Indeed, existing products are influenced by demand and supply, as are fashion braces (Guinness and Wiseman, 2011). In addition, if fashion braces are to be eliminated, not only the individuals but also related institutions, laws, and knowledge must be considered.

The informal market framework, or M4P, was created for to give the poor increased access to markets. This framework has evolved into the healthcare arena, mainly focusing on informal healthcare markets for poor people (Bloom, 2011). Three essential components in the healthcare market are the core, rules, and supporting functions (see Figure 14).

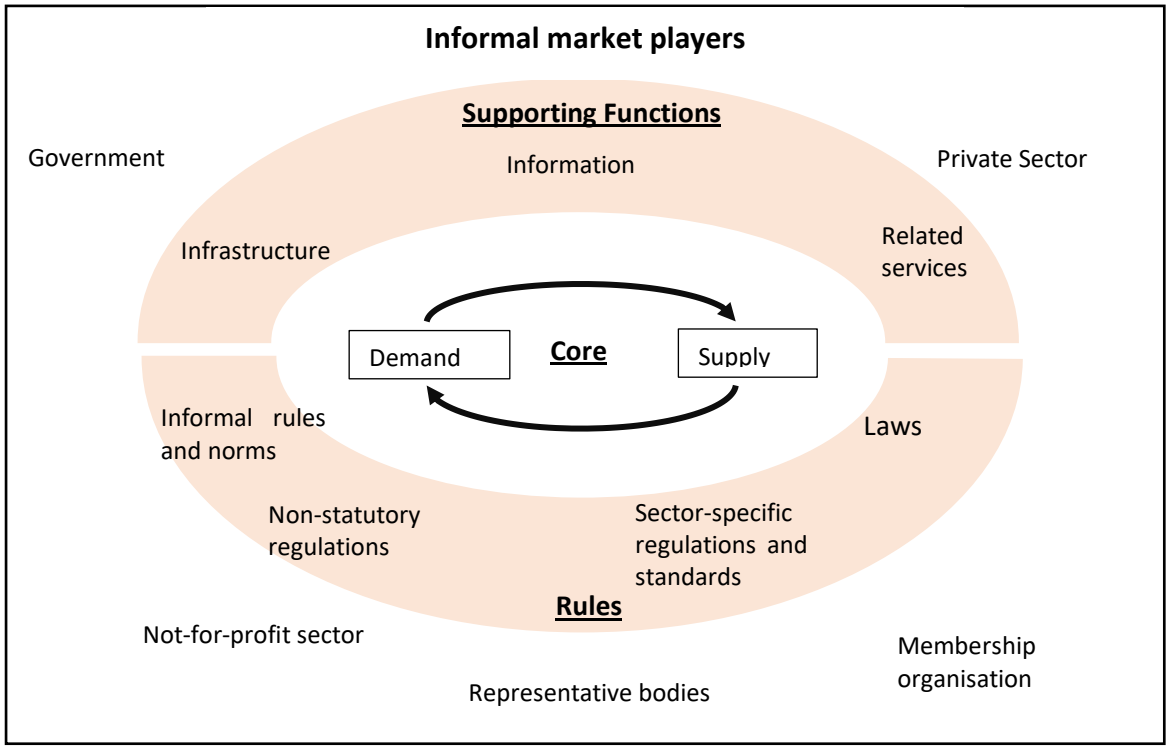


Figure 14 The framework of informal health market or M4P (Bloom et al., 2011) **consists of three main layers: core, rules, and supporting functions.**

The core is the centre of the framework, where the exchange of products and service intervene between a demand side and a supply side (The UK Department for International Development [DFID] and The Swiss Agency for Development and Cooperation [SDC], 2008). Demand (customers) is defined as a person who wants goods or a service, while supply (providers) refers to those who supply the customers' requests.

The next layer, rules, is the component that regulates and influences the market behaviour. Rules can be either formal (constitutions, codes, statutes, and other legislative acts, common laws, and administrative regulations) (Winiecki, 2001) or informal (customs and other tradition-based conventions, religious and ideological beliefs, self-imposed rules) (Elliot, Gibson, and Hitchins, 2008).

Finally, the supporting functions are a vital part of encouraging transaction activities within the core (The UK Department for International Development [DFID] and The Swiss Agency for Development and Cooperation [SDC] 2008), as they can support or interrupt the growth of the market. This function includes infrastructure, information, and related services (Bloom et al., 2011).

2.6.2 Application of the informal market framework

I am aware of the potential use when a framework is used in a different than its original purpose. This framework has been argued to help understand the informal market, which has multiple players involved. Additionally, this framework is the only one that proposes to understand the healthcare system through a market lens. Therefore, the framework was initially used to expand the former boundary of research on fashion braces by focusing on the individuals who are customers. The following shows how this framework was originally conceived in this thesis:

1) To address the current knowledge
2) To locate government strategies
3) To determine stakeholders in the informal market of fashion braces

Therefore, the informal market framework assisted in framing the idea of how the literature can be explored thoroughly (Figure 15) and providing sufficient evidence to readers to understand fashion braces as a whole by not only seeing them as a phenomenon or through a materialistic lens.

As a result, the previous sections of this literature review investigated a range of aspects involved in the fashion braces business. The literature review began with the current knowledge of fashion braces and business from the grey literature and peer-reviewed literature. Then, the supporting functions (Figure 15 and Figure 16 – the upper half of the framework) were investigated regarding braces used for orthodontic treatment (Section 2.2) and the related healthcare services (Section 2.3). On the

bottom half of the framework (Figure 16), called rules, the literature review revealed evidence only on laws and strategies (Section 2.4). Thus, many fields related to fashion braces need further exploration.

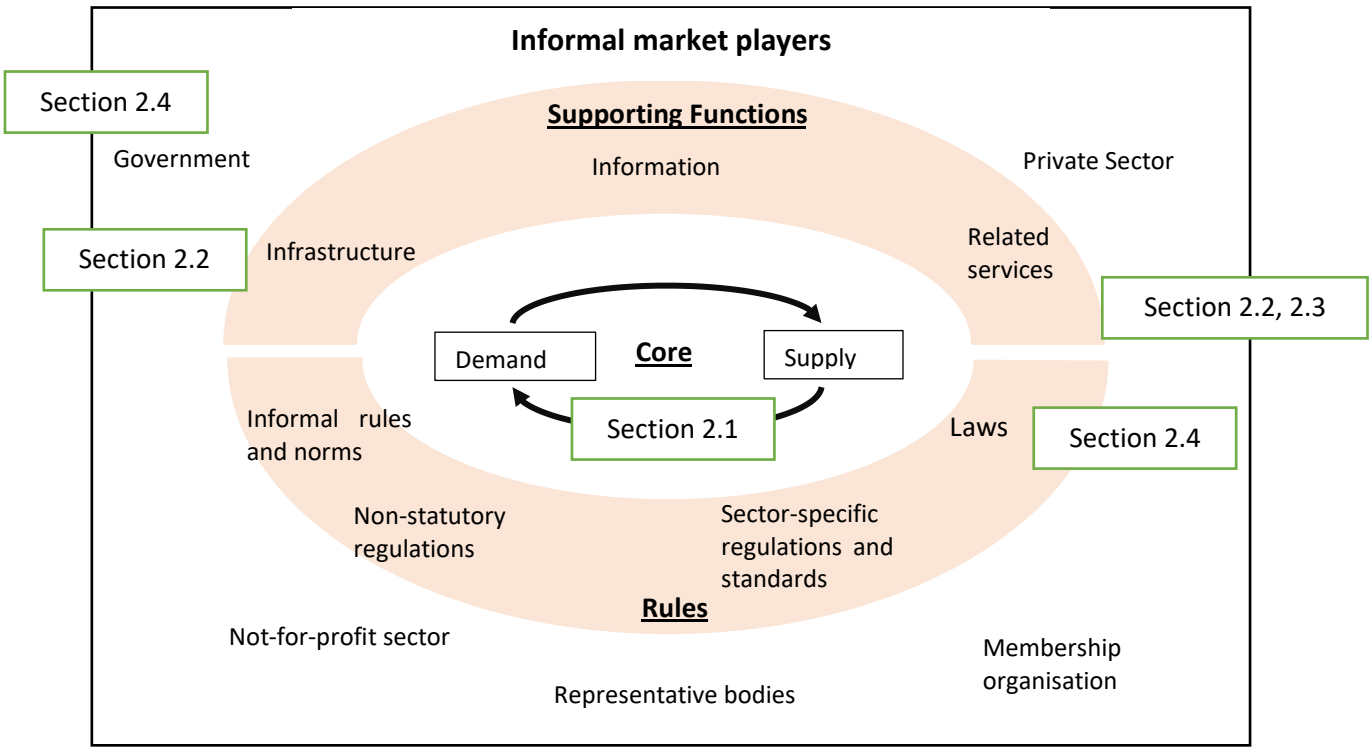


Figure 15 The mapping of current knowledge in the literature review (Chapter 2) fits the informal market framework. (Sections in the green boxes refer to reviewed literature in certain fields in the literature reviews.)

During the project, the framework was adapted to the current research context, namely, a situation in which illegal activities are provided by informal providers. The current knowledge was then determined following the informal market framework, as shown in Figure 16.

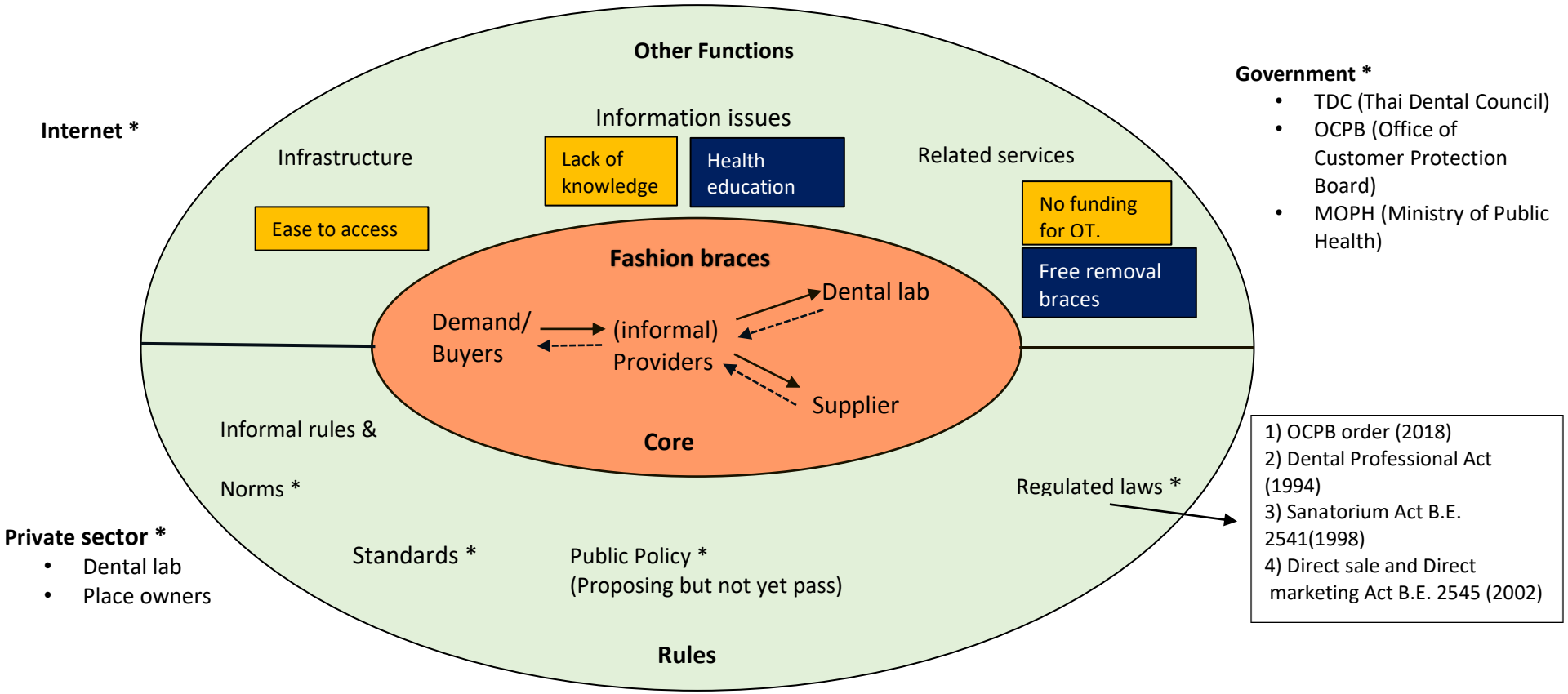


Figure 16 The proposed informal market framework of fashion braces (adapted from Bloom et al., 2014)

Note: * not available; the area has not been explored; IHPs = informal health providers; OCPB= the Office of Customer Protection Board order

elements that support the growth of fashion braces; elements that inhibit the existence of fashion braces

2.7 Summary and rationale for the thesis

The literature outlined above explored current knowledge about jud-fun fashion, or fashion braces, including on-going debates around the ambiguous synonyms and unclear definitions currently in use. However, research into this subject is scant. To date, only six published articles have explored the issue of fashion braces via wearer's perspectives: from Thailand (N = 2), Indonesia (N = 1), Saudi Arabia (N = 2), and Malaysia (N = 1). These studies provided some information about the characteristics of fashion braces, providers, and the demographic profile of fashion braces wearers. According to the studies, fashion braces can be classified into two main types: fixed fashion braces and removable fashion braces. Several reasons for wearing fashion braces were found, including improving function, acting status symbol, and representing a fashion statement. Many people in the empirical studies have reported positive perceptions of fashion braces, with harmful consequences being mentioned rarely by wearers. Currently, the Thai Government manages the issue of fashion braces through four strategies: regulated laws, health education, free fashion braces removal campaigns, and public health policy. However, the problem of fashion braces still exists and has increased over recent years (Vachirarojpaisan, 2017), yet no comprehensive approach has been taken to understand the complexities of this problem.

The existing knowledge on the topic involves only products, customers (wearers), and providers. Thus, further research is needed due to the limitations of the existing research. All relevant research has investigated adolescents using face-to-face modes, or the offline space, and the context of the online space, in which people use internet forums to discuss, seek information, and express themselves anonymously about fashion braces, remains unexplored (Robinson, 2007). Demand for and experience of fashion braces are also poorly understood. In addition, existing approaches have tended to be a-theoretical, with little understanding of the wider context within which fashion braces exist.

Indeed, there has been little appreciation of the wider context in which fashion braces exist—namely, the market for fashion braces. Who or what influences or inhibits the growth in the market for fashion braces, as well as the role of social media in the demand for fashion braces, must be explored. The previous section suggested that an informal market lens could be an appropriate conceptual framework for understanding fashion braces, primarily to explore the stakeholders, their contributions, and their roles in the market. As both the fashion braces products and service distribution networks are highly complex, the informal market framework, most notably the M4P framework by Bloom and colleagues (2014), offers understanding of this complexity. This thesis adopted this framework to explore the understanding of fashion braces from the perspectives of

fashion braces wearers in Thailand. As such, the framework was modified in light of the empirical findings. The current project primarily focuses on the users' perspectives and consists of two studies:

- **Study 1**: A qualitative study using netnography to understand people's narratives on the experience of having fashion braces (How people talk about fashion braces online).
- **Study 2**: A qualitative study using narrative interviews to understand people's lives with fashion braces (The experience of fashion braces wearers in Thailand).

Chapter 3

Study 1: How people talk about fashion braces

In this chapter, I illustrate the methods, methodology, and findings of Study 1, which was designed to answer the research question, "What do fashion braces mean to people?," "How do individuals use an online community to talk about fashion braces?" and "What are the characteristics of an informal market for fashion braces and stakeholders?"

3.1 Introduction

Fashion braces first appeared in 2006 in Thailand as orthodontics provided by non-dentists. As outlined in Section 2.1.2.4 of the literature review, the internet has played various roles in the fashion braces market, both as a location to distribute fashion braces tools and equipment and a place to learn how to install fashion braces (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017). To date, no studies have explored how people use the internet and online communities to talk about fashion braces.

3.2 Aims and objectives

Aim: To explore "mouth talk" about fashion braces in a Thai online community.

Objectives:

1. To explore the meanings of fashion braces for users within the online community.
2. To understand the content of people's talk about fashion braces within the online community.
3. To explore the informal market of fashion braces as discussed in the online community.

Before discussing the methodology of this thesis, it is important to address the paradigm that has informed this thesis.

3.3 Paradigm

A paradigm is a set of beliefs that guide the research process. Each paradigm has its own assumptions or inquiries about ontology, epistemology and methodology (Guba and Lincoln, 1994).

1. The ontological assumption asks, "What is the nature of reality or the nature of being?"

2. The epistemological assumption asks, "What is the relationship between the researcher and the research?" or "How do we know the world?"

3. The methodological assumption asks, “What is the process of the research?”

These assumptions are important to consider when planning and conducting any research, as they concern the way beliefs will influence the research process, the researcher’s role in research, how knowledge will be collected and the chosen research method. Braun and Clarke (2013, p.31) stated:

> *Ontology and epistemology are far from independent of each other, and they lead into particular methodologies and together constrain the methods that are appropriate for the research.*

The five main paradigms are positivism, post-positivism, critical theories, constructivism and participatory approaches (Denzin and Lincoln, 2011). From an ontological standpoint, positivism would suggest that there is a naïve reality (single reality). This paradigm is employed in quantitative studies that are concerned with the verification of hypotheses (ibid). Post-positivism also suggests there is a single fact but that the researcher may not be able to understand it because of a lack of absolutes (ibid). Critical theories assert that reality is based on power and identity struggles; such struggles are encapsulated in, for example, feminism, race, and disability.

Constructivist paradigms have been portrayed as relativist, as they tend to focus on a multiplicity of meaning (Creswell and Creswell, 2018). This means that individuals develop subjective meanings based on their own experiences. However, Herons and Reason (1997) noticed the unclear relationship between “constructed realities and the original giveness of the cosmos” (p.275). They introduced a participatory paradigm that believes in subjective–objective reality and explained the basic nature of knowledge, as knowers can be knowers only when they are known by others (ibid.). These ideas are important to this PhD, which focuses on the complexity of meanings associated with fashion braces.

Although constructivism is the overall paradigm within the above approach, I drew more specifically on symbolic interactionism because its principal focus is how meaning in social worlds alters what people think and do. Finally, the specific research approach I used was to focus primarily on narrative data. This involved looking closely at how participants told their stories of the experience of having fashion braces. Narrative approaches are compatible with symbolic interactionism, including the work of Blumer (Cousineau, 2020).

3.3.1 Ontological assumptions

This PhD investigates the meaning and experience of having fashion braces in Thailand in an online community (Study 1) and offline social worlds (Study 2, see Chapter 4). Participants had differing experiences with fashion braces, so the meaning of fashion braces would also differ for them. A constructivist paradigm was chosen for both studies because the aims were to learn about individuals’

experiences, subjective meanings of the object of fashion braces and individuals' personal journeys with fashion braces. Taking a constructivist approach allowed me to explore and understand the different perspectives of people about fashion braces. This was necessary because the meaning of fashion braces is not clear. Coupled with this overall strategy is my use of symbolic interactionism (see section 3.4.1), more specifically, my use of narrative data (Cousineau, 2020).

This thesis is divided into two studies following a "funnelling approach": the first study utilised "netnographic" methods, and the second drew on narrative interviews. The detailed approach to Study 1 is outlined in Section 3.4, and the approach to Study 2 is outlined in Section 4.4. Before introducing Study 1, it is important to give a brief outline of the epistemological assumptions underpinning this research.

3.3.2 Epistemological assumptions and researcher positioning and reflexivity

As mentioned earlier, this PhD project adopted a constructivist paradigm. This paradigm states,

> *…individuals construct their own knowledge, and this is represented cognitively; researchers influence and shape the knowledge they create; we are shaped by our lived experiences, and these will always come out in the knowledge we generate as researchers and in the data generated by our subjects.* (Varpio et al., 2017, p.42)

Therefore, the world of fashion braces explored in this thesis is created not only by the participants' narratives but also the researcher's experience and interaction with the participants. I wrote self-reflective notes in my fieldnotes because my attitudes and assumptions could interfere with my journey as a researcher, as an outsider who had no experience of fashion braces, as a dentist who is against the use of fashion braces and as a PhD student who is keen to understand the world of fashion braces. My background is as a dentist and dental public health specialist, and I had little knowledge or experience of social sciences applied to dentistry prior to the start of my PhD studies.

In this thesis, I assumed my role as a researcher and tried to eliminate my roles as an outsider and a dentist by recording self-reflective notes to caution myself and minimise my biases. The reflective notes were written from the start of data collection, through the process of translation and data analysis and, finally, during the interpretation and write-up.

The next consideration was the relationship between the researcher and subjects (Creswell, 2013). At the beginning of my work in Study 1, I unobtrusively observed the online community, which provided an opportunity to gain a naturalistic perspective on the way fashion braces were narrated in online communities. At this stage, the data was not shaped by my own perspectives or opinions (Smedley & Coulson, 2018). Moreover, the nature of the community provided anonymity to all members; it was

impossible to contact specific users. My stance at the start of this research was to remain in the background, so I collected only non-elicited narrative data.

In conclusion, the reality of fashion braces in this study was co-constructed between the researcher and the participants. This means that the study findings were shaped by the experiences of participants from both online and offline spheres, as well as my beliefs, attitudes and experiences when interpreting the data. It is therefore key to understand that bias may arise from the researcher's stance and interpretation. To ensure the quality of this study, many strategies were employed to increase trustworthiness, including taking field notes, implementing researcher triangulation, and providing thick descriptions.

3.4 Methodology

This study is broadly constructivist in design, and within that broad tradition, it follows a symbolic interactionist framework involving a two-stage qualitative study of stakeholders' perspectives on their experiences of fashion braces within the informal market in Thailand. This framework was used because the primary focus of this is what fashion braces "mean".

Two methodologies commonly used in qualitative studies are phenomenology and ethnography (Creswell and Creswell, 2018). Ethnography is the study of culture through its artefacts, while phenomenology focuses on understanding the subjective experience of phenomena or events.

Symbolic interactionism, on the other hand, looks more at the interpretation of subjective (symbolic) meanings that arise from interactions. The interactions include those between social actors, between one social actor and the object, and internal interaction within the actor (Oliver, 2012; Lopata, 2003; Charmaz, 2008).

This study highlighted the potential use of symbolic interactionism in online communities. Storytelling online has varying structures that allow us to explore the interactive meaning of fashion braces in these communities using a symbolic interactionist framework. In the next section, I introduce symbolic interactionism, narrative approaches and internet-mediated research. I discuss how symbolic interactionism has been applied in the first study.

3.4.1 Symbolic interactionism

Symbolic interaction is a theoretical framework focused on how society is created and maintained through social interaction. A central argument of symbolic interactionism is that people act towards things based on the meaning that these things have for them. This means that fashion braces may

have more than one meaning, and it is through participants' interactions with the materials that make up fashion braces and with the idea of fashion braces itself that we can start to understand their meaning. Meaning also depends on who assigns meaning to an object; however, meaning can also be modified through social interaction. Therefore, meaning is fluid and modifiable and can be changed over time (Chamberlain-Salaun, Mills and Usher, 2013).

Blumer (1969) coined the term "symbolic interaction". He developed Mead's philosophy of self and society and emphasised how the self emerges from an interactive process (Carter and Fuller, 2016). As such, he utilised Mead's concept of self and society, which held that the self was a product of definition by others and that this informs all thinking and communication:

> *One does the response to that which he addresses to another and where that response of his own becomes a part of his conduct, where he not only hears himself but responds to himself.* (Mead, 1934)

Symbolic interaction can relate to any object, including the self, which can be given meaning by human beings through their interaction. The basic tenets of symbolic interaction consist of the following:

1. Human beings act towards things on the basis of the meaning that the thing has for them.
2. Meaning arises out of the social interaction that one has with one's fellows.
3. Meanings are handled and modified through the interpretive process used by the person in dealing with the things they encounter (Blumer 1969 cited by Handberg, Thorne, Midtgaard, Nielsen and Lomborg 2015).

This framework was used to interpret the data collected in this study because the literature reports a wide and varied use of symbolic interactionism and this framework is suitable in such instances.

3.4.2 Symbolic interactionism and narrative research methods

While the overall research strategy is constructivist and, more specifically, symbolic interactionist, the specific focus of data collection in this study was on the collection and analysis of narratives derived from internet forums. Cousineau (2020) explored the relationship between Blumer's symbolic interactionism and narrative research methods. He argued that:

> *Adopting a Blumerian approach has many components, including (1) social actors use stories to construct subjective meanings; (2) stories exist in some sort of social context; (3) stories are told or written for some type of audience; (4) social processes produce stories; (5) there are interactional techniques of showing story preferences; (6) stories are symbolic structures; (7) stories include narrative linkages; and (8) stories follow temporal sequences. (Cousineau, 2020; p. 721–722)*

Taking this approach, I started my research with a "naturalistic" exploration of the meaning of fashion braces as constructed in online narratives. I explain how this approach influenced my data collection and analysis later in this chapter (see Section 3.5.7.2) before returning to this framework in the next chapter. Before doing so, however, it is necessary to discuss internet-mediated research (IMR).

3.4.3 Internet-mediated research

IMR is defined as research that uses the internet to collect data (Hewson and Laurent, 2016). Given the amount of data available on the internet, both quantitative and qualitative approaches have been performed to conduct IMR, including surveys, interviews and observations.

The internet may be used in IMR in two ways: as a tool for research and as a location for research (Harriman and Patel, 2014). First, as a research tool, researchers can use the internet to recruit participants. For example, Wang (2018) explored the female experience of online gambling using Pokerstar (an online gambling website) as a place to initially recruit the participants for online interviewing (Wang, 2018). Second, the internet can be used as a place to gather data (Attard and Coulson 2012; Lerman et al. 2017; Thanh and Kirova 2018) in various online locations, including Facebook (Holden and Spallek 2018; Bender et al. 2011; Hum et al. 2011), Instagram (Saboia et al. 2018), TripAdvisor (Mkono 2011; Thanh and Kirova 2018) and online forums (Taylor et al. 2018; Eriksson and Salzmann-Erikson 2013).

Synchronous and asynchronous

There are two distinct modes of text-based communication: synchronous and asynchronous. In a synchronous form, users can respond in real time, such as in chat rooms or via video call. In contrast, asynchronous communication is delayed. This type of communication can be found in email, online forums and discussion boards (Fielding et al. 2017; Attard and Coulson 2012).

Unobtrusive and obtrusive research

Different methods of conducting IMR have different levels of obtrusiveness, ranging from unobtrusive to obtrusive. First, an unobtrusive approach refers to a data collection method that does not require interaction with participants (Hewson, 2017). An unobtrusive method can be found in document analysis and observation (Hewson, 2017; Smedley and Coulson, 2018). Second, an obtrusive approach involves interaction between the researchers and participants. Obtrusive approaches include interviews, surveys, questionnaires, experiments and observation (Hewson 2017). Note that one method might have a range of obtrusiveness depending on the study design used. Researchers can adopt many roles in conducting observational studies, and the more researchers disclose themselves to online communities and interact with their participants, the more obtrusive the research becomes.

3.4.3.1 Online forums

An online forum is defined as a discussion site on the internet which allows members to communicate and interact by posting messages (Wikipedia n.d.; Smedley et al. 2018). Most online forums use an asynchronous form of communication with a delayed time response (Smedley and Coulson, 2018; Im and Chee, 2006). Smedley and Coulson (2018) mentioned an additional feature of online forums: that they provide a dynamic environment in which users can interact, engaging in ongoing discussions on specific topics and thereby sharing their experiences, albeit asynchronously.

Online forums are a platform frequently used to conduct IMR because they have a wide range of content and thus often provide a rich source of data. Online forums have been used in many fields, such as beauty and aesthetics (Taylor et al., 2018), banking, public relations (Toledano 2017), policy (Elvey et al. 2018), travel (Thanh and Kirova 2018) and health-related topics (Smedley et al. 2018; López et al. 2012; Pittman et al. 2017).

Despite the many positive aspects of online forums, numerous ethical issues must be considered with the use of such internet-based studies. These include informed consent, data protection and participant privacy (Harriman and Patel 2014). These issues will be discussed in the ethics considerations section.

3.4.3.2 Online forums and symbolic interactionism

Online forums have been successfully studied using a symbolic interactionist perspective (Grønning and Tjora, 2018; Moore and Abetz, 2019; Williams and Copes, 2005; Murthy, Rodriguez and Kinstler, 2013) because online forums have a structure which allows users to interact with each other. This nature of forums allows the researcher to observe how meaning is negotiated and managed in the situation, as defined by the users. This shows the potential to apply the symbolic interaction lens for observing events. Therefore, online forums can be considered attractive settings to observe interactions between users and what people communicate about certain topics.

Some studies have adopted symbolic interactionism to explore the self and roles within online communities. For example, Moore and Abertz (2019) used symbolic interactionism and thematic analysis to investigate an online discussion of how parents regret having children. This study was conducted on Reddit.com. Search terms such as “regret having children” were included in the Reddit search function. Threads were selected if they 1) had more than 30 comments and 2) were at least six months old and had been archived. This sampling resulted in 12 threads with 12,053 comments. Only first-level comments were included, accounting for 667 comments. Then each comment was coded as indicating or implying regret (N=286), indicating the absence of regrets (N=124) and being unrelated to regret (N=257). Only comments identified as indicating regret were selected (N=286), and codes

were generated and themes were developed regarding how parents reported feeling regret for having children. The study results reflected individuals' sense of self in their role as parents and how having children had affected them. This study focused only on the participants' messages rather than interactions between different users.

Many studies have also been interested in the self and interactions between users. For example, Murthy, Rodriguez and Kinstler (2013) explored how one online community can support women scientists to maintain their careers. They analysed data based on a symbolic interactionism lens in the matter of "self – cyber I and me", as suggested by Robinson (2007). Posts coded the overall mood of messages. Twenty-two unique codes with 12 tree nodes and 10 free nodes were pre-defined; for example, "ask" referred to questions posted by users, excluding rhetorical questions, and "career" referred to topics related to the advancement of scientific careers. Interactions were categorised as positive, neutral and negative. A positive message was one supportive of a previous post, while a negative message was one that opposed a previous post. A neutral post was a message that showed a lack of support or opposition to a previous post. Results were reported quantitatively. This study captured the overall mood of how users communicated with one another and helped understand the characteristics of the community in terms of hostility or supportiveness (Neviarouskaya, Prendinger and Ishizuka, 2011).

Similarly, Grønning and Tjora (2018) observed one user's diary in an online weight loss forum. The diary contained the owner's posts and comments from users. Over a period of 11 months, 393 messages (post and replies) were produced. Each post of the diary owner was marked as one code, and related replies were coded within the same code, with 97 posts/codes included. Then the 97 posts were categorised into positive posts and negative posts. The results showed that 75 posts had a positive character and 22 posts had a negative character. Of the 22 negative posts, 19 received feedback. There were three types of feedback: collective, prospective and supportive. Within the findings, a thick description of self-blaming posts was presented, as well as the types of feedback. Again, this study judged the overall mood of the messages but did not explore the dynamics within threads. This is important because using a whole message as a unit of analysis may miss opportunities to gain insights into how individuals live with obesity and how users support each other, as well as the dynamics within each post.

Many themes of symbolic interaction have been used to study online communities, such as self, identity and interactions between users. The overall mood enables investigators to study how users communicate with one another and to understand the characteristics of the community in terms of whether it is hostile or supportive. However, it could be argued that to study the overall mood might

not suit my study, as it would not enable me to answer the research questions "How do individuals use online communities to talk about fashion braces?" I wanted to address the dynamic, debates and roles of users when talking about fashion braces rather than determine the tone of interactions with the previous post (Grønning and Tjora, 2018; Murthy, Rodriguez and Kinstler, 2013). This is in keeping with a more in-depth symbolic interactionist approach.

As such, the present study considered it possible to investigate online forums using symbolic interactionism. For the added examination of user interactions, the study employed Mead's (1934) concept of the self. Mead (1934) views the self as a product of interaction in which "one does respond to that which he/she addresses to another and where that response of his/her own becomes a part of his conduct. In addition, she not only hears herself, but responds to herself" and "the individual experiences himself as an object, not directly, but only indirectly from the particular standpoints of other members of the same social group" (Mead 1934 p.139).

This concept enabled this research to explore how users acted as individuals who initiated threads about fashion braces and thus to examine how self and identity were "enacted" in online communities in relation to fashion braces. Additionally, Blumer's (1969) three premises of symbolic interaction were utilised to investigate what fashion braces mean to individuals, how this meaning arises in interaction and how it changes through the process of communication (see Section 3.4.1).

3.4.4 Netnography

To address the research questions of the study, netnography was used in combination with a symbolic interactionism perspective. Netnography is a qualitative approach to studying online communities using an ethnographic approach developed by Kozinets (1997). It is defined as "a participant-observational research-based in online communities" (Kozinets, 2010). Some features of ethnography have been adapted to netnography. For example, ethnography is the method by which the ethnographer immerses him/herself in the group at a period of time to observe behaviour and listen to participants (Bryman, 2016); while the netnographer immerses him/herself in the online communities to observe cybercultures and experiences of people from social interaction and content (Kozinets, Dolbec and Earley, 2013).

Besides netnography, many approaches are used to study cybercultures by adapting the ethnographic approach, such as online ethnography, cyber-ethnography, digital ethnography (Murthy, 2008), virtual ethnography (Hine, 2000) and internet ethnography. What are the differences between them? Heinonen and Medberg (2018) distinguished that digital ethnography, online ethnography, virtual ethnography and cyber-ethnography are generic terms of IMR, as they do not have specific practices

and could be used in either qualitative or quantitative studies. In contrast, netnography has its own methodological steps and is designed for conducting qualitative studies.

A few studies have revealed the popularity of using netnography in marketing and tourism. In the marketing field, for which netnography was primarily developed, there has been rapid growth since 2008 (Heinonen and Medberg, 2018). As in the field of the travel business, Tavakoli and Wijesinghe (2019) conducted a systematic review of online ethnographic approaches, recruiting published papers from 2008 to 2018. They found that 86 out of 116 papers employed netnography, of which 47 papers mentioned the use of guidelines by Kozinets, while minorities operated other methods such as online ethnography, virtual ethnography and cyber ethnography. It has also been indicated that netnography has been used to explore other fields, including illegal activities (Wang, 2018; Langer and Beckman, 2005) and; health-related studies (Eriksson and Salzmann-Erikson, 2013; Pittman et al., 2017; Van Hout and Hearne, 2016; Holden and Spallek, 2018).

Although there is a lack of evidence to support the use of netnography with symbolic interactionism, many studies have successfully explored online forums using symbolic interactionist perspectives (Grønning and Tjora, 2018; Moore and Abetz, 2019; Williams and Copes, 2005; Murthy, Rodriguez and Kinstler, 2013). It is a challenge, but the researcher can consider the possibilities of the combination of symbolic interactionism as a theoretical framework and netnography to address the research questions and objectives, especially in Study 1. It would add the value of this combination and assist us in observing different meanings of fashion braces given by individuals.

This research was conducted using an online forum called Pantip.com (see Section 3.4.4.1.1 below for more details). First, the data already existed in the online forum; therefore, the researcher did not contaminate the environment for discussion about fashion braces. Second, Pantip.com has an online forum structure; one thread contains a heading message and comments (or replies). This allowed the researcher to utilise netnography to explore the online forums unobtrusively and immersively on the topic, as in the above exemplars. However, most netnography focuses on what the participant said and what happened on a certain topic. Symbolic interaction adds the value of netnography by looking beyond what they said to what is going on, investigating how the meaning of fashion braces changes via interactions, and how users act with each other based on the idea of the self-ing process.

3.4.4.1 Steps of Netnography

Research using netnography consists of five main steps: 1) entrée, 2) data collection, 3) data analysis, 4) research ethics and 5) member checks/ trustworthiness (Kozinets, 2010). These five steps were used to guide the consideration of the methods and tools of use in the present study as described in the following sections.

3.4.4.1.1 Entrée

The entrée step is to seek “appropriate” online communities for their research based on specific research questions (Kozinets, 2002). There are many challenges in selecting the study setting. Given that the netnographic setting does not exist in the real world and that data can be accessed by searching keywords through search engines, this step has the potential to result in data overload. Therefore, it is important to find proper fieldwork(s) to answer the research questions. Kozinets and colleagues (2013) suggested five criteria to determine suitable sites to investigate. The five criteria are as follows:

1) relating to research questions

2) having high traffic

3) having large numbers of discrete message posters

4) having more details and rich data

5) having interactions between members

Pantip.com: A popular forum in Thailand

Pantip.com is the most popular internet forum among Thai people. This forum is ranked as the fifth most visited website in Thailand after google.co.th, youtube.com, google.com and facebook.com (Alexa, 2018). More than 5 million accounts have been created since it was established in 1996. Additionally, more than 4.5 million people per day accessed Pantip.com in 2017 (The standard, 2017). Note that the number of people who accessed the site may not include only registered users but also non-registered users because this forum allows general audiences to read the forum without registering.

Pantip.com has a hierarchical tree-like structure comprising rooms, threads and individual messages (Figure 17). Thirty-eight rooms are categorised by certain topics, with more than 15,000 tags. There is a diversity of topics, knowledge, experiences and sharing that are categorised with a description of each room. For example, “Library” is the room for talking about books, novels and writers; “Blue planet” is the room for talking about travel, both domestic and international; “Silicon Valley” is the room for talking about computers, gadgets, games and hardware; “Wahkor” is the room for talking about science; and “Lumpini park” is the room for talking about health.

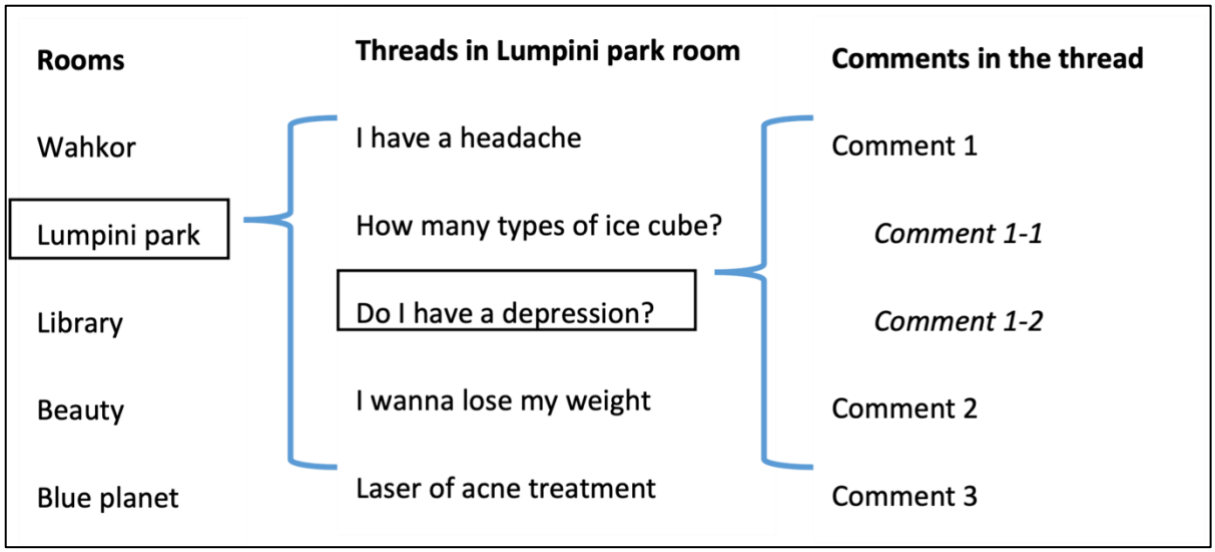


Figure 17 The tree-like structure of Pantip.com

The thread heading allows the user to post text and pictures (1 in Figure 18), which are then organised into rooms according to tag(s) (5 in Figure 18) selected by the user who started the thread. For example, a conversation thread sharing experiences on how to lose weight in five months had four tags applied: losing weight, aesthetics, clean food and exercise. The tags of losing weight, clean food and exercise belong to the "Lumini park" room, while aesthetics belongs to the "Beauty" room. Therefore, this thread was presented in two rooms: Lumpini park and Beauty.

After threads appear in rooms, users can participate in them by reading, voting and replying. This forum enables users to reply directly to thread headings and to individual messages (2 and 3 in Figure 18). Additionally, there is an emotional expression system which allows users to express their feelings about messages positively or negatively, including "like", "laugh", "love", "sincere", "horrific" and "surprise". To be a member, a user is required to provide their email to register. They will then automatically receive a pseudonym, such as "member number 4931452" (6 in Figure 18). Users can decide whether or not to prove their identities. If they do not prove their identities, they will have limitations on the use of some features, such as being unable to change usernames or post more than once a day (Member relationship Service, 2013). However, all users can reply to threads as approved members can (ibid).

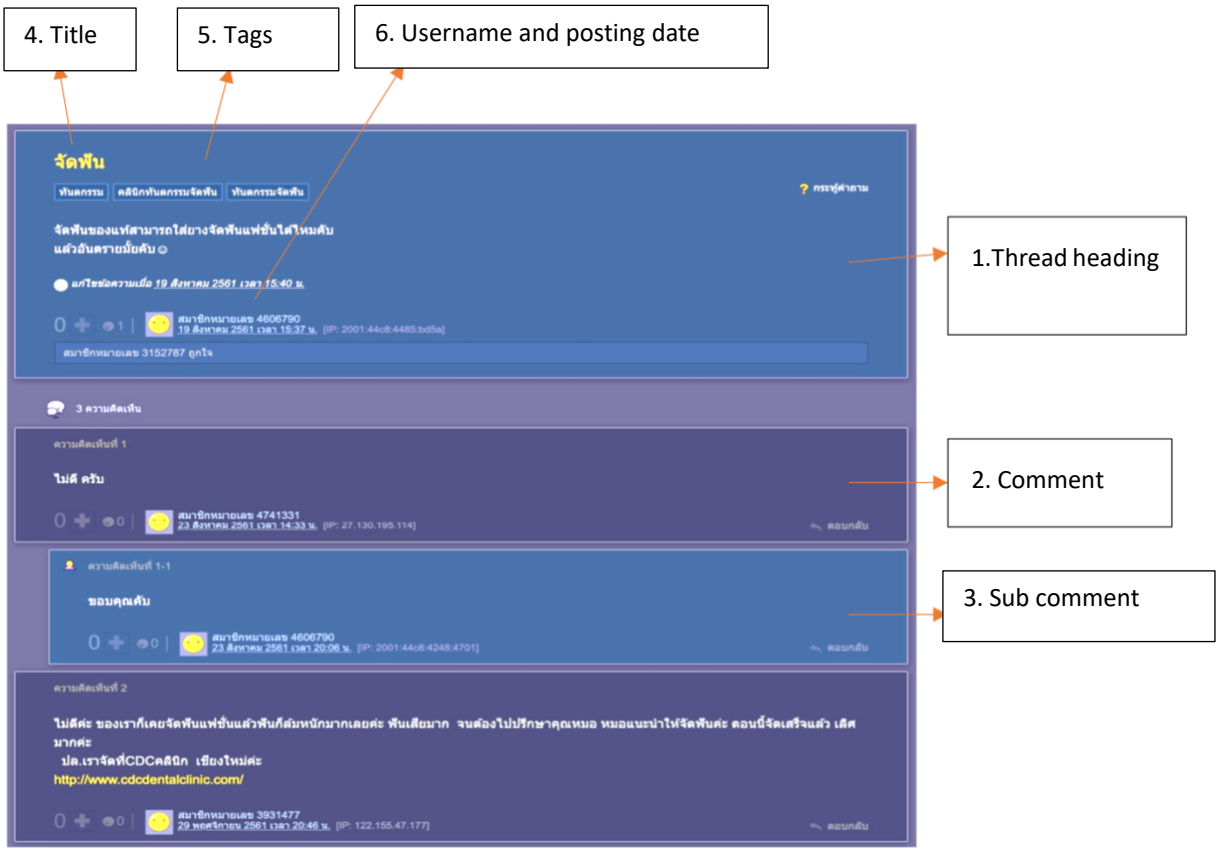


Figure 18 Pantip thread structure

3.4.4.1.2 Data collection

Netnographic data may consist of three different types: 1) non-elicited or archival data, 2) elicited data and 3) field note data (Kozinets, Dolbec and Earley, 2013). First, archival data (non-elicited data) are the data that already exist on the internet (Kozinets 2015; Salzmann-Erikson and Eriksson 2012). Second, elicited data are co-created data by researchers and members of the online community (Kozinets, 2015). This includes online interviews that could be collected by asynchronous forms (e.g., email and forums), and synchronous forms (e.g., chat and video calls; Kozinets, Dolbec and Earley, 2013). These two types of data, archival and elicited, are data gathered directly from online communities by researchers, while field notes are data generated by the researcher to reflect upon her/ his own experiences according to observation during conducting research (Kozinets, 2010).

Archival and elicited data

Data gathered from online sources can be text and/or visual content; however, netnographers tend to engage text content rather than visual content. For instance, Tavakolu and Wijesinghe (2019) conducted a systematic review of literature conducting netnography and found that the majority of articles engaged text communication, accounting for 103 out of 116. In terms of techniques for collecting textual communication in netnography, several studies have explicitly clarified what

information they attempted to capture and how they selected data, yet some failed to explain how they transferred and recorded the relevant data (Mkono, 2011; Thanh and Kirova, 2018; Wang, 2018). However, they found that three methods were used to record textual contents: directly printing them out, copying and pasting the content and capturing content as screenshots.

First, directly printing out is a simple method of collecting data and may be able to maintain data credibility (Im and Chee, 2006). Original formatting is retained, including layouts, emoticons and other features (Smedley and Coulson, 2018). However, researchers would have to address contamination with irrelevant information (e.g., advertisements, banners and logos), as well as non-verbal cues (e.g., emoticons) if they are not interested in them (Im and Chee, 2006). Salmann-Erikson and Eriksson (2012) suggested a printer-friendly function that would eliminate irrelevant information automatically.

Next, copying and pasting contents into the word processor is commonly used by netnographers (Pittman et al. 2017; Eriksson and Salzmann-Erikson 2013; Clemente-Ricolfe 2017; Kozinets 1997; Van Hout and Hearne 2016). The use of a word processing application such as Microsoft Word provides some benefits, as it is compatible with other software, including qualitative data analysis software; convenient to use; and enables researchers to anonymise the data (Smedley and Coulson, 2018). Pittman and colleagues (2017) demonstrated the advantages mentioned. They used netnography to explore people's decision-making to obtain orthodontic treatment from 15 threads. All threads were transferred to Microsoft Word and saved as Rich Text Format (.RTF). Using Microsoft Word was encouraged by them to manage data, such as anonymisation and import to ATLAS.ti.

In addition, Salzman-Erikson and Eriksson (2012) suggested combining printing out techniques and importing them to Microsoft Word. Data were downloaded as a printout friendly version and Microsoft Word was used to perform a step called a dumping process. The dumping process consists of removing advertisements, quotes, links and pictures. Eriksson and Salzmann-Erikson (2013) used netnography to investigate how fathers support each other when caring for children. They relied on the technique of Salzman-Erikson and Eriksson (2012), which resulted in reducing the number of data pages from 1203 to 1049 pages, representing a 12 percent debris reduction. This process benefits researchers in terms of reducing the time spent reading, reducing the chance of being distracted from the main data and saving the costs of paper and printing.

Third, capturing a screenshot could be a convenient technique because Windows and MacOS come with their own capturing programs (Kozinets, Dolbec and Earley, 2013). This technique is less time consuming than the two previous techniques. However, this technique converts the messages into picture format, and it is difficult to convert them back into plain text format. Therefore, Smedley and

colleagues (2018) advised saving a text copy alongside the image. Employing web browser extensions such as NCapture or Evernote may be alternative tools to collect data. They enable netnographers to capture ranges of content, such as pages, online PDFs, Facebook posts, Twitter content and online videos into PDF files. For example, Quinton and Wilson (2016) explored LinkedIn to understand the development of business relationships through social networks. He used NCapture to collect 93 discussions (554 interactions) and imported them to NVivo 10, according to which this web extension is compatible with NVivo.

Field notes

I generated field notes to aid in reflection upon my experiences while conducting research (Kozinets, 2010). One can also make notes as analytic memos from the beginning of the data collection process. These analytic memos can be a small massage to code the data, and researchers could also use for reflection on, for example, a study's research questions, code choices, emergent themes and any problem with the study (Saldaña, 2014). Saldana (2014) provided explicit writing examples of analytic memos. However, taking field notes is one challenge in conducting netnography. Several studies have failed to explain or clarify whether field notes were taken (Holden and Spallek, 2018; Thanh and Kirova, 2018; Van Hout and Hearne, 2016; Pittman et al., 2017; Quinton and Wilson, 2016).

3.4.4.1.3 Data analysis

Netnographic data may focus on textual and visual communications (e.g., pictures and video). The present study collected text communication and analysed it qualitatively (see next section).

Several analysis methods are used to analyse texts in online forums, including thematic analysis (Lee and Cooper, 2019), content analysis (Smedley et al., 2015), discourse analysis (Tavakoli and Wijesinghe, 2019) and structural analysis (Arendholz, 2010; Arendholz, 2013; Bailey and Ngwenyama, 2012) . Thematic analysis is defined as a method used to identify patterns or themes that are present across qualitative data (Braun and Clarke, 2006). Qualitative content analysis is a method for describing the meaning of the text, not by giving the meaning but by constructing the meaning (Hsieh and Shannon, 2005; Schreier, 2012). Discourse analysis focuses on the "the use of language in social context", and the language can be either text or speech. Structural analysis focuses on narrative in terms of the way the story is told (Reissman, 2005).

To select the analysis technique, researchers must take into account the research purpose. The question of which technique to use can be answered by matching the research question with the appropriate analysis technique (Hsieh and Shannon, 2005). The justification of the data analysis in this study will be presented in section 3.5.7.1.

3.4.4.1.4 Research ethics

Conducting IMR seems less harmful than face-to-face methods, as it involves no face-to-face interaction; however, the ethics of IMR are complex. Several ethical challenges have been addressed to minimise the risks of harm to participants and researchers (Eynon, Fry and Schroeder, 2017). The ethics guidelines for internet-mediated research by the British Psychological Society (BPS) outline four main principles of conducting such research (Table 7): 1) respect for the autonomy, privacy and dignity of individuals and communities, 2) scientific integrity, 3) social responsibility and 4) maximising benefits and minimising harm (British Psychological Society 2017). The first principle considers the domain in which data is gathered, confidentiality, copyright, valid consent and withdrawal, and debriefing. The BPS suggested that the implications of this guideline would be different depending on the particular research study design.

Table 7 Four main ethical issues for researchers to consider when conducting internet-mediated research (British Psychological Society, 2017)

Principle	Consideration
Respect for the autonomy, privacy and dignity of individuals and communities	**Public/private distinction** – The extent to which potential data derived from online sources should be considered in the public or private domain **Confidentiality** – Levels of risk to the confidentiality of participants' data and how to minimise and/or inform participants of these risks, particularly where they may potentially lead to harm; **Copyright** – Copyright issues and data ownership, and when permission should be sought to use potential data sources **Valid consent** – How to implement robust, traceable valid consent procedures **Withdrawal** – How to implement robust procedures which allow participants to act on their rights to withdraw data **Debriefing** – How to implement robust procedures which maximise the likelihood of participants receiving appropriate
Scientific integrity Social	**Levels of control** – How reduced levels of control may impact on the scientific value of a study and how best to maximise levels of control where appropriate
Social responsibility	**Disruption of social structures** – The extent to which proposed research study procedures and dissemination practices might disrupt/harm social groups
Maximising benefits and minimising harm	**Maximising benefits** – How each of the issues mentioned above might act to reduce the benefits of a piece of research and the best procedures for maximising benefits **Minimising harm** – How each of the issues mentioned above might lead to potential harm and the best procedures for minimising harm

Public and private domains

There are two types of online spaces: public and private. A public domain refers to an open forum that is widely accessible without registration, while a private domain refers to a closed forum that can be accessed by registered members only (Smedley and Coulson, 2018). However, there are a number of

issues to distinguish between public and private spaces beyond the above definitions. First, the boundary between public and private spaces is blurred (British Psychological Society, 2017). Second, it is difficult to identify users' perceptions of whether the space they post in is private or public (BPS, 2017). Users might not be pleased to use their posts as the object of research (Smedley and Coulson, 2018; McKee and Porter, 2009). The BPS guidelines (2017) suggested that if researchers are unsure whether data were gathered from public domains, they should consider the risks of harm to participants and whether informed consent is needed.

Informed consent

Fundamentally, informed consent is required in any research involving human participants. However, many debates have been raised as to whether informed consent is necessary for IMR. On the one hand, the BPS (2017) has stated that informed consent should be obtained according to the risk of failure at any stage to maintain the confidentiality of researchers. Additionally, participants might not be satisfied or agree with their posts being used as part of a research study. Therefore, it might be appropriate to ask for informed consent.

On the other hand, some researchers argue that informed consent may not be required in some IMR study designs. The BPS (2017) argued that not gaining informed consent may be acceptable if researchers are able to ensure the confidentiality of data. Wilkinson and Thelwall (2011) argued that research involving public documents without interaction with the users who produced the documents is not human subject research. Therefore, informed consent is not necessary in such cases. A challenge of seeking permission individually in an online environment was highlighted. Eynon and colleagues (2017) and Langer and Beckman (2005) claimed that it is hard to do, while Smedley and colleagues (2018) stated that obtaining informed consent from individuals may impact participants' behaviours.

Alternatively, scholars have provided guidelines to determine whether informed consent is needed. Mckee and Porter (2009) purported five variables to determine if informed consent is required: types of space, the sensitivity of the topic, the degree of interaction between researchers and participants, and participant vulnerability (Figure 19).

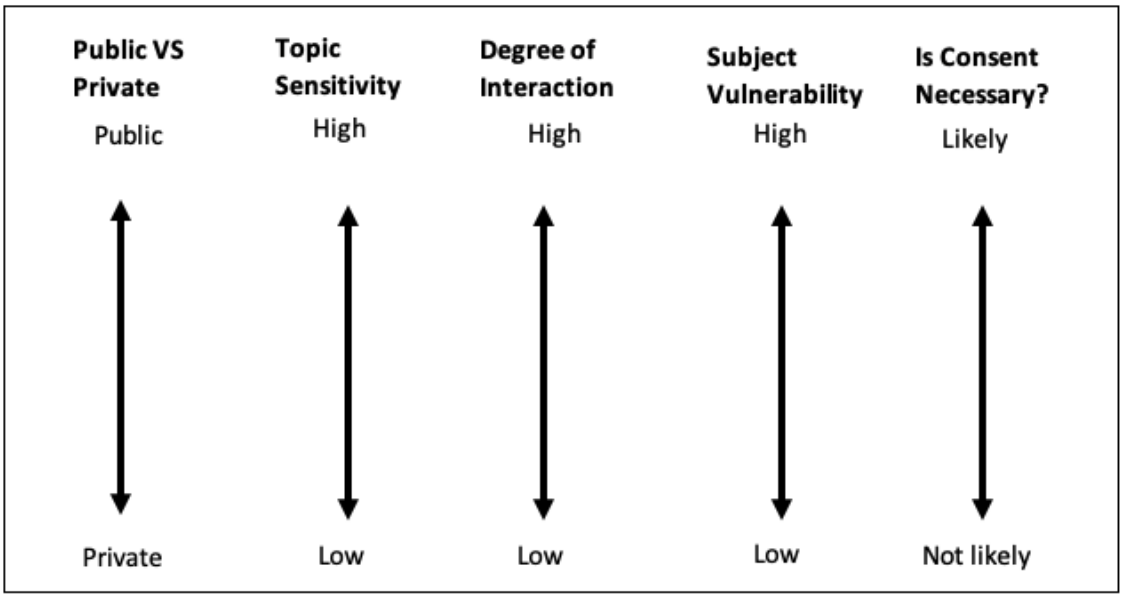


Figure 19 The variables used to determine whether informed consent is necessary (McKee and Porter, 2009)

Topic sensitivity

A sensitive topic is defined as "one that potentially poses for those involved a substantial threat, the emergence of which renders it problematic for the researcher and/or the researched the collection, holding, and/or dissemination of research data" (Lee and Renzetti, 1993, p. 5 cited by Andrews et al. 2011). Topic sensitivity can be classified based on the nature of the information and the views of the individual or community (McKee and Porter, 2009). Some types of information would embarrass forum posters (e.g., illegal activity, personal health, sexual activities, beliefs and traumatising events; McKee and Porter, 2009; The University of Sheffield, n.d.).

For the above reasons, it could be assumed that studying sensitive topics is more likely to require informed consent. However, Langer and Beckman (2005) argued that it may not be necessary if data were focused on context, not a person. They conducted netnography to understand how people provided information and support in the area of cosmetic surgery, which was identified as a sensitive topic. Their roles were covert and included no interaction with the participants. They claimed that sensitive data on public online spaces can be comparable to the analysis of readers' letters in newspapers if researchers can protect the rights of participants and minimise harm to participants.

Confidentiality

Ensuring confidentiality is one important responsibility of researchers in minimising harm to participants. The harm of IMR can be caused by breaking the participant's anonymity. Therefore, it is

crucial to protect the privacy of participants and data confidentiality at all stages of the process (Nosek, Banaji and Greenwald, 2002). Eynon and colleagues (2011) suggested that the level of confidentiality depends on the nature of the data being gathered. If the data are not sensitive and anonymity can be ensured, this is less concern (Eynon, Fry and Schroeder, 2017).

Apart from protecting participants' identities and privacy, the data must be treated properly and stored securely. Nosek and colleagues (2002) highlight that the data need to be encrypted and that the use of labels that are meaningless to the third party but not to the researcher is required (i.e., anonymising the data).

Summary

Many ethical issues must be considered when conducting IMR. Key issues are obtaining informed consent and protecting participants' privacy. To determine if informed consent was necessary for the present study, the following questions suggested by Mckee and Porter (2009) were used:

First, is the domain public or private? Pantip.com can be considered a public domain, given that people can read posts and comments without registration. Second, the sensitivity of the topic; fashion braces may be considered high in sensitivity given that selling and fitting fashion braces by non-dentists is an illegal activity under Thai law; however, the present study will focus on textual communication rather than individuals. Third is the degree of interaction between researchers and participants; in the study, the researcher observed and collected archival data only. The role of the researcher was unobtrusive, and there was no contact with the participants. Therefore, it was considered to have a low risk of interaction. Finally, participant vulnerability was difficult to trace to the user's background in online communities. In addition, Pantip.com primarily anonymised users by giving them pseudonymous usernames. Therefore, this reduced the risk of identifying users. Considering all of the above, in line with the framework, the present study would suggest that informed consent was not needed from individual participants.

3.4.4.1.5 Trustworthiness

Quantitative researchers apply statistical methods to investigate the validity and reliability of data. However, in qualitative studies, the research process also needs to be robust. The realities in qualitative studies are multiple, unlike in quantitative studies, where beliefs are based on a single reality. How, then, is it possible to determine whether the findings accurately reflect participants' perspectives without statistical tools?

Lincoln and Guba (1995) provided alternative terms called credibility, transferability, dependability and confirmability. Credibility addresses the accuracy between participants' voices and the

researcher's presentation (Nowell et al., 2017). Techniques to ensure credibility include prolonged engagement and observation, data collection triangulation and researcher triangulation (ibid). Transferability refers to the ability to generalise from data. This concern is only case-to-case generalisation or reader generalisation (Nowell et al., 2017). Polit and Beck (2010) stated that it is the researcher's job to provide detailed descriptions, and the reader's job is to apply findings to other settings. A strategy is to provide thick description to help the reader can make their judgment (Creswell and Creswell, 2018). Dependability is the way in which researchers provide a clear research process that readers can follow (Nowell et al., 2017). Field notes that contain reflexivity and records of the data and transcripts are useful tools to demonstrate dependability (Creswell and Creswell, 2018). Finally, confirmability is established when credibility, transferability and dependability are all achieved.

This study ensured trustworthiness by considering credibility, transferability, dependability and confirmability using the following strategies:

1. Field notes: Intensive field notes were written to keep records of the researcher's observations when conducting the research (Kozinets, 2010). Analytic memos and records were maintained from the beginning of the data collection process. The analytic memos were recorded as a small message to code the data and reflection, for example, the study's research questions, code choices, emergent themes and any problems with the study (Saldaña, 2014)
2. Data triangulation is one tool used to demonstrate the richness of data. However, there is a limit to validating with other methods, such as contacting the participants to read and comment on the analysis. As there was no ethical approval to allow such contact, researcher triangulation was used to help maintain the accuracy of the data. Primary analysis by the author (T.K.) was validated through triangulation with three supervisors who have training and expertise in orthodontics, sociology and psychology (S.B, P.B. and B.G.)
3. A thick description was provided to ensure that the findings were easily transferable to other settings.

3.4.5 Challenges in using Netnography

There are several challenges of using netnography, especially in the field of dentistry. First, it is still novel, and there is not extensive literature related to dental public health using this method (Pittman et al., 2017). Second, the completion of "data saturation" might not be achieved, as suggested in the

original as such traditional ethnography (Kozinets and Nocker, 2018). This concern is consistent with Study 1, as it was limited by the existing data in Pantip's database prior to 2019.

Third, there is an "ontological suspicion" regarding participants' memories and identities presented in the online space. This means it is impossible to be certain about how closely their narratives match what has happened; there will always be an element of memory that can be very difficult to "disentangle". Finally, although this method includes the term ethnography in its name, the levels of immersion are different. Netnography enables immersion in the space where participants allow readers to receive certain information (Kozinets and Nocker, 2018), while ethnography integrates the researcher's existence in the field, observations and interviews (Sade-beck, 2004).

Despite these challenges, using netnography in my first study introduced me to the social world of fashion braces. I entered this world with professional bias and a lack of understanding; for example, I would often wonder "Why are they getting these fitted?" and "Do not they know the risks?" Through observation and immersing myself unobtrusively without any physical interaction, I became more comfortable with the practice and investigating it. This way of immersing myself meant that there was a very low risk of me saying something wrong or offending participants (Hewson, 2017; Kozinets, 2015; Kozinets, Dolbec and Earley, 2013). On the other hand, I struggled with the analysis, as I could only interpret the limited storytelling that was available in this medium, and some of the messages were very hard to understand (Kozinets and Nocker, 2018). It became apparent very quickly that this method alone would not be enough to fully understand this complex subject. I realised that I would have to combine it with other methods (in-person interviews) to improve the rigour of my research on this subject.

3.5 Methods

3.5.1 Study design

This project was an observational netnographic study, and the content was analysed by structural analysis with symbolic interactionism. Only heading messages were analysed.

3.5.2 Researcher characteristics

The role of the researcher in this study was unobtrusive, and there was no interaction between the researcher and participants in the online forum.

3.5.3 Setting:

Pantip.com was selected as the field site. Pantip.com is a public website that allows people to read without registration. This online forum was one of the biggest online communities in Thailand, with

almost 5 million hits per day in 2017. A range of discussion topics can be found, including health-related topics in the room named Lumpini park. It has a search feature and works effectively if keywords are spelled correctly. The structure of the forum was previously discussed in section 3.3.4.1.1 (p.92)

3.5.4 Sampling strategies

3.5.4.1 Keywords

Keywords related to fashion braces in Thai were used: "จัดฟันแฟชั่น" (fashion braces), "ดัดแฟชั่น" (a synonym of fashion braces) and "รีไร้เหงือก" (a type of removable fashion braces). These keywords have been common Google search terms for a long time.

3.5.4.2 Inclusion and exclusion criteria

The three keywords listed above were searched in the Pantip.com search feature. They were automatically searched in thread headings and comments. In the first phase, all obtained threads were included if they met the following criteria:

- Threads that included the three keywords related to fashion braces outlined above
- Threads that were posted before 31 December 2019

Threads were removed if they met the following exclusion criteria:

- Threads that did not talk about fashion braces
- Repeated threads

3.5.5 Ethical considerations

This project involved collecting the existing data from the online community, with no communication between researchers and participants. Ethical approval was sought from the university ethics committee at the University of Sheffield. This was granted on 9 May 2019 (Reference Number 024362) (Appendix A)

Overall, this project followed the ethics guidelines for IMR outlined by the British Psychological Society (2017) (Section 3.4.4.1.4). As such, as outlined above, informed consent was not necessary under the condition of ensuring data confidentiality and anonymising participant identities. Therefore, any usernames from relevant threads were substituted with pseudonyms as soon as the project started.

3.5.5.1 Informed Consent

Informed consent was not necessary for this project for the following reasons:

1. Although this online forum can be read by people without registration, users of Pantip.com may not consider their posts to be public. Therefore, the researcher contacted Pantip.com to check the terms and conditions of whether users allowed their posts to be used for research purposes. There was no response from the administration team to repeated emails.

2. In this project, there was no engagement between the researcher and participants. The researcher gathered only secondary, asynchronous data and did not contact the participants.

3. This study collected only asynchronous secondary data; posts had already been published.

4. Appropriate anonymisation was used. The researcher carefully maintained participant anonymity and confidentiality. Participants' identity information was not collected, and their usernames were replaced with pseudonyms. If there were reports of direct quotations, then the quotes were translated from Thai to English. Visual data and facial identifiers were removed.

3.5.5.2 Data storage

The data were stored on the encrypted laptop, and they were stored securely when not in use. The university's Google Drive was used to back up the data every Friday until the project was completed. Data were limited to sharing among the researcher (T.K.) and the supervisory team (S.B, P.B, B.G). Network security involved firewall protection, and no text without anonymisation was printed.

3.5.6 Data collection methods

The data collection process consisted of the following:

1. After all relevant threads were obtained from Pantip.com, they were captured by Ncapture and transferred to Nvivo 12.
2. Information on the threads, such as the title, date of posting, and number of comments, was recorded in Microsoft Excel.
3. During data collection, the researcher initially read each thread to immerse herself in the data and the context. Field notes were noted along the way.
4. All threads and comments were translated into English by the researcher (T.K.) and ten percent were rechecked by one Thai person who was fluent in English. The translated document was transcribed in Microsoft Word as one file per thread.

3.5.6.1 Translation

It is a challenge for cross-cultural researchers to describe the meaning of a phenomenon while conducting a rigorous process of data collection and analysis to present participants' views and perspectives (Regmi, Naidoo and Pilkington, 2010; Arriaza et al., 2015). Strategies of translation can be categorised as 1) literal translation and 2) free translation. Literal translation translates texts word-by word while free translation transcribes only the key themes or a few quotes.

One issue of research conducted in minority communities is ignoring people who cannot speak English (Temple, 2005). Temple (2005) stated that there is no attempt to identify whether there are differences in the meanings of words or concepts. This issue can be resolved by treating translation as "a case of accurate transmission of meaning" (Ibid). She clarified that the correct translation can be checked by techniques, such as back translation and the involvement of professional translators. Regmi and colleagues (2010) added several strategies to improve the rigour of cross-cultural studies including 1) using multiple checks of the audiotape (if interviews), 2) consulting with others to engage in discussion about the meaning of words and 3) using data triangulation by various methods (e.g., participant and researcher).

The rationale for the translation needed in this present study was that fashion braces are an issue in Thailand, and the researcher is a PhD student who is originally from Thailand. Nonetheless, she is studying in the UK; therefore, this study had to be translated into English.

The main translator in this study was the researcher (T.K.). However, one experienced translator (P.R.) was involved in the pilot study, which included ten threads. She is Thai and has experience translating English into the Thai language. The purpose of involving the experienced translator was to check the level of agreement in translation, which would improve the translation skills of the researcher. All heading threads were translated.

Sometimes, words or phrases to describe a phenomenon in one language do not exist in another (Squires, 2009). Therefore, the translation lexicon was developed for this study to ensure the consistency of translation. A literal translation was performed, and if no direct English words for Thai terms could be found, an explanation was written to convey the meaning of the phenomena under consideration and to reduce the amount of missing information.

Retranslation was undertaken at least two weeks after the initial translation. Back translation happened at least two weeks after the retranslation. The process of translation can be seen in Figure 20**.**

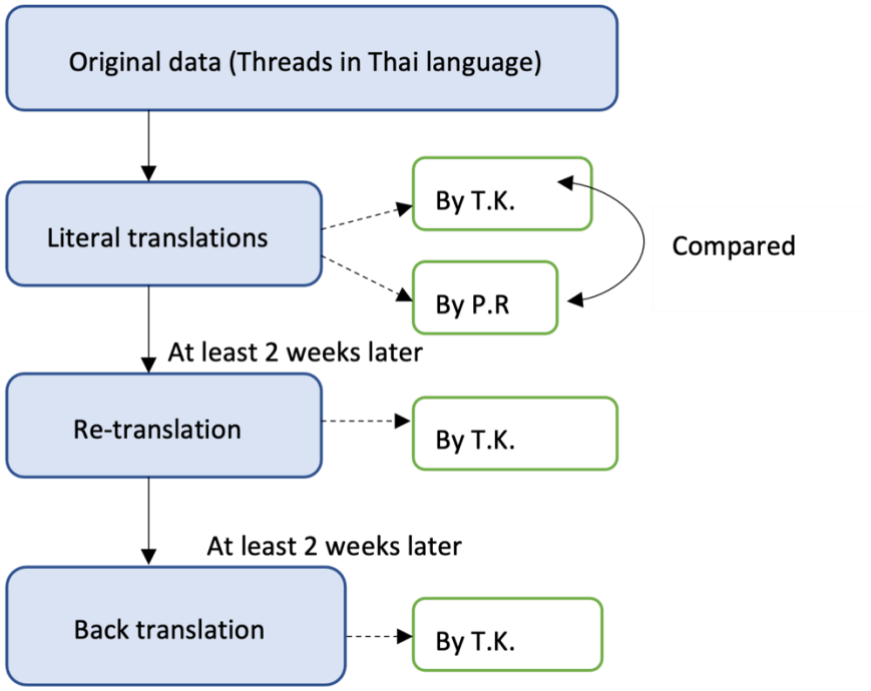


Figure 20 The translation process

The limitations that may affect the results would be the limited budget and time constraints, given that the translator needed to be hired and paid a high price. Meanwhile, a second translator would be needed to verify the accuracy of the translation. To compromise on this issue, the translator was involved only in the pilot study (ten threads involved).

As I am a native Thai speaker and my supervisors are native English speakers, we collaborated to validate the translation as much as possible throughout the process. As my supervisors read my work, they would make note of translations they did not understand; we then set up a meeting, and I explained what I meant in relation to a particular word or phrase. If necessary, we changed the English translation through agreement. If a phrase could not be literally translated into English, I attached descriptions of the Thai context in English (Nikander, 2008; Goitom, 2020). This process continued throughout the analysis and was intended to improve the trustworthiness of the data through investigator triangulation (Creswell and Poth, 2018).

3.5.7 Data analysis

3.5.7.1 Justification of analysis methods: Why I adopted Labov's model

At the beginning of Study 1, I conducted a thematic analysis to analyse the data. This is a common approach found in research on online communities (Coulson and Buchanan, 2008; Attard and Coulson, 2012; Smedley and Coulson, 2017; Rodriquez, 2013). However, during the piloting of the ten threads, I encountered some challenges. First, there were many possible hidden meanings between lines of narrative – a challenge that thematic analysis is not well suited to. Second, several elements in the threads could not be easily captured only by searching patterns and constructing themes. Third, there was extensive storytelling within the threads that contained outlines of events, consequences and participants' evaluations. Through discussions with my supervisors, the decision was made to move to structural analysis or Labov's model. The focus of this method is on the way a story is told (Riessman, 2005). To do this, the reading of the text considers all structural features: abstract, orientation, evaluation, complicating action, resolution and coda (Table 8).

Table 8 Labov's model of structural elements (in Kim, 2019)

Structural elements	Definition
Abstract(A)	A summary of the story and its points
Orientation (O)	Providing a context, such as a place, time and character, to orient the reader
Complicating Action (CA)	Skeleton plot, or an event that causes a problem, as in "And then what happened?"
Evaluation (E)	Evaluative comments on events, justification of its telling or the meaning that the teller gives to an event
Resolution/Result (R)	Resolution of the story or the conflict
Coda (C)	Bringing the narrator and listener back to the present time

This approach allowed me to consider how each story is organised and what this might reflect on participants' purposes, their desires, their meaning, and their lives with fashion braces.

Data were analysed through a structural analysis (or Labov's model) integrated with symbolic interactionism (Section 3.4.1) (Blumer 1969 cited by Handberg, Thorne, Midtgaard, Nielsen and Lomborg 2015). For this examination of user interaction, I employed Mead's concept of self, which sees the self as the product of interaction in which:

> *one does respond to that which he addresses to another and where that response of his own becomes a part of his conduct, where he not only hears himself but responds to himself.* (Mead, 1934, p.139)

As Cousineau (2020) states, through narratives, actors draw on their narratives to construct what things mean to them; in doing so, they refer to their social context and take into consideration the audience. Additionally, stories are generated as a result of social processes, and as Labov has stated, there are interactional techniques for telling stories that themselves contain symbolic structures. Finally, stories have narrative linkages and involve laying out temporal sequences (Cousineau, 2020).

Consistent with this, each thread was investigated to identify narratives while examining each of these features of the meaning of fashion braces for the online community. I looked closely at the language used to describe them, whether fashion braces had featured in social interaction and whether fashion braces had an impact on the wearers as a result. The second stage of analysis looked for variations within the data. Structural analysis was chosen to investigate how their stories were told (Riessman, 2005), especially in four threads with full narratives of their experience with fashion braces.

3.5.7.2 Structural analysis – Labov's model

Each thread comprised two roles: the thread initiator (sender) and the thread responders. The thread initiator or thread owners produce heading messages and may respond in interaction with other users. Replies were written by readers who read and acknowledged the heading messages. The present study focused on heading messages only.

As mentioned earlier, all heading messages were immersively read to explore the types of content in threads that talk about fashion braces. I noticed that thread owners commonly used Pantip.com to tell stories, ask questions, and share their experiences.

How Labov's model was adapted and applied in the present study

When I began adopting Labov's model (Labov 1972 cited in Patterson 2011) to the current work, I found that some contents did not fit the original elements in Labov's model. There were some contents whose purpose was to encourage interaction or communication produced by the thread's owners to other Pantip members. However, this purpose was not defined by the original structural analysis approach within Labov's model. A thread in Pantip.com consists of a title, tags and contents. I divided the text up following Labov's model elements following the work of Arendholz (2010), who demonstrated how Labov's model could be used in online discussion boards.

An example given in the table below (Table 9), from the FB385 thread in my study, is a typical structure found in the writing style of Thais on Pantip.com. The text of each thread was divided into clauses or sentences.

Adrendholz (2010) suggested labelling the titles as “Abstract” (A) because it tends to summarise the context and get attention from users. Therefore, I identified titles and tags as “abstract”. This is because a “tag” is not part of a story but is a function that reflects the thread owner’s perception of the area into which their threads fit. Orientation (O), Complicating Action (CA), Evaluation (E), Result (R) and Coda are maintained following each structure’s description in Labov’s model (see Table 9 line 4–13,15–16).

I found some exceptional content that did not fit Labov’s model, such as lines 1–3 and line 14. Line 1 and line 14 are messages directly pointing to readers and not involving the core narrative. Adrendholz (2010) also encountered a similar issue in her work. She suggested an additional element called “Structural statements” (SS), which are hearer/reader-oriented clues about the narrator’s process of telling the story. Therefore, I identified lines 1 and 4 as “Structural statements”.

Lines 2 and 3 were also not part of the story, but their purpose was to ask questions and request information from other members. These lines also did not belong in any part of Labov’s model and could not be considered a narrative or story. However, I felt it was important to label such threads as “Information seeking” (IS). Doing so allowed me to see the threads in a well-rounded way, focusing not only on their stories but also the range of information on which people who are interested in fashion braces focus. It is also important to note that such statements elicit the kinds of meaning referred to in symbolic interaction because they are responses to what others may or may not think. They are reflections of the context in which the writers of the narratives feel they are narrating.

Table 9 The heading message from FB385 (a thread in my study) applying Labov's model

Line	Contents	Structure
Title	I really want to know about orthodontic treatment. Could you share your experiences of getting braces and the cost of treatment?	Abstract (A)
Tags	no tags	A
1	I have never created a question like this before, if I make a mistake, please let me know.	Structural statement (SS)
2	I want to get details about orthodontic treatment and how to look after teeth before the treatment.	Information seeking (IS)
3	Do you have any good advice?	IS
4	I used to get fashion braces before	Complicating action (CA)
5	At that time, everybody wanted to be wire teeth trendsetter (literal translation – it was a modern phrase used for a teenager who has braces and is considered a trend follower).	Evaluation (E)
6	At that time, I was around 14–15 y.o.	Orientation1 (O1)
7	I didn't know anything,	E1
8	and I just wanted braces to follow a trend like others.	E1
9	But when braces were removed, there were consequences such as tooth spacing, a lot of calculus and glue stains.	Result1 (R1)
10	Now, I am 20 y.o.;	O2
11	I think it is the right time to get orthodontic treatment.	E2
12	From the beautiful teeth became messed up teeth.	E2
13	Therefore, I want some knowledge from those who used to get fashion braces and needed orthodontic treatment later about how to prepare myself and how to look after teeth.	IS
14	** This thread might be nonsense.	SS
15	But I want to share with you my experience of fashion braces.	Coda
16	I can say that if I could go back in time, I wouldn't do that.**	Coda

In addition, we can see that there is another kind of context that may be considered a "Coda". For example, in FB5 (Table 10) from lines 27 to 34, the thread owner brings the reader to the present time and (see line 29–34) warns the public to see her case as an example. I decided to categorise such cases separately in the present work to see this kind of information across the data set. These contents were

labelled as “Public accounts”; such accounts serve to warn others of the risks associated with fashion braces and indicate that the storyteller feels not enough is being done to tell others about these risks.

Table 10 A part of heading message from FB5 applying structural analysis (Lines 21–34)

Line	Contents	Structure
21	From one who had good looking teeth, but because of the small size of teeth, the appearance radically changed.	E2
22	When I saw what happened to her, I was afraid of wearing them.	CA2+E2
23	I checked my teeth; I found the massive gaps between lower teeth. It was very large and I was shocked.	CA1+E1
24	My teeth were transformed and because my lower teeth were small, the change was more obvious.	E1
25	From a person who didn’t need orthodontic treatment to those who need the treatment	E1(comparative)
26	and need to withstand the pain.	R1
27	It is just because I wanted to be similar to friends.	Coda (repetition)
28	Just because of the short-term desire for beauty.	Coda
29	I really want to warn people who are seeking fashion braces or wearing fashion braces, e.g., the fixed type, retainer with a plate or retainer without a plate.	Coda(Public account)
30	Please stop wearing them; otherwise, your teeth will be damaged.	
31	Orthodontics is not easy; even some dentists can’t provide them. It needs to be practised by orthodontists.	
32	You shouldn’t take the risk of the low quality of tools and equipment, as well as the providers who aren’t dentists.	
33	Additionally, those who get retainers without the experience of orthodontic treatment, you shouldn’t wear them.	
34	That’s because orthodontic treatment can’t skip the treatment procedure; otherwise, there will be negative consequences.	

3.6 Results – Part 1: General information about the threads

This section shows the results from the search process, descriptive details of the threads and a summary of the types of talk about fashion braces on online forums.

3.6.1 Search results

Keywords related to fashion braces in the Thai language, "จัดฟันแฟชั่น", "ดัดฟันแฟชั่น" and "รีไร้เหงือก", were searched on the Pantip.com search function. No refining of the posted time was applied, but all data were collected up until 31 December 2019. As a result, 474 threads were retrieved at the preliminary searching stage. First, all threads were assigned the names from FB1–FB474 (FB stands for fashion braces). Second, all threads, especially heading messages, were reviewed to determine whether they met the inclusion criteria. Of the 474 threads, 195 met the inclusion criteria and were included in the study (Figure 21). A total of 279 threads were excluded for the following reasons: 138 threads talked about orthodontic treatment, 87 threads were considered irrelevant, it was unclear whether 8 threads mentioned orthodontic treatment or fashion braces, 5 threads talked about other dental procedures, and 2 threads' heading messages had been deleted, so the researcher did not get any information from them. Thirty-nine threads were duplicates.

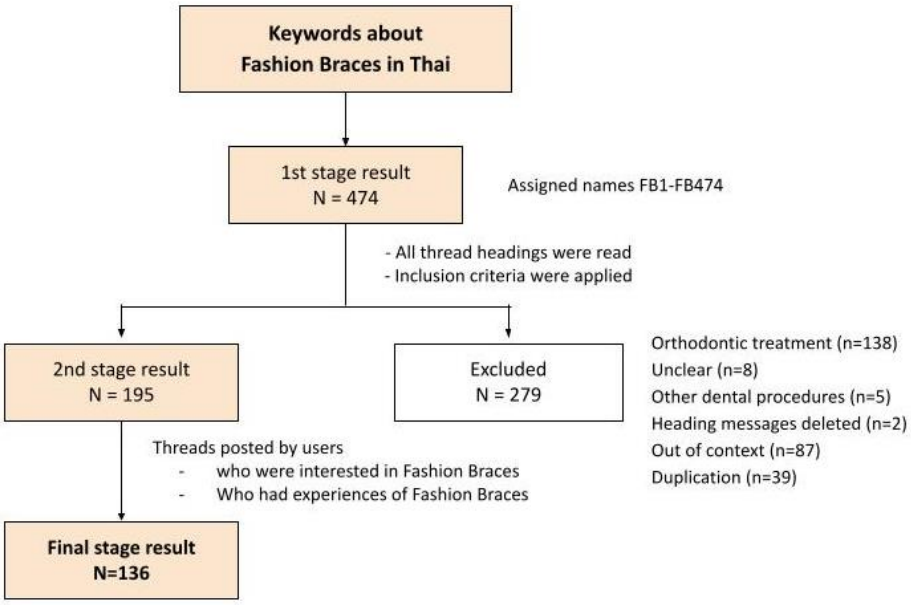


Figure 21 Thread selection process

All threads that discussed fashion braces were read again to identify the thread initiator's purpose. If they were written by users who were interested in wearing fashion braces or those who had experience with fashion braces, these threads were included in the final stage (N=136) (Figure 21).

Fifty-nine threads were excluded at the last screening stage because they were posted by a person who did not want and did not wear fashion braces. Rather, they were aimed at blaming, educating, and expressing emotions towards fashion brace wearers. The table below (Table 11) shows the characteristics of threads which were included in the second and third screening stages. Four forms of fashion brace talk emerged while the researcher conducted the thread selection process.

Table 11 Characteristics of threads which talked about fashion braces in the second screening phase

Types of users	**Users who wanted to be fashion brace wearers**	**Users who wore fashion braces**		**Outsiders**
Purpose of talk	"I want fashion braces"	"I need help"	"How I escaped from fashion braces"	Others
Description	**Information seeking**	**Help-seeking**	**Sharing experiences**	**Ranges of contexts**
Types of users	No experience with fashion braces	Have experience with fashion braces		Not a person who wants/has worn fashion braces (outsiders)
No. of threads	97	35	4	59
Common structures within threads	1. personal desires 2. information seeking	1. personal desires 2. wore fashion braces 3. consequences 4. help-seeking messages	1. personal desires 2. wore fashion braces 3. consequences 4. visited dentists 5. messages to the public	- Blaming - Gathering information - Asking opinions Feelings towards wearers - Educating
Decision at the final stage	Included	Included	Included	Excluded

3.6.2 Descriptive details of the threads

Due to the limitations of the Pantip database, threads posted prior to 2012 could not be accessed. As a result, the present study included threads that were posted from 14 January 2013 to 28 December 2019.

Figure 22 included the number of threads that talked about fashion braces that were posted during this time frame. The different colour bars represent the topics discussed in the threads: seeking information, seeking help, sharing experiences and the total number of threads, respectively. In total, only 7 threads were posted in 2013. The volume of posts increased to 28 in 2014 and reached a peak in 2015 (N=31). Since 2015, the number of threads has decreased, with only 11 threads in 2019. The information-seeking threads (blue bars) had a similar pattern to total threads, peaking in 2015 (N=22), following which they decreased to 8 threads in 2019.

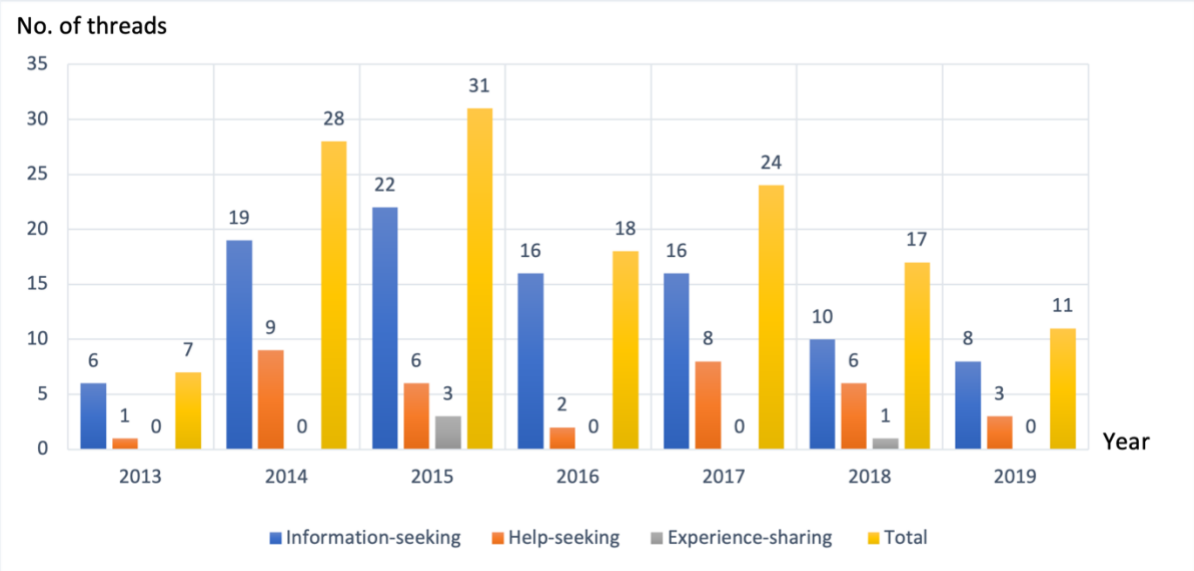


Figure 22 Number of threads about fashion braces posted from 2013 to 2019.

In terms of the factors or events that may affect the decrease in threads posted on Pantip.com over time, there might be three possibilities: (i) people switched to other platforms, such as Facebook; (ii) several media and Facebook pages attempted to educate people about the problems with fashion braces; and (iii) fashion braces have become less popular. Anecdotally, during the carrying out of Study 2, there were people arrested in Thailand who provided fashion braces, and at the same time, a number of Facebook pages selling fashion braces were seen to have very high follower counts.

3.6.3 Talk about fashion braces

Across the data set, threads could be categorised into three groups according to the purpose of the talk, as described in Section 3.6.1 and Table 11. The three purposes of fashion brace talk were information seeking, help seeking and sharing experiences.

3.6.3.1 Information seeking

Ninety-seven of 136 threads (71.32%) were identified as this form of talk. The threads were created by those who expressed their desire to get fashion braces. A common phrase found in this group was, for example, "I want fashion braces" and other expressions that could be inferred to mean that they want fashion braces. They might or might not tell their personal background. The three threads below are examples of some messages that could be categorised as "Information seeking".

> *"I want to know where I can get fashion braces in the MeanBuri market. The one that is not too expensive." - (FB17)*

> *"Anyone who has proper tooth alignment but is wearing retainers, please let me know. Thank you." - (FB274)*

> *"I am seeking fashion brace shops in Chiangmai. Where can I find them? If anyone knows, please tell me. I want to change rings. My line ID is XXXX." - (FB154)*

This section showed that users who were inexperienced with fashion braces requested specific information from other users as to how to approach the world of fashion braces. They often requested information to assist them in making decisions and to gain insight about premises providing fashion braces. These findings demonstrate, following the symbolic interactionist framework, that much of the natural, unmediated talk about fashion braces on Pantip.com indicates curiosity about how to get them. Such threads do not qualify as full narratives, but as Cousineau (2020) indicates, they do reveal something about the social context within which they are being made. In this sense, there is a significant interest in having fashion braces installed, and many posts indicate a wish to locate where to get them (desire). This shows that there is a degree of demand for fashion braces and that the internet is one way to satisfy this demand. The internet is a medium of communication for users to achieve their desire to have fashion braces. The next section explores help seeking threads from experienced wearers who sought help online.

3.6.3.2 Help seeking

In contrast to information seeking, 35 out of 136 threads (25.73%) were posted by those who wore fashion braces and were now seeking help. Such users were facing the consequences of fashion braces and used this online community to obtain solutions for their problems. Their stories often contained

their past personal desires, how they lived with fashion braces, the consequences of fashion braces and help-seeking messages. Below are examples from a few threads relating to help seeking:

> *"My teeth are ruined because of fashion braces. I wish I could go back in time. When I got fashion braces, I felt gorgeous. After wearing them for 2–3 years, I noticed that my teeth were hideous. […] Does anybody have experiences like this? Would it be better if I got new braces (orthodontic treatment)?" - (FB221)*

> *"…When the braces were removed, it was obvious that I had tooth decay on three teeth. I wasn't concerned about it until my friend told me that it is dangerous and I shouldn't leave this issue for too long. […] I want to know if my teeth can be treated. I don't dare to smile. Is the cost of treatment expensive?" (FB18)*

These help seeking threads often were related to wearers of fashion braces who wanted to "escape" the world of fashion braces. The online community offered them a space to seek help without revealing their identity. In addition, to gain useful information from members of the online community who might have experiences of fashion braces and/or who were health professionals with expertise in the area. Such threads act as a warning to others who might be thinking about getting fashion braces and reveal a temporal pattern of before and after: a point in time when the storyteller was "ignorant" or "innocent" and "unaware" of the "dangers" of fashion braces and their subsequent plea for help. This narrative structure became increasingly important, as shown in components 4, 7 and 8 in the Blumerian approach (Cousineau, 2020, p.721–722)

3.6.3.3 Sharing experiences

The third type of threads were those in which the posters shared experiences as to how they managed the consequences of fashion braces. These were posters who had successfully escaped the world of fashion braces. Only four threads fit into this group and were analysed in Section 3.7.3

3.6.3.4 Other purposes

Of the 195 threads, 136 were categorised as "information seeking" (N= 97), "help-seeking" (N=36) and "sharing experiences" (N=4). These were posted by people who might be termed "insiders" – either those who wanted to be a part of the world of fashion braces, as fashion brace wearers and as those who are or were already wearers. On the other hand, 58 threads were posted by those who might be termed "outsiders". These were posters who did not desire fashion braces but initiated threads for purposes such as educating, seeking knowledge and/or blaming those wearing fashion braces. As the research aim was to explore threads relating to the inside world of fashion braces, the latter threads were not the focus and were not analysed.

What is interesting about the stories of insiders' threads is the timeline. They often went from seeking information to entering the world of fashion braces by becoming wearers, to describing their lives with fashion braces, to describing the consequences of wearing fashion braces and finally to wanting to escape the consequences and indeed the world of fashion braces. In the next sections, these stages are highlighted and discussed, from the seeking of information to escaping the fashion brace world: that is, the journey of fashion braces.

3.7 Results – Part 2: The journey of fashion braces

As mentioned earlier, thread initiators could be those who were deciding to get fashion braces, those who had decided but did not know where to access fashion braces, those who were seeking help and those who escaped from fashion braces. By connecting these participants' narratives, different stages of life with fashion braces were observed, which were categorised as follows (Figure 23):

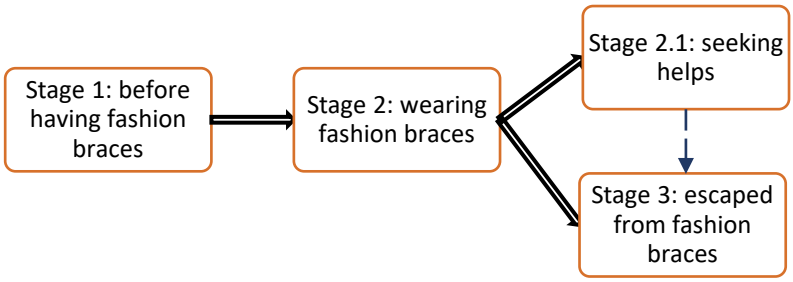


Figure 23 Stages of living with fashion braces

Stage 1, life stories before having braces, involved three main themes: personal desires, the pre-decision phase and information seeking.

Stage 2 was challenging to present separately, largely because in Stage 2, participants were current or past fashion braces wearers in Stage 2.1, the majority of whom were not happy with their fashion braces. Given this, Stage 2 was considered a transitional phase to Stage 2.1 or 3. Stage 2.1 was the moment that people posted on Pantip.com to seek help with their fashion braces, as they had caused problems that they did not know how to deal with. In contrast, people in Stage 3 had escaped from their fashion brace problems.

The stories from the 197 threads could be reorganised by stages of living with fashion braces. The stories retrieved from the thread initiators stories had different communication styles and various lengths. Their stories tended to be dynamic and to flow from one event to another. This linked with several components in the Blumerian approach (Cousineau, 2020, p.721):

- Stories are told or written for some type of audience
- There are interactional techniques for showing story preferences
- Stories are symbolic structures
- Stories include narrative linkages
- Stories follow temporal sequences

The following section is therefore be presented in three stages based on the above explanation:

Stage 1: Life before fashion braces (Section 3.7.1)

Stage 2: Life with fashion braces (Section 3.7.2)

Stage 3: How I escaped from fashion braces (Section 3.7.3)

3.7.1 Stage 1: Life before fashion braces

This stage included themes that emerged from the thread headings that indicated that the threads' initiators were in the stage before having fashion braces. There were three themes, as shown in Table 12.

Table 12 Themes and subthemes in Stage 1: Life before fashion braces

Stage 1	Themes	Subtheme
Life before fashion braces	1. Personal desires	1.1 Fashion braces as a fashion object 1.2 Fashion braces as objects distracting from body image dissatisfaction 1.3 Fashion braces as an alternative to orthodontic treatment 1.4 Orthodontic treatment could not meet desires
	2. Pre-decision process	2.1 Information asymmetry 2.2 People who influence decision making 2.3 Afraid of dentists and dental treatment
	3. Information seeking	

3.7.1.1 Theme 1: Personal desires

"I want fashion braces because…" This statement was commonly found in threads posted by future wearers. Their expressed desires were personal. According to Labov's model, individual desires were labelled as evaluation (E), as it is people's internal evaluation that leads them to want fashion braces. Personal desires for fashion braces could be categorised as follows:

- Fashion braces as a fashion object
- Fashion braces as objects distracting from body image dissatisfaction
- Fashion braces as an alternative to orthodontic treatment
- Orthodontic treatment could not meet their desires

3.7.1.1.1 Subtheme 1: Fashion braces as a fashion object

Fashion is defined in the dictionary as "the prevailing style (as in dress) during a particular time" (Merriam-Webster). In contrast, some academics see fashion through multiple perspectives, which include collective interactions. For example, Kaiser and Green (2021) stated that "It is a social and embodied process of negotiation and navigation through the murky and yet-hopeful waters of what is to come"**.**

This would fit with the people in these threads who sought fashion braces because they wanted to become someone else. A few thread initiators said that the braces acted as clothing to represent their style:

> *"My teeth are in good alignment. But I am seeking something to add for decoration." (FB51)*

> *"I want to wear fashion braces just for photo shooting." (FB2)*

This shows that fashion braces fit the thread initiators' image of their future selves, be it in fashion or decoration. Several thread initiators desired fashion braces as an object for fashion purposes:

> *"Well, I want fashion braces to follow a trend." (FB9)*

> *"I wonder if I can wear retainers without undertaking orthodontics before. I just want to wear them to be fashionable." (FB78)*

In this way, being beautiful, cool and a trendsetter could be achieved using materials according to trends in society. As such, it might not be difficult to be convinced to start the journey of getting fashion braces: this indicated Component 1 of the Blumerian approach, which states that "Social actors use stories to construct the subjective meanings" (Cousineau, 2020, p.721).

> *"I saw seniors wearing braces, and I feel they are beautiful. Then, I want to do too…" (FB1)*

> *"My first time, I got it because I followed my friend. I came along with her while she installed them, then she convinced me, and I decided to get them too…." (FB185)*

> *"4-5 years ago when I was a high school student, I really wanted braces because I saw others got them, then I wanted them too…" (FB135)*

Although some users (who were "outsiders", i.e. not fashion brace wearers) warned in their posts about adverse consequences, these initiators appeared not to listen, as they were interested in wearing something that was so popular:

> *"…When the fashion braces were popular, I thought it was nice, and I wanted to do that too. Some people said that fashion braces are dangerous but I found that a lot of people had fashion braces and they looked cute…" (FB281)*

The posters expressed their desire to have fashion braces because they hoped that braces could improve their confidence. Therefore, fashion braces were chosen as fashion accessories and a symbol of being "on trend". From the perspective of symbolic interactionism, they could promote a better future self.

The above quotations indicate the benefit of using a symbolic interactionist framework. Looking at the interactions within threads allowed me to acknowledge the roots of *desire* and constructed meanings. This is consistent with the Blumerian approach; for instance, interactions between social actors and social interactions in thread initiators' narratives contributed to the development of their interpretation of the meaning of fashion braces (Component 1). This shows that the narrations were written to an audience that they assumed would understand the *desire* for more decoration, to be fashionable and to look older but also maintain their youthfulness. The stories were also communicated to a limited group of members (Component 3); in this respect, they indicate boundaries between a known audience (their friends who convinced them) and those who might "disapprove". Finally, the stories also have roots in social processes between social actors (Component 4); this shows the tension between those who are on the "inside" and those who think fashion braces are "dangerous". Participants are aware of the risks of wearing fashion braces and show this, but they want them nonetheless (Cousineau, 2020, p.721). They demonstrate their resistance to the dominant narratives associated with health care professionals. This is important because it shows that the desire for fashion braces is the principal driver of consumption.

3.7.1.1.2 Subtheme 1.2: Fashion braces as objects distracting from body image dissatisfaction

Body image refers to a person's emotional attitudes, beliefs and perceptions of their own body (Dubey and Sharma, 2016). Being unsatisfied with their body image impacted several of the thread initiators, often because of tooth size and shape:

> *"Well, I don't have an overbite problem, but the front teeth are big. They aren't that ugly but I don't feel confident when I smile. So, I want the removable retainers." (FB44)*

"I really want braces, but my mom told me that my teeth are beautiful. My teeth look like Dracula's one. Two upper canines have sharp cusp tips. In other words, my teeth are like dog teeth." (FB129)

"I have long teeth, and there was a little bit of protrusion. I then sought fashion braces and wore braces for a while." (FB239)

Interestingly, thread initiators described that they wanted fashion braces for hiding black teeth:

"I had dental caries on two front teeth. They are black. Although I have got the treatment, the black remains. I don't dare to smile. Somebody mentioned that I lost my self-esteem. So, I want retainers to hide the black (teeth) from people." (FB324)

"I decided to get fashion braces because I want to hide caries on anterior teeth." (FB186)

For some thread initiators, fashion braces were a short-term solution to improve their overall looks:

"…I want fashion braces because I just got a short bob haircut and my face looks silly. I want fashion braces to have a better look." (FB170)

"If my teeth look good, but I want to get braces to make me better looking, what should I do? Is it true that fashion braces are dangerous?" (FB82)

The above examples showed that initiators' dental and facial appearance might affect them in a number of ways, including body dissatisfaction and low self-esteem. Often, thread initiators suggested that having braces was to distract others from their appearance.

3.7.1.1.3 Subtheme 1.3: Fashion braces as an alternative to orthodontic treatment

In some ways, this theme is connected to the subtheme above (section 3.7.1.1.2), but in this subtheme thread initiators wanted fashion braces to correct problems with their teeth. They could not have orthodontic treatment for several reasons, including a limited budget, limited orthodontic services and a lack of support from parents to get orthodontic treatment.

Many users said that unaffordable orthodontic treatment was the primary reason for them to get fashion braces and that fashion braces were readily available.

"I want braces, but I am saving my money. I am curious about wires and retainers, which are sold everywhere. If I get them but have never had orthodontic treatment before, would they operate like what orthodontic treatment does?" (FB286)

"I have crooked teeth, but real braces are expensive. Then, I am going to get braces from a dentist at a clinic; the ones cost over 3,000 THB. I don't want them for fashion, but I expect straight teeth." (FB308)

On the other hand, a few users said that they faced issues regarding unobtainable orthodontic services, so they decided to get fashion braces instead. One, for example, mentioned the long waiting list for orthodontic treatment and that she would seek fashion braces while on the waiting list:

> *"My dentist said I need to wait for at least one year or maybe one year and a half. I don't want to wait that long. I want to know if I got fashion braces before, then asked the dentist to remove them later, would it be okay?" (FB3)*

Alternatively, there were some threads in which the initiator stated that she originally wanted to get orthodontic treatment but had not been supported by parents, and as such, she saw fashion braces as an alternative.

Others who were unsatisfied with their dental appearance wanted fashion braces that would serve the same function as a standard orthodontic braces to fix their concerns.

> *"I never had the experience of getting braces or undertaking orthodontic treatment. Can I wear retainers without that before? I don't want them for fashion, but I have tooth problems a little bit. My upper teeth are protruded." (FB195)*

The above person misunderstood the function of retainers and possibly saw retainers as a cheaper orthodontic treatment. Moreover, they were seeking "retainers" without prior orthodontic treatment. This point is interesting: why not get orthodontic treatment but seek retainers? Did they see these retainers as fashion braces? In these cases, thread initiators did not seek fashion braces for fashion, as its name would imply. Rather, fashion braces presented fewer barriers in terms of availability and affordability, allowing them to get braces without parental permission.

3.7.1.1.4 Subtheme 1.4: Orthodontic treatment did not meet their desires

While some people shifted from getting braces from dentists to fashion braces, many members revealed that they were seeking fashion braces or fashion retainers during orthodontic treatment or after treatment.

3.7.1.1.4.1 Lack of satisfaction with the appearance of the brace or teeth during conventional orthodontic treatment

There were many reasons that users sought fashion brace products in addition to orthodontics, sometimes because of dissatisfaction with orthodontic braces. A few thread initiators asked whether it was possible to get fashion brace bands, for instance:

> *"I get real orthodontics. Can I use fashion brace bands?" (FB8)*

"I have a problem with big gaps between teeth in the front teeth area. I don't dare to smile. It is a big gap. I hate it. Last month, a dentist used chains at the upper teeth to wrap the teeth, and they were in the position he wanted. This month, he used an o-ring again, which created a gap between teeth … My teeth had no problem at all, but the longer I undertake orthodontic treatment, the bigger the spacing. I feel sad. I am thinking about buying elastomeric rings and changing them myself. Would it be possible?" (FB261)

It can be seen that the thread initiator of the first quotation might prefer the bands used in fashion braces, which normal orthodontic treatment could not offer. However, it is unclear why because this was the entire message. It can only be assumed that fashion brace bands offer more colours or different looks. In the second quotation, the patient might have expected a good dental appearance during the course of treatment; they sought fashion brace rings as a first aid to fix the problem.

3.7.1.1.4.2 I don't want to wear (normal retainers) – After treatment

Several users did not want to wear traditional retainers for several reasons, including so they could maintain braces, so they could have colourful retainers and the annoyance of wearing retainers. The examples below show that members wanted to continue wearing braces after the treatment:

"I finished the orthodontic treatment, but I want fashion braces because I want to continuously wear braces. Could I do that? Would my teeth be okay? … but I want to wear braces. Or should I order retainers with brackets 555 (hahaha)? I want to have a cute smile like I did." (FB21)

" I want to continuously wear braces because I don't want to wear retainers. My dentist said there is a chance of teeth collapsing, and if I want to keep braces in my mouth, I need to change (elastomeric) rings every month. It would cost me 1,000 THB for each visit. Is it expensive?" (FB104)

It is interesting, especially in FB104, that the thread initiator did not want fashion braces but want to keep braces in the mouth for fashion.

In the example below, the thread initiator wanted retainers with brackets so that she will look like she is undertaking orthodontic treatment.

"I finished orthodontic treatment and am wearing retainers. But I saw on the internet that there are retainers with brackets… But I really want to make that one with dentists… I want to ask you if every dental clinic can make ones with brackets. It is something like this.

" (FB294)

Another thread initiator, who was undertaking orthodontic treatment, sought information about "retainers with coloured-tubes".

"Well, my orthodontic treatment is almost done. I saw people wear retainers with tubes; I want to have one like them. But mostly, they [retainers with tubes] are used, like for wearing as a fashion…. I am here to ask if retainers with colourful tubes can be worn after orthodontic treatment..." (FB180)

Interestingly, FB180 wanted the look of fashion braces, while previous examples from other thread initiators sought a look that was identical to real orthodontic braces. So, wearing fashion braces in these examples was undertaken to belong to something bigger. Fashion braces, therefore, connote a status thread initiator could not have otherwise had.

So far, the thread initiators sought fashion braces after orthodontic treatment to achieve a desired look. However, a number of other thread initiators explained how retainers impacted their lives; therefore, they hoped that fashion braces might solve problems that had occurred with retainers, as well as to have the appearance of braces.

"…The dentist told me to wear retainers to maintain tooth positions. But I don't like retainers; I felt annoyed as retainers need to be taken off when eating. I want to ask you: If I don't wear retainers, should I get fashion braces instead? Would it make my teeth tilt?" (FB374)

"…But it is very tortured when I wear retainers. I am seeking information on whether it is possible that I undertook real braces and get fashion braces later. Please help me." (FB410)

The thread initiators discussed so far had a number of reasons for seeking out fashion braces, but what was key was that the online community seemed to offer a space for all who were interested in fashion braces to seek more information. These desires fit the concept of the market; when objects are desirable, there is a market for them, as in supply and demand. This is the key dimension of the need for a market.

3.7.1.2 Theme 2: Pre-decision factors

In addition to personal desires, many other factors were discussed within thread initiators' stories or threads that were part of the pre-decision process.

3.7.1.2.1 Subtheme 2.1: Information asymmetry

Information asymmetries occur when one person in a transaction has more relevant information than others (Guinness and Wiseman, 2011). Many posters in the community had a lack of knowledge of the fashion brace world and were interested in finding out knowledge from more experienced wearers before making a decision:

> *"I just wanted to ask if I never get orthodontic treatment, is it possible to get retainers? Will they make my teeth worse? If it does, I won't wear them. But if it does not, I may wear them." (FB78)*

It became obvious in many of the threads that some posters were taken advantage of by providers. For example, FB135 had no knowledge about fashion braces, and as such, they believed in the information given to them:

> *"I used to have three types of fashion braces… At that time, I didn't know what retainers were. The seller told me that this type could be removed, which was different from the glue one. My thought was they were different types; this one might be safer." (FB135)*

Friends also played a role in the information asymmetry, which convinced the users to enter the world of fashion braces. For example, the thread below (FB168) showed that information was passed from veterans to rookies, whether or not it was accurate:

> *"My friends get fashion braces but claimed there was no danger." (FB168)*

Sometimes the advice was a misunderstanding, in this case, about the function of retainers:

> *"…my senior told me that if I don't want my teeth to be more protruding, I should get retainers to prevent the larger overbite. At that time, I craved them but I didn't know where I could get them." (FB5)*

It can be seen that information asymmetry is an important factor that may lead people to the world of fashion, especially when the poster who desired fashion braces lacked knowledge of them. Once the person began their journey, they appeared to listen only to the information that matched their desires, especially from peers.

3.7.1.2.2 Subtheme 2.2: People who influence the decision-making process

Friends and peers

It appeared through the threads that peers convinced users who wanted fashion braces to get fashion braces in both direct and indirect ways. Persuasion was a direct way in which they were verbally convinced by their peers to get fashion braces:

> *"My first time, I got them because I followed my friend. I came along with her while she installed them, then she convinced me, and I decided to get them too..." (FB185)*

In the example below, fashion braces worked for her sister to correct dental problems; therefore, she decided to go for fashion braces:

> *"I got fashion braces because my front lower teeth were in front of the upper teeth [anterior crossbite]. My sister's teeth were like mine. She had fashion braces, and, later, her teeth were in the proper position. Therefore, I decided to get fashion braces." (FB151)*

In this example, her interaction with her sister generated the idea that fashion braces could be an appropriate solution for her own perceived problems. In many of the posts, peers suggested getting fashion braces for their friends, as they had seen no adverse effects.

> *"I have friends who had fashion braces around my neighbourhood; I saw they wore them, and nothing happened. My friend, then, decided to get fashion braces..." (FB11)*

In this way, peers and friends tended to play a role in recruiting people into the world of fashion braces. However, it must be noted that, given the online community, stories of peers who were against fashion braces might not be posted, thus telling only one side of the story.

Parents and family

In some threads, it appeared that parents unintentionally pushed their kids to get fashion braces by refusing to support them in getting orthodontic treatment because they felt it was unnecessary:

> *"…If you ask me, why don't I select the real orthodontics? I asked my mom, but she said that my teeth are fine…" (FB1)*

"I really want braces, but my mom told me that my teeth are beautiful… And if my teeth are beautiful, but I want fashion braces, would it be okay?" (FB129)

In other cases, parents felt orthodontics were expensive:

"I want to get braces, but my teeth are normal. I told mom, but she said it was expensive." (FB390)

This meant that fashion braces became the alternative to orthodontic treatment. Regarding orthodontic treatment, there was a conflict in the threads between those getting fashion braces to use as orthodontic treatment and those who wanted fashion braces so they could appears to have orthodontic braces. Fashion braces are braces that people believe provide the look of braces but not the function of braces. In this way, there was a separation between the materials and the brace function.

3.7.1.2.3 Subtheme 2.3: Afraid of dentists and dental treatment

Some users revealed that they were afraid of visiting dentists and receiving dental treatment, which led them to consider fashion braces instead.

"…My mom suggested me to seek genuine orthodontics, but I was scared of pain (I didn't really think about the consequences at the time)..." (FB281)

"I had never thought about getting braces from dentists. I was a person who was afraid of dentists. My imagination was that if I went to the dentist, I would have a tooth pulled and scaling, and it would hurt..." (FB135)

It is interesting that thread initiators thought fashion braces would create less pain than orthodontic treatment. In the following posts, we can see examples of the fear of orthodontics being used as a point of comparison and, as such, justification for fashion braces.

3.7.1.3 Theme 3: Information seeking

Sections 3.7.1.1 and 3.7.1.2 illustrated threads that detailed aspects of getting fashion braces and the desires and factors influencing the thread initiator's decision-making. In the next section, the threads relating to information seeking are discussed.

Wish-to-know-information can be divided into three types: (Table 13)

1) Seeking information to make a decision
2) Requesting second opinions
3) Decided but need more information

Table 13 Types of information seeking by those who are not yet fashion brace wearers

Purposes	Questions/ Information seeking	Thread No.
Seeking information to make a decision	What are fashion braces?	119
	Can fashion braces cause pain?	119
	Are retainers with tubes medical ones or only fashion?	180
	Would fashion braces change my teeth alignment?	374
	Are fashion braces dangerous? What are the advantages and disadvantages of fashion braces?	9, 2, 8, 47, 51, 78, 168, 180, 251, 329, 390
	Can dentists make retainers/fashion braces for me?	3, 24, 44, 41, 87, 176, 324
	How much are fashion braces/fashion retainers? Are they expensive?	104, 119, 149, 176, 390
Requesting second opinions	Should/can I get fashion braces?	1, 13, 64, 77, 78, 123, 177
	Which type of fashion braces should I get?	2, 21
	Would it be okay to get fashion braces?	104, 129
	Would it be possible to get fashion braces if…?	191, 350
Decided but need more information	Where can I get them?	6, 10, 17, 23, 46, 95, 149, 154, 225, 229, 294, 359
	How to wear them?	390

On the one hand, several questions, as illustrated above, showed that the thread initiators had limited knowledge of fashion braces, including the consequences of fashion braces and the distinctions between fashion braces and standard orthodontic treatment. On the other hand, it seemed that the thread initiators hesitated over getting fashion braces; therefore, they came to the online community for confirmation. While some thread initiators showed their stance to go for fashion braces, they had little knowledge in terms of accessibility.

This section showed that the online community could be a place of opportunity to educate people and guide them to change their minds. Alternatively, this could provide a platform for misinformation. Biased information could have been seeded for the benefit of fashion braces vendors, which was termed information asymmetry (Section 3.7.1.2.1)

Summary

The life before fashion braces category reflected thread initiators' lives before getting fashion braces on the online community. Based on the thread, initiators can be termed customers or as

demonstrating demand. These partly fit into the informal market framework (Section 2.6.1), especially the demand for fashion braces and how the internet plays a role in their existence.

Thread initiators posting about their need for fashion braces with personal rationales that motivate them can be seen as a desire to obtain fashion braces (Section 3.7.1.1), alongside knowledge seeking. Several factors that may push people towards fashion braces were discussed.

Thread initiators in this stage leave a gap about how information can be manipulated. According to the information-seeking questions (Section 3.7.1.3), some people who meant well or were against fashion braces could fill the knowledge gap with useful information to convince others not to get fashion braces. Those who attempted to recruit people to the world of fashion braces or convince them of the fashion brace business's advantages could instead plant misinformation, known as information asymmetry, as seen in Section 3.7.1.2.1, which was one of the factors that could push people to seek fashion braces.

Family and peers could play double roles, whether pulling posters away from fashion braces or pushing them towards fashion braces. Fear of dental treatment could push posters into the world of fashion braces.

Fashion brace providers and businesses did not appear much in the heading messages. This required further investigation, which partly led to Study 2, in which interviews took place about the fashion brace business from the wearer's side.

3.7.2 Stage 2: Life with fashion braces

In Section 3.7.1, the codes within threads relate to the thread initiator's desires, pre-decision factors and questions to gain information to increase their access to fashion braces. In this stage of life with fashion braces, their questions tended to be more specific, seeking suggestions to deal with fashion braces or the issues they caused.

In 35 of 136 threads, the thread initiators sought help from online members to help correct problems that had resulted from wearing fashion braces. This stage consisted of three themes, as shown in the table below (Table 14)

Table 14 Themes and Subthemes in Stage 2: Life with fashion braces

Stage 2	Themes	Subthemes
Life during fashion braces	1. Last straws before having fashion braces removed	-
	2. Help-seeking enquiries	-
	3. Factors that may delay fashion braces' removal	-

3.7.2.1 Theme 1: Last straws before having fashion braces removed

There were several reasons for wearers to give up on their fashion braces. One member shared her plan to remove fashion braces because she was afraid that they would affect the fillings in her teeth:

> *"…When fashion brace glue was applied to the tooth that had been restored, I was afraid of touching and removing them. I am afraid that the filled part will be dislodged. If I remove fashion braces, I will get genuine orthodontics." (FB4)*

In another example, the thread initiator was afraid of the future consequences:

> *"I got fashion braces before, but I am afraid that it would be worse. Therefore, I want to remove them and get orthodontic treatment…" (FB446)*

Several undesirable outcomes and failures encouraged posters to remove fashion braces, including changed tooth alignment, dental caries, toothache, faulty fashion braces, eating difficulty and psychological impact:

> *"I have worn fashion braces for a while, which resulted in my lower teeth having spaces, teeth being moved, toothaches and wounds in the mouth. It was difficult to eat. So, I decided to remove the braces." (FB373)*

In another example, the poster did some research after she decided to remove her fashion braces:

> *"But yesterday, two front teeth, both upper and lower, were getting mobile. I contacted the provider; they said that it was okay, but I felt it wasn't right.*
> *So, I searched on Google to seek information. I found that several people also have symptoms like me, but they get braces from orthodontists who can give them advice. But I get braces from those who don't have a certificate. I get braces from them because of the low price. Eventually, I decided to remove the braces." (FB185)*

A few members said that crooked teeth had happened after they wore fashion braces, which, in turn, impacted their psychological well-being, including fear and stress:

"When I have worn fashion braces for a while, my teeth misalign. It made me scared, so I decided to remove them." (FB197)

"The crowding made me feel shamed and influenced my smiling. I felt stressed and thought I shouldn't have done that." (FB281)

Physical and psychological impacts played roles to the point that they decided to quit wearing fashion braces. These undesirable outcomes and concerns about having fashion braces were interpreted as harms, and these in turn led to the decision to have fashion braces removed. We can also see from these various quotations that participants in these threads frequently defined themselves as being in a very difficult situation, one where the person they were becoming diverged from what they had thought they would be before fixing fashion braces. The next section explores why users chose to seek help online.

3.7.2.2 Theme 2: Help-seeking enquiries

This theme continued from the previous theme, after which they decided to have their fashion braces removed. This theme was presented in the way the online community acted as a library that allowed them to seek help. The table below summarises the scope of questions asked by wearers about how they acquired help (Table 15).

Table 15 Help-seeking questions

Help-seeking Questions	Thread No.
Asking members who have similar experience	221, 281, 349, 356, 396, 422
What should I do?	16, 19, 132, 185, 239, 300, 362, 403
How to remove fashion braces	409
Wonder if teeth will self-recover	11
I want to get rid of glue	135, 197,356, 373, 396, 403, 474
Can my teeth be treated?	18, 45
What should I tell dentists?	4
Will dentists help me?	71,239,356,403
Want to know about dental procedures	151,281,403,445
Where to get dental treatments	446
Now I want real braces	221

Getting rid of glue stains seemed to be a common concern among those who removed fashion braces by themselves (Table 15) and did not know how to deal with it. For example,

"When braces were removed, I felt shocked because of glue stains from fashion braces. It couldn't be gotten rid of. I used a spoon, but it hurt. So I want to know how to remove all glue stains. Anybody who knows techniques, please let me know." (FB373)

"I removed them two years ago, but glue stains remain. What should I do? Do you know how to fix them? If I go to the dentist to get a scaling, would they be removed?" (FB403)

One thread initiator was concerned about the problems that he had not noticed until his friend told him. He then turned to Pantip.com to ask for information and be reassured that dental treatment could fix a problem.

"I wore fashion braces previously, but I didn't observe my teeth at all. When the braces were removed, it was obvious that I had tooth decay on my three teeth. I wasn't concerned about it. Until my friend told me that it is dangerous and I shouldn't leave it like this for long. I want to know if my teeth can be treated." (FB18)

When fashion brace wearers decided to remove fashion braces, they were often worried about visiting the dentist in terms of what they would say. Instead, they posted on Pantip.com and hoped that users could advise them on what to do:

"I have a toothache because of caries at a molar; I want to pull it out. I don't know if dentists will do that for me because I am wearing braces." (FB71)

"…But it is more obvious that I have long teeth. My concern is that when taking photos, my teeth are very visible. What should I do? May I ask your opinions? If I see the dentist, would the dentist be able to help me?" (FB 239)

One member asked other members to share similar experiences with the hope that they could use a similar approach.

"After I wore it for around 1–2 months, it has been ugly until now. I feel dreadful when I smile. I think of getting real braces. Anyone who has experienced this, please tell me what dentists do to correct the protrusion of lower teeth. " (FB349)

"After wearing it for 2–3 years, I noticed that my teeth were hideous. …Does anybody have experience like this? Would it be better if I got new braces?" (FB221)

As we can see, the participants defined their situation as calamitous and as something they needed to escape. It can be seen that there were a range of questions, from seeking direct advice (e.g., what should I do?), a concern with the very real physical consequences and worries about dental treatment and dentists in general. Interestingly, there were a high number of wearers who were concerned about glue stains above other consequences. A lack of knowledge of dentistry was apparent. These

findings are linked with the next theme, which explores factors that may delay the removal of fashion braces.

3.7.2.3 Theme 3: Factors that may delay fashion brace removal

Within these help-seeking threads, many factors were found that may delay fashion brace removal and the receipt of dental treatment. One thread showed that the thread initiator was worried about a resulting white mark after fashion brace removal:

> *"…I want to remove them now, but I don't know what I should do. Because if the braces are removed, it will leave some marks of braces, won't it?..." (FB300)*

Another was concerned about what their parents' reaction would be and delayed telling them because of this:

> *"When I was removing braces, my mouth was full of blood. I felt my upper and lower teeth were disharmonised as they were over-occluded when biting. I have a toothache at a molar tooth.… Now, I am worried about the trouble I caused. I am not brave enough to tell my parents… P.S. IF somebody knows, please advise me. I am agonising." (FB185)*

Interestingly, one thread initiator revealed that she still wears fashion braces because she does not know how to tell her friend, even though she wants to remove them:

> *"I have worn fashion braces for a year, but I lied to others that I got the real braces. Now, I want to remove the fashion braces, but I don't know what I should tell others as I am afraid that we can't look at each other anymore* [the awkward feeling or uncomfortable when facing someone]." (FB19)*

Similarly, others were worried about whether the dentist would help them because of the braces:

> *"…But it is more obvious that I have long teeth. My concern is that when taking photos, my teeth are very visible. What should I do? May I ask your opinions? If I see the dentist, would the dentist be able to help me?" (FB 239)*

Other thread initiators were concerned about the cost of treatment if or when they removed their fashion braces:

> *"…I am not brave enough to remove. But I checked the price of [fashion braces] removal at around 2,000 THB. Scaling costs around 1,800 THB. Now, I want to know how much the first payment for orthodontics costs." (FB445)*

> *"My upper teeth have become more crowded, and there are caries on one front tooth. They are so retroclined. I removed the braces by myself. I would like to know about further treatments and the price. I can't afford services from dental clinics; they are a*

little expensive. I want to know what treatments that public hospitals can offer me." (FB151)

Several factors that may delay the removal of fashion braces were uncertain future outcomes, such as the potential visual and physical consequences and relationships with peers and family. The expensive price of dental treatment and thread initiators' scepticism about dentists may lead them to seek proper treatment, including braces removal.

Summary

People's experiences with fashion braces were extracted from 35 threads, and none of them expressed happiness while wearing fashion braces. This might be a limitation of conducting a study in an online space and using existing data in which people expressed what they wanted. Therefore, the key themes in this stage of this research were overwhelmingly about the negative consequences of wearing fashion braces, which led them to seek help online. Thread initiators expressed their reasoning for their decision to have fashion braces through two main factors: physical impacts and psychological impacts.

A lack of knowledge about dentistry and not knowing how to deal with problems also led them to seek help online from those who had a shared experience. These knowledge discrepancies could also delay the removal of fashion braces and proper treatment, as they may want to be reassured about the future. This led to the decision to conduct Study 2 by collecting data through narrative interviews.

3.7.3 Stage 3: "How I escaped from fashion braces"

Each of the sections above highlighted thread initiators who were struggling with fashion brace problems. This stage was based on four threads in the online community. These threads were posted by four different thread initiators who stated that they had successfully escaped from fashion braces. The four stories that follow are from posters who struggled with their fashion braces and then found a way to manage those issues. These stories detail their experiences, how they coped with problems, and their feelings as those problems ended. These four stories were posted narratively and were analysed as such: Natty's, Mon's, Amy's and Karns' stories.

3.7.3.1 Natty's story

Natty's story overview

Natty's story involving fashion braces started while she was a high school student. At the time she posted, her age might have been over 20 years old, and she was still under her parents' guardianship (line 66: *"I asked permission from my parents; eventually, I received orthodontic treatment"*).

Natty's journey of fashion braces (Full story and analytic sheet can be seen Table 16)

In brief, Natty has had fashion braces three times; she encountered failures from fashion braces every time but never stopped seeking new ones until her third fashion braces were broken.

Natty had reasons for seeking fashion braces. To begin with, she wanted braces because other people had them (Line 4). However, she couldn't get braces from a dentist or orthodontist, as the cost was expensive (Line 5). Natty added that it was not only braces she wanted but also colourful rings (Line 6); therefore, fashion braces would be her final choice. She sought a place that could provide her with fashion braces at an acceptable price; she found one near her house. This shows that braces are the object of desire but are fetishised and devoid of their underlying function.

Her first fashion braces were fixed ones, and the price was 30 times cheaper than orthodontic treatment in Thailand. She chose them because she did not have any other choices, and her desire was powerful. *"At that time, there were no removable ones. According to my strong desire, I decided to select this type".*

A provider told Natty that pain might occur (Line 21); however, Natty felt that the provider should have given her proper advice (Line 18): "They didn't give me any advice". The pain eventually happened, as the provider said, and it seemed she believed what she was told: "I could bear [with pain] for two days". Then, her encounter with faulty braces led her to remove them herself. Her disappointment continued as she noticed white marks on some tooth surfaces.

Natty had a second set of fashion braces within one month. The chosen braces were removable ones, as she thought they were safer, and she explained the steps she followed to take an impression of her mouth. Once she obtained fashion retainers, she felt that she did not receive adequate advice again. She wore them and suffered from pain. Natty managed this problem by stopping wearing the braces, and when the pain went away, she wore them again. She spent two months with the braces until the wires bent, when she attempted to find a place to fix them. Although she chose ones that she believed were safer (Line 34) again, the pattern of living with this fashion brace was similar to the first: getting fashion braces, having pain and removing them.

Interestingly, while she was seeking a shop to fix her retainers, she found a third shop and got another fashion brace called a "retainer with brackets". Similarly, in this case, the outcome of the fashion braces was sore gums (Line 52). She lived with these braces for longer – this time for four months. She took them off again when the pain returned and wore them again when the pain went away. The turning point was when she decided to stop wearing fashion braces all together. This was when she experienced rusty brackets, which she felt might cause infection (54–56).

Natty had fashion brace “shopping behaviour” (like doctor shopping): she had three sets of fashion braces of different types and with different providers. After the third time, she did not perceive obvious physical consequences. However, over a year later, she sought help from a dentist because of a toothache in one of her molar teeth (57–59). The toothache may not have been caused by fashion braces but by an impacted tooth. However, the dentist found that she had an edge-to-edge occlusion, which required orthodontic treatment.

In Natty’s story, not many people were mentioned. The main character in the journey was herself. It appeared in her account that she faced the consequences of fashion braces by herself. Almost all of her statements began with “I”, and Natty did not mention any person within her story of those seeking, living with and solving problems caused by fashion braces. However, her parents were engaged in the later part of the story while she visited dentists, as they played a crucial role in permitting treatment and possibly providing financial support.

I noticed that being “afraid of dentists” and her feelings of agony while receiving dental treatment (Line 61–63) might have delayed the time it took her to get dental treatment for the problems that occurred with fashion braces.

Table 16 Full story from Natty and analytic sheet by TK (Thitika Kimise – the researcher) (Lists of abbreviations: A – abstract, O – orientation, CA – complicating action, E – evaluation, R – resolution/results, C – coda, SS – structural statement; see more details in Section 3.4.7.1)

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
Title	My experiences of having fashion braces and orthodontic treatment by dentists !!	A (Abstract)				Clear title
Tags	Teenager life, Aesthetics, Dentistry	A				
	Story 1 – Introduction					
1	Hello everyone. [1]I accidentally saw the news about fashion braces in online communities, either several types of fashion braces or making retainers somewhere.	O	The reason why she wants to share exp.	Natty: Internal purpose: share experience to public		Because of what she saw in the news, it encourages her to share experiences. She has many experiences (3 times of fashion braces)
2	Today, I would like to share my story and experience which happened to me both getting fashion braces from a market and orthodontic treatment in a clinic.	Structural statement (SS)				
	Story 2 – Before getting fashion braces					
3	4–5 years ago when I was a high school student	O2		Natty		She must be aged over than 20 when she posted
4	I really wanted braces because I saw others got them, and then I wanted them too.	E2	Desire (main desire)			** Just want braces not for TX. Although friend got braces for tx.
5	At that time, braces [*from orthodontic treatment]* from clinics were expensive	O2	Condition			
6	However, I wanted to have wires and colourful rings on my teeth,	E2	Desire (second)			So fashion braces is the answer…

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
7	I sought where I could get cheap braces.	CA2	Seeking process Shop characteristics			
8	I remembered that I saw a banner offering fashion braces at the market near my house.	CA2				
9	I finally found the banner standing in front of a salon.	CA2				
10	It was a small sign. In front of the shop there were various colourful rings to sell. The location was in back of the salon.	O2				
11	I asked about the price	CA2				
12	I used to have three types of fashion braces.	O2				Has many experiences: not just one but three, more than any other narrative
13	I will tell you the characteristics and details of each type.	SS				
	Story 3 – 1st fashion braces					
14	1. One used glue and attached to the teeth. This one costs around 1,200 THB (£30) for the upper and lower arch.	O3				
15	At that time, there were no removable ones.	O3				
16	According to my strong desire,	E3	Desire	Natty - decision led by desire - believed in what provider told her but unexpected		** emphasis that her desire is very strong
17	I decided to select this type.	CA3				I decided → b/c she has no other choice
18	They brought brackets and applied very smelly glue. Then they placed them on	CA3	Procedure			No advice → information asymmetry

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
	my teeth. It took less than 15 min to finish. Paid. [9]**They didn't give me any advice.** Just told me that I could come anytime if I want to change the rings' colours.			consequences occurred - escaped from consequences by herself Provider - procedure - no advice (18) - told her to stay in pain (21)		Accessible, spent less than half an hour. Assured that customers can go back anytime → true?
19	After that, I went back home.For a while, I was in pain.	R3	What happened			
20	The feeling was like agony and dull pain around the gum.	R3				
21	Before they installed braces**, they told me** that it would be a little bit of pain and told me to stand the pain.	CA3	Provider told			
22	I could bear it for two days; eventually, the brackets were split from my teeth, except on a molar.	R3	What happened			Listened to the provider but b/c bracket split
23	Could you imagine?	SS				
24	Teeth hung with brackets by sticking with one molar.	R3	What happened + turning point			
25	I pulled the braces off by myself	CA3	Solution			
26	I looked in the mirror and saw my teeth were full of white patches from glue.	CA3+R3	What happened			This story ends with self-solution Turning point was bracket partially split
	Story 4 – 2nd fashion braces					
27	Around one month after my first time with fashion braces, I found another fashion brace shop.	O4	Seeking process Shop characteristics	Natty - seeking fashion braces a second time		I think what happened to her is not enough to make her worry about consequences → second fashion braces

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
28	[6]The front of this shop was similar to the last shop. It was a shop related to aesthetics	O4		- desire + price + provider told (34) led decision Provider - procedure - told me – I believed (34) - no advice (39)		
29	There were several colourful rings to sell with a small banner offering fashion braces	O4				This is even matched with her second desire
30	[4]According to my desire for fashion braces again	E4	Desire			
31	I asked about the price and decided to get braces.	CA4	Decision making			Price + desire → decide
32	2. Fashion retainers with wire. They cost around 900 THB (£22.5) for upper and lower.	O4				
33	At that time, I didn't know what retainers were	O4				Lack of knowledge
34	The seller told me that this type could be removed, which were different from the glued ones	CA4	Provider told			
35	My thought was they were different types; this one might be safer.	E4			Safer – b/c removable, bad exp. from the first one	Information asymmetry. Lack of knowledge; wrong idea – pre-decision
36	I was okay with that.	E4				
37	Then she brought me to a tent and told me to sit on a plastic chair. [8]She opened a drawer to prepare equipment. What I saw was that she picked up a jar containing powder. She spooned the powder into a bowl, added some water and mixed it up. The texture was creamy.	CA4	Procedure			

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
	She took impression trays and poured the cream until the tray was full. She told me to open my mouth and put the tray in my mouth. She asked me to bite. She did this for the upper and lower arches.					
38	Then I paid and waited for the retainers.	CA4				
39	Three to four days later, I picked up the retainers and wore them by myself without any suggestions.	O4+CA4				No advice again
40	Then, I went back home. For a while, again,[10] it happened to me, as in my first case.	R4 (repetitive)	What happened			Repeated results but never learned
41	My teeth were wrapped, and I was in pain.	R4				
42	I removed them until the pain had gone; I wore them again	CA4	Solution			
43	Two months later, after I had repeatedly removed and worn them	O4				
44	I thought the wires were bent and different from usual	E4	What happened + turning point			Turning point
45	I removed them, and I never wore them again.	CA4	Solution			
46	Two weeks after that, I was going to bring the retainers to the shop for fixing	O4				
	Story 5: 3rd fashion braces					
47	But I saw another type of fashion braces.	O5	Seeking process – (accidentally)	Natty		

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
48	3. Removable retainers with brackets. The price was 1800 THB (£45) for upper and lower arches.	O5		Provider (same roles)		
49	I decided to go with them, as they looked better than the last two.	CA5+E5	Decision-making		Look better than previous two	
50	The technique was similar to the second type, consisting of oral impressions and waiting for the retainers.	CA5	Procedure			
51	The brackets were mounted only on the anterior tooth areas	CA5				
52	Within a few days, I felt pain in the gums around my posterior teeth. I felt pressure on the gums, resulting in swollen gums.	R5	What happened			
53	I took the retainers off and on for four months.	CA5	Solution			
54	But I threw them away	R5	Solution			
55	because of rusty brackets	E5	Turning point		Rusty, afraid of infection	Turing point/non-medical grade
56	I was afraid of infection.	E5				
	Story 6: I visited a dentist					
57	After I had stopped wearing fashion braces for over a year	O6	What happened (delayed)	Natty - perspective of dentists changed (61–64) - dental treatment via her lens - speak to public		Visited dentists b/c of pain. What happened before didn't reach this point 1st: pain, bracket split X 2nd: pain X 3rd: hurt gums X
58	I had a toothache in my molar(s)	R6				
59	so I visited a dentist.	R6	Solution			

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
				Dentist: - active		Tried her own way to reduce pain Toothache → dentists
60	***Orthodontic treatment by dentists***	Structural statement	Problem solved			
61	I had never thought about getting braces from dentists.	E6				
62	I was a person who was afraid of dentists.	E6			She was afraid of dentist → not anymore	This might be the reason why she didn't go to dentists in the first place – pre-decision. Being afraid of dentists might be a factor in delayed treatment
63	My imagination was that if I went to dentists, I would have a tooth pulled and scaling and it would hurt.	E6				
64	But I needed to visit because I felt hurt.	R6				
65	The dentist told me that I had an impacted tooth, and it needed to be taken out.	CA6				
66	After that, I have always had routine dental check-ups and scaling. My dentist suggested that I undertake orthodontic treatment. Because my front teeth bite together *[** means edge-to-edge occlusion?]*, if I didn't undertake the treatment, I would have attrition of my teeth. I asked permission from my parents; eventually, I received orthodontic treatment. The main steps are	Coda				

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
	1. An oral impression, which is a dental procedure. There is a full set of equipment which is clean. The dentist wears gloves, a mask and a gown. The impression trays are metal. He tried in my mouth first, and if it was too big, he changed another size. The cream *[*alginate?]* he pasted on my hard palate before and partly loaded cream in trays. 2. Radiograph. I was referred to the hospital by my dentist, writing me a referral letter. When I walked into the room, I found the big white machine. A nurse asked me to bite a white rubber; then the machine moved circularly around me. Next, I waited in front of the room, received films, paid and it was done. After that, I went back to the dental clinic to be examined by the dentist. Then they made an appointment to install appliances. 3. The bracket instalment. This step was very different from fashion braces. Before the dentist stuck on the brackets, he didn't use glue on the brackets but used a blue light which had a "tid-tid" noise [*a dental light-cured machine*]. Then he fixed brackets on every teeth. When putting on the wires and rings, he					

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
	used tools to install them. A summary is there were the full set of tools and equipment. Additionally, he had an assistant. 4. Undertaking orthodontic treatment from dentists, I need to see dentists every month for scaling, changing rings, changing wires and brackets to be able to control the direction of tooth movement properly. More importantly, the dentist's brackets are of several sizes to fit each individual. My teeth were small; he used a small size of brackets. At this point, it can be seen that several techniques are different between fashion braces and orthodontic treatment by dentists. Most of the techniques were similar but differed in details, as I told you above. I swear everything I told you happened to me.					
67	I do apologise if I can't say proper terms, I would like to use the common terms to explain.	Structural statement				
68	The dental procedure might have more details; it depends on the individual. The order of steps might not be precise; I am so sorry. I hope that you will understand and get useful information. Thank you for reading to this point. I hope that this article sparks some ideas in you.	Coda + public account	Messages to public			

Line	Contents	Labov's model (analysis)	Themes/ identities	characters	Narrator's Evaluation	Analytic memos-by TK
69	This article is a personal opinion, so reader discretion is required. If I misspell, I am so sorry. I typed on my phone.	Coda				

3.7.3.2 Mon's story

Mon's story overview

Mon, a girl, was under 18 at the time she shared her story. She is another person who has had fashion braces more than once: "I had them twice – three to four months at a time" (Line 3).

Mon's journey of fashion braces (full story and analytic sheet can be seen in Appendix B1)

This thread contains two stories: "while having fashion braces" and "I visited a dentist". Her narrative lacked the story of her life before having fashion braces; therefore, her desires were not revealed. Her journey begins with good-looking teeth before having fashion braces. Mon's original dental appearance may play a role in the later part of the story, as she shared a lot of emotions, such as regret and blaming herself that her teeth ended up in poor condition.

She removed her fashion braces by herself. She accepted early consequences after fashion braces removal (Line 5) which are glue stains, calculus and cavities. She did nothing to fix the problem. However, the turning point that brought her to see the dentist was pain, including toothache and jaw pain. These can be interpreted to indicate that pain may be the crucial factor leading to serious concern about the consequences of wearing braces.

Mon finally saw a dentist. However, her story contains many comments about her regret about what happened (Line 11–16): "I am so terrified", "I didn't think it through", "I didn't listen to my mother", "I didn't believe her" and "Heavy crying". Mon said in her story that her mother was involved in her fashion braces journey, asking her not to have fashion braces.

3.7.3.3 Amy's story

Amy's story overview

The stories provided by Amy told us that she had fashion braces after 18 years of age (Line 10–13) (Appendix B2) and was living with her parents. She grew up in a family with financial problems, and so while she had a dental problem, her parents allowed her to get only limited treatment because of the cost.

Amy's journey with fashion braces (full story and analytic sheet can be seen in Appendix B2)

At an early age, Amy had an uncle who looked after her, including bringing her to the dentist regularly. After her uncle died, it seemed that her life changed. She never visited a dentist after his death (Line 3), she became scared of visiting dentists (Line 2) and she demonstrated incorrect oral health knowledge (Line 4) as well as improper oral hygiene care (Line 5) which made her teeth worse (dental caries). Caries on two front teeth affected her self-esteem while she was in high school, including

feeling ashamed and not smiling. As her family has financial issues and getting to a hospital to get dental treatment would take a long time, a dental clinic was her mom's choice (Line 8), which did not provide free service. The services provided within the dental clinic were limited, so Amy could have only one tooth treated. As she felt unsatisfied with the dental treatment and felt she still had visual caries, this led to her decision to get fashion braces to hide the dental caries.

Unfortunately, there were negative results from her fashion braces: crooked teeth, deep caries, and chewing difficulty. As she was now living on her own with a job, she had the self-authority to seek dental treatment by herself. She still had a limited budget and therefore chose to get affordable treatment from a public hospital recommended by her boyfriend. It seems her quality of life had improved (Line 22), and as a result, her attitude towards oral hygiene care had also changed (Line 23). As a result, she posted on Pantip.com to share her experience and encourage people to see dentists if they were experiencing problems.

In Amy's story, the family's financial issues were a critical point, as was her mother's decision to bring her to a private dental practice, which cost more than a public one.

3.7.3.4 Karn's story

Overview of Karn's story

Karn wore fashion braces while she was an upper secondary student; presumably, her age was about 16–18.

Karn's journey with fashion braces (full story and analytic sheet can be seen in Appendix B3)

Karn's thread contained four storylines: life before having retainers, friends who got fashion retainers, deciding to get retainers too and changes in her teeth. Her story began with her teeth in acceptable condition, although she was concerned about protrusion of the upper teeth. Meanwhile, a peer suggested to her that she get retainers to stop tooth protrusion. The suggestion matching her concern might have sparked her idea to seek retainers without having had prior orthodontic treatment. At the end of Story 1, she did not get any retainers because they were not available. Then her narrative moved to Story 2, when retainers became available; a dental clinic provided retainers for non-therapeutic use. After she had seen her friend get retainers with beautiful decoration, including brackets and colourful rings, Karn wanted them too.

At this point, demand met supply. The dentist also provided fashion retainers for her. She described how she felt happy: *"I was crazy about it and often wore it at the beginning".* After a while, she realised that negative outcomes had occurred to her friend, and at this time, she started developing negative emotions. She was growing afraid of wearing retainers, feeling shocked and regretful. This meant that

while fashion braces made her happy for a little while, in the long term, she started suffering from negative consequences.

Interestingly, it can be interpreted from Lines 25–26 that ending up with orthodontic treatment was an unpleasant event: *"From a person who didn't need orthodontic treatment to one who needs treatment and needs to withstand the pain".* It could be inferred that she believed that orthodontics may cause more pain than fashion braces. She finally saw a dentist. She came to Pantip.com to share her experience, to explain the importance of getting an orthodontic appliance from orthodontists and to warn the public about the possible negative consequences.

Summary

Only four threads were included in this stage, but they provided unique stories with interesting points. Some wearers have worn fashion braces several times, which allowed us to see that the meaning of fashion braces could change over time, as demonstrated by Natty, who had three different sets of braces. We also discovered fashion-braces shopping behaviours.

Peers and family were rarely mentioned in the narratives. This suggests that there might have been a lack of support when the posters had problems with fashion braces. Fashion braces had negative physical and emotional impacts, and some threads reflected the thread initiators' regret.

In terms of story structure, some narratives did not contain all stages of life with fashion braces. This was a limitation of this study, in which already existing data were collected and it was impossible to contact thread initiators for elaboration. However, with these four threads, we can see life with fashion braces involves a certain timeline, dynamics and interactions. Therefore, it would be interesting to interview wearers about life with fashion braces to broaden our insight.

3.8 Discussion

This study, which comprises the first part of this thesis, has begun to explore the field of fashion braces in an online space, a subject on which there was no previous literature. Structural analysis (Labov's model) and thematic analysis were employed.

The present study explored "mouth talk" about fashion braces in a Thai online community. It had three objectives: (i) to explore the meanings of fashion braces to users within the online community, (ii) to understand the content of people's talk about fashion braces within the community and (iii) to explore the informal market of fashion braces as discussed in the online community.

The study found 195 threads that talked about fashion braces; this number included 136 threads posted by insiders (who intended to have, currently had and had previously had fashion braces) and

59 threads posted by outsiders for other purposes, such as educating and blaming (Section 3.5.2, Table 11).

However, this study focused only on posts by thread initiators, who were called insiders; therefore, the findings of this study are based on the insiders' perspectives.

3.8.1 Types of talk about fashion braces in the Thai online community

The purposes of talks about fashion braces by insiders can be categorised into three types:

1. Information-seeking
2. Help-seeking
3. Sharing experiences

The majority of the talk was for information seeking and was posted by those who had never had experiences with fashion braces but intended to have them. Ninety-seven of the 136 threads (70%) were of this type.

The second most popular talk was for help-seeking, with 35 out of 136 threads categorised as this type. These threads were created by those currently wearing fashion braces. The final type was sharing experiences by those who escaped from fashion braces.

The findings above highlighted the application of a component in the Blumerian approach (symbolic interactionism), which is "stories are told or written for some types of audience" (Cousineau, 2020, p.721). For example, information-seeking threads attempted to communicate with "insiders" to locate those who provide fashion braces and seek opinions supporting their consumption. While help-seeking threads were posted to find people who could assist in overcoming struggles during the stage of wearing fashion braces. Finally, threads sharing experiences were posted in public accounts to communicate to those who were seeking fashion braces and to raise awareness. It can be seen that the purposes of talk were designated to communicate to different types of users who spent time in the same places. Thread headings and the purposes of talks would bring people with the same interests into the threads. These threads revealed that there are politics behind the posts about fashion braces. This means there are insiders and outsiders and that participants are negotiating these boundaries.

Considering information-seeking and help-seeking types of threads, it can be seen that people sought different sets of information: some sought to broaden their knowledge of discrepancies about fashion braces, and some sought advice to eliminate problems. Consequently, their messages in thread

headings tended to be short and to contain questions. In contrast, those who shared their experiences in their threads had long narratives containing their journeys with fashion braces (Appendix B1,B2,B3).

This study suggested that threads posted by insiders in the online community contained two types of talk: information-seeking questions (two purposes of talk from the previous paragraph, information-seeking and help-seeking, fit in this type) and narratives (from those who shared their experiences).

As many information-seeking questions were retrieved, online communities might be a good place to distribute information about fashion braces. However, it might not be an excellent location to explore the narrative about life experiences with fashion braces. Moreover, this online forum was not designed to talk about fashion braces specifically; it was accessed by several people with a range of opinions about fashion braces, from positive to negative. This might explain why there were not many narratives to avoid being stigmatised or blamed by other members who were outsiders.

There has been no study about fashion braces in online communities, so it is challenging to compare the findings to previous research. To my knowledge, most previous literature studied specific types of online forums (e.g., to explore social supports in several fields) (Murthy, Rodriguez and Kinstler, 2013; Budenz et al., 2020; Mudry and Strong, 2013; Attard and Coulson, 2012) or analysed narratives (Rodriquez, 2013; Polander and Shalin, 2013). However, the present study discovered that two categories of threads talked about fashion braces: information-seeking questions and narratives. A limitation of information-seeking question threads was that the messages in heading threads were rather short, lacked personal experiences/narratives, and some threads contained only questions. Conversely, threads containing narratives provided rich information, but only four threads were included.

However, this study acknowledged that Pantip.com was an important location for individuals to be a source of searching and knowledge. Teenagers used several time-saving techniques in choosing which site to use, most notably that of satisfying, as well as frequently selecting the first entry on the search lists (Taylor, 2018). Pantip.com was a user-friendly, popular online web board and tended to be one of the first pages on the search list. In addition, it allowed members to post about anything if they did not break the forum's rules. Furthermore, no restrictions were placed on talking about fashion braces. Therefore, the online community acted as a convenient and flexible library for searching for information.

3.8.2 What are the meanings of fashion braces?

The meanings in this study were retrieved from those who were interested in fashion braces and who were current and former wearers. The occurrence of various meanings of fashion braces can be explained by the symbolic interactionism in which the meanings were a result of an interactive process (Blumer 1969 cited by Handberg, Thorne, Midtgaard, Nielsen and Lomborg 2015). In fashion brace cases, new meanings of fashion braces were based on their desires, social interactions, and modifications through the interpretive process. In terms of extracting the meanings of fashion braces, I analysed them using structural analysis or Labov's model. One structural element called, "Evaluation (E)", which means "evaluative comments on events, justification of its telling, or the meanings that teller gives to an event" (Kim 2016), assisted me in identifying how new meanings were developed.

This present study suggested that the insiders in the online community see fashion braces in four ways: as fashion objects, as objects distracting from body image dissatisfaction, as alternatives to orthodontic treatment and as things to be used when orthodontic treatment did not meet their desires. It is not a surprise that fashion braces were used as fashion objects, as this purpose was mentioned widely both in news articles (Nass and Sreyleap, 2016; Razak, 2015; Matichon Online, 2018) and in the literature related to fashion braces (Rityoue and Sasiwongsaroj, 2009; Pothidee, 2007; Zakyah et al., 2016; Alhazmi et al., 2021), or that they were used as an alternative to orthodontic treatment, as fashion braces are cheaper than standard orthodontic treatment.

The present study found a few unexpected meanings, including a tool to distract from body image dissatisfaction. Braces were not used to improve tooth alignment, but they were used to cover flaws, especially dental appearance. For some participants, it was used to distract others' sight from their unsatisfied body figures and facial appearance. Therefore, it can be implied that the meaning of such a fashion object is to divert people's attention from body image dissatisfaction related to their obsession with their looks.

Another unexpected meaning was that some participants sought fashion braces during or after their orthodontic courses. Several motivations lie in this theme, such as maintaining the look of having braces, as orthodontic treatment would not allow them to wear braces longer unnecessarily; unexpected results during treatment; and retainers interrupting their routine lives.

The variation of meanings of fashion braces can be explained by the original idea of symbolic interaction by Blumer (Blumer 1969 cited by Handberg, Thorne, Midtgaard, Nielsen and Lomborg 2015) and the adoption of the Blumerian approach into research related to storytelling as suggested by Cousineau (2020), which is *"social actors use stories to construct subjective meanings"* (Cousineau, 2020, p.721). Here we have seen how the *desire* to have fashion braces is directed at becoming

someone more “desirable” to others and how these others are an audience that in some ways fancies wearers because they look “cute” and beautiful and thus could feel “confident”.

This section highlighted the potential of the combination of symbolic interaction (theoretical framework) and Labov’s model (narrative analysis) as applied to research involving storytelling in online spaces.

3.8.3 What are informal market characteristics, as discussed in the online community?

Unfortunately, the gathered data on Pantip.com were insufficient to answer this question, as heading messages posted by those who were interested in fashion braces and who had experience with fashion braces appeared to talk about themselves. None of them discussed laws or regulations or the fashion braces business itself. With the limited data, only a few aspects could be explored, pointing towards fragments of the informal market framework. Nevertheless, this study established participants’ desires, information asymmetry and peers that influence decision-making and may lead them to the world of fashion braces.

Information asymmetry was one aspect of the support function of the informal market (Figure 16 in Section 2.6.1). According to our findings on information issues, one type of talk in the online community was to seek information, whether to make a decision or to get help. This shows that there is an imbalance of knowledge. As stated in the results section, there seem to be two possible determinants of this: a lack of access to orthodontists and potentially a lack of access to dental health care professionals in general. As people lack basic oral care knowledge, informal providers can take advantage of this gap and quickly fill it (Redmond, 2018). So far, however, this study can suggest only that several people lacked knowledge of the consequences of fashion braces and dental health literacy. It was very difficult to establish how providers could manipulate knowledge in this study.

Peers and families acted in two ways: stopping posters from wearing fashion braces or supporting them in having fashion braces. Their reactions towards fashion braces may be based on their stance (being insiders or outsiders), experiences and knowledge. Therefore, providing knowledge strategies should be implemented both at the individual and population levels to reduce information asymmetries. Public information campaigns through popular social media sites, such as Facebook, TikTok, Twitter and Instagram, may be another essential means of providing nationwide education.

3.8.4 Life with fashion braces

From all the collected data, it appeared that there were three stages of life with fashion braces:

Stage 1: Life before fashion braces

Stage 2: Life during fashion braces

Stage 3: Life after fashion braces ("How I escaped from fashion braces")

Contexts, which were categorised as Stage 1 and Stage 2, were short, lacked personal narratives and contained information-seeking questions, while threads in Stage 3 contained longer narratives. Therefore, I decided to use different techniques in analysing Stage 1, Stage 2 and Stage 3. Structural analysis was combined with thematic analysis to analyse Stage 1 and Stage 2. For Stage 3, I treated the data through structural analysis and retold the thread initiators' stories.

Life before fashion braces can be considered a critical stage in determining whether people will become involved with fashion braces in the future. This study found three themes related to this stage: personal desires, the pre-decision process and information seeking, which were the thread initiators' determinants via their messages.

Stage 2 was life during fashion braces, in which none of the threads referred to happy moments; people wearing fashion braces came to the online community to ask for advice and help. Several reasons led to the decision to have them removed, including worrying about possible consequences and undesirable outcomes. To get through the last straws, this online community provided support, allowing them to ask a range of questions that helped them get through. Interestingly, some questions concerned dentists' capabilities, dentists' reactions and dental procedures. This meant that several people lacked dental health literacy. It is essential to reduce the myth that people dread their appointments with dentists.

Stage 3 was when wearers quit wearing fashion braces. Only four threads were categorised in this stage; therefore, I decided to present this stage by narratively reporting and retelling the stories. One interesting finding was that wearers could have fashion braces more than once to fulfil different desires. It can be implied that the fluidity of fashion braces' meanings changed over time; this fitted with symbolic interactionism (Plummer, 2000).

Overall, the present study is the first to reveal the stages of life with fashion braces. Several participants defined their situations in different ways based on their experiences, new knowledge gained, peer involvement, the ability to access dental care and how they interpreted themselves retrospectively. Information asymmetries and a lack of access to dentistry promote the existence of fashion braces in Thailand. However, with the limited number of narrative threads included in Stage 3, it is felt that the data did not reach saturation. This therefore required further investigation.

3.8.5 The strengths of this study

There were strengths in the use of an online community to explore “mouth talk” about fashion braces. In this research, attempts were made to make the selection, design, conduct and processing of data a systematic process. For example, several keywords related to fashion braces in Thai were searched for in the Pantip.com search engine, and this was done twice to ensure that all threads about fashion braces were collected. Similarly, the selection process was conducted twice.

Second, this study is the first empirical study about fashion braces conducted in an online community; this environment offered naturalistic conversations because the researcher acted unobtrusively and had no contact with any members; therefore, it was an opportunity to gain honest opinions (Smedley and Coulson, 2018). Third, conducting research online eliminated any potential geographical barriers to recruitment and data collection. Moreover, the study’s online nature reduced transportation costs and incentives. It also facilitated access to data anytime.

This study discovered a greater understanding of some of the key reasons why people decide to have fashion braces, as well as the many problems experienced through wearing them and how people cope with these problems. Study 1 also provided information on why people desired fashion braces. However, there were a number of limitations in Study 1.

3.8.6 Study limitations

There were a number of limitations to this study. The first issue was due to limitations of the Pantip.com database; threads posted before 2012 could not be accessed. Therefore, there were missing data prior to this period.

The second was a lack of demographic information on gender, age, educational level and geographic areas (Rodriquez, 2013; Taylor et al., 2018), all of which may influence people’s experiences of getting and living with fashion braces. Their gender can only be assumed from their expressions of politeness, which identify their gender, with “ka (ค่ะ)” used by females and “krub (ครับ)” by males. Specific age was difficult to identify if the users did not write this information on their profile pages. However, their ages could be guessed from the context they provided, such as “I got fashion braces when I was in high school”, in which case it could be inferred that they got fashion braces while they were teenagers.

Third, users were anonymous; therefore, it was impossible to contact users to clarify any information about their experiences. Details could be interpreted only in light of limited information (Noack-Lunberg, 2019), which could lead to inaccurate interpretation due to the researcher’s misunderstanding (Jamison et al., 2018). Difficulties in interpretation were encountered while

analysing the data in Study 1. For example, some messages were hard to understand, as they were written in fragments; therefore, the researcher decided to exclude those threads (N=3). Some users told only incomplete pieces of their stories, with some stages of their lives with fashion braces were missing. These problems reflected the study's main limitation, that is, using an online forum, wherein the researcher could not trace the thread initiators for further clarification and information.

Fourth, when using online forums/chats, Smedley and Coulson (2018) pointed out the possibility of overrepresenting negative experiences, especially when the narrative is about sensitive topics. For example, one study focused on stories of birth experiences in young moms in Canada (Carson et al., 2017). Participants tended to describe their negative experiences, as they were stigmatised as teen moms (Ibid). This limitation was found in Study 1; negative responses after wearing fashion braces were commonplace, while positive experiences were limited in the dataset.

These limitations may be circumvented by conducting a further study involving primary data collection with fashion brace wearers. In addition, the online setting in Study 1, Pantip.com, is an immense online community in Thailand that allows people in general to read messages, whereas only members can post to the site. Indeed, as with all online forums/chats, there are likely to be many "lurkers" – people who read messages but do not join to post messages, perhaps because they are not conformable to share their experiences and opinions online. Therefore, the messages included in Study 1 may represent experiences that cannot be generalised to all fashion brace wearers (Thomas and Peters, 2011).

The limitations detailed above suggest that the experience of living with fashion braces, together with the reasons why people decide to have fashion braces, need to be studied in more detail by collecting primary data from fashion brace wearers and those who previously wore fashion braces. Collecting primary data through narrative online interviews would enable a detailed understanding of people's decision-making and their lives with fashion braces.

Chapter 4

Study 2: The experience of fashion brace wearers in Thailand

4.1 Introduction

Study 1 in this PhD focused on how people talked about fashion braces on a popular Thai online forum called Pantip.com. All threads posted by people who were interested in fashion braces or had experience wearing fashion braces during the period from January 2013 to December 2019 were gathered and analysed using structural analysis. The analysis indicated that there were three themes related to the stages of their lives with fashion braces within the data. (Box 1)

Box 1 Three themes emerged in Study 1

Theme 1: Life before having fashion braces
Theme 2: Life during fashion braces
Theme 3: “How I escape from fashion braces”

The first theme, called “Life before fashion braces", included three sub-themes, which were personal desires, pre-decision factors and information seeking. The four main desires were that people wanted fashion braces as a fashion object; as an object to distract from aspects of their body, such as tooth size, tooth discolouration and overall looks; as an alternative to orthodontic treatment and as an alternative when orthodontic treatment could not meet their desires.

The second stage, called "Life during fashion braces", included messages from people about their lives while wearing fashion braces and their struggles and barriers to getting “proper” dental treatment. The last stage, "how people escaped from fashion braces", included threads in which people talked about stopping wearing fashion braces and in which detailed stories were shared of their experiences.

However, Study 1 has some limitations, as mentioned in Section 3.8.6, including a lack of demographic data; only existing data on Pantip.com was gathered, and the data were analysed in light of limited information. The limitations led us to conduct a further study to collect primary data from fashion brace wearers and those who previously wore fashion braces through online narrative interviews to better understand people’s decision-making and their lives with fashion braces.

4.2 Aims/research questions/objectives

Aim: To explore the lived experiences of fashion brace wearers

Research questions:

1. What are the experiences of those wearing fashion braces?
2. What are the experiences of those who have stopped wearing fashion braces?

Objectives:

1. To conduct a narrative inquiry using narrative interviews via video calls or voice calls on the experience of getting and living with fashion braces
2. To explore the details of the lived experience of wearing fashion braces
3. To understand what motivates people to wear fashion braces
4. To identify factors influencing fashion brace wearers to remove fashion braces

4.3 Methodology

4.3.1 Narrative inquiry

Riessman (2005) defined narrative as *"a sequence and consequence: events are selected, organised, connected and evaluated as meaningful for a particular audience"* (p.1). Narrative analysis or narrative inquiry is a qualitative research approach whereby the researcher analyses the stories people create, asking a given question of the narrative "texts" for a given purpose (Creswell and Poth, 2018). This approach can help researchers understand how people represent themselves, or their experiences, to themselves and others and can highlight the individuality and complexity of life (McCormack, 2004). Narrative inquiry falls under the umbrella of social constructionism (Crossley, 2007).

4.3.2 Narrative interviews

Narrative inquiry has been widely used in the health arena to explore various lived experiences involving sensitive and illegal topics (Carson et al., 2017; Fehér, 2011; Andrews et al., 2016). Narrative interview is one method of narrative inquiry; it is a form of unstructured, in-depth interview that allows human experience to be told (Jovchelovitch and Bauer, 2000). This approach is compatible with symbolic interactionism.

The advantages of narrative interviews

Using in-depth interviews to explore narratives has many benefits. Untold stories can be revealed by adopting a narrative approach that uses interviews with active listening. Medeiros and Rubinstein (2015) illustrated the case study using semi-structured interview guides, building up from less invasive

questions to more difficult ones. Three sessions of narrative interviews were conducted, with one and one-half to two hours per session. The authors reflected that active listening and an appropriate interview duration worked as they allowed the interviewees to tell stories in their own way and encouraged the interviewees to provide more details.

Identity development can also be investigated using a narrative approach. For example, Carson et al. (2017) collected birth stories from teenage mothers aged 15–24 (N = 81) in Canada using in-depth interviews and analysed data using thematic analysis. They recruited participants via two settings: three alternative school programmes and five community-based youth and parenting programmes using both passive and active recruitment. Questions from the interview guide associated with birth experiences were asked, with each interview taking between 40 minutes and two hours. Eighty-one percent of participants reviewed their transcripts. This study explored the complex interactions among identity formations, social expectations and negotiations of social and physical spaces from their recalled stories of labours in young mothers. Past and future selves were probed, as were social and cultural circumstances. The researchers highlighted that young mothers developed their current identities by incorporating past selves; labour experiences also contributed to future selves, which could be broken down and rebuilt. The study demonstrated that narrative interviews could help the researchers explore the complex dimensions involving one event and how they impacted people's lives and identities.

In the present study, we are interested in understanding in depth the experiences of wearers of fashion braces via their narratives. It is likely that participants may not have similar experiences, as each of them has unique characters, backgrounds and reasons for choosing fashion braces. The narrative approach allows the researcher to develop an interview guide that can engage participants to comfortably tell their own stories about choosing fashion braces, wearing fashion braces and, in some cases, stopping wearing fashion braces.

4.4 Methods

4.4.1 Research participants

Study participants: Those who are currently wearing fashion braces or who had fashion braces removed

Number of participants: 18

Setting: Thailand

4.4.2 Recruiting participants

4.4.2.1 Inclusion criteria

- Individuals who have experienced wearing fashion braces for any length of time
    - People who have had their fashion braces removed for any length of time
    - People who were currently wearing fashion braces
- Individuals who have access to an internet connection and smartphone (as interviews were conducted online)
- Individuals of at least 14 years old
- Individuals able to speak Central Thai or Southern Thai fluently (the interviewer can speak and understand Central Thai and can understand Southern Thai)
- Individuals willing to participate in this study

4.4.2.2 Exclusion criteria

- Individuals who have never worn fashion braces
- Individuals without access to an internet connection or smartphone
- Individuals unable to speak Thai fluently

4.4.2.3 Recruiting strategies

Purposive sampling was employed in this study. Participants were recruited through four methods. First, I recruited the participants via a recruitment flyer (Appendix F). The flyer contained key details of the current project, participant characteristics, compensation and the researcher's contact details. The flyer was distributed to dentists in Thailand to gather a list of their patients who had experience wearing fashion braces. Then, dentists were asked to contact the patients to ask if they were willing to be contacted by the researcher or to encourage patients to contact the researcher directly. Additionally, the flyer was posted on my personal Facebook account and on new social accounts that were used for research purposes, including Facebook and TikTok.

The second method was 161recruitment via social media platforms from public groups selling fashion braces, Instagram pages and TikTok, using keywords such as "fashion braces", "fashion retainers" and "re-fashion" in Thai.

The third method of recruitment was a snowball strategy. The researcher asked the participants to recommend other potential participants who were wearing fashion braces (King, Horrocks and Brooks, 2019, p.62). The final strategy was to use the gatekeeper method; these were people whom I knew and who were not dental professionals. They sought participants from their connections in their local communities.

4.4.2.3.1 Challenges with recruitment

As mentioned in the recruitment methods section above, four strategies were used. First, I advertised this study using a recruitment leaflet via my personal Facebook account, which had dentists and non-dentists on my friends list. Hashtags related to fashion braces in Thai were employed (#จัดฟันแฟชั่น, #แฟชั่นรีเทนเนอร์, #รีไร้เหงือก) with the hope that it would increase the chance of this study being publicly promoted. As a result, four participants self-nominated to participate in this study. I asked them, and all of them heard the news from their dentists and the dental practice's social media pages. However, only two participants chose to proceed to the interview stage, resulting in a fifty percent attrition rate using this strategy.

The second strategy was to recruit via social media, and Facebook was the primary platform for searching for participants. Facebook pages selling fashion braces were searched to determine the pages with the highest number of members and postings per day. I researched posts and contacted members who responded to posts selling fashion braces. Direct contacts were made via Facebook Messenger. I greeted and sent the recruitment leaflet continuously and waited for them to answer. Several of them read with no response, while many had either not read or received my messages.

I tried a new, less forward technique of just saying "hi" and waiting for them to respond. I sent the leaflet and advertised my project after their initial responses. One potential recruit answered me with short sentences like Yes, Ka in one case. So I gave her a chance to read the participant sheet, but she did not give me any answer. After contacting more than twenty people, only two agreed to join this study; however, later, I could not contact them. As a result, I recruited no one via this method.

Using Facebook as the primary platform, I recognised and acknowledged the above struggles; therefore, I initiated recruiting via another platform – TikTok. This was a platform I had no experience with. I am totally new and starting to learn how to use it. After searching for keywords related to fashion braces, I found many users who shared their experiences with fashion braces. However, this platform does not allow strangers – in this case, me – to contact TikTok users if they do not follow each other.

I decided to follow their TikTok accounts and send direct messages, but this technique was unsuccessful, as they did not respond. I posted in their posts, and yet again, nobody got me. Luckily, TikTok's profile page allows TikTok users to write their own profiles and includes other contact channels to reach them, such as Line and Facebook Messenger. This led me to contact potential participants through this strategy. This was similar to the technique I used previously with responders on Facebook pages selling fashion braces, but this time, I was more successful in recruiting more

participants. I made it clear to them that I knew them from clips on TikTok. They seemed cooperative and willing to participate in the project. As a result, six participants were recruited via this strategy.

The differences between Facebook's pages selling fashion braces and TikTok tended to be based on people's status with fashion braces. The fashion brace Facebook pages were for those who intended to get fashion braces within their community. On TikTok, it tended to be ex-wearers who were willing to express their identities publicly. They were more cooperative. They already had a public presence online surrounding the subject of fashion braces and felt comfortable expressing their opinions on the topic.

One high-success-rate method was the gatekeeper method. I managed to get five participants from three gatekeepers. The gatekeepers successfully recruited participants within a week after I asked them to assist me. The first gatekeeper worked in the orphanage where a participant lived. The second gatekeeper, who managed to access three participants, was a retired teacher. He asked his relatives and people within his village if they knew about fashion braces and those who might be wearers of them. The third gatekeeper was my friend. Her acquaintance wore fashion braces. The success rate might relate to authority and seniority in Thai society.

The last was a snowball technique, another highly successful recruitment method. Six participants were recruited using this method. I had to be gentle when asking them a favour and not push the participants too much to facilitate contact with people they knew were wearing fashion braces.

4.4.2.4 Incentives

Incentives were given to participants to acknowledge their contributions. The internet top-up was covered for the costs of participating in the interview session (100 THB, equivalent to £2.5), and 500 THB or £12.5 gift cards from Tesco, Big C or Starbucks were given to participants to reimburse them for their time taking part in the study.

4.4.2.5 Role of the researcher

Given that the researcher is a dental professional, their role in the research needed to be clear to the participants. Participants who were experiencing negative impacts from fashion braces may expect the researcher to provide them with dental advice and/or treatment. To minimise this, a message about the researcher's role was outlined while obtaining informed consent. If requested, a list of dentists and dental practices that could offer help with fashion braces was provided.

4.4.3 Data collection

4.4.3.1 Narrative interviewing

Two main formats of interviewing are widely used in qualitative research. An unstructured or narrative interview starts with a single enquiry from the interviewer, which allows interviewees to respond freely. The interviewer may then probe for further depth points that seem worthy of follow-up (Bryman, 2016). In contrast, a semi-structured interview consists of a list of questions in the form of an interview guide. The guide includes pre-determined questions but allows the interviewee to respond in any way they want to. The interviewer can ask additional questions not in the interview guide, in response to the interviewee's answers, or to use prompts to facilitate answers in certain areas central to the research aim.

In this study, the narrative interview guide used the Free Association Narrative Interview (FANI) concept developed by Hollway and Jefferson (2011). They suggested four principles when creating interview guides:

1. Use open-ended questions: the more open, the better. Starting with "How?" questions, which respondents may answer using a Likert scale. "What" questions may be a more open.
2. Elicit stories. Sometimes questions such as "What?" will receive a one-word response rather than a story. So it is important to turn questions about the stories told into story-telling invitations, such as "Tell me about your experiences of…"
3. Avoid "Why" questions, as these questions may detract from the interviewee's meaning-making frame.
4. Follow up using the respondent's ordering and phrasing. It involves active listening and some notetaking to be able to follow up on themes in order. The interviewee's own words and phrases should be used to respect and retain the interviewee's meaning frame.

Hollway and Jefferson (2011) suggested developing questions guided by theory – while there is no theory as such underpinning participant's lived experiences, the questions will centre around three stages of living with fashion braces from Study 1: before getting fashion braces, during wearing fashion braces, and after having fashion braces removed (if appropriate) (See Appendix G).

4.4.3.2 Online interviews

Synchronous online video interviews have been suggested as a useful option for qualitative research (Edwards and Holland, 2020; Weller, 2017), with some discussions about advantages and limitations. Several online communication and video conferencing programmes, such as Skype, Google Hangouts,

WhatsApp, Facebook Messengers and Line, enable people to speak remotely and face-to-face. Therefore, this can be used as an alternative method instead of personal interviewing (King, Horrocks and Brooks, 2019; Weller, 2017) and is unlikely to have affected the initial data (Krouwel, Jolly and Greenfield, 2019).

Given the restrictions in place due to COVID-19, all interviews were conducted online via video calls or voice calls using applications called Line (similar to WhatsApp) or Facebook Messenger, wherever possible, as these two programmes are popular among Thais.

One advantage of using online interviewing is that it eliminates geographical distances between interviewer and interviewee (Ming, Kelty and Martin, 2020; Grimes et al., 2020; King, Horrocks and Brooks, 2019) as well as reducing the cost of travel for research participants. As a result, I managed to interview participants across Thailand while I was in the UK.

One limitation that can affect online interviews is limited rapport because of the lack of in-person contact, which may reduce visual cues and emotional signals (Edwards and Holland, 2020). However, many studies suggest that online video interviews can achieve as much as in-person interviews (Weller, 2017; Krouwel, Jolly and Greenfield, 2019; Ming, Kelty and Martin, 2020). Weller (2017) surveyed the experiences of taking part in a study using an online video interview. She reported that 83% (N=12) of respondents rated their experience as “good” and “good as a home visit”. In addition, the feeling of visible co-presence could be comparable to the physical co-present interview if it had a good quality video connection, and participants felt comfortable. Similarly, Krouwel et al. (2019) reflected that rapport between interviewer and interviewee while conducting video calls and in-person interviews was not different.

As noted, video calls have drawn considerable criticism for technical issues, especially internet connections. Poor internet connection may affect the development of rapport between interviewer and interviewee (Weller, 2017; Krouwel, Jolly and Greenfield, 2019). Ming and colleagues (2020) struggled with a poor internet connection during their interviews. They conducted semi-structured video call interviews in youth workers’ and youth service managers’ experiences of sexual health training in remote and very remote areas in Australia. Ten participants were asked about their experiences and the impact of sexual health training on their work. Four out of ten participants had an internet connection problem that interrupted the video call interviews. Therefore, they decided to use only voice calls instead. However, the researchers did not discuss any different outcomes according to the use of other modes of interviews. One study (Haddouk, Govindama and Marty, 2013) also reported that video call interviews might cause some frustrations for some people; some

participants had to get very close to the web camera to be sure they could be seen and heard, which is likely to have influenced their experiences of the interview process.

Challenges in using online interviews

As reviewed previously, using video calls had more advantages than using voice calls regarding the ability to build rapport as in-person communication can (Weller 2017; Krouwel et al. 2019; Ming et al. 2020) and the ability to observe participants' body language that might attach meanings while telling stories. However, scholars have reported issues resulting from poor internet connections and participants' frustration during the interviews (Ming et al. 2020; Haddouk et al. 2013). Therefore, I considered the benefits and drawbacks and decided to use video calls as the main channel and voice calls as an alternative.

When I interviewed the first participant using video calls, there was a problem with the internet connection, although I provided them with top-up mobile internet. Switching to voice calls allowed me to interview the participant successfully (Ming, Kelty and Martin, 2020). Then, for the second participant, I asked her to choose the most comfortable way to interview, which she chose voice call, similar to the rest of participants. Only one participant felt comfortable being interviewed by video call. This is consistent with the previous literature saying that video calls could cause frustration for some people (Haddouk, Govindama and Marty, 2013).

4.4.3.3 Data recording and management

The interviews were audio-recorded, and the data were transcribed verbatim using voice typing in Google Docs. The researcher then rechecked the accuracy of the auto-transcription. Following transcription, translation from Thai to English was completed by the researcher. Four transcripts were rechecked by a professional translator.

I received training in the use of NVivo; therefore, NVivo versions 11 and 12 were used. All translated Word documents were imported into this programme to organise and code data. Recordings, transcripts and translated documents were stored on a Google Drive provided by the University of Sheffield.

4.4.4 Data analysis: Thematic analysis

Thematic analysis was used in the study, aiming to explore "What is said?" This analysis method is helpful in finding common thematic elements across the data set (Riessman, 2005).

To conduct the thematic analysis, I followed the six stages of data analysis described by Braun and Clarke (2013). The focus of the first stage was familiarising myself with the data. As I conducted all the

interviews and transcribed and translated all recordings, I was familiar with them to some extent; however, it is necessary to "immerse yourself" in the data to fully understand the depth and breadth of the content (Braun and Clarke, 2013). I read and re-read the data to further familiarise myself with it and noted down ideas about potential patterns and codes.

In the second phase, I uploaded all translation documents from the interviews into NVivo. I created codes within NVivo to identify particular features of the data. I systematically reviewed each transcript and selected a piece of data that fit into a code. This piece of data could be a conversation, a single sentence or just a phrase. I placed the piece of data, or data extract, into as many codes as it fit into; some data were not coded at all if I did not think they were relevant. One difficulty with starting data analysis while interviewing sessions were still ongoing was that if I developed a new code, I had to go back to previous data to re-code them into the newly formulated code. At the end of this phase, I had many codes, each made up of collections of data extracts.

Phases three and four involved searching for and reviewing themes. I read the codes to see where there were links between them. Once I formed groups of codes according to the stages of life with fashion braces, I reviewed these groups to see if they formed a coherent pattern. I could interpret an overall meaning, thus forming a theme. It was also important to ensure that the themes reflected the data set as a whole, so on occasion, I returned to the transcripts to check they reflected the themes I had developed.

Phase five involved naming the themes, understanding what was important in each theme and interpreting the meaning. The final phase involved telling the story of each theme, which I do in the analysis chapters of this thesis. As is recommended in the literature, I wrote an analytic narrative using data extracts to provide evidence of the theme and help illustrate points and patterns (Reissman, 2005).

4.4.5 Ethical considerations and approval

4.4.5.1 Involving adolescents in research

Adolescents are young people aged 10–19 years (Viner, 2012) and are considered a vulnerable population (Santelli, Haerizadeh and Mcgovern, 2017) . As such, adolescent voices are often not engaged, leading to their exclusion from research studies (Pincock and Jones, 2020). This is because of confusion over whether to consider them as children or adults and over who has the right to give consent for their participation in research projects (Santelli, Haerizadeh and Mcgovern, 2017)

According to Study 1, many people have worn fashion braces since they were young. Many participants from Study 1 pointed out conflicts with their parents or family members regarding

wearing fashion braces. For example, some thread authors said their parents did not acknowledge that they wore fashion braces or described how they bypassed their parents to get fashion braces. This leads to the notion that it is possible for adolescents who are willing to participate in the present study to give their own consent and that parental permission is not required. From the researcher's point of view, information from adolescents who have had experience with fashion braces is essential. Excluding adolescents due to a lack of parental permission would result in missed opportunities to understand their lives with fashion braces and their decision-making regarding turning points in their lives with fashion braces.

Informed consent

With adolescents, respect for personal autonomy, rational capability and individuals' capacity to make their own decisions should be honoured. Scally (2014) noted that adolescents aged 16–17 years who do not lack capacity for other reasons, such as mental impairment, are sufficiently competent to provide their own consent. The World Health Organisation (2018) provided a set of criteria to evaluate whether an adolescent is capable of providing their own consent, as follows:

- ability to understand that there is a choice and that choices have consequences;
- willingness and ability to make a choice, including the option of choosing that someone else makes treatment decisions;
- understanding of the nature and purpose of the procedure;
- understanding of the procedure's risks and side effects;
- understanding of the alternatives to the procedure and the risks attached to them, as well as the consequences of no treatment; and
- freedom from pressure.

If these criteria are met, parental consent is not necessary, although adolescents should be encouraged to seek advice about participation in the study from their parents, family members or adults they trust (Santelli, Haerizadeh and Mcgovern, 2017).

Apart from adolescents' capacity, Santelli (2017) suggested considering the level of risk and benefits of the research project. If adolescent inclusion is necessary, then the research should entail only minimal risk and minimal burden (Scally, 2014). This study can be considered to involve minimal risks, although it involves potentially sensitive topics, such as the legality of fashion braces in Thailand. However, there is no legal punishment for wearers of fashion braces in Thailand. There are, however, legal regulations and penalties for providers and sellers. As such, I did not ask any questions asking about where participants got their fashion braces from.

Note that at the stage of participant recruitment, the researcher found one participant aged below 16 years who was willing to take part, and their guardians allowed them to be interviewed. It was decided that because many of those who seek fashion braces are of this age group, this potential participant should be included if willing to participate. As a result, the decision was made to lower the minimum age of participants from 16 to 14 years. Parental permission was sought for participants under the age of 16 years.

Confidentiality

Confidentiality and anonymity were ensured. All names were changed to pseudonyms. Personal information or data collected were appropriately anonymised (The British Psychological Society, 2014). Internal confidentiality was considered to cover participants' identities and reduce the possibility of personally identifiable information among informants who might recognise each other when the data were published (Tolich, 2004). Data were stored in secured storage provided by the University of Sheffield.

Withdrawal from the research

Participants were informed of the right to withdraw at any time from the study (The British Psychological Society 2014). In addition, the researcher reminded participants of this point during the interview session.

Potential risks

Potential risks were considered to minimise harm to both the researcher and participants and to ensure proper management if any harm occurred. The table below (Table 17) illustrates the risks and management plan.

Table 17 Potential risks and management plan

Risk	Management
Participants are wearing fashion braces	Give advice and tell them about possible consequences. Give information on dental health practices where they can receive dental treatment if they require it/have problems
Providing detail of the places or locations that sold the fashion brace being worn	Ask participants at the beginning of the interview not to describe the name of the shop or provider where they got their fashion braces
The interview causes emotional distress	Remind participants that they can withdraw at any time. Provide the phone number of a mental health support line (Tel. 1323)

Exposing the researcher to personal dangers, especially emotional	Create another Facebook account and Line account for research purposes, used only to contact participants

4.4.5.2 Ethics approval

This research involved recruiting people who had experience with fashion braces in Thailand. In order to do this, I obtained ethical approval from the university ethics reviewers, and I was granted approval on 5 May 2021 (Reference 038736) and from Sirindhorn College of Public Health, Yala, on 25 May 2021.

During the study, I submitted minor amendments for ethical approval to reduce participants' minimum age (from 16 to 14 years old).

4.5 Results (Part 1) – Demographic data Information

4.5.1 General demographic data

Eighteen participants were recruited using purposive sampling; as a result, two men and sixteen women across Thailand participated in this study.

Their ages ranged from 15 to 29 years old. The two largest groups of participants were between 16 and 20 and 21 and 25, accounting for eight and seven participants, respectively. One participant was 15 years old, and the last two participants were over 25 years old. (Figure 24)

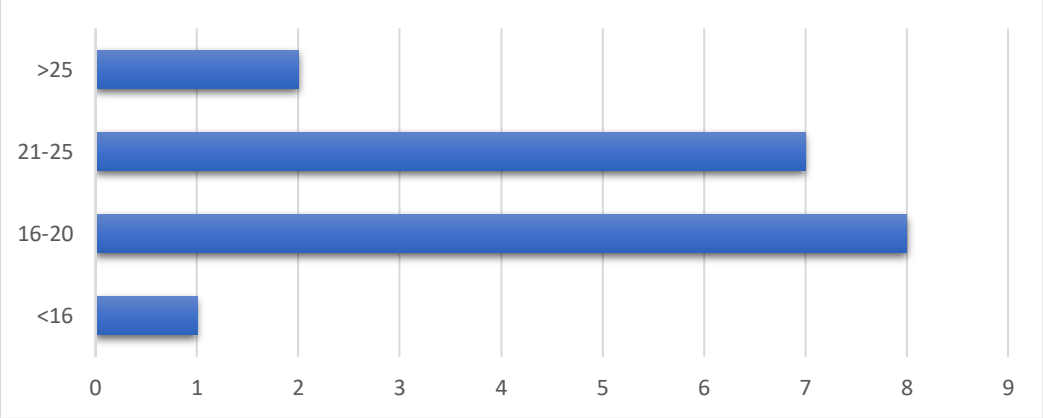


Figure 24 Age of participants (N = 18)

The following demographic question was about the region of residence of the participants. Six participants lived in the north of Thailand, and five were from the south region, followed by the northeast region (N = 3). Four participants were from the central and east regions, respectively. (Figure 25). Details of specific provinces participants lived in can be seen in Appendix H.

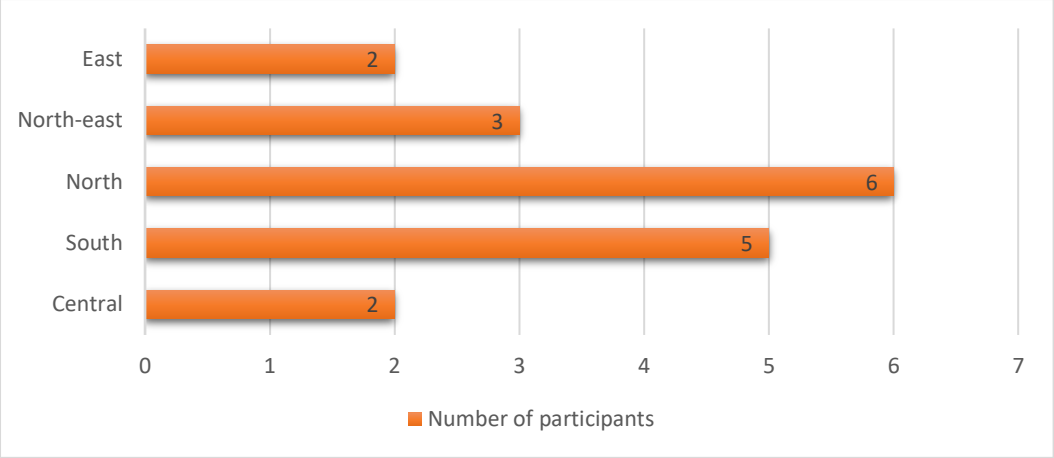


Figure 25 Regions of residence (N=18)

Regarding the highest education levels, the largest group of participants were studying secondary school and vocational certificates (N = 7), while the other two were studying in the informal educational system while working. Three participants held Matthayom 3 degrees, the equivalent of Year 9 in the UK, and the other three graduated Matthayom 6 (or Year 12). Two participants graduated with bachelor's degrees, and one participant finished their education at Prathom 6 (or Year 6). Table 18 shows participants' education levels from the lowest to the highest.

Table 18 Participants' educational levels

Participants' highest education level (N=18)	**Number of participants**	**In comparison to the UK educational system or explanation**
Studying		
- Formal education	7	General or vocational education
- non-formal education	2	Education outside the formal educational curriculum; especially primary and secondary school levels
Prathom 6 (P.6)	1	Year 6
Matthayom 3 (M.3)	3	Year 9
Matthayom 6 (M.6)	3	Year 12
Bachelor's degrees	2	Bachelor's degrees

4.5.2 The participants' profiles while wearing fashion braces

This section considers quantitative information on participants' characteristics while wearing fashion braces, as illustrated in Table 19.

First, the age when they started wearing fashion braces: most participants (N = 10) started wearing fashion braces while they were under 16, followed by wearing them while aged 16–20 years old (N = 7). Only one participant wore fashion braces when she was 28.

During the interviews, some participants memorised the beginning of their fashion braces, relying on memorable life milestones, such as their progress in school at the time or the ending of relationships. Therefore, for some participants, at least I was able to estimate their age if they provided their education level.

Half of the participants had a history of wearing fashion braces more than once (N = 9). Seven participants reported that they wore fashion braces twice. Eight participants removed their first set of fashion braces and then never fit a second set.

Table 19 Participants' profiles while wearing fashion braces

	Participants	Number (Total N=18)
Fashion brace wearing status	Wearing fashion braces Had fashion braces removed	2 16
Age when started wearing braces	<16 16–20 21–25 >25	10 7 0 1
Occupation while wearing fashion braces	Secondary school student Vocational certificate University student Employed	12 2 0 4
Number of times wearing fashion braces	1 time 2 times More than 2 times NA	8 7 2 1
Wearing duration (in total)	Less than a week 1 week–1 month 2–3 months 3–6 months 6–12 months More than 1 year	2 2 3 2 2 7
Providers	Self-fitting Non-professional Dental professional	4 13 1
Recruitment strategies	Recruitment flyer Gate keeper Social media (TikTok) snowball	2 5 6 6

The duration of wearing fashion braces was varied, but seven out of eighteen had worn them for more than one year, while the rest had worn them for less than one year. Note that the researcher added up the durations if participants wore fashion braces more than once.

In terms of fashion brace providers, most participants (N=13) used the services of non-professionals. These services included the fitting of fashion braces and the fabrication of fashion retainers. Only four participants installed their fashion braces independently. Interestingly, one participant reported that they had braces fitted by dentists for fashion purposes.

4.6 Results (Part 2) – Qualitative thematic analysis

The findings in this section of the study presented in "Life with fashion braces" covers time prior to fashion braces until the current time in three stages. These three stages were observed in the findings of Study 1 and serve here as a "framework" for presenting the current results. Figure 26 illustrates the participants' timeline of life with fashion braces in three stages and their themes.

Stage 1: Roads into the world of fashion braces (Section 4.6.1)

Stage 2: Wearing fashion braces (Section 4.6.2)

Stage 3: Escaping the world of fashion braces (Section 4.6.3)

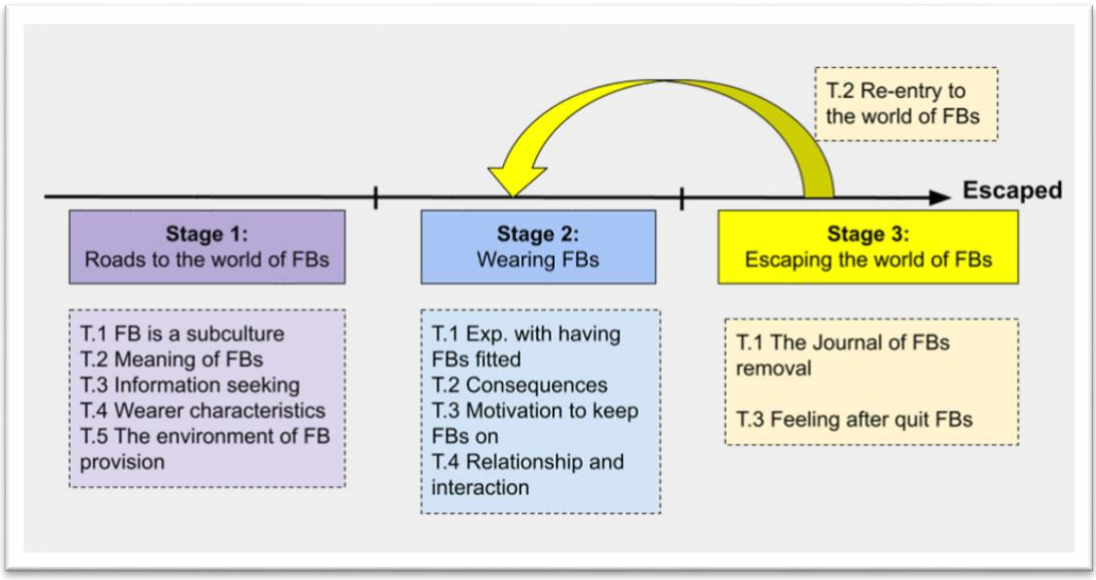


Figure 26 Life with fashion braces in three stages and their theme (FBs = fashion braces, Exp = experience)

4.6.1 Stage 1: Roads into the world of fashion braces

This stage includes themes that emerged from participants' stories of the time before they started wearing fashion braces. There were five themes, as seen in the next table (Table 20), which provides descriptions of the themes.

Table 20 Themes and subthemes in Stage 1: Roads into the world of fashion braces

Stage 1	Themes	Subthemes
Roads into the world of fashion braces	1. Fashion braces as a subculture	1.1 Evolution of fashion braces 1.2 Networking
	2. Meaning of fashion braces	2.1 Fashion braces as fashion objects 2.2 Fashion braces as a tool to hide the appearance of teeth 2.3 Fashion braces as a tool to improve one's smile 2.4 Cheap braces for treatment
	3. Information seeking	3.1 From veterans to rookies 3.2 Internet
	4. Wearers' characteristics (common characteristics of fashion brace wearers)	4.1 Being a teenager 4.2 Fear of dentistry 4.3 Financial considerations
	5. The environment of fashion brace provision	5.1 Selling locations 5.2 Availability 5.3 Prices of fashion braces

Table 21 Descriptions of five themes in Stage 1

Themes	Description
1 Fashion braces as a subculture group	Fashion braces as a subculture, meaning "the way of life, customs, and ideas of a particular group of people within a society that are different from the rest of that society"
2 The meaning of fashion braces	The purpose of having fashion braces or what contribution fashion braces make to participants' lives
3 Information seeking	How participants seek information prior to having fashion braces, the source of that information and reactions to the information
4 Wearers' characteristics	Common characteristics of fashion brace wearers
5 The environment of fashion brace provision	Dimensions of accessibility to fashion brace provision

4.6.1.1 Theme 1: Fashion braces as a subculture group

Orthodontic braces are standard devices for correction of malocclusion, and they are provided by dentists or orthodontists (Littlewood and Mitchell, 2019). However, in Thailand, some braces are provided and worn illicitly; they are provided or fitted by non-professionals or the wearer themselves, either for self-perceived "therapeutic" use or for non-therapeutic use. The use of braces provided by non-professionals in Thailand is called "fashion braces".

Braces are objects that orthodontic braces and fashion braces have in common. Orthodontic braces are "legal", "safe" and "widely accepted" for medical purpose, while the majority of society sees fashion braces as "illegal", "unsafe" and "unacceptable". Legally, fashion braces are considered illegal activities within Thai laws (Section 2.4.1). However, people who stand in the world of fashion braces would see this differently. Therefore, the researcher proposes to see fashion braces as a subculture that is different from the mainstream, which is represented by the orthodontic braces used for treatment and provided by dental professionals. From within this perspective, subculture is defined as "the way of life, customs, and ideas of a particular group of people within a society that is different from the rest of that society" (Cambridge Dictionary, n.d.).

This subtheme is a brief introduction to help readers understand the fashion brace subculture in Thailand, including the evolution of fashion braces in Thailand. Other components supporting the idea that fashion braces are a subculture are discussed in the next theme.

4.6.1.1.1 Subtheme 1.1: Evolution of fashion braces

The fashion brace subculture, which many of the participants talked about, seemed to have its own history. A few participants talked about where fashion braces originated and particularly how the "orthodontics brace" has become a fashion symbol in Thai pop culture.

For example, this can be seen clearly in Kim's story. Kim was young when she entered the world of fashion braces (14–15 years of age). She had fashion braces removed for more than 10 years. She suggested that her desire to get fashion braces was linked to the orthodontic braces worn by teenaged singers at that time:

> *"Well, I had fashion braces since I was a teenager, very young. It was while I was in lower secondary school. At that moment, fashion braces were trendy.*
> *There were singers, like Kamikaze and Four-Mods, something like that, back then. Net idols also tended to have braces fitted. But they had real braces. At that time, I didn't have enough money to get real braces as a student. But I craved to have braces."*

(Kim, 26–30 years old, female, former FB wearer)

Kim was considered an early-generation wearer among the participants in the present study. Note that, she was the only person who provided the history of fashion braces, which was tied to media figures; therefore, other wearers' versions might be different.

Nowadays, the leaders of trends are more likely to be Tiktokers – rather than teen singers. Note described TikTok as a space where many trends happen and said she was a part of the fashion brace TikTok "community":

> *"Note: I followed trends; whatever people did, I did. I have had people hit the heart button and follow.*
> *TK: Following the trend. Which trends have you ever followed?*
> *Note: At that time, people had fashion braces; I had them too. I dressed how TikTokers dressed. I took pictures, I sang songs and uploaded."*

(Note, 16–20 years old, female, former FB wearer)

All of the above accounts suggest that those joining the world of fashion braces often follow trends – whether online "social media influencers" or public figures. Nancy, on the contrary, was one of the trend-setters.

"Nancy: My gang knew that I was wearing fashion braces; they got braces and followed me.
TK: laugh. How many people were in your gang?
Nancy: Over 10. Someone didn't want fashion braces. During that period, we were very naughty. Many friends skipped class. Many of them. There were many people in my gang."

(Nancy, 16–20 years old, female, former FB wearer)

The above statement reflects how public figures in mass media, such as television and the music industry, influenced the beauty standards of teenagers in the past. In the present time, on the other hand, social media platforms have become more crucial. This finding is consistent with previous literature regarding the relationship between Thai media, aesthetic demands to represent self as the beauty mainstream such as white skin, straight hair, high nose bridge, low cheekbones, straight and white teeth and wearing orthodontic braces (Chaipraditkul, 2013; Pothidee, 2007; Hesse-Swain, 2006; Phakdeephasook, 2009; Aizura, 2009; Seewan and Benjarongkij, 2014). The beauty demands set by public figures are translated into action in pursuing both surgical and non-surgical treatments and legal or non-legal products.

4.6.1.1.2 Subtheme 1.2: Networking

Networking among wearers might play a crucial role in the subculture. Fashion braces were considered an illegal activity in Thailand; therefore, there were few spaces for them to express or promote their subculture. It should have ended in a short time; however, fashion braces still exist in Thailand. This suggests that diffused networking, informal relationships and word of mouth played an important role in this subculture's spread across Thailand's underground.

For example, Marie was recruited by a former wearer by suggesting that fashion braces "were good enough" (relative to "orthodontic braces"). She recounted:

"Well, I was just 16–17 at the time that I had real braces. I saw friends having braces; they were cute. A friend of mine said to me, "Paying 30,000–40,000 is such a waste of money, you don't need to get braces; retainers like this are just 500 THB. They are removable; you don't stand any pain."

(Marie, 21–25 years old, female, former FB wearer)

Penny was a provider and reflected on how she recruited new wearers who were her acquaintances, such as friends, classmates and schoolmates. Later, word-of-mouth and social networks played active roles in recruitment.

"Penny: Yes, the first group of my customers were from school, such as my friends, juniors and seniors. Customers based in school. Because I didn't know others outside the school.
TK: But later, you got other groups of customers because of word of mouth?
Penny: Yes. And I also posted on Facebook; therefore, customers were friends on my Facebook as well."

(Penny, 16–20 years old, female, occasion fashion retainer wearer and a provider)

Interestingly, many of the participants shared similar values of fashion braces as a fashion symbol and style, despite coming from different locations and cohorts. It demonstrates how fashion braces are a subculture that is influenced by mainstream pop culture and media figures who look cool from wearing orthodontic braces. This was seen in Study 1, in which several people sought fashion braces to serve their looks for non-therapeutic purposes.

Networking played an important role in maintaining the existing subculture in Thai society via recruitment, information feeders (see Section 4.6.1.3.1) and support (see Section 4.6.2.4.2 relationship and interaction). The latter two roles are discussed later.

The next theme explores the ways in which fashion braces have meaning to participants apart from a fashion symbol.

4.6.1.2 Theme 2: Meanings of fashion braces

There were a number of meanings of fashion braces that could be seen in the participants' stories. Many of these were also seen in the results of Study 1 and were prevalent in online discussions. These four codes were fashion braces as a fashion object, fashion braces as a tool to hide teeth problems, fashion braces as a tool to improve one's smile and cheap braces for treatment purposes.

4.6.1.2.1 Subtheme 2.1: Fashion braces as a fashion object

"Fashion braces as a fashion object" is the most common meaning that emerged from participants' interviews. A fashion object was defined by Schiermer (2011) as "objects were seen as a presumably sensual and particular object which attracts people's attention" (p.98). This definition would include any statement made by participants mentioning that braces were worn to get attention, for example:

"Well, back then, before I got fashion braces, I thought I wanted to be beautiful, I wanted a cute smile – the smile that men like something like that."

(Angie, 21–25 years old, female, former FB wearer)

"It's like… Well, I craved to wear it at that time. So I didn't feel worried at all. I wanted to wear it to be cool and handsome. It was an opportunity to post photos on Facebook and stuff like this."

(Dan, 21–25 years old, male, former FB wearer)

As can be seen from the above, participants talked about using fashion braces to get attention from peers or on Facebook.

In addition, fashion braces offered flexibility, including changing styles and wearing patterns as they wished.

"TK: What do you mean when you say you wore them for fashion?
Mark: I didn't wear them all the time. I took them off when I was in bed and had meals."

(Mark, 21–25 years old, male, former FB wearer)

In some cases, fashion braces were popular in their societies, and fashion braces became the norm or the object of being trendy. Several participants responded to the trend by seeking fashion braces to achieve an appearance similar to that of their peers.

"At first, I saw friends get braces. They were fashionable ones. It was beautiful. Those who had them were gorgeous."

(Sam, 21–25 years old, female, former FB wearer)

"I wanted (fashion braces) for a long time. I saw pictures of other people who had braces, which I thought were gorgeous. I must have them too."

(Note, 16–20 years old, female, former FB wearer)

"Well, I loved changing the colours of rings. I bought rings separately, such as chain and o-ring, something like this. I preferred to buy them separately to change by myself."

(Nancy, 16–20 years old, female, former FB wearer)

The wearers used fashion braces as "fashion objects" in different ways. Similar quotations to the above were found in several of the participants' stories: that is, they expressed their need or desire to have braces for the purpose of being seen positively or to live confidently. Some used them as luminous and eminent objects; hence, some wearers used them to blend in with society. Some participants used fashion braces as "no-rule" devices, unlike orthodontic braces, and achieved a fashionable look with colourful rings.

4.6.1.2.2 Subtheme 2.2: Fashion braces as a tool to hide the appearance of teeth

A few participants disliked the appearance of their teeth and wanted fashion braces to hide these problems, which included dental spacing and dental caries. Using fashion braces in this way improved their confidence, as the appearance they found unpleasant was less or not at all observables by others.

Cheryl had worn fashion braces for four months; she explained what fashion braces meant to her. This was related to spacing in what she saw as a visible area, which meant that she was not comfortable smiling.

> *"I have one broken tooth on the back of the canine. When I had fashion braces, the braces fully covered the missing tooth. I could fully smile. Unlike in the past, I didn't smile – the smile that people could see my teeth."*

(Cheryl, 16–20 years old, female, former FB wearer)

A similar story was relayed by Ella, who had been wearing fashion braces for a period of four years (although at different times). She first got fashion braces to hide her "big teeth"; however, these fashion braces caused gaps in her teeth. She later decided to get a second set of fashion braces to minimise the gap. In this motivation, Ella could be seen as coveting the "traditional" orthodontic brace.

> *"The last time I had fashion braces removed, teeth were pulled out too. Then there were tooth gaps. So, I went back to wearing braces again because I had a wire in my mouth. Well, having tooth gaps, people might think I was wearing real braces, not fashion ones, because they were similar. If people don't notice, they don't really know it's fashion."*

(Ella, 21–25 years old, female, former FB wearer)

In this study, all participants who used fashion braces to cover their teeth focused on their tooth alignment. However, the results from Study 1 suggested that some wearers sought fashion braces to hide dental caries or tooth discolouration which was not found in this study. This difference between the two studies is discussed later in the thesis (Chapter 5).

4.6.1.2.3 Subtheme 2.3: Fashion braces as a tool to improve one's smile

As can be seen from the quotes above, participants talked about fashion braces boosting their confidence by using something that is "on trend" or a "fashion object" or by hiding the appearance of their teeth.

Natacha hoped that fashion braces could help her practice smiling. She described herself as a person who did not regularly smile. When she began practising Thai dance, she felt she did not have "a beautiful smile":

"Natacha: I joined a Thai dance club. When I performed, I didn't have that beautiful smile. Besides, my senior got fashion braces; she said that fashion braces improved her smile significantly. So, I gave it a try. … The senior told her friends that fashion braces improved her smiling. …. But fashion braces made her smile look natural."

(Natacha, 16–20 years old, female, former FB wearer)

Natacha's reason for wearing fashion braces was a hope planted by her peers. She hoped that fashion braces could fix her smiling problem and make her a better performer. In general, braces could change how people smile, as they forced the wearers to lift their lips up above the brace to avoid irritation. Unlike the findings in subtheme 1, Natacha saw braces as a tool to practice smiling rather than as a fashion object (see Section 4.6.1.2.1).

4.6.1.2.4 Subtheme 2.4: Cheap braces for treatment purposes

There were a few participants in the present study decided to wear "fashion braces" as a cheap version of orthodontic braces. As such, their aim was to use fashion braces purposefully for orthodontic treatment or to maintain the position of their teeth.

Violet began her life with fashion braces when she was 13 years old. She started with fixed fashion-fashion braces. After a while, she struggled with the pain and bad breath; therefore, she got the fashion braces removed. Then she told me the story of retainers from a dental clinic. She called retainers shortly as "Re".

"When I got to the dentist, he asked me what I wanted to do. Then I said that I wanted to make "Re" to maintain my teeth in the position. Kept them in this position. Because I have had (fashion) braces before. It seemed like the teeth were starting to drift. So, I studied and found how to prevent my teeth from moving and drifting, or how to keep my teeth from moving away, so I went to get a "Re"".

(Violet, 16–20 years old, female, former FB wearer)

After a year, the retainers from the clinic were lost, so she sought another pair of retainers provided by her acquaintance. This time, she called the appliance "Re-fashion", which stands for "fashion retainers".

"Violet: because I felt that my teeth were drifting. If I let it go like this, my teeth must be drifting. They suggested wearing "re". So, I sought "re-fashion" instead because I couldn't afford "Re" from the clinic. So, I went to do fashion ones.
TK: Any other consideration you considered to choose "re-fashion" over "re" from clinics apart from the different prices.
Violet: I thought the quality was similar. The price was cheap enough to afford it."

(Violet, 16–20 years old, female, former FB wearer)

Marie undertook orthodontic treatment for six months and decided to stop the treatment as she could not bear the aching feelings. Her dentist suggested that she wear retainers for an easier future treatment plan. Some problems, such as forgetting to wear retainers and a lack of satisfaction with colours, led her to buy a new pair of cheaper retainers made by an informal provider. She hoped that the new retainers would maintain her teeth in the correct position.

"TK: You told me that retainers from the dentist weren't beautiful. How different are the dentist's ones and the second fashion retainers that you ordered?
Marie: It was like I saw my friend wear blue. This friend has white skin. So when she wore blue, she looked gorgeous. I wanted to wear blue too. But when I wore the retainers with blue, it wasn't as great as I expected. Besides, I forgot to wear them; I forgot them at home. I put them in later; I couldn't wear them. So this was an opportunity to get the new pair in a cheaper price but not from the same shop."

(Marie, 21–25 years old, female, former FB wearer)

These stories are interesting, as they suggest that fashion braces are not just sought as fashion objects or to be seen as part of a subculture group; rather, they are also sometimes sought as 'stand-in' orthodontic appliances.

Each of these meanings was important in the participants' stories as to why they decided to have fashion braces. In the next subtheme, the strategies that participants used to get information on fashion braces before wearing them are discussed.

4.6.1.3 Theme 3: Information seeking

For the participants in this study, there appeared to be two main information-seeking strategies: asking current FB users and/or searching for information on the internet.

4.6.1.3.1 Subtheme 3.1: Passing knowledge from veterans to rookies

Participants sought information from people they knew who were fashion braces wearers or "veterans" of fashion braces. In this way, knowledge and understanding of fashion appeared to pass from fashion brace insiders to rookies, meaning those who wanted to be a part of the world of fashion braces.

One of the most common questions asked by the participants was about locations where they could get fashion braces.

> *"Angie: So, I asked my friend where they get fashion braces and the price. … I remember that I got them from the Suvarnbhumi Market."*

(Angie, 21–25 years old, female, former FB wearer)

> *"Penny: they told me that they got fashion braces from a person who opened a fashion braces shop. But this shop was located in a suburban area. Well, back then, I didn't know how to travel somewhere far from home. So, I asked them if there was another way to do fashion braces by myself. They told me that I could do, but I had to order through the internet or Facebook page. So, I asked her the page to order and to fit them by myself."*

(Penny, 16–20 years old, female, current FB wearer and a provider)

Other information that was sought out by participants was any potential consequences of wearing fashion braces on the teeth – interestingly, some of the participants were aware before wearing fashion braces that they could in fact lead to problems. Sam, for example, was worried about potential damage from fashion braces. However, her friends eliminated her anxiety by telling her that removable fashion braces could be taken off anytime, implying that "you can take them off any time before the damage occurs":

> *"TK: Please tell me about it. The words "no, not at all". It meant you didn't really find any information. Did you get any information from the people around you?*
> *Sam: I asked my friends if there were any aftermaths after wearing them? What would teeth be after that. Something like this*
> *TK: What did they say.*
> *Sam: My friend said, "it's fine. And it can be taken off whenever you want (Laugh)"*

(Sam, 21–25 years old, female, former FB wearers)

This "normalising of impacts" was seen in many interviews:

> *"Well, I saw a lot of people wearing fashion braces. I asked them how it was doing – did anything happen after wearing the fashion braces for a while and would it ruin teeth? That's what I asked. They said no, and everything was fine."*

(Matha, 16–20 years old, female, current FB wearers)

"Of course, I asked my seniors, "how were you wearing it?"" Does it hurt?", "Did you suffer or something like this?". They said there was some pain in the first few days of wearing something like this. But later, it doesn't hurt. They told me to try putting braces on; it's cute. So, I tried it, but I didn't think it would have any consequences."

(Ella, 21–25 years old, female, former FB wearer)

This normalisation was seen even when the "veteran" themselves had experienced problems from fashion braces. For example, Penny wore fashion braces for a week and gave up because of unbearable pain. During the time she was wearing the fashion braces, her friends were also interested in them. Despite the pain, she encouraged them to get fashion braces and, furthermore, saw opportunities in a career providing fashion braces for her friends.

"After I got [fashion] braces removed, some friend who saw me gorgeous wanted to get braces too. They asked me, so I suggested them. But some of them didn't know how to fit fashion braces. So, this was the beginning of me providing fashion braces for friends."

(Penny, 16–20 years old, female, current FB wearer and a provider)

Some participants were aware of both benefits and potential problems and highlighted this to anyone who asked. Cheryl, for example, talked with them about the benefits, including saving money, but also did not encourage them to get fashion braces and relayed her experience of pain and eating difficulties:

"Cheryl: There were a group of seniors and juniors. After I had fashion braces fitted, some juniors discussed with me about having fashion braces. I told them that it was okay, and it saved money, but it depended on how we looked after them. But I didn't suggest them to have fashion braces; it wasn't worth it. But they went for it anyway.
TK: Right.
Cheryl: They said, "I saw you have fashion braces; you are cute". I said, "Yes, but I am suffering, you don't follow me, okay? I passed through that". But they didn't listen to me, so I was like, "go on"."

(Cheryl, 16–20 years old, female, former FB wearer)

These stories of passing information from "veterans to rookies" by word of mouth suggest that in the case of fashion braces, the "experts" are the wearers who provide their knowledge and experience to those seeking out FB, rather than the experts being the dental profession and/or orthodontists. None of our participants sought out information from experts in the traditional sense (i.e., doctors, dentists, orthodontists) or from family or parents. This again supports the view of fashion braces as a subculture or group.

4.6.1.3.2 Subtheme 3.2: Internet

In addition to asking veteran wearers of fashion braces, many of the participants sought out information on the internet. This information did not, however, seem to detract from their decision to get fashion braces, even if it was negative.

Penny, for example, acknowledged the potential consequences of fashion braces but still went ahead:

> *"I searched on the internet about getting braces. Search results mainly included pictures and information about dentists and cautions about fashion braces, such as crooked teeth like this. But I didn't pay much attention; I just ignored it because I really wanted to get braces."*

(Penny, 16–20 years old, female, current FB wearer and a provider)

Some people may look for a specific source to reach their goal of having fashion braces. For example, Marie searched the internet to locate pages selling fashion braces that she thought would be trusted sources. She went through a careful selection process to get the best fashion braces based on positive reviews on the internet.

> *"Marie: I ordered via Facebook. I loved searching for things. I typed on Facebook with the keyword "fashion retainers". It showed a lot of results, including pages and personal Facebook accounts. I only checked on pages with a lot of followers. There were reviews like "very beautiful, good for wearing", "look like real ones, better than getting ones from clinics". Which I wasn't sure if reviews were legit or from claques. "I finished orthodontic treatment, and I ordered retainers from here. They are better than what I got from dentists" or something like this. I found that the page had a lot of positive reviews. They wouldn't ruin my teeth. Even those who undertook braces from dentists ordered retainers from this page.*
> *TK: Ahh, you chose the page from reviews.*
> *Marie: Yes. Before I buy anything, reviews help me decide.*
> *TK: So, you think you were careful at that time?*
> *Marie: Yes. First, I am afraid of being scammed, especially when buying stuff online. I usually explore pages. If it is a personal account, I leave it. Only pages, I paid attention. Pages must have a lot of good reviews too. If I find that there are 5–6 negative feedback from 100, I also leave it. I tend to buy from pages that have a lot of positive reviews. Then I decided to get them."*

(Marie, 21–25 years old, female, former FB wearer)

Participants' use of the internet was interesting. Some used it to seek out information on the consequences of fashion braces; others used it to choose the best provider. However, surprisingly, the internet did not appear to be the primary source of information – rather, this was the fashion braces

community (as seen above, Section 4.6.1.3.1). What is clear from these participants' accounts is that they did not always have the appropriate skills. These findings fit with the results of Study 1, in which the online forum Pantip.com was a source of information and opinion to help them seek out fashion braces.

In addition to seeking out information from the internet and "veteran wearers", there were a number of other personal characteristics that influenced participants' decisions to get fashion braces.

4.6.1.4 Theme 4: Personal characteristics

There were a number of characteristics of participants that were linked to getting fashion braces. These were being a teenager and a fear of dentistry. These are discussed below.

4.6.1.4.1 Subtheme 4.1: Being a teenager

All the participants in the study, except one, had fashion braces while they were young. Additionally, many of them recently had fashion braces removed (see participants' details in Appendix H). The participants suggested that they first got fashion braces because they were unaware of the consequences until they happened. They themselves said that they were naïve or ignorant.

Orthodontic braces are fitted to correct types of malocclusions, with many people having them during puberty and adolescence. At the same time, fashion braces are seen by some as having a similar look to that of orthodontic appliances for those who do not need (or cannot get) orthodontic braces. They are therefore seen as part of a stage of life: adolescence and being a teenager. For example:

> *"My inspiration was just like what teenagers wanted."*
>
> (Note, 16–20 years old, female, former FB wearer)

> *"Besides, I was just being a teenager, wanted to know and try everything, and wanted to be beautiful, something like that."*
>
> (Jasmine, <16 years old, female, former FB wearer)

For example, Pattra described her original tooth appearance as not a severe tooth alignment but only a prominent canine. She was a teenager who wanted fashion braces for fashion purposes. The only information she asked for was from her cousin, a fashion brace wearer. She wore fixed fashion braces for only a few months. She later said how shocked she had been at the unexpected outcome, which she believed was down to her own ignorance. Even though she is a social media user now, she had not been at the time and was unaware of the stories.

"TK: Huh, so let's go back to the time before you decided to get fashion braces. You have mentioned that you never knew it would end like this. Have you ever heard the news talking about fashion braces? Have you ever seen it on the news?
Pattra: No, because I wasn't addicted to social media at the time.
TK: So, when there was the news about the dangers of fashion braces, you hadn't heard about it?
Pattra: No.
TK: May I ask? Why did you take this risk?
Pattra: I didn't know it was going to be risky. Besides, it was for beauty purposes too."

(Pattra, 16–20 years old, female, former FB wearer)

It is interesting in this participant's story that all sources (internet, experts, peers) that many people would access, she did not. This is important as it suggests that sources in the mainstream – such as news – are not covering this topic or are not a main source of attention for teenagers of this generation. People are left to navigate the fashion brace world with little information or with sources that may not provide all of the relevant information (e.g., risks and benefits).

Jasmine was the youngest participant in this project; she got fashion braces at 13 years of age. Before having fashion braces, she had no knowledge of the differences between conventional orthodontic treatment and fashion braces:

"TK: Before that, have you searched for any information before you got fashion braces?
Jasmine: Not at all. I was 13 years old at that time. I was too young to know the differences between fashion braces and braces from dental clinics. I had no idea. One thing I knew was that it was so cute to have them.
…
TK: You just knew that braces existed?
Jasmine: Yes, I thought they were the same in the first place. "Wow, very cheap. Is it safe?" I asked my friend. They told me they were exactly the same, but this one was just for wearing purposes. It wouldn't help moving teeth, unlike what the clinic ones do. I followed what my friend did. It was okay and not dangerous."

(Jasmine, <16 years old, female, former FB wearer)

Leaving the TV on all day was Jasmine's family routine, and it was her parents' main source of knowledge about fashion braces (e.g., risks and benefits). However, she did not receive that information. This could confirm that the news on TV may not be a main source of information for teenagers.

4.6.1.4.2 Subtheme 4.2: Fear of dentistry

A few participants in the current study had considered orthodontic braces as their first choice; however, they had several fears of dentistry, including pain, the type of procedure, the cost of treatment and the dentists themselves.

Ella had fashion braces when she was 13–14 years old. Her first concern was the cost of treatment. Then she talked to her friend, who undertook orthodontic treatment; she heard of pain from having orthodontic treatment. Therefore, she decided to get fashion braces because they would be similar to "traditional" braces but would be less painful. This fear came from another experience:

> *"I think it would cost a lot of money. I talked to my seniors at school, and they said it was agony, such a torment. They had screws in the gum, which was very painful. I feared it. I thought fashion braces wouldn't create this level of pain. It may be less suffering, for sure."*

(Ella, 21–25 years old, female, former FB wearer)

Cheryl talked about and compared her past experiences with other dental procedures than orthodontic treatment.

> *"Cheryl: At first, I wanted to have real braces, but I was afraid of the needles used during tooth extraction. So, I decided to get fashion braces instead.*
> *(…)*
> *Cheryl: I have a needle phobia. I am afraid that if I see dentists, they would pull my teeth.*
> *TK: Where did this thought come from?*
> *Cheryl: Since I was very young, a dentist said this tooth needed to be pulled out because of caries. I told them, "I will come back."*
> *TK: What's next?*
> *Cheryl: I knew it, I knew that if I got real braces, my teeth must be pulled out."*

(Cheryl, 16–20 years old, female, former FB wearer)

Conversely, for Marie, the fear of pain came from her direct experience with orthodontic braces. Her timeline with braces was as follows: 1) orthodontic braces for three months, 2) fashion retainers for one year, 3) orthodontic braces for six months and 4) fashion retainers for six months.

She stopped wearing her first set of orthodontic braces because of unbearable pain. After this, she started wearing fashion retainers, as she could remove them if she experienced any pain. In this way, Marie's fashion retainers were a strategy to avoid pain but still be able to enjoy wearing braces:

"Marie: I used to get fashion braces. At first, I had orthodontic treatment, then I had them removed to get fashion braces later. While I had real braces, it was painful; that's why I had the real braces removed. Because I just wanted to have braces, kind of like that.

…

Marie: That's right. I had real braces before. But the real braces couldn't be taken off, unlike fashion retainers. It was tough to eat and very painful. The first few days, it was painful, so I had them removed. Then I wore fashion retainers."

(Marie, 21–25 years old, female, former FB wearer)

There were a few participants who sought fashion braces from non-dentist providers rather than seeing dentists for orthodontic appliances – sometimes because of their dental anxiety. It is unclear where the idea that fashion braces were less painful arose from – it may have been a strategy from providers of fashion braces to help convince people to wear them. Alternatively, it could be that the "veterans" minimised the pain when they were passing on their knowledge (see Subtheme 3.1 – Section 4.6.1.3.1), or perhaps fashion braces are linked to less pain for some people.

4.6.1.4.3 Financial considerations

Among fashion braces, there are different prices available, with the range of fashion brace prices ranging from hundreds to thousands of Baht. This idea of fashion braces being "cheap" is not, therefore, necessarily the case in all situations. This code might overlap with Section 4.6.1.5.3 on the prices of fashion braces. The main point is that this theme will look at the price that participants thought was suitable for them, while the code in Section 4.6.1.5.3 will focus on the range of products and their prices.

Dan and his friend were partners in fitting fashion braces by themselves. They bought two pairs of fashion braces, which were 120 Baht per pair (£2.67).

"So, I checked the price; it was also cheap. I bought about 4… 4 pieces of them, one for my friend and another pair for me."

(Dan, 21–25 years old, male, former FB wearer)

Sam expressed that the price of the fashion braces is suitable for a teenager; 400 Baht, or approximately £9, was an affordable price for her as a student who did not earn money.

> *"Sam: At that time, the price was 200 Baht for the top and 200 Baht for the bottom. The price was cheap, which was suitable for secondary school students M.3–M.4.*
> *TK: What part of the money did you spend on it?*
> *Sam: Uh, stole my mom's money.*
> *TK: Laugh*
> *Sam: Slowly nicking change, collecting money and going to get braces."*

(Sam, 21–25 years old, female, former FB wearer)

Nancy, a student who worked as a dancer for a living, went to the hospital many times during the time she wore fashion braces. During these visits, the dentist convinced her to get orthodontic braces even though she could only afford fashion braces. The suggestion was to pay in instalments:

> *"Nancy: They eventually remembered who I am. They said, "you got fashion braces again", "don't do that anymore". They nagged and explained to me about fashion braces. They told me, "do you see my teeth? I got real braces from a dental clinic. You can contact dental clinics". Something like this. They told me that there was a payment by instalment option available as well as promotions. And it was better than getting fashion braces. These were the things they told me.*
> *TK: But you decided to …*
> *Nancy: That was all the money I had. I decided to get fashion braces."*

(Nancy, 16–20 years old, female, former FB wearers)

It seemed to many of the participants that they had two choices of braces: orthodontic braces or "real" braces, which were provided by dentists and were more expensive than fashion braces, or "fake" braces from non-dentist providers. For many, this financial consideration was what made them seek fashion braces, although they desired "real braces" whether for treatment or not.

> *"At that time, I didn't have enough money to get real braces as I was a student. But I craved to have braces."*

(Kim, 26–30 years old, female, former FB wearer)

"TK: Why do you like having braces?
Matha: I feel my teeth weren't beautiful; it wasn't exactly what I wanted. At that time, I considered that before going for fashion braces. I thought, uh, I wanted to get real braces, but I didn't have enough money."

(Matha, 16–20 years old, female, current FB wearer)

Orasa, the eldest participant in the study, had fashion braces fitted at 28 years old. She got fashion braces because she hoped they could fix the gaps in her teeth within her limited budget.

"Well, I saw many people go for real braces, and their teeth were in place, right? I meant with the real braces. But I didn't have money, so I went for fashion braces instead, in case it would fix my teeth problem."

(Orasa, 26–30 years old, female, former FB wearer)

Participants reflected on the price of fashion braces that suited them. This factor impacted participants' decisions about the characteristics of fashion braces. Not only did participants seek fashion braces as a cheap version of orthodontic treatment (see 4.6.1.2.4), but they also sought the less expensive look of orthodontic braces. The financial considerations of having "real" or "fake" braces were also important in the next theme (see Section 4.6.1.5.3).

4.6.1.5 Theme 5: The environment of fashion brace provision

Many of the themes that have emerged and been discussed so far are related to individual factors, that is, characteristics to do with the individuals seeking fashion braces. However, the environment of fashion braces was also discussed by the participants. In this theme, three factors came to the fore in participants' interviews. These were the location of providers, their availability and the price of fashion braces.

4.6.1.5.1 Subtheme 5.1: Selling locations

Participants revealed that fashion braces could be purchased from several locations, including both physical locations and online.

4.6.1.5.1.1 Social media – Facebook

For participants in this study, social media – particularly Facebook – was a prime source of fashion braces. Participants revealed it was effortless; they accessed the providers by scrolling down their feeds or searching with simple keywords, such as fashion braces and re-fashion.

A few participants even highlighted that there were posts selling fashion braces that were presented on their news feed without any search being needed.

"When I was scrolling down, I saw their posts selling fashion braces."

(Dan, 21–25 years old, male, former FB wearer)

"I wanted (fashion braces) for a long time. I saw pictures of other people who had braces – which I thought were gorgeous. I must have them too. When I scrolled down Facebook, I found that they provided fashion braces. I went straight there."

(Note, 16–20 years old, female, former FB wearer)

One participant mentioned that they were told of pages selling fashion braces by their peers who were current wearers:

"Cheryl: Yes. They were like mostly… I found the service on the Facebook page.
TK: How did you find it?
Cheryl: My friend suggested it, and my senior had them too. I asked her if she got braces from dentists. She told me that she had fashion braces. I asked her where she got them. She said that she had them from XXXX and the provider named XXX, and I added their Facebook."

(Cheryl, 16–20 years old, female, former FB wearer)

Some of the participants sought fashion braces from online providers as they were more accessible, so barriers (e.g., travel) were removed:

"But this shop was located in a suburban area. Well, back then, I didn't know how to travel somewhere far from home. So I asked them if there was another way to do fashion braces by myself. They told me that I could do, but I had to order through the internet or Facebook page. So I asked her the page to order and to fit them by myself."

(Penny, 16–20 years old, female, current FB wearer and a provider)

Marie is a person who searched for fashion brace shops by herself. She explained that her fashion brace shop selection strategies were as follows:

"I ordered via Facebook. I loved searching for things. I typed on Facebook with the keyword "fashion retainers". It showed a lot of results, including pages and personal Facebook accounts. I only checked on pages with a lot of followers."

(Marie, 21–25 years old, female, former FB wearer)

It is interesting from the quotes above that online shops (e.g., on Facebook) may play a role in recruiting new fashion brace wearers. As social media is a space where people can virtually contact each other, passing messages from one to another, some wearers "stumbled on" fashion braces without any searching (or perhaps any conscious decision to search) as their "friends" on the social

media shared posts or liked posts. It then acted as a spider's web of contacts within the fashion brace network or "world".

These online shops tended to offer fashion brace do-it-yourself kits, where the buyer then fitted the brace themselves. If buyers wanted help installing, people went to physical shops to purchase them rather than buying them online.

4.6.1.5.1.2 Physical locations

Although social media platforms are very common for purchasing fashion braces, some participants went to physical locations to have fashion braces installed. Commonly, these were markets or department stores. The locations were often provided by friends.

> *"So, I asked my friend where they got fashion braces and the price. I just gave it a try; I did it when I was around 19–20 years old. I remember that I got them from the Suvarnbhumi Market."*

(Angie, 21–25 years old, female, former FB wearer)

Although one participant "accidentally" found a fashion brace shop while shopping at a department store in Bangkok, the fashion brace stall was not run by the department store but rather was rented out to shopkeepers:

> *"Orasa: No, I saw a sign, so I went in there and got my teeth done.*
> *TK: It was a shop in XXX Department store?*
> *Orasa: Yes, it was XXX department store, but it was instead a rental stall that wasn't operated by XXX's employee. They are ordinary shopkeeper."*

(Orasa, 26–30 years old, female, former FB wearer)

Three participants got their fashion braces from the same place, as they were from the same area. The shop was in a rice field. Sam called a provider "Mhor", which is a term used for health professionals in Thai, and the premises were a clinic.

> *"A place was like a house. It's like "Mhor", who provided a filling that cost 200 Baht per tooth. They made dentures and braces. Braces that had brackets on with…. What is it called? Like put rings or chains on or something like that…. To be fair, it was an illegal clinic located in the middle of the rice fields. Locals go there to get dentures."*

(Sam, 21–25 years old, female, former FB wearer)

Another participant described the location:

> *"His house was a wooden house in the middle of the rice field. That's a tiny house, like a cottage. He offered tooth extraction, dentures, and tooth jewellery. He had a lot of customers from neighbouring provinces."*

(Ella, 21–25 years old, female, former FB wearer)

Sometimes, the complicated locations to get the fashion braces were not a barrier for wearers, as they wanted them so much. For example, one participant detailed how she and her friend rode a motorcycle for one hour:

> *"Jasmine: I thought it would be a shop with a front, but it was just a standard rent room. The room was like a residential, a box room with no window shop … She changed the address very often. I don't know why. … Even though I had fashion braces with her for less than a year, she constantly moved. Each site was so hard to go to, out of the way. I felt scared. … I went with my friend by moped.*
> *TK: Could you explain about the area they lived in? Hang on, was she from the same village as you?*
> *Jasmine: No, she lived in the city.*
> *TK: Okay, in the city*
> *Jasmine: Well, normal people, their house wouldn't be far from the main street. But to go to her house, she needed to go from a tiny street to another small street.*
> *TK: How long did you spend travelling?*
> *Jasmine: Long enough, around one hour."*

(Jasmine, <16 years old, female, former FB wearer)

One participant detailed getting fashion braces from a dental clinic that also provided orthodontic treatment. This was the only participant who reported the involvement of a dental clinic offering illegal products. Although there were no signs advertising fashion braces, insiders knew of its location and the service it provided:

> *"TK: Do you remember what the clinic looked like? What did the sign in front of the clinic say? Did they write it down as "fashion braces available here" or something like that?*
> *Vicky: It didn't say that they offered fashion braces. It was like an ordinary orthodontic clinic. But you needed to talk to the staff inside. Everybody knew."*

(Vicky, 21–25 years old, female, former FB wearer)

Many of the participants mentioned the ease and accessibility of providers; one aspect of this was availability.

4.6.1.5.2 Subtheme 5.2 Availability

Fashion brace providers offered flexible working hours and the advantage of not having to queue. Nancy often visited her provider to change wires and rings regularly after school. At the same time that she had fashion braces, she also went to the dentist to get her teeth cleaned before seeing the fashion brace provider. She compared the availability of the fashion brace provider and service at the hospital:

> *"If it was a day I wanted to get braces, I just made an appointment with them. saying, "Sis, I will visit you this evening after school". They will book me a slot. … But when I got my teeth scaling, it hurt. I felt hurt, my gums felt hurt, and I was done with it. Another thing: after school, the dental unit at the hospital was closed; I couldn't get the treatment. So, I went to get fashion braces right away. I didn't have time for that, and I felt hurt. Sometimes, there were many patients in the queue; I didn't want to wait, so I went there right away [* "There" meant the fashion braces shop]"*

(Nancy, 16–20 years old, female, former FB wearer)

One participant, who was also a provider, indicated that no appointment was needed, and participants sought immediate service:

> *"Yes, no appointment needed because some customers want to do it right now, something like this. I have tools and equipment ready to make it. Someone booked in advance, if I was available, and they came at the time we agreed."*

(Penny, 16–20 years old, female, current FB wearer and a provider)

The ease of availability that we can see in the above quotes is one factor that supports the growth of the fashion brace business. When it comes to similar products – orthodontic braces vs. fashion braces – participants always made a comparison, stating that fashion braces were easier to access and quicker to get. Though the providers were often busy, they could provide fashion braces to many customers because they spent such a short time with each person.

4.6.1.5.3 Subtheme 5.3 Prices of fashion braces

Many of the participants talked about the cost of fashion braces and what an acceptable price was in comparison to orthodontic braces. The price range was from hundreds to thousands of baht. This code explored the characteristics of fashion braces and their prices, while the price mentioned in Section 4.6.1.4.3 shows the participants' affordability.

Kim saved her daily allowance to buy fashion retainers for occasional wear. She decided to get only an upper retainer for 500 Baht:

"At that time, I didn't have enough money to get real braces as I was a student. But I craved to have braces… They were about 500 baht at that time. I had them only on the upper teeth, while the lower teeth weren't fitted."

(Kim, 26–30 years old, female, former FB wearer)

Pattra fitted herself with fashion braces. She bought the kit online.

"At the time, I bought a kit that included tools worth about 150–170 Baht. This price included the delivery fee."

(Pattra, 16–20 years old, female, former FB wearer)

Similarly, Natacha bought the fashion brace kits for less than 200 Baht. However, she received only brackets, wires and power chains at this price.

"TK: How much were they?
Natacha: Under 200 THB
TK: No more than 200. Any kind of tools were included?
*Natacha: It included only rubbers. At that time, I wore the chain type. There were buttons [*bracket], two kinds of glue and the liquid that made teeth whiter in the set. That's all.*
TK: How about tools to place buttons and rubbers? Did they give it to you?
Natacha: No. Not at all.
TK: Then what did you do?
Natacha: Used hands."

(Natacha, 16–20 years old, female, former FB wearer)

The price would be higher for having braces installed with providers. For example, Ella spent 1,800 Baht, the highest price given by participants in this study.

"Ella: It was over 1,000 Baht, about 1,800 Bath, 100 Baht/teeth.
TK: What do you mean by a hundred/teeth? One bracket – 100 Baht?
Ella: Yes, for upper and lower teeth.
TK: So, you had bracket fitted only on 18 teeth, not a whole mouth?
Ella: Some people had them fitted on 20 teeth."

(Ella, 21–25 years old, female, former FB wearer)

Vicky got fashion braces from a dental clinic that also provided orthodontic treatment. However, she paid 1,500 Baht, with no follow-up or revisit for changing appliances with the dentist. In addition, the clinic sold various rings, such as o-rings and power chains, separately for self-changing.

"It cost 1,500 Baht. If we wanted to change rings, they also sold rings for us. And we changed it by ourselves, using a toothpick to hook it on."

(Vicky, 21–25 years old, female, former FB wearer)

The more similar to the characteristics of orthodontic braces, the more expensive fashion braces were. Cheryl described her choice of fashion braces and the selection:

*"Cheryl: Then I asked the provider about the price. The braces were cheap; the upper and lower braces were around 450 [*she later called them "normal ones"]. But if I got the real ones, it would cost me almost 1,000 Baht.*
TK: Right, 450 Baht. But what do you mean "the real ones cost almost 1,000 Baht"?
Cheryl: The number of brackets were increasing. Normally, they would fit [brackets] on only four teeth: four for the upper teeth and another four for the lower teeth, as I remember. If you paid more, you would get eight for the upper teeth and another eight for the lower teeth.
TK: I see. So you paid "almost 1,000 Baht" instead.
Cheryl: Yes, 50 Baht for each bracket added.
TK: Why did you choose to add brackets?
Cheryl: Well, the normal ones weren't beautiful. You got only a very short length; it didn't reach the teeth behind the canines."

(Cheryl, 16–20 years old, female, former FB wearer)

Summary

Many of the participants discussed the factors that led them to seek out and wear fashion braces. Interestingly, these fit the informal market framework that was introduced in the literature review of this thesis (see Section 2.6.1). That is, wearers create a demand and providers are suppliers. In terms of wearers, participants talked about the meaning of fashion braces (Section 4.6.1.2), how they sought out information to make their decision (Section 4.6.1.3) and how personal characteristics played a role in entering the world of fashion braces (Section 4.6.1.4).

Through the participant interviews, the world of the provider was also discussed (Section 4.6.1.5). Although this was only from the buyer's point of view (i.e., the participants in the study), many of the points made in the interviews were interesting in terms of providing insights into the providers and how they run their fashion brace businesses.

What emerged from the data in Stage 1 was the world of fashion braces as a subgroup culture (Section 4.6.1.1). The subgroup had shared values and attitudes that, to some extent, had been "pushed underground" (or online) through Thai laws concerning fashion braces. Even though fashion braces are "underground", they still exist widely. The knowledge of fashion braces, where to get them and

costs was passed from one wearer to another via word-of-mouth and on the internet. These online communities were evident in Study 1 of this thesis (see Chapter 3).

The next section of the present study introduces Stage 2, called "wearing fashion braces". It presents the experience of living with fashion braces and whether participants' expectations were met.

4.6.2 Stage 2: Wearing fashion braces

The previous stage (Roads into the world of fashion braces) was when participants considered whether they should seek fashion braces. In this stage – wearing fashion braces – four themes emerged within the interviews: experiences having fashion braces fitted, the consequences of wearing fashion braces, motivations to keep wearing fashion braces and interactions and relationships with parents, friends and peers. Table 22 illustrates the themes and subthemes in this stage.

Table 22 Themes and Subthemes in Stage 2

Stages	Themes	Subthemes
Stage 2 Wearing fashion braces	1. Experience with having fashion braces fitted	1.1 Self-fitting 1.2 Experience of fitting by providers
	2. Consequences	2.1 Satisfying moments - Boost confidence - Benefit to career - Gaining positive attention 2.2 Unhappy moments - Bullying - Physical impacts
	3. Motivations to keep fashion braces on	
	4. Relationships and interactions	4.1 Parents/guardians 4.2 Friends and peers

4.6.2.1 Theme 1: Experiences having fashion brace fitted

As mentioned in the literature review and in Study 1, fashion braces can be roughly categorised according to how easy they are to remove (i.e., whether they are fixed or removable).

Fashion braces could be fitted either by the participant themselves at home (self-fitting) or by a provider (in physical locations such as shops and houses).

4.6.2.1.1 Subtheme 1.1: Self-fitting

Five of the participants in the current study indicated that they fitted the fashion brace themselves; three fitted their own, while two had partners fitted the braces for them.

In Thailand, there are bills governing the sale of fashion brace kits. However, this type of trade happens nationwide. Customers may receive a complete set of fashion braces, including etching, adhesives, brackets, wires, o-rings and fitting pamphlets. In contrast, others may not receive many of these components.

One participant ordered the full set:

> *"I ordered a fashion brace set. Well, I asked on the page about their products and prices. They suggested I get the full set of fashion braces. It cost around 700–800 THB (around £20), including delivery. The kit consisted of brackets, rings, hooks and forceps."*

(Penny, 16–20 years old, female, occasion fashion retainer wearer and a provider)

Other participants recognised that if they got tools without adhesive, it would be cheaper. Therefore, they used "Elephant glue" or superglue as a substitute adhesive:

> *"I started with a coloured tube type (fashion braces) which consisted of two brackets on each side and put the coloured tubes into it. …. I don't have a budget for anything like this, so I ordered them with my friends. I remember that I used Elephant glue to attach them to my teeth."*

(Violet, 16–20 years old, female, former FB wearer)

Many of the participants recounted struggles during the fitting:

> *"I was an amateur, so the brackets I attached weren't at the same level. I did it while looking in the mirror. Glue stuck on my hand; it was such a mess. After I fitted the upper arch, I did the same in the lower arch. But the things on the lower teeth slightly messed up. But I didn't care because [the brackets] were fitted. I started putting rings on the brackets. But this was much more difficult. The rings were called "o-rings", and they have a round shape. And then, needles, needles. What is it called? Glue needles, I used them to push*; it turned out it pricked my mouth and it bled and splashed. "*

(Penny, 16–20 years old, female, occasion fashion retainer wearer and a provider)

"I was inexperienced and knew nothing about how to fit them. I only heard from my friends. I might make a mistake."

(Natacha, 16–20 years old, female, former FB wearers)

Sometimes pamphlets were included in the kit to help with fitting – although these were not always helpful:

"Dan: I tried to do it as a manual suggested. The manual said, what do we do? How are they attached – something like this? We spent about an hour getting it done.
…
TK: What about the manual, can you tell me what the manual is like?
Dan: They are papers with pictures, including texts saying what to do here. What should we do in the first step? What to do in the second step, and it also contained pictures."

(Dan, 21–25 years old, male, former FB wearer)

Pattra followed the step-by-step guide in the pamphlet, which appeared to be an adapted version of the one for orthodontic braces produced by dentists. It appeared that brushing teeth was equal to cleaning the tooth surface, and the blue liquid was probably dental etching:

"TK: Did they give you any advice?
Pattra: Only a pamphlet telling how to install them.
TK: Hmm. Did you follow it?
Pattra: Yes.
TK: Tell me about how you installed the braces.
Pattra: Before you put it on, I had to brush my teeth first, right? Then there was something – a blue liquid, what is it called? It was a bit bitter; I applied this one first, followed by brackets.
TK: Did you rinse the blue liquid out?
Pattra: Yes, I did.
TK: How did you wash it out?
Pattra: Gargled with water and spit it out.
TK: And then you attached brackets with glue.
Pattra: Yes."

(Pattra, 16–20 years old, female, former FB wearer)

Participants were often challenged during the fitting of the fashion braces; however, many often used substitute materials, such as hot glue, and found a person to guide them in fitting the braces when things were unclear.

4.6.2.1.2 Subtheme 1.2 Experiences of fitting by providers

When the participants had their fashion braces fitted by a provider, there were a range of experiences, from excellent to disappointing.

One participant expressed very positive experiences; the provider talked her through the process and showed honesty about what could happen, including asking for consent:

> *"She said that I had to put up with it. … She was holding a needle, and she said, "don't be afraid. I didn't inject anything. It was just on enamel. Don't be scared … She checked if the upper fit with the lower arch and asked me if it hurt."*

(Martha, 16–20 years old, female, current FB wearer)

The provider prepared her by telling her about potential pain:

> *"She was worried if I could bear with pain, something like this. She told me about a 12-year-old girl's story. She mentioned that I needed to put up with it like the girl who came to her often. She asked if I could bear with it and said, "The girl aged 12 years old got fashion braces; she changed rings every month"; here was what she told me."*

(Martha, 16–20 years old, female, current FB wearer)

This participant, it should be noted, is a current fashion brace wearer who has not yet experienced any negative consequences, which may explain why her experience and attitude towards the provider were very positive.

In contrast, other participants recounted negative experiences. Mark bought fashion retainers from an online shop on Facebook. He admired the after-sale service from the shop, as the shop attempted to fix a problem with his fashion retainers. The problem was that the retainers stabbed his gums:

> *"They responded well. I could consult them, like "my inside teeth aren't okay" … Well, I contacted the shop. They asked what had happened. Then I sent retainers back…*

(Mark, 21–25 years old, male, former FB wearer)

Other negative experiences involved teeth grinding from fashion braces. The grinding affected one participant, as her teeth were sensitive. Note that Sam got fashion braces fixed from a provider who offered several services related to teeth, such as dental jewellery and dentures; therefore, the provider had equipment to do so. "Mhor" is a term used for health professionals in Thai. Nevertheless, this provider illegally provided a range of dental-related procedures.

> *"Sam: They used a grinding stone on my teeth until my teeth were very thin. Yep. They grinded my teeth to apply the glue to the brackets. The glue was yellowish…*

…
TK: After that, while having fashion braces installed, they used a grinding stone on your teeth. Where about?
Sam: Grinding the front teeth to attach brackets: eight brackets on the upper and another eight on the lower."

(Sam, 21–25 years old, female, former FB wearer)

Interestingly, another participant also had fashion braces fitted by the same provider, but she did not mention grinding teeth. Instead, she suggested that the provider install fashion braces despite problems with her teeth:

"But the Mhor told me the teeth were getting bad; they weren't in line, but the Mhor still installed braces, as he may have wanted my money. So they fitted fashion braces for me."

(Ella, 21–25 years old, female, former FB wearer)

Other participants did not feel that their providers paid attention to making their braces:

"He took an oral impression. What was done was like the process of making real retainers. But they just stuck brackets in it; they didn't care whether brackets were all straight in a line or not."

(Kim, 26–30 years old, female, former FB wearer)

"It stabbed my mouth because she didn't attach the brackets as clinics do. She attached them unlike dentists who know how to do that. She just stuck them in a line. So I felt pain and tightness."

(Angie, 21–25 years old, female, former FB wearer)

Another participant recounted a distressing experience with her fashion braces, which were provided by a legitimate dental clinic. She was sceptical of whether the dentist used the proper materials on her teeth; instead, she explained that she thought that all the materials and substances were household products:

"There was glue; well, I didn't see because my face was covered with a face covering. They dropped glue; it was kind of likes hot glue, if I remember correctly. They put wires on not too long after that, like in real braces. Maybe a hairdryer was used to dry it tooth by tooth?"

(Vicky, 21–25 years old, female, former FB wearer)

Some participants who later underwent orthodontic treatment compared the two experiences and expressed their disappointment with the fashion brace service:

> *"If you get braces from dentists, they will take x-rays and impressions, right? But mine, they did nothing. So if your teeth are bad or whatever, you can get braces fitted. Just stick with glue."*

(Cheryl, 16–20 years old, female, former FB wearer)

Issues relating to hygiene, although not in the original interview guide, came up during many of the interviews:

> *"Besides, the tools and equipment used by Mhor weren't clean.*
> *TK: What do you mean by "not clean"?*
> *Sam: No gloves. They didn't wash their hands after providing the service to a person before me. And did it to me straight away. Things like grinding stones – they used the old ones without washing them. "*

(Sam, 21–25 years old, female, former FB wearer)

For some participants, cleaning with alcohol was "enough cleaning":

> *"TK: Was the equipment clean?*
> *Martha: It's clean.*
> *TK: How do you know?*
> *Martha: She washed them all; she showed me that she cleaned everything before the installation.*
> *TK: Could you explain how she cleaned the tools?*
> *Martha: Well, she washed them up with alcohol. All the tools she washed with alcohol."*

(Martha, 16–20 years old, female, current FB wearer)

Penny, who was a provider, cleaned her tools with dishwashing detergent:

> *"Penny: I rinsed them in water before washing them with Fab* (*brand of clothes detergent, but this term is used for clothes detergent in general), no no… what do you call?*
> *TK: Dishwashing detergent?*
> *Penny: Dishwashing detergent. Yes. Then rinsed out with water and used alcohol at the end. That's all. Let them dry in the air and put them in place."*

(Penny, 16–20 years old, female, occasion fashion retainer wearer and a provider)

Most participants recounted negative experiences with fashion brace fitting. In this study, 16 of the 18 participants stopped wearing fashion braces and afterwards required treatment (e.g., orthodontic

treatment, fillings, extraction and teeth scaling). Many of the participants linked these negative consequences to the way the fashion braces had been fitted (improperly and with a lack of hygiene). Some of the participants later underwent orthodontic treatment. This allowed them to compare the fitting of fashion braces with orthodontic braces.

4.6.2.2 Theme 2: Consequences of fashion braces

Much of what participants addressed in their interviews was the impact of fashion braces and how they had impacted their lives. A continuum of consequences was found in the interviews for this study, from satisfying to unhappy moments.

4.6.2.2.1 Subtheme 2.1: Satisfying moments

Many of the positive moments were found just after the fashion braces had been fitted. I asked participants, "What did you feel about yourself when you just got fashion braces fitted?" The participants' responses to this were coded into "boost confidence", "benefit to career" and "positive attention".

This subtheme contained surprising findings regarding the positive outcomes of fashion braces that had never been revealed before.

4.6.2.2.1.1 Boost confidence

Participants regularly evoked the interrelationship between having fashion braces, beauty and smiles. They attributed these braces to improved confidence. One participant said,

> *"I felt beautiful. Having something attached to my teeth was beautiful".*

(Sam, 21–25 years old, female, former FB wearer)

Another said it was the "colours" from elastomeric rings that gave her some desirable power:

> *"When I smiled at night or day times, colours were showing. It was such a charming smile. Because guys were like … Well, I was a teenager, and I realised that men liked people who got braces. So I went back for fashion braces again."*

(Ella, 21–25 years old, female, former FB wearer)

Other participants attributed their improved self-esteem to being able to post on social media:

> *"I was excited, and I thought once it's done, I must have my photos on social media."*

(Dan, 21–25 years old, male, former FB wearer)

Similarly, another participant mentioned that fashion braces made her feel confident to present her images on social media.

> *"TK: I see. Did you upload a lot of videos showing you wear fashion braces on TikTok?*
> *Note: A lot, since I have got fashion braces, I uploaded every day.*
> *TK: (Giggle)*
> *Note: (Laugh) I had photoshoots every day showing I have fashion braces. I smiled for showing off. Smiled."*

(Note, 16–20 years old, female, former FB wearer)

4.6.2.2.1.2 Benefit to career

Participants spoke of the benefits of fashion for hospitality or entertainment jobs in Thailand. Three participants indicated that having fashion braces gave them some job advantages indirectly, as they felt more confident.

> *"I felt more confident; I talked with customers and could smile with teeth showing. It enhanced my confidence."*

(Cheryl, 16–20 years old, female, former FB wearer)

Another was a dancer on stage. Fashion braces helped her gain confidence, which, in turn, led to more tips. She then spent this money on different coloured rings. It became a repeated pattern over the four years that she had fashion braces:

> *"At that time, I felt very confident that I was beautiful when I had chains. … I danced beautifully and got a lot of tips. … It made me feel confident. I smiled all the time. … I thought it gave me another level of confidence. It seemed wearing braces influenced my smile, so that after I quit wearing braces, I became a smiley person. It makes me look more friendly. So the benefit of wearing braces was to be more confident when smiling. Yes, no matter how much my gums hurt, I have to smile. "*

(Nancy, 16–20 years old, female, former FB wearer)

4.6.2.2.1.3 Gaining positive attention

Participants attached their popularity to their social media platforms, as mentioned earlier (Section 4.6.2.2.1.2 above). They felt that they gained more positive attention, as they received more likes or hearts:

> *"TK: How did you feel? Was it the way you wanted it in the first place after wearing fashion braces?*
> *Violet: Yeah, people knew me a lot more. When I posted photos on Facebook, I had more followers and likes.*
> *TK: You felt you were more popular?*
> *Violet: Yes, I was hotter."*

(Violet, 16–20 years old, female, former FB wearer)

Similarly, Mark gained fame and recognition from social media. He explained how fashion braces positively impacted his online life as a fashion figure.

> *"TK: What did you think about yourself when you were wearing fashion braces?*
> *Mark: It gave me confidence.*
> *TK: You felt more confident. Has anything changed after you wore fashion braces?*
> *Mark: People remembered me. People came and took photos with me.*
> *TK: For real?*
> *Mark: Indeed. Some delivery drivers said, "Bro, I'm following you on Tik Tok. May I take a photo, please?" Well, after posting clips on TikTok, people recognised me. Many people took photos with me, including people at my work. As I remembered, there were also soldiers and policemen who asked to take photos with me. … A rescuer, as well, asked me to take a photo. People are still asking to take photos of me, although I don't wear braces anymore. They still recognise me."*

(Mark, 21–25 years old, male, former FB wearer)

Participants reported that they felt beautiful and gained attention from having fashion braces – this showed that fashion braces can act as an accessory and power-related item. In other words, they fulfil the underlying desire to be youthful, beautiful and fashionable. However, teenagers who undertook orthodontic treatment used braces in the same way as illustrated in previous literature from Brazil and Thailand (Barbosa de Almeida, Leite and Alves da Silva, 2019; Atisook and Chuacharoen, 2014a).

Social media played a role as a place to express the desired self. Moreover, I found other surprising consequences in that fashion braces positively impacted some people who were involved in entertainment jobs, enabling them to earn extra gratuities. As we can see above, wearing fashion braces can boost confidence, and it is reported that this enables participants to smile more, allowing them to meet customers' expectations of flirting. This is consistent with previous work using OHIP 14

to compare dimensions among normal people, those who were undertaking orthodontic treatment and fashion brace wearers in Saudi Arabia (Hakami et al., 2020). The study suggested that fashion brace wearers had lower levels of psychological discomfort and psychological disability, indicating that fashion braces may help people feel more confident and satisfied with themselves (Hakami et al., 2020). This is something that has never been explored in depth.

4.6.2.2.2 Subtheme 2.2: Unhappy moments

Alongside the positive or satisfying moments that many participants described, there were other unhappy moments during their time with fashion braces. These were coded as bullying and physical impacts.

4.6.2.2.2.1 Bullying

Bullying is defined as "To treat (someone) in a cruel, insulting, threatening or aggressive fashion" (Merriam-webster). Within this definition, the verbal or physical actions that made participants feel insulted would be included.

Some participants encountered bullying words from other people in both the real world and the online world, according to the presence of fashion braces or the consequences of fashion braces.

Nancy was a participant who was bullied on social media by friends at school. She admitted that the negative feedback impacted her emotionally.

> *"Nancy: Yes, someone noticed that and said, "This girl is beautiful, but she wears fashion braces, 300 THB-braces", something like that.*
> *I felt upset. At some point, I moved to a new school. There were some seniors at the new school bullying me.*
> *TK: They bullied you verbally? Or something else.*
> *Nancy: Via social. They posted on social* [social network platforms].*
> *TK: Okay.*
> *Nancy: Via social, she said that "this girl wears fashion braces [300 Baht-braces]" or something like this. That's so harsh. When I was M.4-M.5 [year 10–11]."*

(Nancy, 16–20 years old, female, former FB wearer)

She later told me about another bullying event while she was dealing with snapped-out brackets.

> *"I didn't want to stick those brackets with Elephant glue, so I used nail clippers to clip rubber rings and wires to remain only front teeth. Someone noticed that "This girl wears fashion braces, a fake one", even though I cut out only on the back teeth."*

(Nancy, 16–20 years old, female, former FB wearer)

Another participant, who had 20,000 followers on TikTok, recounted negative experiences that he termed bullying:

> *"Before this, I posted over 50 clips of the moment I was wearing fashion braces. But because of negative comments, I deleted some of them. Someone was worried about me, but someone said, "a young boy with braces", "A messed up story of a teenager wearing braces", something like these."*

(Mark, 21–25 years old, male, former FB wearer)

Those sarcastic comments affected him, and he deleted clips and sought support from his friends, which encouraged him to keep wearing fashion braces:

> *They (seniors) said that "you don't need to be paranoid cause the people who commented they don't pay your bills". And "You don't have to care too much". It's like my seniors said, "Only we know what we should or shouldn't do. Others don't have the right"."*

(Mark, 21–25 years old, male, former FB wearer)

Another participant was bullied by her friends at school due to the consequences of fashion braces, but she did not take it seriously as she considered it teasing between friends. Her friend called her "Kaew-Nha-ma", which could be literally translated as a horse-faced woman. Kaew-Nha-ma is a character of a woman who has protruding teeth in a Thai folktale.

> *"TK: Were there people mentioning your teeth?*
> *Pattra: Sometimes, especially with male friends. They made fun of me.*
> *TK: What did they say?*
> *Pattra: As my protruding teeth, they made a joke, calling me "Kaew-Nha-ma."*
> *TK: such a cruel joke.*
> *Pattra: Yes, but I was not serious. Because it's true something like this. I'm not serious at all. … But if it was someone else, I would feel sad. But they are my classmates; we always make fun of each other, so I am not serious about that."*

(Pattra, 16–20 years old, female, former FB wearer)

4.6.2.2.2.2 Physical impacts from fashion braces

Fashion braces have been reported in Thai news, government reports and the literature as causing physical harm, which could be detected easily by wearers and their peers.

Several types of physical impact have been described in some of the participants' narratives above; others include different kinds of pain, undesirable tooth movements, bad breath, dental caries and gingivitis.

Pain impacts lives

Like orthodontic braces, fashion braces can cause pain. The pain may originate from several reasons, including tooth movement, faulty parts of the fashion braces (Proffit, 2013), dental caries and gingivitis.

Pain is a common consequence of fashion braces, as shown in Pothidee and colleagues (2017) and Rityoue and Sasiwongsaroj (2007). In the present study, pain from fashion braces were described in different ways. For example, some described pain starting immediately after having fashion braces. Penny, who wore fixed fashion braces for only one week, explained that the pain developed from a tight feeling to "pain" overnight:

> *"In the first two hours, teeth felt tight – very tight. After wearing for over a night, my teeth couldn't bite together in the morning; it was so much pain. After that for a day, my tooth hurt."*

(Penny, 16–20 years old, female, occasional fashion retainer wearer and a provider)

Some participants indicated that pain started a few days later, after they had had fashion braces:

> *"At first, it didn't hurt at all. Later, the pain came for about a few days."*

(Martha, 16–20 years old, female, current FB wearer)

> *"After two to three days, I started feeling pain. There was bleeding gums – things like that? So I decided to take them off."*

(Dan, 21–25 years old, male, former FB wearer)

> *"It didn't feel much at first, but it was a little bit tight because of rubbers and wires, right? It created tension, something like this. But three to four days later, I started having pain."*

(Pattra, 16–20 years old, female, former FB wearer)

For some participants, the pain was unexpected, as they were told that fashion braces would not cause any pain.

> *"On the day they installed the braces, they told me it wouldn't cause pain. But after half an hour or so, my teeth felt tight. Teeth couldn't bite together. Very achyyyy."*

(Nancy, 16–20 years old, female, former FB wearer)

"I was like, "you told me there wouldn't be dangerous." Because I was in pain, I couldn't eat."

(Jasmine, <16 years old, female, former FB wearer)

Pain could come from fashion braces causing a tooth movement, in which participants could feel their teeth were not in their original positions or were being pulled. The range of damage was different, and paracetamol was commonly used to relieve pain.

"After two to three days, I started feeling pain. There was bleeding gums and things like that. So, I decided to take them off. … It hurt all day. I had to take paracetamol beforehand."

(Dan, 21–25 years old, male, former FB wearer)

"It hurt like teeth were loosening. Teeth seemed to have come off."

(Violet, 16–20 years old, female, former FB wearer)

"While I was wearing fashion braces, I couldn't eat comfortably. It's all about pain. So, I had them removed as I struggled to eat. … It was painful; I had been in agony. I almost finished a pack of paracetamol. Painful. I couldn't brush my teeth at all; it was so painful."

(Cheryl, 16–20 years old, female, former FB wearer)

Other participants used a technique called "Karb-lin", which is the action of holding something between the upper and lower teeth, which in this case was the tongue. To do that, she felt ashamed, but she had to do this to eliminate pain:

"Jasmine: Earlier, my technique was to put my tongue between upper and lower teeth, not to let teeth touch each other. If teeth touched together, it was very painful – much more painful. I called it "karb blin" to not let teeth touch together. If I couldn't bear it, I took painkillers.
TK: How long have you done "Karb Lin"?
Jasmine: Just sometimes when I was in agony. If it was a bearable pain, I wouldn't do that. Besides, I did that when I was alone.
TK: Why?
Jasmine: It looked funny to "karb lin". But I wanted to avoid pain, so I must do it."

(Jasmine, <16 years old, female, former FB wearer)

The most common impact after pain was difficulty eating. However, participants solved the problem with painkillers rather than stopping wearing fashion braces:

> *"Ohh. The first time I couldn't eat anything, which was very painful … I took tablets. I have taken pills for about a week. It was better; I could eat."*

(Nancy, 16–20 years old, female, former FB wearer)

Several participants avoided pain by eating a soft diet or small pieces of food instead of solid or hard food:

> *"Jasmine: Yes, if I was okay, – could stand with pain when I didn't eat. But if I wanted to eat something hard, the pain came. So I decided not to eat them sometimes.*
> *TK: You didn't eat instead?*
> *Jasmine: Yes, but eating something soft?"*

(Jasmine, <16 years old, female, former FB wearer)

> *"…And I couldn't eat anything. I can only eat porridge and drink water, only warm water. I couldn't even drink cold drinks."*

(Martha, 16–20 years old, female, current FB wearer)

> *"TK: How did you get rid of the pain?*
> *Note: I didn't eat anything that they told me, like hard food or tough food. I ate some kind of porridge, which they suggested."*

(Note, 16–20 years old, female, former FB wearer)

One effect of eating difficulties was that participants reported losing weight:

> *"Pattra: Because it hurt, I ate less, and I ate something not solid. I had soup, porridge instead. As a result, I also lost weight.*
> *TK: Hmm, how much had you lost weight?*
> *Pattra: 3–4 kilograms, I guess."*

(Pattra, 16–20 years old, female, former FB wearer)

> *"Mark: I have had porridge for a week as I couldn't chew anything. I could only eat porridge without chewing, only swallowing for a week. After that I still constantly eat porridge. Uh, it had been about two months. Beforehand, my weight was about 70 kg. After eating porridge for about two months, do you know how much I have left?*
> *TK: Let me guess? 65?*
> *Mark: 62"*

(Mark, 21–25 years old, male, former FB wearer)

Violet: Then I had a problem that was so painful; it was hard to eat. And during that time, I lost a lot of weight. … Then I felt that everyday life was not easy. I couldn't eat like others. Whatever I ate, I was in pain all the time. The pain was like I couldn't chew anything at all..."

(Violet, 16–20 years old, female, former FB wearer)

Only one participant described a change in the position of the lips from wearing fashion braces:

"Ella: I felt weird. My lips were out, like something lifted my lip up all the time. I think I didn't get used to it. But after a while, it was okay."

(Ella, 21–25 years old, female, former FB wearer)

Pain also came from wearing fashion braces. For example, participants reported that fashion retainers were poorly fitted; therefore, the braces could cause pressure in certain areas:

"TK: Can you wear those retainers?
Nancy: Some of them I could, but it hurt because it pricked my gums. It pricked between my teeth at the posterior teeth. As a result, I had bleeding gums many times".

(Nancy, 16–20 years old, female, former FB wearer)

"TK: Do you think where the pain came from?
Mark: The wire pricked in my gum around my upper teeth. The part of wire which covered the molars pricked in upper gum. It was unstable; the lock wasn't locked on teeth.
TK: Every time you chewed, the wire pricked your gum?
Mark: Yes."

(Mark, 21–25 years old, male, former FB wearer)

Ulcers are a common adverse effect of having braces, especially in those who wore fixed fashion braces. A few participants encountered ulceration during their time with fashion braces. Ulcers are sometimes caused by poorly fitted fashion braces:

"Angie: It's unusual. It's like if you ate something, brackets fell off. Sometimes, it pricked my mouth or something like that.
TK: Oh, and what did you do then?
Angie: It was easy to snap out – nothing I can do. At the time, I still visited the provider; I just waited for the time to get braces changed. She applied the new glue."

(Angie, 21–25 years old, female, former FB wearer)

"During my time with fashion braces, wire cut on the inside of my cheek later it became ulcers."

(Vicky, 21–25 years old, female, former FB wearer)

"Sometimes after I got fashion braces installed, it wasn't good. Because when I came back home and ate something a bit tough, the button snapped out and the wire was so hard. It stabbed on my cheek. As a result, it inflamed, and I had to see a doctor."

(Nancy, 16–20 years old, female, former FB wearer)

Two onsets of pain were revealed: immediate and latent. This is a different form of pain in comparison to that experienced in orthodontic fixed appliances, which starts within 4 hours, increases over the next 24 hours and declines over time (Krishnan, 2007). Orthodontic pain is caused by inflammatory reactions in the periodontium and dental pulp, which stimulates the release of various biochemical mediators, causing the sensation of pain (ibid). This confirmed that fashion braces could cause tooth movement, which was unexpected for some participants in the present study. Pain can start after placement within two to three days, or it may last up to two months. The possible explanation for pain in this case is pain from excessive tooth movement and poorly fitted fashion braces.

Unpleasant smells

All the above was about pain and ulceration caused by the fashion braces. A few participants reported smells originating from the materials used for fashion braces. For example, Kim wore fashion retainers made by a fashion brace shop. She complained of the rusty smell after a month of wearing them:

"But I could only have them for a month. Just a month. My mouth didn't get clean, and I felt like when I swallowed… what's that called? Whether I was chewing or eating, it felt like swallowing iron with a rusty smell. That's how I felt."

(Kim, 26–30 years old, female, former FB wearer)

Violet used superglue to fix the snapped-out brackets. However, she struggled with the smell for three to four months. She was not happy with the constant superglue smell:

"When the bracket popped off, I used Elephant glue [Superglue] to reattach them all the time. I had the glue smell in my mouth every day in my daily life."*

(Violet, 16–20 years old, female, former FB wearer)

Difficulty talking

Participants sometimes mentioned problems talking when wearing their fashion braces:

> *"Uncomfortable. I couldn't speak clearly. It was difficult to talk."*
>
> (Kim, 26–30 years old, female, former FB wearer)

While this participant reported feeling discomfort and being unable to speak clearly, another said that it impacted his job. As a security guard, he had to maintain safety on the premises, including communication with other guards to send signals if cars could drive past or not:

> *"TK: After having retainers removed, what did you feel?*
> *Mark: It was like usual. I could speak clearly, and I had better communication with others.*
> *When I spoke through a radio, if I wore braces, it would cause misunderstandings. For example, I said that cars must not pass this way, but they heard that the route was clear and vehicles could pass.".*
>
> (Mark, 21–25 years old, male, former FB wearer)

Undesirable tooth movement

Undesirable tooth movements, such as crooked teeth, spacing, and different biting feelings, were often mentioned. For example, one participant who wore fixed fashion braces for three months described how they made her feel as though her teeth wobbled:

> *"Orasa: First, they made teeth yellow. Second, they make teeth wobble.*
> *TK: How bad was it?*
> *Orasa: it wasn't that much, but I could feel it. The wires pulled the teeth.*
> *TK: Did your teeth move?*
> *Orasa: They were normal."*
>
> (Orasa, 26–30 years old, female, former FB wearer)

Some participants admitted that their tooth alignment had also slightly changed, but only that it was "odd":

> *"TK: Did your teeth move?*
> *Jasmine: I am not sure; I didn't have them that long. But I felt my teeth moved a little bit.*
> *TK: It didn't change too much that you could notice, right?*
> *Jasmine: Yes, I feel a bit odd, though."*
>
> (Jasmine, <16 years old, female, former FB wearer)

One said that it felt like her teeth were wrapped up:

"Vicky: Teeth were drifting but not that much. Teeth were like wrapped up."

(Vicky, 21–25 years old, female, former FB wearer)

Several participants worried that their teeth had been significantly deformed in some way. One wore fashion braces for only one week because of the pain. Sometime later, when she smiled in the mirror, she noticed that her teeth were crooked. She used her local lexicon, "Ngam", the meaning of which I am unsure of. I only knew the word "Ngum", which means retroclined:

"Penny: My teeth, at first, were properly aligned. I have neither crooked teeth nor dental caries. Not at all. Not until after I wore fashion braces for a week. I didn't observe my teeth because the braces covered them, so I couldn't see any changes. Until I got fashioned fashion removed, I still didn't notice it anyway. But one day, after I brushed my teeth, took a shower and got dressed in a room, I smiled into the mirror and noticed something changed.
Why my lower tooth at the front! It it it… I bent down my head and looked inside; one tooth was "Ngam".
TK: It was like "Ngum"?
Penny: What do you mean?
TK: Ngum inward
Penny: Yeah, it was like Ngum inward, but it wasn't exactly like that. What was it called? The tip was in the inside position, but it was rather on the side of the tooth. It was like teeth wrapped up together."

(Penny, 16–20 years old, female, occasional fashion retainer wearer and a provider)

Another used the phrase "my teeth were bad" to explain her outcome from fashion braces:

"TK: "Teeth were bad", please explain to me how bad it was.
Sam: Teeth were more crooked.
TK: Could you explain to me about your crooked teeth?
Sam: It seemed the teeth came out more than usual, protruding. Like teeth were pulled out."

(Sam, 21–25 years old, female, former FB wearer)

For some participants, fashion braces caused significant problems. One who wore fashion braces only for a few days later lost his teeth. In addition, it impacted his physical and long-term well-being and health, as he did not have any money to pay for dentures:

"Dan: After I removed braces. I felt my teeth wobble.
TK: Huh??
Dan: Yeah, one tooth fell out right then.
…

Dan: When I finished taking off the bracket, it took a day or two, right? I felt my tooth wobble. It seemed to be broken, so I just tried to pull it, and it came off.
TK: Really? [high tone – surprised] Which tooth?
Dan: The upper tooth?
TK: Front or back?
Dan: In front. Between canines
TK: Between canines?
Dan: Yes, it's really close to a canine."

(Dan, 21–25 years old, male, former FB wearer)

Another participant, who wore fashion braces for two years, after discovering that her chin stuck out because of fashion braces, visited a dentist to get orthodontic treatment. She found out the following:

"When I got real braces at the dental clinic, they took an x-ray, and I realised that my teeth were so horrendous.
TK: Hmm
Angie: Yeah, my jaws were misaligned. The line between the upper and lower teeth wasn't straight. It was like my lower jaw was misaligned.
…
Angie: When I looked at the mirror, OMG, my teeth were like my gum… Well, it made my teeth longer because my gum pulled away from teeth – they all were receding. It was damaged. Really.

(Angie, 21–25 years old, female, former FB wearer)

General oral diseases

In some cases, fashion braces interrupted participants' brushing ability; as a result, they became more likely to have dental caries, gingivitis and bad breath.

"While I was wearing them, I knew that I couldn't brush properly. Teeth became yellow. Then it started to have cavities and bad breath, so I took them off."

(Ella, 21–25 years old, female, former FB wearer)

"Natacha: When I ate, food tended to trap between my teeth. I felt like I couldn't clean my teeth thoroughly. It caused me bad breath; I disliked it.
TK: Fashion braces made it too difficult to clean your mouth, right?
Natacha: Yes, because I didn't have cleaning tools, unlike those who have braces with dentists."

(Natacha, 16–20 years old, female, former FB wearer)

One participant related how they had a gum problems, dental caries and crooked teeth. She provided a vivid story related to the management of her gum issue while wearing her fashion braces:

"Sam: Oh, the pain came from gum inflammation.
TK: How did you know the pain came from gum inflammation?
Sam: My gums were swollen, really swollen.
TK: Which area was this?
Sam: It's mostly the molar teeth. Upper and lower molar teeth.
…
TK: When your gum was swollen. Did you deal with it by yourself?
Sam: If my gums were swollen, I put some salt on them.
TK: Did it work?
Sam: No, but it was gone eventually. Took painkillers."

(Sam, 21–25 years old, female, former FB wearer)

Another participant indicated that her gum bled while wearing fashion braces. She ascertained that it was because of "weak roots". Nevertheless, when I explored her narrative about her brushing behaviours, I found that she did not brush her teeth regularly, and having "weak roots" is a life course from her past.

"TK: When you said, "teeth roots are weak", what do you mean?
Pattra: Well, what to say. Well, my teeth were kind of weak in the first place.
TK: Yeah, why do you think you're someone whose roots are weak?
Pattra: Because when I brushed my teeth blood came out. I was a person who had terrible gums and weak roots.
TK: Why?
Pattra: Well, I didn't like to brush my teeth when I was young (Laugh)."

(Pattra, 16–20 years old, female, former FB wearer)

Dental caries seemed to be a common consequence of fashion braces, perhaps because several indicated that fashion braces interfered with their toothbrushing routine.

One participant wore fashion braces for three years, having four different sets of fixed fashion braces and fashion retainers. Before this conversation, she narrated that she had a molar extracted because of deep caries. Later, I asked her about oral health care during fashion braces:

"Violet: I brush my teeth normally. I didn't have knowledge. Wake up and brush my teeth like those who didn't wear braces. I needed to brush my teeth carefully; otherwise, it would cause pain.
TK: What was the pain like?
Violet: It was like a toothache. It was like someone who has tooth decay like this. I couldn't touch it; otherwise, it would be so much pain."

(Violet, 16–20 years old, female, former FB wearer)

Anther participant wore two fashion retainers for one and a half years in total. During this time, her teeth developed cavities, which she attributed to fashion braces:

> *"Over a year for fashion retainers, until my teeth had cavities and started breaking. Yes, teeth had holes … I had a toothache and was sensitive when eating. I went to the dentist. They found that I had dental caries; they scratched something on my tooth, and the tooth was split in half. I was shocked."*

(Marie, 21–25 years old, female, former FB wearer)

Some participants reported having bad breath because of their fashion braces and not being able to clean their teeth properly. This, in turn, was reported to have an impact on their confidence and relationships:

> *"First, I felt that I had bad breath, a nasty one."*

(Violet, 16–20 years old, female, former FB wearer)

> *"When I ate, food tended to trap between teeth. I felt like I couldn't clean my teeth thoroughly. It caused me bad breath; I disliked it."*

(Natacha, 16–20 years old, female, former FB wearer)

> *"I had fashion braces, there were glue patches, bad breath. I had never had bad breath before. My family mentioned that I had mouth breath while I had fashion braces. Even I had them removed, the breath in my mouth was still there. I used mouth wash, but the breath was still there. … My family told me that I had bad breath. I completely lost my confidence."*

(Jasmine, <16 years old, female, former FB wearer)

Many of these points indicate poor oral hygiene being caused by having fashion braces, which make brushing teeth difficult or painful. This may then lead to oral problems such as caries, bad breath and, in the case of Dan below, bleeding gums:

> *"Dan: There was bleeding gum; things like that? So, I decided to take them off.*
> *…*
> *TK: About bleeding. What do you think it came from?*
> *Dan: …Is it from braces? Braces squeeze my teeth so it bled out."*

(Dan, 21–25 years old, male, former FB wearer)

He did not think this was due to not cleaning his teeth, as he explained how he had adapted his technique:

"TK: What about cleaning your mouth when wearing braces? How was it?
Dan: I brushed my teeth as usual. But tried to do in the direction of the braces. I adapted by turning the angle of the brush up and down a little bit—something like this."

(Dan, 21–25 years old, male, former FB wearer)

A participant reflected at the start of the session that her proximal dental caries were from the "glue" which had been applied to attach the bracket. She described the glue as yellowish, smelly and containing toxic substances:

"Teeth were more crooked than before. Had cavities. Glue erodes teeth. The one they applied".

(Sam, 21–25 years old, female, former FB wearer)

I kept asking her about her teeth-cleaning behaviours. Then she admitted that she might not clean her teeth well:

Sam: Caries between teeth which were covered by braces.
TK: You meant between the two teeth?
Sam: Yeah.
TK: Why does it happen?
Sam: Maybe because I didn't brush my teeth clean. Equipment and bands were below standard.
TK: And you think that tooth decay is related to glue-eroded teeth?
Sam: I think it's probably related. Because the glue may contain lead."

(Sam, 21–25 years old, female, former FB wearer)

It is important to note in the above theme that the problems that participants mentioned – tooth decay and gum problems – may not be due solely to the fashion brace. However, this was the perception of the participants.

4.6.2.3 Theme 3: Motivations to keep fashion braces on

Despite the many negative experiences related to fashion braces, participants often talked about the reasons for keeping their braces on, in some cases despite pain, discomfort, difficulty eating and talking. These motivations often centred around the confidence that participants felt from having fashion braces:

"Violet: At the moment, there was news showing all teeth falling out due to fashion braces.
TK: Oh, and did you feel anything?
Violet: I didn't. I felt like, "I am beautiful now. I don't care about what happened in the news"."

(Violet, 16–20 years old, female, former FB wearer)

Similarly,

"TK: Currently, you're still wearing them. What's the reason you keep them on?
Martha: I want to be as beautiful as my friends."

(Martha, 16–20 years old, female, current FB wearer)

Another talked about keeping them on because of the money they had spent:

"While I was wearing it, I saw those wearing fashion braces; their teeth were so disgusting, honestly. They had thick plaque, yellow teeth and cavities like that. I saw a lot of consequences. This is my feeling, but I already spent money, so I kept them on. It was such a waste of money to take them off too. It was over 1,000 Baht, about 1,800 Bath, 100 Baht/tooth."

(Ella, 21–25 years old, female, former FB wearer)

Jasmine, the youngest wearer in this study, also felt buyer's remorse but talked about trusting the provider:

"I meant like I felt too much pity [to have them removed straight away]. However, if I were in agony, it'd be better to have them removed. … Because I trusted the provider, she said that I wasn't familiar with braces because I never had them before. I thought the pain would be gone soon, so I gave it a try – endure."

(Jasmine, <16 years old, female, former FB wearer)

Similarly, as Angie's provider acted as a professional, she trusted the provider's solution to fix the problems with her teeth:

"Angie: When the teeth changed, I asked the shop owner, "Sis, why are my teeth getting far apart?" She said, "I'll pull them together". She acted like she was a dentist. Do you understand?
TK: Yeah.
Angie: She gave me excellent advice. "I'll pull teeth", "I'll use thicker wire" something like this.
TK: What's next?

Angie: As I believed in her, I continued wearing them. Until one day. I had a feeling that… hmm… my teeth weren't okay anymore."

(Angie, 21–25 years old, female, former FB wearer)

Mark stated how his online community encouraged him to keep fashion braces on after receiving negative comments online. But, on the bright side, he noticed some positive comments:

"Mark: But we didn't care much. I made and uploaded clips for entertaining people: "This kid is funny", "This little guy makes me smile". I hope that they can relax from all-day work. Well, at least it made people smile.
…
Mark: People around me encouraged me to go on.
TK: How did they encourage you?
Mark: They said that "you don't need to be paranoid cause the people who commented they don't pay your bills". And "You don't have to care too much."

(Mark, 21–25 years old, male, former FB wearer)

Some participants kept fashion braces on because they thought there were strategies to mitigate the consequences:

"Another older friend said that if I wanted to keep my teeth healthy, I should go to a hospital once a month and then go to the fashion braces place later. Doing this would help the glue not attach to the teeth. Yeah."

(Nancy, 16–20 years old, female, former FB wearer)

"I thought it would be no problem if I had them fitted and changed them every month. You know what I mean."

(Angie, 21–25 years old, female, former FB wearer)

Several factors influenced participants to keep fashion braces on, although they were struggling with the negative consequences. These factors were desire, buyer's remorse, trust and encouragement from peers. The following subtheme explores the relationships and interactions between the wearer's family and peers around their fashion braces.

4.6.2.4 Theme 4: Relationships and interactions

This theme involved relationships with others and the influence of this on fashion braces. The codes here were parents and guardians and friends and peers.

4.6.2.4.1 Subtheme 4.1 Parents and guardians

Parents and guardians are considered to be above their children in the hierarchy of Thai culture. There are powers within the relationship, and participants may interact differently. More importantly, most participants had fashion braces without their parents' and/or guardians' knowledge.

Some participants talked about their fashion braces in relation to what their parents would think. They believed it would bring them into conflict. For example,

> *"They said… Well, I don't have a job and have nothing to do. I only receive an allowance from them. It isn't a lot per day. But when they saw me wearing braces, something like this. They must have thought, "this kid spent tens of thousands on braces", something like this. They asked me, "Where do I get money from?""*

(Dan, 21–25 years old, male, former FB wearer)

On the one hand, Kim went for fashion retainers. She successfully kept her fashion braces away from her parents and avoided some conflicts. She wore the retainers only when she was outside the house:

> *"I didn't let them see I was wearing them. I would have been nagged if they knew because it was dangerous."*

(Kim, 26–30 years old, female, former FB wearer)

On the other hand, several participants inevitably wore fashion braces in front of their parents, as they had a fixed type. In that case, they ignored the parent's warnings.

> *"My parents warned me. But as a teenager, I wanted to be beautiful, wanted to be hot, wanted like this forever. So, I didn't listen to them."*

(Violet, 16–20 years old, female, former FB wearer)

Some participants could feel that in the conflict, there was care from their family, for example:

> *"Jasmine: They asked, "why did you do that?", "Aren't you afraid?" something like that. I perceived that they were somewhat worried about me.*
> *TK: What did you say to them? What were your reactions to those warnings?*
> *Jasmine: At that time, I thought, "I would be fine". Nothing happened except a little bit of pain. I didn't pay much attention to it.*
> *TK: What did you do next?*

Jasmine: Well, my family kept warning me. Before, if I took a shower in the evening, I didn't brush my teeth before bed. But when I was wearing fashion braces, right. My family knew that I was so stubborn and barely listened to them. So they didn't nag me but rather warned instead. For example, "brush your teeth before bed", "you wear them, you must look after them", something like this."

(Jasmine, <16 years old, female, former FB wearer)

With parents, sometimes the participants reported negotiating to be allowed to keep the fashion brace on. For example, Cheryl's dad asked her to remove her fashion braces, but she negotiated, giving the reason why she wanted to keep them on:

"TK: What were your peers' reactions when they saw you?
Cheryl: "What are these things on your teeth?"
TK: Who said that?
Cheryl: Dad.
TK: Anything else he said?
Cheryl: He said nothing, "have them removed, please. This is ugly. You looked better without them".
TK: But you didn't remove them at that time. Why?
Cheryl: "Dad, I paid for them over 1,000 Baht, let me make the purchase worthwhile"."

(Cheryl, 16–20 years old, female, former FB wearer)

However, after that, the fashion braces caused her toothache. Her action was to hide the pain from her dad, as she was afraid of getting negative comments from him. This was also reported by other participants – "hiding of the pain" after the wearers had initially refused to listen to their parents.

"I didn't dare tell him. I didn't dare talk to him. My dad was curious when he saw me lying down. I told him that I had a toothache and that my teeth had holes. I didn't tell him that I was removing my fashion braces; I would have been nagged."

(Cheryl, 16–20 years old, female, former FB wearer)

"Martha: And I had put up with it for about a month or two. It hurt a lot, but I just took pills; sometimes I didn't, though. Dad said, "Don't kick about it when you have it". Well, I didn't kick. So I have to bear with it.
TK: Why didn't you tell your dad?
Martha: I'm afraid of him nagging me."

(Martha, 16–20 years old, female, current FB wearer)

4.6.2.4.2 Friends and peers

Friends and peers were found to agree or disagree with participants' choices. Many friends who oppose fashion braces tried to stop them because of possible harm. In contrast, friends who did not oppose fashion braces at times were seen to encourage their friends to continue wearing them.

I asked Cheryl about her friends' reactions after seeing that she was wearing fashion braces. She discovered two opposing opinions. Friends who did not have fashion braces realised that Cheryl was afraid of needles, which led her to get fashion braces rather than orthodontic braces. They attempted to eliminate her fear of needles:

> *"Friends who didn't have braces said, "Why don't you just save a lot more money? Needles aren't that big; just bear with it", "Having fashion braces like this is dangerous"."*

(Cheryl, 16–20 years old, female, former FB wearer)

In contrast, friends who were wearing fashion braces encouraged her by confirming what they knew was her desire – having beautiful fashion braces:

> *"They said, "That's great, real braces aren't necessary. Your teeth are beautiful. Having beautiful fashion braces would be fine. It depends on how you look after them"."*

(Cheryl, 16–20 years old, female, former FB wearer)

Cheryl listened to those who were wearing fashion because she thought "insiders" must know more than "outsiders", for example:

> *"TK: Okay, these are their statements. So, you have heard from two perspectives. Which side did you give attention to?*
> *Cheryl: Of course, friends who have fashion braces. Because they have fashion braces, they must have known better than those who don't."*

(Cheryl, 16–20 years old, female, former FB wearer)

These friends and their discussion with peers are likely to be interrelated with the fashion brace subgroup culture theme mentioned earlier (Section 4.6.1.1). The support that participants received within the community was crucial for them. Friends with whom they shared their experiences were the closest, as they were available to discuss, guide and help each other through the tough time:

> *"At first, I thought I wouldn't wear them anymore, I was done with that, I wanted to take them off. But they said that it would be better soon and taking pills would help.*

(Nancy, 16–20 years old, female, former FB wearer)

"Well, after we have fashion braces fitted, she contacted me every day to ask if it hurt, "Does it hurt right now?". I told her that it couldn't be that bad. And I said, "well if it hurts, take the pills, don't have them removed; you may put up with it". Just in case, it would be better—a bit better. […] She called me every day to check how things went."

(Martha, 16–20 years old, female, current FB wearer)

Apart from sharing experiences and support, participants often made comparisons between their experiences and their friends' experiences with fashion braces:

"Dan: Just a friend, a friend who got fashion braces.
TK: Did he have the same problem?
Dan: I'm still confused why my friend's tooth is not broken, but mine was something like this.
TK: After all, what kind of pain did the friend end up with? Was it the same as yours?
Dan: I was in pain longer than him. As far as I remember.
TK: Umm.
Dan: Because his teeth are arranged beautifully."

(Dan, 21–25 years old, male, former FB wearer)

"I asked my friend to see if she had the same problem; the friend whom I told you suggested me fashion retainers. She said that her teeth were fine; it might have been because my teeth weren't originally good."

(Marie, 21–25 years old, female, former FB wearer)

Penny has been contacted by her peers in school. She encouraged them to have fashion braces and became a provider, as it was an opportunity to earn money:

"After I got (fashion) braces removed, some friend who saw me gorgeous wanted to get braces too. They asked me, so I suggested them. But some of them didn't know how to fit fashion braces. So, this was the beginning of me providing fashion braces for friends."

(Penny, 16-–20 years old, female, occasional fashion retainer wearer and a provider)

Conversely, participants who suffered from fashion braces and successfully removed them attempted to warn those who were interested in fashion braces or who were wearing fashion braces. For example,

"I took them to a dental clinic to get the real ones. A dentist knew that they got fashion braces, so the dentist told them to get dental treatment..."

(Nancy, 16–20 years old, female, former FB wearer)

"When my friends wanted to have fashion braces, I told them to do that. I would better get the real ones. It wasn't worth it."

(Cheryl, 16–20 years old, female, former FB wearer)

"I have a sister. She is currently interested in braces like mine. She said that she wanted braces, which, in her opinion, weren't necessary as her teeth were good enough. I told her that I didn't recommend fashion braces and wouldn't give her money for that. If she goes with fashion braces, then "no"."

(Marie, 21–25 years old, female, former FB wearer)

Summary

Participants provided varied perspectives on their fashion braces, wearing fashion braces, motivations and expectations and the impacts of fashion braces. It was less the negative or positive impacts of fashion braces but rather the tumultuous experience that was of interest in participants' stories. Since they had their fashion braces fitted, there were reports of both positive and negative moments among the unhappy and negative consequences. Interestingly, there was much discussion as to why participants still carried on with fashion braces, although the consequences were often severe and unbearable (Section 4.6.2.2.2). Finally, the important interactions between participants, peers and family were highlighted, and their role in decisions to get and continue wearing fashion braces was discussed. The themes discussed in this second stage of having fashion braces could often also be seen in Stage 3 – Escaping from the world of fashion braces.

4.6.3 Stage 3: Escaping from the world of fashion braces

Stages 1 and 2 centred on why participants decided to have fashion braces, their motivations and expectations and their experiences of wearing fashion braces. This third stage is centred on what happens when participants decide to stop wearing fashion braces. This stage captured the moment participants decided to have fashion braces removed. This included four themes, as shown in Table 23.

Table 23 Themes and subthemes in Stage 3

Stage	Themes	Subthemes
Stage 3 Escaping from the world of fashion braces	1. The journal of fashion braces removal	1.1 Last straws 1.2 The journey of fashion brace removal
	2. Re-entry into the fashion brace world	
	3. Feelings after quitting wearing fashion braces	
	4. Barriers to delaying dental treatment	

4.6.3.1 Theme 1: The journal of fashion braces removal

This theme focused on participant's journeys when they decided to have their fashion braces removed, including the event that influenced participants to remove their braces and what happened when they tried to remove the braces. Two codes emerged in this theme: the last straw and the journey of fashion brace removal.

4.6.3.1.1 Subtheme 1.1 Last straws

This theme included participants' discussions of what led them to give up wearing fashion braces. Pain was one common impact experienced by all participants, as discussed earlier (see Section 4.6.2.2.2.2). However, only for some participants did the experience of pain lead to them have fashion braces removed:

> *"Natacha: At first, I thought I wasn't familiar with that. Pain comes and goes. I should have gotten used to, but I didn't. Therefore, I took them off."*
>
> (Natacha, 16–20 years old, female, former FB wearer)

> *"Turned out the chain pulling my teeth together; I couldn't eat. It was so painful. I could wear them for about two days – the chain ones that I changed by myself. I told my mum to take me to clinics asap to have braces removed."*
>
> (Vicky, 21–25 years old, female, former FB wearer)

Pain could impact their quality of life, and as such, Violet recounted that "Everyday life was not easy". Yet she continued, wearing fixed fashion braces twice, followed by retainers from dentists and fashion retainers. Her pain from the first set was as described below:

"I wore it for about a day or two. It hurt a lot. So, I took it out."

(Violet, 16–20 years old, female, former FB wearer)

She then decided to give up with her second set of fixed fashion braces:

"I couldn't eat like others. Whatever I ate, I was in pain all the time. The pain was like I couldn't chew anything at all. So, it's better to take them off, so I had them removed."

(Violet, 16–20 years old, female, former FB wearer)

Violet had a four-year journey with fashion braces, which she stepped in and out of at the age of 14. Her discussion of re-entry into the fashion brace world will be a part of the detailed analysis below (see Section 4.6.3.2).

Dan is another person who quit fashion braces because of pain, although this decision was also linked to his guardian, who was a worker in the orphanage in which he lived (see earlier discussion 4.6.2.4.1):

"After two to three days, I started feeling pain. There were bleeding gums – things like that? So I decided to take them off. … Mamas told me to take it off as soon as possible.

(Dan, 21–25 years old, male, former FB wearer)

Although some participants had worn fashion braces for many years, in the end, they decided to stop because of the pain:

"What happened to my teeth was the reason that I should stop wearing fashion braces … I had a painful toothache. The ache was like I couldn't stand it anymore."

(Nancy, 16–20 years old, female, former FB wearer)

However, this, like many of the other participants' stories, was also influenced by other aspects – some of which have been discussed in relation to other themes. For example, Nancy suggested that alongside the pain of wearing fashion braces in the last year, she had also changed schools and experienced bullying:

"Yes, someone noticed that and said, "This girl is beautiful, but she wears fashion braces, 300 THB-braces", something like that. I felt upset. At that point, I moved to a new school. There were some seniors at the new school bullying me."

(Nancy, 16–20 years old, female, former FB wearer)

At the same time, she had conversations with others, which made her reflect on why she was wearing fashion braces:

"When I was M.4-M.5, the [dance} troupe owner told me that my teeth were beautiful. I didn't need to wear an appliance that could ruin my teeth. …
Found a clip video on the internet about fashion braces. The worst consequences in the clip made me think that I wanted to quit wearing fashion braces."

(Nancy, 16–20 years old, female, former FB wearer)

Both positive and negative information from others and interactions at school were factors that helped Nancy make the decision to have her fashion braces removed. This, together with the pain, was the last straw for Nancy, amongst other participants. However, for some participants, such as Marie, Ella and Angie, the abnormal appearance of teeth and the facial profile after having fashion braces were the last straws:

"I checked in the mirror. I found that my teeth shifted a lot, as well as spacing. It wasn't like a kind of spacing in those who are undertaking orthodontic treatment. My teeth shifted and alignment was misshaped."

(Marie, 21–25 years old, female, former FB wearer)

"After two years, my teeth from normal alignment became straight in line. Really straight in line. My teeth weren't the same. And it was difficult to fix. So, I had them removed."

(Ella, 21–25 years old, female, former FB wearer)

"Like I said, when I smiled, my chin stuck out and my lower teeth were in front of my upper teeth."

(Angie, 21–25 years old, female, former FB wearer)

"I felt that my teeth were not in place. So I better take them out."

(Note, 16–20 years old, female, former FB wearer)

In Note's story, she explained why she had initially hesitated about removing the fashion braces and decided to do so after chatting with her friends:

"I was thinking more and more whether it's good to take them off or not? I thought about it so many times if I should take them off or not. Then some friends like to come and say, "Take it off, it's not good". Yes, It wasn't actually good at that time. So I decided to take them off."

(Note, 16–20 years old, female, former FB wearer)

Oral health problems, such as gingivitis and dental caries, were some participants' last straw:

"I had oral problems such as tooth decay, glue stains eroding my teeth and gingivitis. I couldn't stand them anymore, so I took them off.
…
Tooth decay, I saw my friend who wore fashion braces and had a tooth decayed that all the teeth were gone. So I had them removed."

(Sam, 21–25 years old, female, former FB wearer)

Similarly, Kim had an iron smell, which she implied was caused by the low quality of the metal wire:

"I could only have them for a month. Just a month. My mouth didn't feel clean, and I felt like when I swallowed… what's that called? It felt like swallowing iron, with a rusty smell. That's how I felt. It stabbed in the mouth. It wasn't pretty, so I decided to take them off, something like that."

(Kim, 26–30 years old, female, former FB wearer)

Faulty fashion braces also annoyed some participants, leading them to be unable to tolerate their fashion braces:

"I kept wearing them. The lifespan was shorter because it broke easily. Just one drop, and it broke. Once it broke, I went for the new one, and it broke again. So I stopped doing it."

(Violet, 16–20 years old, female, former FB wearer)

Penny struggled with fitting fixed fashion braces from the very first day and kept trying to fix them for a number of days, but eventually, the difficulty eating became the last straw:

"Penny: After that for a day, my tooth hurt. But because I wanted, I endured. I wanted it to be trendy, so I must bear wearing it. Until a week ago, I couldn't stand it anymore because of eating problems. Besides, braces kept spitting out all the time, very often. This was because I didn't use the laser system."
TK: For you, the common problems were just suffering in the first few days. But the point you got them removed was when you felt annoyed as the brackets kept splitting out, right?
Penny: Yes, when I ate something, brackets split out."

(Penny, 16–20 years old, female, occasion fashion retainer wearer and a provider)

Pain, dental alignment problems, oral health problems and the annoyance of faulty fashion braces were some of the reasons for fashion braces to be removed. However, Jasmine provided a unique reason: she was concerned about her personal safety:

"I was in pain, but I chose to bear with it. But sometimes when I went to her to have rings changed, I found that the provider changed her boyfriend's so often and brought them to the room, something like this. So I didn't feel safe. I went to her room, which was a normal rental room. It looked scary."

(Jasmine, <16 years old, female, former FB wearer)

Level of pain was one of the indicators for having fashion braces removed for the participants in this study. Although it is important to note that many put up with the pain and dealt with it by using painkillers, these physical impacts played a role in coming to a decision as to whether to remove the fashion braces. This decision was very much influenced by their peers, who often acted to empower them in making the decision. The next theme describes participants' stories about the journey to successfully remove their fashion braces.

4.6.3.1.2 Subtheme 1.2 The journey of fashion brace removal

Once they had experienced their last straw, many participants decided to remove the fashion braces themselves. Angie was one of them; she was faced with a changed facial profile, which she believed was due to the fashion brace: a chin sticking out and an anterior crossbite. She explained her action to remove her fashion brace as "Ngad" (งัด) in Thai, which means "yank" in English. It relates to the effort required to wedge the brace out using force:

"I yanked them out by myself. It hurt so much."

(Angie, 21–25 years old, female, former FB wearer)

Household tools, such as nail clippers and tweezers, were common tools used, as seen in Dan's story:

"I took it off with tweezers. After a while, the glue still remained on the teeth. A few days later, it washed out. but I've removed all brackets."

(Dan, 21–25 years old, male, former FB wearer)

Similarly, Nancy used nail clippers to pry the brackets out of her teeth. She used the term "Ngae" (แงะ) to remove fashion braces, which means "pry" in English.

"The toothache was very agonising. That night, I decided because I couldn't stand it anymore. How I removed it … well, I couldn't find any tool to remove them but nail clippers. I used nail clippers to pry them out of my teeth."

(Nancy, 16–20 years old, female, former FB wearer)

Another participant, Pattra, removed her fashion braces by herself because she was living far from town and the fashion brace shop. She adapted a tool that was provided in the set to pry them out:

> *"Pattra: It hurt while I was removing them. Some bleeding was coming out too.*
> *TK: How did you take them off?*
> *Pattra: In the package, there was a sharp metal tool that came with it. I used that one to pry them out.*
> *TK: Was it easy?*
> *Pattra: It was easy because glue didn't have a strong attachment."*

(Pattra, 16–20 years old, female, former FB wearer)

Sometimes, the removal process was difficult, and participants had to deal with it on their own with no advice or support. Note and Cheryl's journeys took more than one day, as it was too painful to remove all brackets at once:

> *"I used nail clippers to take them off. I pried them out of my teeth. I really pried them off … I felt hurt. At first, I could only break them out of some teeth and did it repeatedly. … I was afraid that my teeth would pull out, so I gently pulled it and pried it out one by one."*

(Note, 16–20 years old, female, former FB wearer)

> *"Cheryl: I used nail clippers to pop them out one by one. … I decided to immediately take them off on that night using nail clippers.*
> *TK: On your own?*
> *Cheryl: Yes, on my own. I started by taking them off of one to two teeth in the first day. Then, the next few days, I did it again. If I removed them all at once, it would be painful. Very painful. … If I removed the chain at the innermost teeth, the nearby tooth was hurt as the chain was pulling."*

(Cheryl, 16–20 years old, female, former FB wearer)

Cheryl suggested that one reason for not telling her parents was the previous conflict with her father about fashion braces:

> *"Yes. I didn't dare tell him. I didn't dare talk to him. My dad was curious when he saw me lying down. I told him that I had a toothache and that my teeth had holes. I didn't tell him that I was removing my fashion braces; I would have been nagged."*

4.6.3.2 Theme 2: Re-entry into the world of fashion braces

In this study, there appeared to be two groups among those who stopped wearing fashion braces. The first included those who successfully quit wearing fashion braces and did not return to them. The

second included those who quit but returned to wearing fashion braces. This theme is focused on the latter group, exploring aspects that may influence participants to return to fashion braces.

It appeared in this study that participants who had a history of wearing fashion braces more than once were particularly interested in fashion braces as a fashion object to decorate their appearance. For many, they returned as teenagers to fashion braces because they liked the appearance of braces. For example,

> *"When I checked my teeth without braces, I felt strange. I felt like something was missing, something like this. … I felt weird. My teeth were bare. I didn't like myself; I didn't like taking braces off. … However, I wasn't familiar with it [*not having braces in my mouth]; I sought retainers to wear as a substitution."*

(Nancy, 16–20 years old, female, former FB wearer)

> *"Because I was back to dance again, I saw seniors wearing fashion braces, and they looked beautiful. When I smiled at night or daytime, colours were showing. It was such a charming smile."*

(Ella, 21–25 years old, female, former FB wearer)

The above example illustrates the interest in having the look of colourful braces and rings. Those returning a second time often sought out a better version that could eliminate issues they had faced with their previous fashion braces.

For example, Penny's first fashion braces were fixed ones that caused her pain. After that, she went for fashion retainers, which were associated with less pain:

> *"…But if you meant retainers, I can't count. Very often. Even today, I still wear them when taking photos or going out. But I didn't wear it while I was at home.*
> *…*
> *Yes, when I want to wear them, I put them on, then go outside, dress up, go on a trip, whatever; just put it on."*

(Penny, 16–20 years old, female, occasion fashion retainer wearer and a provider)

Similarly, Marie suffered from agony during her orthodontic treatment; she underwent an incomplete course of orthodontic treatment.

> *"TK: Why did you end up with fashion retainers after you've done with real braces?*
> *Marie: I went for them as I saw others wearing the braces and they looked cute. Colourful, something like this. I experienced pain while wearing real braces. But I wanted to have braces in my mouth like others."*

(Marie, 21–25 years old, female, former FB wearer)

In the cases of Penny and Marie, fashion retainers gave less pain, but they could still get the look of wearing "orthodontic braces".

Those who wore fashion braces more than once or twice often had different reasons for quitting each time. For example, Violet had four different kinds of fashion braces. Her first fashion brace brackets were glued on premolars to hold an arch wire. This caused her pain. Fashion braces, on the contrary, did not, from her perspective, have an identical look to orthodontic braces; therefore, she sought a second (different) pair – full mouth fashion braces.

> *"Violet: After I took it out for about two to three months, I haven't learned a lesson. Another try, so I ordered a new one. But this time came with its own glue, the glue that the shop gave. So I wore brackets all over my mouth."*

Unfortunately, the second pair was even more painful. She stopped wearing them. And this time, it was not about her interest in the "look" of braces per se but wanting to create the look to please her boyfriend:

> *"TK: After the second round of fashion braces, you went to the dental clinic. What was your inspiration back then?*
> *Violet: Well, I had a boyfriend. My boyfriend said that he would take me to get "Re". He wanted to see his girlfriend wearing "Re". He wanted to have a girlfriend wearing "Re", something like this."*

It seemed from these stories that the re-entry into the world of fashion braces, even when the first or second pair were painful, was that participants often thought of them as "unfinished business". That is, they could do better if they found, for example, a pair that did not cause pain.

4.6.3.3 Theme 3: Feelings after quitting wearing fashion braces

Participants often expressed mixed feelings about quitting their fashion braces. Some participants expressed regret when looking back:

> *"I felt like I shouldn't have had fashion braces in the first place. I was afraid – afraid that my teeth would be worse than before. Because having teeth grinded would make them thin, right?"*

(Sam, 21–25 years old, female, former FB wearer)

> *" (Laugh) and then I felt guilty later. When I started Mor Plai (Upper secondary school), my teeth weren't beautiful. So, I felt guilty for having fashion braces."*

(Pattra, 16–20 years old, female, former FB wearer)

Some participants interpreted their current situation by comparing it with past difficulties (i.e., pain, conflict with family and friends), demonstrating that life is better without fashion braces:

> *"I have fewer eating problems and am able to eat easily. There was nothing on my teeth and I didn't have to worry about when my teeth would shift or be ruined. I felt happy.*
> *…*
> *Yes, I can smile when I want, and I don't have to smile if I don't want to. I don't have to care what people think about me – the thought that I am showing off or something like this."*

(Jasmine, <16 years old, female, former FB wearer)

While some participants explained how they felt like an "ordinary person" and said, "I feel like a normal person":

> *"My teeth feel empty. Previously, you could saw my teeth with brackets when I smiled. But now my face looks very ordinary."*

(Angie, 21–25 years old, female, former FB wearer)

> *"It makes me… At first, when I had braces, it was good. But when taking it off, it makes me feel like a normal person."*

(Violet, 16–20 years old, female, former FB wearer)

According to some of the participants, looking like ordinary people seemed to be an unsatisfactory outcome. This is because they were interested in wearing fashion braces for fashion purposes – to stand out from the ordinary.

Summary

Participants talked about several issues that led to them to decide to remove their fashion braces: the "last straw". Sometimes, once the fashion braces had been removed, participants decided to get a second (or third or fourth) pair and re-enter the fashion brace world. Those who had only one pair often reflected on their regret for having had them or expressed how they felt (better or worse) after removal. Conversely, those who came back for fashion braces again usually tied this revisiting to their desire for the aesthetics achieved by braces. Besides, they tended to seek a better version, in their opinion. Participants identified physical and emotional struggles during their removal journey. The struggles were regarding pain and the negative feelings that developed along their removal journey. Interestingly, the conflicts with their parents made some of them undertake their journey alone.

This small-scale study has given us insight into fashion brace wearers from their first thoughts of getting fashion braces to escaping from the world of fashion braces. This study proposed to view fashion braces from a subculture perspective and explored actors who played roles in the existence of the fashion brace world, but from the wearer's point of view. The following section discusses in detail how the results of this study link with the subculture concept and the informal market concept, as well as the strengths and limitations of the study.

4.7 Discussion

The present study aimed to explore the lived experiences of fashion brace wearers and understand people's desire for fashion braces using narrative interviews. This study was analysed by thematic analysis to help find common themes across the data set. Three stages of life with fashion braces were expanded from the original results in Study 1: 1) roads into the world of fashion braces, 2) during fashion braces and 3) escaping the world of fashion braces.

This study fulfilled some limitations of Study 1, such as participant demographic data and a limited opportunity to explore insights into the unique experiences of wearers after they had fashion braces fitted.

4.7.1 Who are fashion brace wearers?

The present study recruited participants across Thailand using four strategies: recruitment flyers, social media, gatekeepers and snowballing. As a result, 18 participants were recruited. Thirty-three percent of the participants were from the north region, which was the highest percentage of all the regions but not significantly so. Therefore, it could not be deduced that the fashion brace phenomenon in the north region was more popular than in other parts of Thailand because

participants were recruited by chance, according to the strategies and study design, which did not predetermine the number of participants per region.

In terms of participants' genders, it appeared that most wearers were female (16 out of 18). These findings are consistent with previous studies investigating fashion brace wearers in Thailand (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017), and India (Zakyah et al., 2016). Conversely, in Saudi Arabia, there were almost equal gender proportions, with a higher proportion of males (Alhazmi et al., 2021; Zakyah et al., 2016). This might be because of the different natures of the fashion brace cultures in different countries.

Interestingly, 17 out of 18 people had fashion braces fitted while they were younger than 20 years old. Ten wearers had fashion braces fitted when less than 16 years old. Comparing the ages of a target group between the present study and previous literature was challenging because studying the fashion brace subculture meant that a young age was a predetermined criterion of the investigation (Pothidee et al., 2017; Hakami et al., 2020; Alhazmi et al., 2021). Nevertheless, this study might be the first to indicate that young people are the main target to join the fashion brace subculture across Thailand.

Socio-economic determinants are linked to the fashion brace subculture. Teenagers are the prime target of the subculture. The issue of being young was that they depended on their parents' financial support; therefore, fashion braces are the cheapest solution to get braces to improve their looks – whether a fashionable look, an aesthetic look, hiding or distracting from unsatisfying looks. Similarly, some young people with lower education levels worked to gain minimal income; therefore, they could not afford braces from orthodontic treatment providers. This study also found that boyfriends could act as a significant influence in getting fashion braces.

In addition, for those who earned money, fashion braces were seen as a reward for their hard work and investment in their career, especially those involved in the entertainment industry. Moreover, the norms of the society in which they lived also influenced their desire to wear braces (to achieve the feeling of "being cute"). This belief might have been spread via public figures and social media.

4.7.2 What motivates people to seek fashion braces?

Study 1 revealed that four desires led people to seek fashion braces. These four desires were used as themes developing in this study. Another important finding from Study 1 was that braces were the object of desire but were fetishised and devoid of their underlying function. Wearers assigned braces new meanings. The new meaning is a result of an interactive process as explained in symbolic interaction theory (Blumer 1969 cited by Handberg, Thorne, Midtgaard, Nielsen and Lomborg 2015):

how people see objects (desires), social interaction (insiders and outsiders) and meanings can be modified over time (in all three stages).

Desire is one dimension that motivates people to seek orthodontic treatment (Pittman et al., 2017; Imani et al., 2018). Although my interest was in exploring the desires of fashion braces, it was important to understand their motivations – in this case, desires. This finding found that participants desired better looks and confidence by using fashion braces in four ways: fashion objects, a tool to hide appearances, a tool to improve smiles and cheap braces for treatment.

Originally, braces or retainers were used in orthodontic treatment to correct malocclusions and stabilise teeth in the position after treatment (Littlewood and Mitchell, 2019). Interestingly, only a few participants in this study used fashion braces as cheap braces for treatment. This result differed from previous studies that indicated that it was a significant reason (Zakyah et al., 2016) and considered a primary reason in studies from Thailand (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009). This might be because, currently, most dental clinics in Thailand offer instalment payment plans for orthodontic services, which cost about 500–1,000 THB or £10–20 per month, to make the treatment more affordable (Section 2.3.4). Moreover, there are several orthodontics short-course trainings in Thailand, which created opportunities for general dentists to do orthodontic practice (Section 2.3.3.2). One possible explanation was that the market changes in orthodontic treatment in Thailand could change the way people give meaning to fashion braces; as a result, a minority of participants sought fashion braces for treatment.

Instead, the consumption of style was the most visible in this study. Most participants sought them for a fashion statement that could be explained in two ways. First, because fashion braces were popular in their society, they got fashion braces to catch up with trends and become a part of the community. Second, fashion braces offered “no-rule” products; there are various kinds of fashion braces in the market and colour components that allowed them to have fun, experiment and present themselves and their style. This is consistent with previous literature: that colourful rings can attract fashion brace wearers (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009) and some orthodontic patients (Samsonyanová and Broukal, 2014; Barbosa de Almeida, Leite and Alves da Silva, 2019). Interestingly, this can show that braces can be used as a fashion statement rather than as a treatment device. To be used this way is similar to punk using safety pins as accessories rather than as sewing material (Ryan Force, 2009). One interesting finding was that people could use fashion braces to fit in; conversely, one could use them to be unique. This highlighted that fashion braces were a fashion statement, as defined by Schiermer (2011): fashion objects are seen as a presumably sensual and particular object that attract attention.

Fashion braces were also used to hide unsatisfied appearances such as buck teeth and dental spacing. Participants might see fashion braces as a quick and cheap solution, but they do not need fashion braces for treatment. This finding was consistent with previous studies in the Thai population (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017).

An unexpected result was that having a beautiful smile was one concern for some who work in the entertainment industry. A beautiful smile, in this case, was a physical smile that was seen by audiences, not a beautiful smile due to the decoration. Fashion braces were used as objects that forced participants to lift their lips to avoid irritation. No previous literature has been found on this. Instead, they reported the link between smile attractiveness and both orthodontic braces and fashion braces (Samsonyanová and Broukal, 2014; Rityoue and Sasiwongsaroj, 2009; Atisook and Chuacharoen, 2014a).

Previous studies indicated that all the above desires, as well as status symbols and peer pressure, impacted the decision to purchase fashion braces (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017; Zakyah et al., 2016). However, using fashion braces as a status symbol was not a significant finding in this study. Though several participants grew up disadvantaged, having no money did not affect their seeking of fashion braces to present a made-up financial status; rather, their financial situation played a role in whether to get orthodontic braces or fashion braces.

Peer pressure was seen from different perspectives in this study, as we attempted to explore the meanings of fashion braces given by wearers. Peer pressure played a role via social interaction as a member of the world of fashion braces by normalising and creating popularity. Later, other people's attitudes towards fashion braces gradually changed – having fashion braces was no longer alienated or a sign of stupidity. The majority of participants recounted that their peers had fashion braces, and they wanted to have fashion braces too.

4.7.3 What are the lived experiences of fashion brace wearers?

This study presented three stages of life with fashion braces: roads into the world of fashion braces, wearing fashion braces and escaping from the world of fashion braces. This finding could be used to expand and gain insight from Study 1. The idea of this presentation arose from Study 1, from which we can identify online threads talking about fashion braces posted by three groups of people: those who intended to be wearers, fashion brace wearers and experience sharers; then, we interpreted the purposes of talking and connected them to understand the lives of fashion braces.

No previous literature has introduced people's lives with fashion braces as they are presented here. Researchers have previously conducted cross-sectional studies. For example, Pothidee and colleagues

(2016) were interested in fashion braces services via participants' perspectives, focused on the services the students received, while Rityoue (2009) (the first empirical study about fashion braces) introduced types of fashion braces in the market and related services and consequences. Hakami and colleagues (2020) evaluated the effect of fashion braces on oral health related quality of life (OHRQoL). Alhazmi and colleagues (Alhazmi et al., 2021) explored factors related to the use of fashion braces.

4.7.2.1 Roads into the world of fashion braces

The first stage comes from the participants' narratives about the moments before they decided to get fashion braces. Though this stage contained five themes, grouping stakeholders' roles allowed me to understand participants' motivations, which were influenced by two factors: wearers (themselves) and the environment of fashion brace provision.

4.7.2.1.1 Wearers

This study confirmed that the wearers had fashion braces in their teens while studying in secondary school or after dropping out of school early to work. Therefore, it can be implied that they were either financially dependent on their parents/guardians or living with financial limitations. A limited budget was one straightforward factor that influenced some participants to get fashion braces, either fitted by themselves or by non-dental professionals, rather than orthodontic braces fitted by orthodontists, which they considered to be unaffordable. Moreover, being young might be related to low literacy skills, especially in developing countries (Howard, Neudert and Prakash, 2021). The findings in this study reported that information provided by veterans or former wearers was seen as more reliable and seemed to be a prime source for wearers in the decision-making process. Some used the internet to search for providers but ignored negative information about fashion braces. Moreover, positive experiences about fashion braces were passed on by normalising the impacts and easing anxiousness.

While seeking information about fashion braces on Google.com, all the results and photos were about negative consequences; interestingly, wearers rarely encountered this information. Although some found it, they chose to ignore it. The participants used web searches to seek locations providing fashion braces, which is why they could avoid the more valuable information. It is interesting that some people value desires more than risks. This could explain why risk-taking behaviours are especially prevalent among teenagers.

4.7.2.1.2 The environment of fashion brace provision

Generally, the theory of access has been used in health care to analyse and improve the accessibility of health care (Levesque, Harris and Russell, 2013) . This study discussed fashion brace services using this theory to overcome what made fashion braces accessible.

Fashion braces were approachable, as they have several publicly underground channels to obtain them from. This study found that fashion braces are bought from social media platforms and physical locations to fit by themselves and get the service directly from providers. This finding matches previous studies from Saudi Arabia and Thailand (Pothidee et al., 2017; Alhazmi et al., 2021). Conversely, the older study by Rityoue and Sasiwongsaroj in 2009 revealed that teenagers received fashion braces from physical locations, such as kiosks and salons. It can be seen that the advance of the internet in the last decade could increase availability and accommodation. A trusted place, such as a dental clinic, was not widely promoted but discovered by word-of-mouth.

This study suggested that the range of prices of fashion braces was related to many factors. Fashion retainers tended to be more expensive than fixed fashion braces, as the fashion retainers involved a fabrication process either by dental labs or providers themselves. Some extra features, such as hooks, tubes and types of ligatures (e.g., chain or o-ring types), contributed to the higher price of fashion braces, but customisation was offered to wearers as they wished. A grade of fashion braces claiming to be medical, and the quality of the adhesive system used, such as self-adhesive, light-cured adhesive or superglue, affected the price of fashion braces. In addition, the number of brackets fitted teeth also affected the price: the higher the number of brackets, the more expensive in exchange for identical looks of orthodontic braces. One participant in the present study reported that she got fashion braces from a dental clinic; however, the price was lower than orthodontic braces, as she had brackets fitted only at visible area-front teeth. This can be seen in the variety and flexibility that allowed wearers to have fun and present their style as their finances were available. Getting fashion braces from dentists was rarely reported in the Thai studies (Rityoue and Sasiwongsaroj, 2009; Pothidee, 2007) or the Indonesian study (Zakyah et al., 2016), but 63 percent of participants who got fashion braces from a Saudi Arabian study had them fitted by dental professionals (Hakami et al., 2020). Note that Hakami and colleagues used the term “fashion braces” differently, to refer to orthodontic braces fitted for fashion purposes.

Overall, at least two accounts played roles in the world of fashion braces: wearers who expressed their demands and providers who offered their services. These components fit into the core of the informal market framework, which attempted to explain how the market for illegal products or informal services operated (Section 2.6.1).

4.7.2.2 During fashion braces

This section discussed the period when participants decided to go with fashion braces. Their lives at this stage began with when they had fashion braces fitted, the consequences, motivations to keep fashion braces on, and how relationships and interactions affected their wearing status.

4.7.2.2.1 Experiences of having fashion braces fitted

Those who had fashion braces fitted by themselves relied on instruction leaflets, or they went in blind if the leaflet was not available. They did not have previous experience. Therefore, several negative experiences during the fitting were a prominent part of this theme.

Those who had fashion braces fitted by providers related their experiences to the difficulty while fitting and the negative consequences that retrospectively reminded them of the moment they had their fashion braces fitted. In addition, the characteristics of providers and locations and the customer-provider relationship also had an impact on the experiences. A lack of knowledge of hygiene was found among participants and providers of cleaning tools and equipment. This shows that some people might have a low acceptance level. Meanwhile, a feeling of no choice forced some participants to accept unhygienic practices.

Our study found the surprising result that the consequences of fashion braces could be both positive and negative. Some previous literature about fashion braces looked for the negative consequences, as shown in Rityoue and Sasiwongsroj (2009). The positive consequences were based in the confidence gained while wearing fashion braces. Participants reported that they felt beautiful and gained attention for having fashion braces – this showed that fashion braces acted as an accessory and power-related item. Social media played a role as a place to express the self and desires. Fashion braces also positively impacted some wearers who were involved in entertainment jobs, as it helped them earn extra money, such as through gratuities. This is consistent with a previous study using OHIP 14 to compare dimensions among normal people, those who were undertaking orthodontic treatment and fashion brace wearers in Saudi Arabia (Hakami et al., 2020). They suggested that fashion brace wearers had lower levels of psychological discomfort and psychological disability, which means that fashion braces may help people feel more confident and satisfied with themselves (ibid.). However, the report on how fashion braces are related to careers has never been found in previous literature to date.

Negative consequences caused by unhappy moments were the most prominent theme during their fashion braces. In addition, participants encountered various social impacts from bullying and physical impacts.

This study found that strangers and acquaintances engaged in cyber-bullying. Bullying occurred when outsiders knew that the wearers wore fashion braces, which resulted in alienation. Furthermore, some participants were verbally bullied in schools regarding the appearance created by their fashion braces. In other words, some participants encountered a social disability (being irritable with other people because of their current condition), which contrasts with a study that reported social disability and

psychological domains in fashion braces wearers are less than ordinary people and even orthodontics patients (Hakami et al., 2020). Perhaps the definitions of fashion braces were different. Hakami's study (2020) defined fashion braces as orthodontic treatments for fashion purposes. The value of "braces" was different. In Hakami's study, whatever the reason participants had braces, all braces included were devices used for orthodontic treatment. Our study found that fashion braces were hierarchically lower than braces from orthodontic treatment from outsiders' perspectives, resulting in discrimination.

The present study revealed several physical impacts, including pain, ulcers, unpleasant smells, difficulty eating, unwanted tooth movement and general oral diseases. All physical impacts of the present study's findings matched the findings in a study by Rityoue and Sasiwongsaroj (2009); however, it failed to raise participants' voices, as the consequences were expressed from orthodontists' perspectives. In contrast, the present study paid attention to participants' voices.

Two onsets of pain were revealed: immediate and latent. This was different from pain in orthodontic treatment with fixed appliances, which starts within four hours, increases within the next 24 hours and declines over time (Krishnan, 2007). Orthodontic tooth movement pain is caused by inflammatory reactions in the periodontium and dental pulp, which stimulate the release of various biochemical mediators, causing the sensation of pain (ibid). This confirmed that fashion braces could cause tooth movement, which was an unexpected result for some participants in the present study. Latent pain, this study found, can start within two to three days after placement, or it may last up to two months, which would not be found in orthodontic treatment. The possible explanation of latent pain was pain from excessive tooth movement and from the poor fitting of fashion braces and fashion retainers.

Several strategies were used to eliminate pain, such as using painkillers and avoiding tooth contact. In addition, the pain impacted participants' lives in ways such as eating difficulties, weight loss and low social interaction.

Uncontrollable and undesirable tooth movement from the original position was a significant finding in this study. It could range from unnoticeable to severe tooth movement, such as crooked teeth, spacing, front teeth arranged in a straight line, loose teeth and facial asymmetry. Generally, the remodelling of the alveolar bone is a crucial component of orthodontic tooth movement; many techniques have been exploited to create tooth movement by interfering with biological pathways affecting the activity of bone cells (Littlewood and Mitchell, 2019). However, generating improper force and direction can cause side effects, such as root resorption and periodontal complications (Li et al., 2018). The above explanation can cause undesirable tooth movement in those who wear fashion braces. Providers were non-dental professionals who lacked knowledge of the principles and

mechanism of brace operations. Their tasks were to offer a look and materials that people wanted, with no complication concerns.

Other negative physical impacts (ulcers, unpleasant smells, difficulty talking, dental caries and periodontal problems) were found in the analysis. Ulcers were caused by poorly fitted fashion braces, such as being snapped out of brackets and wire-end exposure. Rityoue and Sasiwongsaroj (2009) pointed out that half of the participants experienced ulcers during their fashion braces. This means that ulcers can be typically found in fashion brace wearers, but not many participants mentioned this impact in our study. The possible reasons were that other consequences were more severe for them and a recall memory issue, which was problematic in the present study, which used narrative interviews that did not ask about the consequences by items.

Unpleasant smells were caused by using superglue instead of an adhesive bonding system and by poor-quality braces. A study examining the quality of fashion braces found that the brackets used in fashion braces were not significantly different from the brackets used in orthodontic treatment (Sriarunotai and Boonyagul, 2016). This is consistent with the news report in Thailand about arresting dental equipment retailers sold orthodontic devices for dentists, as well as reselling them on social media platforms for the fashion braces business (Santiwongkarn, 2017). Therefore, it can be inferred that some fashion braces might have the same quality as orthodontic brackets, while non-medical grade wires might be used. This may explain why participants experienced a rusty smell or yellow and smelly glue while wearing them. Superglue was an alternative to the cheap set of fashion braces and a first-aid kit for participants to reattach brackets. In contrast, several fashion brace sets and providers reported using a light-cured system. Nevertheless, it tended to be misused.

Other difficulties, such as with talking and brushing, were discovered. However, talking difficulty is a common side effect in those who use retainers in orthodontic treatment, and patients eventually become accustomed to it (Littlewood and Mitchell, 2019). Hence, improper and poorly fitted designs may have increased this difficulty in the present study.

Due to brushing difficulty, fashion braces interrupted the brushing routine, and people were prone to having dental caries, gingivitis and bad breath. This is consistent with previous studies by Rityoue and Sasiwongsaroj (2009) and Hakami and colleagues (2020). Another interesting finding was that some participants tried to adapt their cleaning technique to better clean the teeth, while others avoided brushing areas that caused pain. Therefore, for some participants, the symptoms worsened over time.

4.7.2.2.2 Motivations to keep braces on

Despite many consequences and undesirable side effects, as mentioned in the previous section, some participants decided to go on with their fashion braces. This study found several aspects that influence this reasoning, such as the confidence gained from fashion braces, buyer's remorse, trusting providers, peer support and a belief that they can mitigate the consequences. These findings can be considered a new finding, as no literature has studied this before.

The present study suggests that eliminating the vicious cycle of wearing fashion braces by educating about harm might be insufficient, as even the direct negative experience could not resist their desires. Developing strategies to raise awareness and change this subcultural norm is crucial. It is challenging and needs further investigation regarding the policy and laws to decrease the ongoing fashion brace subcultures.

4.7.2.2.3 Relationship and interactions

This study found that parents and guardians have power over their children, especially in Asian cultures. Teenagers may feel under control and rebel. Therefore, tensions and conflicts occurred, and young wearers had to construct themselves as fighters to live with fashion braces. Their actions towards parents' warnings and naggings were found to argue and negotiate to keep wearing fashion braces, ignore warnings and advice, and hide them from parents. Moreover, parents were seen as outsiders from the wearer's perspective. These conflicts brought more distance between parents and children. As a result, the wearers tended not to talk with parents about their struggles with fashion braces, such as being in pain alone or not seeking further advice from their parents.

Friends who took sides against fashion braces were considered outsiders. Though they advised stopping wearers from wearing fashion braces, the wearers chose to believe in friends who supported them throughout their lives with fashion braces. A possible explanation is that the wearers could better connect with the supporters. They formed alliances through a sense of belonging in this place as insiders who shared values, beliefs and experiences. Therefore, the insider's voice was more robust than that of outsiders, who were against the favourable objects that they believed would fulfil their desires.

In reviewing the literature, no data were observed regarding the relationship and interaction between fashion brace wearers and their circles. This novel finding may need further investigation to understand how fashion braces affect relationships in building a proper environment to help wearers get through their lives with fashion braces properly and feel less alone, as well as help outsiders and insiders meet in the middle. The relationship might be another significant factor in whether wearers keep fashion braces or remove them.

4.7.2.3 Escaping the world of fashion braces

This third stage of life with fashion braces captured wearers' lives and journeys quitting wearing fashion braces. To date, no literature has studied the post-fashion braces moment.

4.7.2.3.1 The journal of fashion brace removal

The wearers demonstrated that they quit wearing fashion braces to mitigate their suffering. Yet, some consequences and experiences led them to have fashion braces removed, which tended to relate to physical impacts. Pain was a common consequence that impacted their quality of life, such as their daily routines and eating habits. The deformations of dental appearances and facial profiles were also important reasons for participants to remove their fashion braces. Other last straws were revealed, such as oral disease problems but concerns about toxicity and faulty fashion braces were less mentioned among the narratives. Note that some consequences were also side effects found in orthodontic braces, such as pain and ulcers (Krishnan, 2007; Littlewood and Mitchell, 2019), but the consequences were more likely to be more severe than with standard orthodontic treatment.

Other components influencing their decision to have fashion braces removed were positive relationships (outsider-peer support and advice), negative relationships (bullying), power and authority (parents and guardian), social environmental change (e.g., changing school, relocation) and decreasing information asymmetry (e.g., awareness of potential harms).

Wearers tended to remove fashion braces by themselves using household tools, such as nail clippers and tweezers. Their journey with fashion braces removal tended to be alone under their ability and bearable pain level. In some cases, they spent more than one day on removal. Why participants chose to go through this removal on their own is interesting. Two possible reasons were conflict with parents over wearing fashion braces and feeling a lack of support and fear in dentistry (e.g., the cost of treatment and perspectives on dentists). Only one participant mentioned their parents' support along this journey; therefore, this participant had the chance to see dentists.

4.7.2.3.2 Re-entry into the world of fashion braces

This finding was expected based on Study 1. However, the number of wearers who returned to fashion braces exceeded my expectations. This finding appeared to be related to the look that fashion braces could provide.

As mentioned in the literature, there are two main types of fashion braces (fixed and removable; Section 2.1.2.1), which allows customers to modify their braces as they wish, including seeking a better set of fashion braces. For example, pain from previous braces stopped them from wearing them, but

their obsession with the look made them turnback to a newer set of fashion braces that they perceived caused less pain.

4.7.2.3.3 Feelings after quitting wearing fashion braces

This study found that participants provided feelings retrospectively to negative emotions, such as regret and guilt towards themselves. This might be because most participants had quit wearing fashion braces and suffered from the consequences, consistent with some participants whose current self-evaluation was that life was better without fashion braces.

There was a surprising finding: a few participants felt unpleasant without fashion braces. This again highlighted that some people sought fashion braces for fashion purposes. For this reason, it might be assumed that people with this thought may have a chance to wear fashion braces again (section 4.7.2.3.2) if their desires and feelings continue.

4.7.4 Study strengths

This study has many strengths that differ from the previous literature. A few studies have conducted qualitative interviews with designated age groups and geographical areas (Pothidee, 2007; Rityoue and Sasiwongsaroj, 2009), while our study was open to everyone aged above 14 across Thailand. Therefore, this study can confirm that wearers tended to be young people who were more obsessed with look and fashion. Having participants from various regions in Thailand allowed us to increase generalisability and reduce bias according to the repeated pattern that can be seen only in one area.

Moreover, this was only the first research to see people's lives with fashion braces holistically and retrospectively from before, during and after wearing fashion braces. Application of the informal health market is a useful framework for investigating antecedents' relationships in informal markets, such as fashion braces wearers (demand) and providers (supply) and information asymmetry. However, there are other aspects that have never been explored, and they need further investigation. Note that informal market frameworks have been used to explore the market of illegal products and health products sold by non-professionals to understand the origins, market failures and natures of the informal market (George and Iyer, 2013; Gaudiano et al., 2007; Baxerres and Le Hesran, 2011).

The internet and social networks played a significant role in this study regarding recruitment and means of conducting interviews. This allowed me to study in the UK during the pandemic while interviewing participants from various areas of Thailand.

4.7.5 Study limitations

There were a number of limitations to the present study. First, there is a lack of previous research on the topic of fashion braces, especially the personal accounts of the wearers. Therefore, it was entirely developed from new perspectives, in this case, the informal market and subculture perspectives. The interview guides were based on limited previous studies, together with insights from Study 1. During the interviewing process, the interview guide was further revised as new information was obtained.

Second, recruiting participants via the internet can increase the chances of gaining access to the theoretically hard-to-reach populations (Wang, 2018; Gundur, 2019). However, in this study, recruitment was extremely difficult. Contacting participants via the internet (chatrooms, social media accounts) proved difficult. Some participants mentioned that they were afraid of being scammed when contacted by a stranger this way. Another possible reason for the difficulties in recruitment was that they knew that having fashion braces was not accepted by other people; therefore, they refused to respond to my recruiting messages, especially those who were on the Facebook pages selling fashion braces. On the other hand, former wearers on TikTok were more willing to participate. As a result, because it was difficult to recruit people who intended to wear fashion braces, the recruitment had to shift predominately to those who were wearing or had worn fashion braces. These difficulties are in line with previous findings that have discussed the difficulties recruiting for studies on sensitive topics (Gundur, 2019).

Third, there are potential limitations in my positioning due to my dental background. As a dentist from Thailand, much of our experience and knowledge is to view fashion braces negatively. To this end, I included many strategies to limit personal bias and reflected on these during the research process (see Section 5.9).

Fourth, budget and time constraints were major considerations during the thesis – particularly as a result of the limitations posed by the COVID pandemic. The pandemic meant that Study 2 had to be reconsidered (see Section 1.4), and the aims and scope of the thesis were changed to reflect the new study. In terms of budget constraints, I had to transcribe and then translate the interview transcripts. Only 10% of the translated documents were checked by a translator.

Fifth, again, due to the impact of the pandemic, which led to a number of changes to the PhD, the number of participants in Study 2 had to be predetermined due to the time left for PhD registration. It is possible that data saturation had not occurred, as new discussion points were noted in the participant interviews towards the end of data collection. Although it was felt that the data collected was rich, detailed and unique, this is a potential limitation. Finally, given that participants were recalling information from, in some cases, many months or years ago, accurate recall may potentially

have been a limitation. It may well be that participants were selective in the accounts given or that some key aspects had been lost. Interestingly,

Some inconsistencies were found in the report of one participant. He related, for example, two different stories (e.g., hitting the ground vs. crashing into trees; the age at which he started wearing fashion braces, which did not match with early parts of the interview with different questions). These inconsistencies led me to check his TikTok account, and I found many inconsistencies, including when he said he had quit wearing fashion braces. After the interview, I saw him post clips wearing them even though he said he had stopped. This deception led me to consider whether he had a memory recall issue or was being deceptive to hide the fact that he was still wearing fashion braces (Masip et al., 2016).

Chapter 5

General Discussion

5.1 Introduction

The previous two chapters presented results from the netnographic study (Chapter 3) and narrative interview study (Chapter 4) of people who were seeking fashion braces, currently have fashion braces, and had fashion braces in the past. Section 5.2 summarises the key findings of the study. Section 5.3 details the research reflexivity and positioning. Section 5.4 illustrates how symbolic interactionism contributed to this thesis. Section 5.5 discusses the meanings associated with fashion braces from the wearers' perspectives. This is followed by examining the ambiguous term "fashion braces" (Section 5.6). Next is a description of how various actors play a role in the informal market framework for fashion braces (Section 5.7). Section 5.8 discusses the current laws, regulations, and strategies concerning fashion braces in Thailand. The quality of qualitative research in this thesis is discussed in Section 5.9. Lastly, the strengths and limitations of the two studies are discussed (Section 5.10 and 5.11, respectively).

5.2 Summary of key findings

Life with fashion braces is divided into three stages including the life: 1) before fashion braces, 2) during fashion braces, and 3) after wearing fashion braces. This thesis identifies several potential factors that may play essential roles during the first stage (life before fashion braces), including norms in society, age, socioeconomic disadvantage, desires, and the informal market for fashion braces.

The notion that having braces is cool and beautiful was commonly found in both studies; these feelings were also common among participants who grew up under conditions of socioeconomic disadvantage. The results suggested that there may be a relationship between participants' desires and their perspectives towards fashion braces. Having positive views about fashion braces acted as a pull factor for young people to seek out fashion braces. Meanwhile, their desires also linked with how they assigned meaning to fashion braces (See Section 5.5).

The business of fashion braces could be considered an informal market as it has not been accepted by the Thai government, regulatory bodies, or laws. Using the lens of the informal market (Bloom et al., 2011; Gautham et al., 2014), participant responses suggested that the access to fashion braces service and orthodontic treatment influenced their decision to select either legitimate or illegitimate types of braces. Access to fashion braces can be easy considering their affordable price, widely available service through physical and online sites, and large number of providers. In contrast, orthodontic services are

considered an expensive private health service with no financial assistance for customers from the government. Another crucial element in the informal market is information asymmetries. This PhD project suggested that myths and misunderstood information tended to spread from person to person, both in real life or on social media. Those seeking fashion braces often did not have proper knowledge of fashion braces. Furthermore, some people recognised the negative consequences of fashion braces, but decided to wear them anyways. As a result, health education designed to change attitudes towards fashion braces is a prerequisite first step.

Participants tended to have a short-term good experience immediately after getting fashion braces that quickly turned into a long-term negative experience. Several factors appeared to influence participants to have them removed, including negative feedback from peers and social media. Receiving the proper knowledge about the consequences of fashion braces after they encountered some unexpected experiences also appeared to lead to a decision to have fashion braces removed. However, Study 2 indicated that the main reason to keep fashion braces was a desire to be beautiful. After participants started wearing fashion braces, relationships and interactions with others shaped their subsequent experiences with fashion braces.

Life after wearing fashion braces took a central place in Study 2, where the narrative interviews uncovered a greater range of experiences than the netnography of social media threads in Study 1. Pain and more crooked teeth due to fashion braces had the greatest impacts on participants' quality of life; these consequences, in turn, often led participants to remove their fashion braces. There were numerous ways to remove fashion braces, including by participants themselves with household tools, fashion braces providers, or dental professionals. Beauty and fashion seemed to be the main desires that encouraged young people to wear fashion braces. Thus, the desire to be beautiful with fashion braces could make ex-wearers go back to wearing fashion braces again.

5.3 Research reflexivity and positioning

There were a few positioning conflicts that arose while I undertook this project. First, it is essential to acknowledge that my career as a dentist means that I have potential bias against the use of fashion braces. The dental profession in Thailand strongly advocates against the use of fashion braces.

Second, from all perspectives, I was a total outsider in the world of fashion braces. At the same time, I was a new researcher, particularly in sociological theories, frameworks, and methodologies. I became closer to the world of fashion braces by reviewing literature; unfortunately, only a handful of studies had been published when I began this PhD project. A way to further increase my knowledge was to explore public online forums about fashion braces (Study 1). I chose Pantip.com as the first location

to explore the informal market of fashion braces in Thailand because it was a place that I was familiar with. I understood its culture as I had been a lurker on this website for at least ten years. I often saw threads talking about fashion braces; yet, previous research had not explored topics related to fashion braces on this website. Finally, I hoped that studying this online community would help me understand the world of fashion braces from the user's perspective. This was important for me because I considered myself an outsider due to being a dentist. Therefore, I hoped that the first study would help me gain experience in the fashion braces world. I wanted to enhance my knowledge and understanding of user's perspectives that could, in future, be disseminated to the dental profession in Thailand.

Third, from the beginning of my project, I had different opinions as a PhD student from my three supervisors with a variety of expertise (orthodontics, sociology, psychology). Notably, we had conflicts about the idea that fashion braces were provided by non-dental professionals only and were not for the purpose of straightening teeth (orthodontist's perspective). However, some participants argued that they got fashion braces from dentists; and some participants used fashion braces to fix their teeth alignment. This disagreement led to much discussion throughout the four years of my PhD project as to the correct definition of fashion braces and what the term should include.

My perspective was that the dental devices installed by non-orthodontists and outside of licensed orthodontics practices (which I will refer to as "it") should be called fashion braces, as this term was coined in Thai culture where "it" originated. My supervisors from psychology and sociology backgrounds suggested that using the term "fashion braces" could result in ambiguous meanings because the meanings would vary based on the person's desires and varying experiences. Some people might use the device called fashion braces for non-fashion purposes. On the other hand, my orthodontic supervisor argued that the "it" should not be called fashion braces because, in some cases, they were being used to move teeth. Meanwhile, it is likely that some dentists, orthodontists, and dental professionals may not have previously seen other perspectives about the meaning of "fashion braces." As a result, my PhD thesis includes a section (Section 2.1.1) demonstrating the fluidity and boundaries of the term "fashion braces" in both the grey and published literature. I also came to the conclusion that I would discuss all of the participants' perspectives on fashion braces, which included people who wore fashion braces for different purposes, braces provided by non-professionals, and those provided by dentists.

5.4 In what ways symbolic interactionism contributed to this PhD

How did I examine the meaning of fashion braces in this thesis? The meaning of fashion braces was examined through the basic tenets of symbolic interaction, which is described by Blumer as:

> *1. Human beings act towards things on the basis of the meaning that the thing has for them;*
> *2. Meaning arises out of the social interaction that one has with one's fellows;*
> *3. Meanings are handled in and modified through the interpretive process used by the person in dealing with the things they encounter*

(Blumer 1969 cited by Handberg, Thorne, Midtgaard, Nielsen and Lomborg 2015)

When I analysed the data from Study 1, I combined symbolic interactionism and narrative approaches within the online community in Thailand. This technique involved adopting Blumer's symbolic interaction approach to storytelling (Cousineau, 2020). Cousineau (2020) named this approach "Blumerian" and outlined its eight components by writing:

> *Adopting a Blumerian approach has many components, including (1) social actors use stories to construct subjective meanings; (2) stories exist in some sort of social context; (3) stories are told or written for some type of audience; (4) social processes produce stories; (5) there are interactional techniques of showing story preferences; (6) stories are symbolic structures; (7) stories include narrative linkages; and (8) stories follow temporal sequences. (Cousineau, 2020; p. 721-722).*

I found that symbolic interactionism (Blumerian) was suitable as a framework to examine the meaning of fashion braces because the narratives, whether long or short, all contained social processes within their stories. Using this underlying framework, I organised the results of my thesis to show: a) how desire operates, b) where the boundaries are between insider and outsider perspectives, and c) how these boundaries are negotiated as participants enter and exit the world of fashion braces. All of these aspects are crucial because they show how demand for fashion braces in the informal market operates. Next, I describe each of these components in greater detail:

a) how desire operates

We can see from the online forums that desire focuses on wanting to be more 'decorative', being fashionable, as well as looking older but maintaining a cute youthfulness. These findings are important because they show that the principal motivation for having fashion braces comes from a different perspective than all of the health warnings against having them. Simply warning participants about the dangers of fashion braces does not communicate with participants from their perspective. However, understanding participants' desire to be attractive identifies that a possible target for

interventions. Potential interventions have to fit with or at least challenge these meanings from within the social world itself.

b) boundaries between insider and outsider perspectives

Several styles of written messages found in Study 1 reflect the types of audiences that narrators wanted to communicate with. Narrators sought help from those who they deemed to have experience or who had expertise and were perceived to be health professionals. This thesis highlighted the possibility of integrating narratives (storytelling) in online communities with a Blumerian approach to the study of meaning (Cousineau, 2020). This analysis showed where the boundaries of the social world of fashion braces meets those of professional worlds such as dentistry. Within the messages we saw that perhaps dental health care professionals were seen as outsiders to the social world of fashion braces because they might disapprove. The narrators also perceive fashion brace providers as insiders. It is difficult to know how to shift these positions without finding ways to move beyond the current legal boundaries of who can and cannot provide dental care. Orthodontic treatment remains inaccessible and beyond the means of the vast majority of the Thai population. Likewise, as we have seen in this study, the very definition of fashion braces does not fit into the definition of orthodontics, which are designed to have functional benefits for patients.

c) entry and exit from the world of fashion braces

The symbolic interactionist framework behind this study indicates that we ought to also pay attention to the entry and exit from the world of fashion braces. This is the fourth component of Cousineau's (2020) framework for understanding the narratives in this thesis. My findings suggested it is necessary to better examine the processes of entry and exit from the world of fashion braces. Health promotion could provide better education about the journeys of past users of fashion braces. This information would enable users to avoid the damage being done to their teeth. Such work needs to follow what I found in components a) and b) above. Dental professionals and health educators should attempt to build a supportive environment around this phenomenon that avoids victim blaming.

5.5 The meaning of fashion braces

In Study 1, structural analysis (Labov's model) was used to analyse the data. One element called "Evaluation I" was functional. Evaluation in Labov's model is the most crucial element because it reveals perspectives of the participants on the stories being told (Patterson, 2011). Another way I analysed the data was by investigating how the thread's initiators assigned the value of fashion braces (See example in Table 9, Line 8). In Study 2, I also retrieved dialogues that indicated why they wanted fashion braces.

There were five main emerging meanings of fashion braces from the two studies:

1. Fashion objects (Study 1 and Study 2)
2. Alterative to orthodontic treatment (cheap braces for treatment) (Study 1 and Study 2)
3. Distracting objects (Study 1 and study 2)
4. Objects to improve participants' (physical) smile (Study 2)
5. Objects to use when their orthodontics went wrong (Study 1).

It has been widely recognised in literature that fashion braces are used as fashion objects (Rityoue and Sasiwongsaroj, 2009; Pothidee, 2007; Zakyah et al., 2016; Alhazmi et al., 2021). The consumption of style was the most visible theme in this thesis. In Study 1 (online forums) and Study 2 (narrative interviews), participants tended belong to a particular part or group of society where fashion braces were "trendy." This membership might result in some form of "normalisation" of wearing fashion braces. Another reason for the use of fashion braces was because they offered flexibility; fashion brace providers were not operating under the dentist's code of conduct and were unlikely to be dental professionals. The flexibilities of having fashion braces included adding seen-on orthodontic braces as needed by participants without real knowledge about their effects on dentition. The market for fashion braces offered a range of products, which were offered in different colours and with different types of elements that could be used as accessories. This is consistent with previous literature which found that colourful rings could attract fashion braces wearers (Pothidee et al., 2017; Rityoue and Sasiwongsaroj, 2009) and orthodontic patients to seek braces (Samsonyanová and Broukal, 2014; Barbosa de Almeida, Leite and Alves da Silva, 2019).

As fashion braces have been sold at a low price, several people sought fashion braces as a cheap alternative to orthodontics. Under these conditions, they were expecting some form of treatment outcome. Fashion braces were also used to hide dissatisfaction with body image. Participants appeared to see fashion braces as a quick and cheap solution for body image problems, but they did not need them for treatment. This finding is consistent with previous studies on the Thai population (Rityoue and Sasiwongsaroj, 2009; Pothidee et al., 2017).

The present study discovered two novel meanings of fashion braces. First, fashion braces are an object to improve the smile: they are utilised to practice smiling by forcing the upper lip to be above the upper brace and the lower lip to be under the lower brace to avoid irritation from braces. As a result, their smile had changed. However, this meaning tended to be restricted to teenagers working in the entertainment industry, such as dancers and club hostesses. In these careers, workers are expected to have a particular appearance and demeanour. The second meaning occurred among dissatisfied orthodontic patients whose orthodontic treatment did not provide them with the desired appearance.

In such instances, they obtained fashion braces to correct their problem without their dentist's knowledge. In another case, the participant disliked the colours of elastomeric rings.

5.6 The ambiguous name of objects called fashion braces

Fashion braces are the subject of interest in this thesis. However, there is another well-known name for these devices: fake braces (Section 2.1.1). There has been a long-standing debate among the researcher and supervisors about the name of this object. I chose to call them fashion braces based on my stance that it is the direct translation of the term used for these devices in Thai language. This word most closely fits the original purpose of this object. However, during the analysis, it appeared that the term fashion braces may not be sufficient to cover all of the various meanings associated with the braces in this study.

For some participants, these devices were not only for fashion, but they were also cheap alternatives for orthodontic treatment or to hide negative appearances (Section 5.4). Sometimes, these other reasons were the main concerns of participants. So, it was questionable if they should be called fashion braces.

One opinion was simply to call them fake braces. Fake or counterfeit is defined as "made in imitation of something else with intent to deceive" (Merriam-Webster dictionary). Indeed, some people sought fashion braces so that they could be seen as wearing orthodontic braces, though they were not. However, the difficulty with this term "fake braces" is that some participants wore braces as a form of treatment from the participant's perspective (Santiwongkarn, 2017). Consequently, it appeared that either term "fake braces" or "fashion braces" could be used – neither perfectly - to encapsulate the object of the thesis. This thesis calls the object at the centre of the study "fashion braces," even though I am aware this is an ambiguous term.

5.7 The Informal market for fashion braces in Thailand

The informal market framework was adapted to this project. The informal market can briefly be explained as the exchange of illegitimate products in relation to the law and regulatory organisation (Cross and MacGregor, 2010). The informal market framework used in this thesis was developed by Bloom and colleagues (2011). This framework (Figure 14) consists of three layers: 1) Core, 2) Rules, and 3) Supporting functions (Section 2.6.1). This section seeks to examine how the informal market for fashion braces operates through participant's perspectives in a series of layers.

Table 24 illustrated the relationship of themes in Study 1 and Study 2, and their 'fit' in the informal market framework. The table was divided into a core, other functions (or supporting functions in the

original framework), and rules. An extra row in the table was added to highlight matters that might influence people's purchasing, but did not fit in the framework.

Table 24 The layers of the informal market framework and fashion braces and the findings in from this thesis

Themes	Layers in the informal market framework			Outside the framework
	Core	Supporting functions	Rules	
Study 1 (Stage 1: Life before having fashion braces)				
Personal desires	Wearers			
Pre-decision process	Wearers	Information issues		Phobia related to dentistry
Information seeking		Information issues		Internet
Study 2 (Stage 1: Roads into the world of fashion braces)				
Fashion braces as a subculture			Informal rules and norms	
Meanings of fashion braces	Wearers			Society norms
Information seeking		Information issues		
Wearers' characteristics	Wearers			Dental phobia
The environment of fashion braces provisions	Providers	Access		

5.7.1 Core - wearers (demand side)

The core of any market is a transaction between providers (supply) and wearers (demand). The present study drew on a symbolic interactionist perspective and discovered shared characteristics of those who pursued fashion braces. The informal market perspective, however, added another dimension to this analysis. First, participants tended to be young people with limited finances, so they often depended on their parent's financial support. Therefore, fashion braces were seen as the cheapest solution to get braces they desired to improve how they looked. This urge was referred to in numerous ways as wanting to be fashionable, aesthetic, or perhaps hiding or distracting from looks they were not happy with. Similarly, some young people with lower education levels earned minimal

income; therefore, they could not afford braces provided by orthodontists. For those who paid for their own fashion braces, the purchase of these was seen as a reward for their hard work. These aspects of the market are very difficult to deal with from a policy perspective; more work needs to be done to recognise these tensions.

Secondly, there was a range of internal influences such as beliefs and desires which helped increase fashion brace wearing in Thailand. For example, some participants saw fashion braces as decorative accessories without considering the harm they might cause. Indeed, some young people firmly believed they could avoid negative consequences. Moreover, fashion braces could be seen as indicators of either fitting into some societies or providing uniqueness that differed from those without braces. The function of fitting in and uniqueness were found by Pittman (2017) in those who decided to get orthodontic treatment. So, in many respects, there were similarities between those seeking fashion braces and those seeking orthodontic treatment. However, the meaning of fitting in and uniqueness differed between this project and the previous studies conducted with orthodontic patients. Orthodontic patients sought health benefits from treatment, such as nice alignment, while fashion braces wearers often sought benefits from possessing the objects themselves without any broader health benefits. There was also a desire for uniqueness that could be achieved by having fashion braces that the participants believed would distinguish them from "ordinary people".

Thirdly, many participants with dental phobia or anxiety sought fashion braces instead of orthodontic treatment. These dental anxieties included the fears of dental treatment, of treatment cost, and of receiving negative feedback from dentists. These anxieties sometimes influenced people to seek fashion braces, even though their first choice was orthodontic braces. There have been no reports of these findings in the literature to date. Yet, it is important because it highlights that dental professionals' communication strategies could be essential in any oral health education interventions for minimising the use of fashion braces.

The findings from the present studies suggested that pain from past experiences and indirect experiences with regulated dentistry can be key barriers to seeing dentists. Enkling and colleagues (2006) found that 70% (N = 71) of participants avoid dental treatments because of fear, followed by a lack of time (38%, N = 38) and cost and money (17%, N = 17). This seemed consistent with our study, especially in those who avoided orthodontic treatment and instead sought out fashion braces. Interestingly, participants reported fearing the pain from orthodontic treatment but not from fashion braces; this is a fascinating finding requiring further investigation. In particular, orthodontic treatment itself has been shown to be associated with mild to moderate levels of anxiety. Indeed, dental-related discomfort is often directly associated with phobia (Adil, Hassan Khan and Syed, 2015).

5.7.2 Core – providers (supply side)

Another theme was extracted from participants' reflections on accessibility (Penchansky and Thomas 1981) providers (Section 4.6.1.5) and their experiences of instalment sessions (Section 4.6.2.1.2). This project found that fashion braces were relatively accessible; participants had several publicly available, underground channels to explore. Fashion braces could be bought from social media platforms and physical locations. Participants could fit the fashion braces by themselves or could have them installed directly from the providers. However, trusted places such as dental clinics which provided fashion braces were not widely promoted; such trusted places could only be accessed through word-of-mouth. One possible explanation for this is that such providers were operating outside the code of practice of their profession. Here again, the rules and regulations act as a barrier to accessing safe care and supervising access to fashion braces. Another dimension of access was accommodation; fashion braces services were flexible, so no appointment was needed. Furthermore, fashion braces could be ordered anytime from online spaces. The third dimension was availability; the range of designs and products in the market appears to be vast and relatively easy to secure. The fourth dimension of access to fashion braces involves the ability to pay. Of course, the price of fashion braces was much lower than conventional treatments. This study suggested that the prices of fashion braces was related to many factors, including the type of fashion braces, the addition of extra components (such as hooks, colour tubes, rings), the grade of the fashion braces, and the adhesive system. The higher the number of brackets, the more expensive the device was in exchange for looking more similar to orthodontic braces. In conclusion, fashion braces were comparatively cheaper than orthodontic treatments. O-rings could cost ten Thai baht (less than 50p). Fixed fashion braces and fashion retainers may cost a hundred to one thousand Thai baht, depending on their characteristics. It should hardly be surprising that these price ranges matched participants' ability to pay and fitted better with their financial capabilities.

These four dimensions matched findings of previous studies from Thailand and Saudi Arabia (Pothidee et al., 2017; Alhazmi et al., 2021). Conversely, an older study by Rityoue and Sasiwongsaroj in 2009 revealed that teenagers received fashion braces from physical locations such as kiosks and salons. Getting fashion braces from dentists was rarely reported in Thai studies (Rityoue and Sasiwongsaroj, 2009; Pothidee, 2007) or Indonesia (Zakyah et al., 2016). However, 63% of participants who got fashion braces from a Saudi Arabia study had them fitted by dental professionals (Hakami et al., 2020). Hakami and colleagues used the term "fashion braces" differently, referring to orthodontic braces fitted for fashion purposes. In addition, the growing accessibility of the Internet in the last decade has also acted to increase their availability.

The findings from the two studies have addressed two previously unrevealed dimensions to the market for fashion braces: acceptability and awareness. Wearers tended to have low expectations and easily accept low-quality fashion braces and providers. This may be influenced by the perception of little choice and financial limitations. Awareness relates to communication and information about fashion braces, which will discussed in the next section.

5.7.3 Other functions (or supporting functions in the original frameworks)

According to the framework, the supporting function consisted of infrastructure, information, and related services. Our study highlighted the importance of information issues in the fashion braces market. Information played an essential role in attracting people to the world of fashion braces. Below is a list of themes or subthemes related to information issues in the two studies:

- Study 1
  - Information asymmetry (see Section 3.7.1.2.1)
  - Information seeking (Section 3.7.1.3)
  - Help seeking (Section 3.7.2.2)
- Study 2
  - Information seeking (Section 4.6.1.3)

Study 1 and Study 2 identified that the Internet was a source of knowledge-seeking out fashion braces. The findings were more evident in Study 1 as a majority of threads on the online forum (Pantip.com) were posted to seek information before getting fashion braces. The topics discussed included seeking providers, prices, and consequences. The second rank popular topic on the forum was seeking help in tackling negative issues resulting from fashion braces. Study 2 showed that correct knowledge about fashion braces (i.e., negative impacts) on the Internet could be found, but often such advice was ignored by participants. On the other hand, Study 2 suggested that experts from the participants' perspectives (such as other fashion braces wearers and providers) were critical actors in passing misinformation, normalising negative consequences, and creating information asymmetry. This situation may have positively benefited the informal market by recruiting more wearers.

5.7.4 Laws and regulations

Thai laws are one element that was not covered in detail in this thesis. This was because participants appeared not concerned or did not acknowledge regulated laws. Further investigation by regulators and the organisational sector is needed to explore the strength and weaknesses of the current laws. The next section discusses the current regulatory laws and how these might work in relation to the informal market.

5.8 Current laws, regulations and strategies applied on fashion braces in Thailand

Chapter 2 (see Section 2.4) outlined the current laws and regulation in Thailand. Chapter 2 also examined the current strategies (p.65) used to manage fashion braces in Thailand. However, these approaches have yet to fully utilise the informal market framework. This section sought to demonstrate how the informal market framework might be incredibly useful for understanding and working with this phenomenon.

Briefly, the four laws are relevant to the regulation of fashion braces in Thailand are:

1) Consumer Protection Act B.E. 2522 (1979): Revision B.E. 2562 (2018)
2) Dental Professional Act B.E. 2537 (1994)
3) Sanatorium Act B.E.2541 (1998) (Medical Premises License Act)
4) Direct sale and Direct marketing Act B.E. 2545 (2002): Revision B.E. 2560 (2017)

The Consumer Protection Board Order 1/2562 (2018) protects customers from the sub-standard fashion braces products by directing the law for producing, importing, and selling the products. The Dental Professional Act plays a crucial role in controlling the people who practice in dentistry without being registered, in this case, informal providers. The Medical Facilities Act mainly regulates the health facilities; a license is required to run businesses. This law affects the physical, on-site locations where customers can access fashion braces treatment; while online sites are regulated by the Direct sale and Direct marketing Act. Public policy regarding fashion braces is in the process being launched in law. From our current knowledge, only formal rules and regulations have been used, whilst no action is being taken on the informal rules, norms, and standards. On top of this, dental laboratories which make fashion braces and retainers operate outside the existing legal frameworks. Figure 27 illustrates how Thai laws play roles in the core function of informal market.

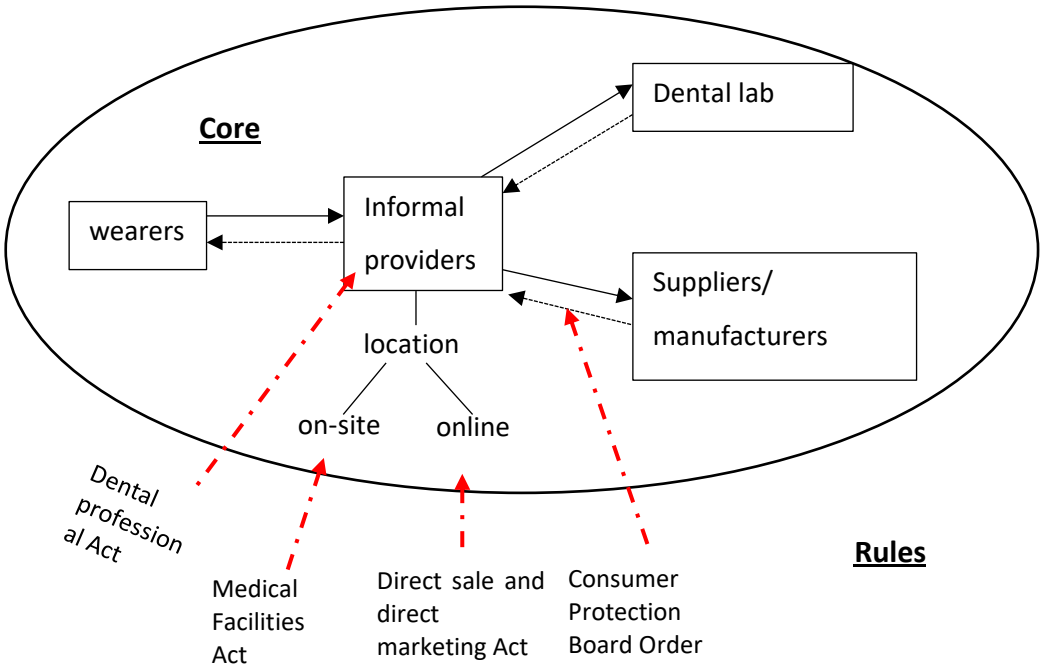


Figure 27 The interaction between regulated laws and demand-supply in the core

The Thai Dental Council (TDC) plays an important role in health education strategies to reduce information asymmetry. The TDC organisation has produced posters and leaflets distributed to dental practices for educating people. However, in the process of this research, I sought information from acquaintances who work as dentists in Thailand; and unfortunately, they had not seen the media. This means, of course, that people might not be able to access such media – even if they do attend dental practices. In 2018, I informally discussed my project with one committee in TDC. These regulators actively worked on social media using a Facebook page named "Dental quack buster." However, when a new board was instated; this Facebook account became inactive. It is not known how effective this approach was at reaching out to young people who might use other platforms. However, such an approach would be worth evaluating in future oral health education campaigns.

Other strategies that exist include providing safe removal of fashion braces in public hospitals. Indeed, a free fashion braces removal campaign was initiated by the Ministry of Public Health in 2009 through cooperation between public hospitals and the TDC (Thairath, 2009). However, this was once more a temporary strategy; there is no evidence to report how effective or successful this was. In 2016, the Public Health Office of Chumporn province brought back this campaign within their province (Hfocus, 2016). This campaign involved health education about fashion braces and free fashion braces removal. Currently, employing this approach depends on the decision making of each provincial public health office. This campaign might be one useful approach to encourage fashion braces wearers back to the

health system. For instance, after the braces are removed, the wearers would be offered the proper basic dental treatment covered by their health insurance schemes and provided dental health education.

In 2018, the Thai Dental Council proposed a public policy to eliminate the fashion braces business and protect customers for harmful products (p.65). This policy would require cooperation among various stakeholders including the Thai Food and Drug Administration (Thai FDA), Thai Dental Technician Associations, Thai Dental Council, pharmacists, dental professionals, the Office of the Consumer Protection Board. However, this proposed policy has yet to be approved. To date, there has been an absence of long-term planning and lack of coordination of health education strategies including free fashion braces removal. To move forward, the present findings indicate that such "upstream" strategies be initiated and evaluated.

5.9 Quality of qualitative research

The dimensions of quality in qualitative research include credibility, transferability, dependability and confirmability (Noble and Smith, 2015).

5.9.1 Credibility

Credibility addresses the accuracy between participants' voices and the researcher's presentation (Nowell et al., 2017). Techniques to ensure credibility include prolonged engagement and observation, data collection triangulation, and researcher triangulation (ibid). This thesis attempted to reach this dimension by using investigator triangulation, which included three supervisors from different disciplines (psychology, sociology and orthodontics) and the researcher (Creswell and Poth, 2018). All transcripts were transcribed verbatim and translated into English by the researcher. However, one experienced translator (P.R.) was involved in Study 1 for ten threads. She is a Thai national who has experience translating English into Thai. Additionally, my supervisors, who are native English speakers, helped me check my translations. This process was aimed at improving trustworthiness by investigator triangulation (Creswell and Poth, 2018). Note that, if that phrase could not be literally translated into English, I attached descriptions in terms of Thai context in English (Nikander, 2008; Goitom, 2020). This is because many times a word or phrase to describe something in one language might not exist in another (Squires, 2009). Translated quotes were provided.

5.9.2 Transferability

Transferability refers to the ability to generalise from the data. This concern applied only to case-to-case generalisation or reader generalisation in this study (Nowell et al., 2017). Participants' demographic data and contextual background information were provided. I also included thick

descriptions to allow audiences to infer findings to other settings and make their own judgement (Polit and Beck, 2010; Creswell and Creswell, 2018). Self-reflexivity was also a concern, as seen in section 5.3.

5.9.3 Dependability

Dependability is ensured when researchers provide a clear research process which readers can follow (Nowell et al., 2017). Field notes which contain reflexivity and records of the data and transcripts are useful tools to demonstrate dependability (Creswell and Creswell, 2018). Methodology triangulation was conducted in Study 1 and Study 2. These studies explored the experiences of fashion braces wearers but in different spaces and methods.

Finally, confirmability was established when credibility, transferability, and dependability were all achieved.

5.10 Strengths

The first strength of this project was rooted in using the Internet as the research setting and to collect data in order to explore fashion braces. In Study 1, using online forums as a research setting offered several strengths. To my knowledge, this study is the first empirical study about fashion braces conducted in an online community. This environment offered naturalistic conversations since the researcher acted unobtrusively and had no contact with any members; therefore, it was an opportunity to gain honest opinions (Smedley and Coulson, 2018). In Study 2, the Internet and social networks played central roles in recruiting participants. In some cases, the Internet was used to conduct interviews with participants in Thailand and the researcher in the UK. The Internet allowed the project to continue despite the pandemic, which is an advantage of using digital methods. In both studies, using digital methods eliminated the barrier of geography; therefore, participants from across Thailand could participate. This method also reduced transportation costs.

Secondly, some of the methods that were used to collect and analyse life experiences with fashion braces were unique to this project. As such, Study 1 explored “mouth talk” about fashion braces using netnography, which is a methodology that has not been used in this area previously. Moreover, structural analysis was employed to analyse the messages created by thread initiators. A few studies have applied structural analysis to explore conversations on web boards. These studies showed the potential of how to analyse narratives on these boards (Arendholz, 2013; Arendholz, 2010; Fleischmann and Miller, 2013). This analysis method allowed me to immerse in online narratives or question-seeking, as well as categorise dialogue into the elements of structural analysis. I identified

mainly how events arose, how participants evaluated life's events, and the subsequent meaning of fashion braces.

In Study 2, online narrative interviews were used to explore life experiences with fashion braces. Knowledge from previous literature and Study 1 were used to develop the interview guide. This study employed unstructured interviews; therefore, participants could tell their experiences freely and in detail. Each of these approaches utilised qualitative methods and analysis; these approaches allowed me to gather rich, in-depth information on fashion braces that could not be collected with a quantitative methodology.

Thirdly, this research made attempts to improve rigour and trustworthiness. In Study 1, the selection, design, conduct, and data processing were achieved systematically. For example, several keywords related to fashion braces in Thai were used to search in the Pantip.com search engine. I searched for these same set of keywords twice to ensure that all threads about fashion braces were collected. Similarly, the selection process of threads was conducted two times. In Study 2, the study was advertised by various strategies as stated in Section 4.4.2.3. During the interview sessions, at least two recording devices were used. During the interview, I strictly followed the steps outlined in Section 4.4.3.3. In addition, researcher data triangulation was conducted in both studies, and thick descriptions were provided.

Compared with previous qualitative studies, this project presented a more extensive data set than that of previous studies in the area. This project included 135 threads in Study 1 and 18 participants in Study 2. The project also addressed the limitations of previous studies which conducted qualitative interviews with designated age groups and geographical areas (Pothidee, 2007; Rityoue and Sasiwongsaroj, 2009). This study was more expansive since it was open to everyone above 14 years of age across Thailand.

Finally, to my knowledge, this was the first research study seeking to understand people's life with fashion braces holistically and retrospectively. This study examined participants' experiences before, during, and after wearing fashion braces. In addition, the application of informal health market was a helpful framework for investigating antecedents' relationships in informal markets such as fashion braces wearers (demand) and providers (supply), as well as information asymmetry. However, there were other aspects that were not explored from this framework; and they need further investigation in future studies. Previous studies have used the informal market framework to examine the market of illegal products and health products sold by non-professionals to understand the informal market's origins, failures, and natures (George and Iyer, 2013; Gaudiano et al., 2007; Baxerres and Le Hesran, 2011). Similar studies using this framework are needed for fashion braces.

5.11 Limitations

Despite the strengths mentioned above and precautions made to improve the trustworthiness and quality of research, there were some limitations of the studies within this thesis. First, there was a lack of previous research on the topic of fashion braces, especially regarding personal accounts of the wearers. Therefore, the studies, their design, methods, and research questions were developed in an exploratory way based upon the chosen framework: the informal market framework.

The second limitation centred on using the online forum in Study 1. Due to the data source, there was a lack of demographic information on the participants' gender, age, educational level, and geographic areas (Rodriquez, 2013; Taylor et al., 2018). As a result, any information from the online forum could only be assumed from the messages (e.g., tags, emojis). Users were anonymous; therefore, contacting users to clarify any information about their experiences was not possible. Details could only be interpreted in light of limited information (Noack-Lunberg, 2019), which could lead to inaccurate interpretation due to the researcher's misunderstanding (Jamison et al., 2018). Difficulties in interpretation were encountered while analysing data in Study 1. Some users told only incomplete pieces of their story, while some stages of their lives with fashion braces were missing. These problems reflected the study's main limitation, using an online forum wherein the researcher could not trace the thread initiators for further clarification and information. Overrepresentation of adverse experiences were found, which was consistent with the cautions outlined in conducting research in online forums by Smedley and Coulson (2018) .

The third limitation is that the online setting in Study 1, Pantip.com, is an open (not subscriber-based) online community in Thailand that allows anybody to read messages. However, only members can post to the site. This means there may be key differences between those people who read messages but do not register compared to members who post messages. Indeed, as with all online forums/chats, there are likely to be many "lurkers." "Lurkers" are people who read messages but do not join to post messages, perhaps because they are not comfortable with sharing their experiences and opinions online. Therefore, the messages included in Study 1 may represent experiences that cannot be generalised to all fashion brace wearers (Thomas and Peters, 2011).

The limitations detailed above suggest that the experience of living with fashion braces, together with the reasons why people decide to have fashion braces, need to be studied in more detail by collecting primary data from current fashion brace wearers and those who used to wear fashion braces. Collecting primary data through online narrative interviews would enable a detailed understanding of people's decision-making and their lives with fashion braces.

Study 2 has similar limitations regarding the online methodology. Recruiting participants via the Internet can increase the chances of gaining access to the hard-to-reach populations (Wang, 2018; Gundur, 2019). However, in this study, recruitment was very difficult and slow. This might be because I was a stranger who contacted participants via their personal inboxes for online social media applications. Some participants mentioned that they were afraid of being scammed. Another possible reason was that they felt that having fashion braces was not accepted by others. Therefore, they refused to respond to my recruiting message out of fear of rejection or punishment. This may have been especially true for those who I found through Facebook pages that were selling fashion braces. On the other hand, former wearers on TikTok tended to be cooperative and interested in participating in this study. Therefore, this study could not recruit some people who intended to wear fashion braces. Thus, I had to shift my focus to those who were having/had experience with fashion braces instead. Probably, many people did not feel comfortable enough to participate because of the sensitivity and legal issues around fashion braces (Gundur, 2019).

Thirdly, I, as the researcher, come from a dental background that previously saw fashion braces negatively. So it is possible that I had unconscious bias while conducting the research. However, I applied researcher triangulation by working with my supervisors and took field notes to increase credibility and minimise bias.

Given time constraints, primarily due to difficulties associated with the COVID-19 pandemic, only 18 participants were included in Study 2 in order to complete my PhD thesis on time. Data saturation had not yet been reached, with new themes emerging. Further research is therefore needed to check the validity and reliability of the existing data and incorporate new data from participants in different parts of their fashion braces journey.

This study also found some inconsistencies for one participant. For example, one accident was explained by two different stories (e.g., hitting the ground versus crashing into trees). Also, the age that he said that he started wearing fashion braces did not match an age that he provided earlier in the interview. These inconsistencies led me to check his TikTok account to check the details of his narrative. I found many inconsistencies with his TikTok videos and my interview transcript. For example, he said he had quit wearing fashion braces. However, I still saw him post clips with him wearing them after the interview. This deception led me to think about whether he had a recall memory issue or had deceived me to cover up the fact that he was still wearing fashion braces (Masip et al., 2016). This inconsistency may impact some results; therefore, I avoided introducing a new theme with his statement alone. However, I did use his responses when they supported other participants' responses.

Chapter 6

Conclusion and Recommendations

6.1 Conclusion

This thesis makes a clear contribution to knowledge about fashion braces studies by adopting the informal market framework. This framework acknowledges the dynamic interplay of actors as a core element of the framework (ie. Between customers and wearers). The experiences of wearers have been documented and analysed; I explored the possible links between wearers with peers and family, and between wearers and people in the world of fashion braces. The lives of people with fashion braces have been documented, incorporating both positive and negative perspectives. I hope that these perspectives provide insights to aid the development of future policies that are "wearer-centred." It is clear from this study that the current strategies of giving and obtaining knowledge and information on the Internet are insufficient to reach fashion braces seekers and wearers. Wearers largely appeared to ignore any information that was not congruent with their desires. In addition, in this study, it appeared that misinformation was spread rapidly from user to user; insiders (fashion brace wearers) tended to trust insiders and ignored outsiders (non-fashion brace wearers).

6.2 Recommendations

6.2.1 Policy recommendations

6.2.1.1 Upstream actions

As discussed in Section 5.8, four current Thai laws pertain to the quality of fashion braces products and services. Though these laws aim to protect the Thai population, some Thais do not recognise such laws. Section 2.4 demonstrated that those providing fashion braces may not be concerned about the enforcement of the law because currently sentences and fines for selling them are weak. A lack of person-power to enforce the law is another issue that may be preventing the restriction of these activities. Only one specific law has been applied directly to fashion braces (Thai Consumer Protection Board 1/2561 (Thailand, 2018)) (Section 2.4.1). The proposed public health policy (p.64-65) by the Thai Dental Council to phase out fashion braces has scarcely heard about by the public. The lack of publicity might be due to changes at the Thai Dental Council Boards wherein the current team prioritises issues other than fashion braces. Whilst upstream actions exist, these seem ineffective at the present time. I suggest the following policy recommendations based on the findings from my project:

National level

1. Support and advocate for the use of the current proposed public policy to enable regulators to work together.
2. The Thai Dental Council should develop a long-term plan for tackling the prevalence of fashion braces.
3. Engage dental health educators to provide a nationwide school curriculum that includes impacts and consequences of fashion braces.
4. Promote the free fashion braces removal service in every province within Thailand.

Local level

1. Encourage schools to develop oral health education (including impacts of fashion braces) within school health promotion strategies.
2. Support provincial Public Health Offices to take leading roles in managing the issue of fashion braces in their areas by engaging multidisciplinary actions at dental provider and school levels.

6.2.1.2 Information issues

This project indicated that information asymmetry plays a role in the informal market of fashion braces. The current health education strategies might be insufficient to prevent people from wearing fashion braces. Most participants in Study 1 went to online forums to seek information before having fashion braces. Many participants in Study 2 admitted that they did not have any knowledge about fashion braces before they had them. This was caused by a few reasons: low health literacy and low skills in searching online for accurate health information.

Health education and raising awareness should be implemented both with upstream and downstream strategic approaches. Such information might include challenging myths about fashion braces, making them 'unfashionable' by challenging the idea that they are 'cute.' Such perspectives could be distributed through mass media channels, including television and social media. Media could include ex-fashion braces wearers sharing their experiences. This might involve, for example, working with documentary filmmakers. We can also develop other approaches that draw upon the findings from this research. Indeed, storytelling itself might be used as an effective health promotion strategy.

Active educational strategies both at upstream and downstream levels could also be implemented to raise awareness. For example, implementing content-specific modules within school curriculums for younger children would be ideal, particularly as this project found that secondary school students were the primary target for fashion braces. Schools and teachers should be recruited by dental public health policymakers to help develop and implement school-based strategies for targeting

misinformation. An additional suggestion would be to integrate information about fashion braces during routine dental check-ups in primary schools by dental professionals. This would be a good opportunity to educate students, as it is currently a mandatory task for hospitals to deliver this service to all public schools in their areas.

6.2.2 Future research

The current research has suggested many potential avenues for future research on the Thai population in relation to fashion braces (see sections above). In addition, it would be interesting to add to the analysis of data from Study 1. In Study 1, although heading and response messages were collected, only heading messages were analysed. Integrating response messages with heading messages would allow observing interactions between users and in what ways threads' initiators react to other members. Moreover, there was some data that was not analysed in detail in the thesis (see Section 3.3.3.4), including the threads posted by those people I called 'outsiders'. This would enable us to understand how people in the mainstream think about those who were in the world of fashion braces.

The application of the informal health market framework is helpful in investigating antecedent's relationships in the informal markets, such as fashion braces wearers (demand) and providers (supply) and the problem of information asymmetry. However, other aspects within the framework were not explored and need further investigation. A future quantitative study would be invaluable to examine the impacts of fashion braces on quality of life and the physical (e.g., dental), psychological (e.g., self-efficacy, self-esteem, social support) and social factors (e.g., social networks, income, education) that may influence quality of life. In addition, future studies on teenagers' awareness of fashion braces in Thailand would benefit developing strategies to prevent young people from wearing fashion braces. Finally, future research on fashion braces via materialism and consumer culture perspectives would help to understand fashion braces from other perspectives, such as how fashion braces influence society and how fashion braces influence consumer decision-making.

References

Abimbola, S., Ogunsina, K., Charles-Okoli, A.N., Negin, J., Martiniuk, A.L. and Jan, S., 2016. Information, regulation and coordination: realist analysis of the efforts of community health committees to limit informal health care providers in Nigeria. *Health Economics Review* [Online], 6(1). Available from: https://doi.org/10.1186/s13561-016-0131-5.

Adil, S., Hassan Khan, K. and Syed, K., 2015. Dental Phobia Among Orthodontic Patients. *Pakistan Oral & Dental Journal* [Online], 35(4), pp.620–623. Available from: http://www.oral.

Agarwal, A., 2012. An Overview of Orthodontic Indices. *World Journal of Dentistry* [Online], 3(1), pp.77–86. Available from: https://doi.org/10.5005/jp-journals-10015-1132.

Ahmed, S.M., Hossain, M.A. and Chowdhury, M.R., 2009. Informal sector providers in Bangladesh: How equipped are they to provide rational health care? *Health Policy and Planning* [Online], 24(6), pp.467–478. Available from: https://doi.org/10.1093/heapol/czp037.

Aizura, A.Z., 2009. Where health and beauty meet: Femininity and racialisation in Thai cosmetic surgery clinics. *Asian Studies Review* [Online], 33(3), pp.303–317. Available from: https://doi.org/10.1080/10357820903153707.

Alexa, 2018. *Top sites in Thailand* [Online]. Available from: https://www.alexa.com/topsites/countries/TH [Accessed 1 November 2018].

Alhazmi, A.S., Al Agili, D.E., Aldossary, M.S., Hakami, S.M., Almalki, B.Y., Alkhaldi, A.S. and Shubayr, M.A., 2021. Factors associated with the use of fashion braces of the Saudi Arabian Youth: application of the Health Belief Model. *BMC Oral Health* [Online], 21(1), pp.1–10. Available from: https://doi.org/10.1186/s12903-021-01609-w.

Andrews, M., Squire, C., Tamboukou, M. and Hydén, M., 2016. Narrating Sensitive Topics. *Doing Narrative Research* [Online], pp.223–239. Available from: https://doi.org/10.4135/9781526402271.n13.

Arendholz, J., 2010. *'Neeed to put this out there (my story)': Narratives in message boards* [Online]. pp.109–142. Available from: https://doi.org/10.1075/pbns.199.07are.

Arendholz, J., 2013. *Analyzing online message boards I Thread starts*. John Benjamins Publishing Company.

Arriaza, P., Nedjat-Haiem, F., Lee, H.Y. and Martin, S.S., 2015. Guidelines for conducting rigorous health care psychosocial cross-cultural/language qualitative research. *Social Work in Public Health* [Online], 30(1), pp.75–87. Available from: https://doi.org/10.1080/19371918.2014.938394.

Arrow, P., Brennan, D. and Spencer, A.J., 2011. Quality of life and psychosocial outcomes after fixed orthodontic treatment: A 17-year observational cohort study. *Community Dentistry and Oral Epidemiology* [Online], 39(6), pp.505–514. Available from: https://doi.org/10.1111/j.1600-0528.2011.00618.x.

Atisook, P. and Chuacharoen, R., 2014a. Factors Influencing Demand for Orthodontic Treatment in a Group of Secondary School Students in Bangkok. *Journal of the Dental Association of Thailand*, 64(4), pp.243–255.

Atisook, P. and Chuacharoen, R., 2014b. The Relationship between Demand and Need for Orthodontic Treatment in High School Students in Bangkok. *Journal of the Medical Association of Thailand*, 97(7).

Attard, A. and Coulson, N.S., 2012. A thematic analysis of patient communication in Parkinson's disease online support group discussion forums. *Computers in Human Behavior* [Online], 28(2), pp.500–506. Available from: https://doi.org/10.1016/j.chb.2011.10.022.

Bailey, A. and Ngwenyama, O., 2012. Identity and identification in online communities: A symbolic interaction perspective. *International Conference on Information Society, i-Society 2012*, pp.247–252.

Barbosa de Almeida, A., Leite, I.C.G. and Alves da Silva, G., 2019. Brazilian adolescents' perception of the orthodontic appliance: A qualitative study. *American Journal of Orthodontics and Dentofacial Orthopedics* [Online], 155(4), pp.490–497. Available from: https://doi.org/10.1016/j.ajodo.2018.05.020.

Baxerres, C. and Le Hesran, J.Y., 2011. Where do pharmaceuticals on the market originate? An analysis of the informal drug supply in Cotonou, Benin. *Social Science & Medicine* [Online], 73(8), pp.1249–1256. Available from: https://doi.org/10.1016/j.socscimed.2011.03.050.

Bayat, J.T., Huggare, J., Mohlin, B. and Akrami, N., 2017. Determinants of orthodontic treatment need and demand: A cross-sectional path model study. *European Journal of Orthodontics* [Online], 39(1), pp.85–91. Available from: https://doi.org/10.1093/ejo/cjw020.

Beckert, J. and Wehinger, F., 2011. In the Shadow Illegal Markets and Economic Sociology Jens Beckert and Frank Wehinger. *Illegal Markets and Economic Sociology* [Online], 11(2012), pp.1–26. Available from: https://doi.org/10.1093/ser/mws020.

Benson, P.E., Javidi, H. and Dibiase, A.T., 2015. What is the value of orthodontic treatment? *British Dental Journal* [Online], 218(3), pp.185–190. Available from: https://doi.org/10.1038/sj.bdj.2015.43.

Bloom, G., Standing, H., Lucas, H., Bhuiya, A., Oladepo, O. and Peters, D.H., 2011. Making health markets work better for poor people: The case of informal providers. *Health Policy and Planning* [Online], 26(SUPPL. 1), pp.45–52. Available from: https://doi.org/10.1093/heapol/czr025.

Bochi, G., 2015. Exploring Pluralism in Oral Health Care: Dom Informal Dentists in Northern Lebanon. *Medical Anthropology Quarterly* [Online], 29(1), pp.80–96. Available from: https://doi.org/10.1111/maq.12066.

Bradshaw, J., 1972. *Taxonomy of social need*. Ed. by G. McLachlan. Oxford University Press.

Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* [Online], 3(2), pp.77–101. Available from: https://doi.org/10.1111/j.1460-2466.1978.tb01621.x.

Braun, V. and Clarke, V., 2013. *Successful qualitative research: a practical guide for beginners*. London: SAGE Publications Ltd.

British Orthodontic Society, n.d. *What Is The IOTN?* [Online]. Available from: https://www.bos.org.uk/Public-Patients/Orthodontics-for-children-teens/Fact-File-FAQ/What-Is-The-IOTN [Accessed 22 November 2018].

British Psychological Society, 2017. *Ethics Guidelines for Internet-mediated Research* [Online]. Leicester: The British Psychological Society. Available from: www.bps.org.uk/publications/policy-and-guidelines/ research-guidelines-policy-documents/research- guidelines-poli%0AIf.

Bryman, A., 2016. *Social research methods* [Online]. 5th ed. Oxford: Oxford University Press. Available from: https://doi.org/10.1017/CBO9781107415324.004.

Budenz, A., Klassen, A., Purtle, J., Yom-Tov, E., Yudell, M. and Massey, P., 2020. "If I was to post something, it would be too vulnerable:" University students and mental health disclosures on instagram. *Journal of American College Health* [Online], 0(0), pp.1–10. Available from: https://doi.org/10.1080/07448481.2020.1759608.

Cambridge Dictionary, n.d. *No Title* [Online]. Available from: https://dictionary.cambridge.org/dictionary/english/subculture.

Carson, A., Chabot, C., Greyson, D., Shannon, K., Duff, P. and Shoveller, J., 2017. A narrative analysis of the birth stories of early-age mothers. *Sociology of Health and Illness* [Online], 39(6), pp.816–831. Available from: https://doi.org/10.1111/1467-9566.12518.

Carter, M.J. and Fuller, C., 2016. Symbols, meaning, and action: The past, present, and future of symbolic interactionism. *Current Sociology* [Online], 64(6), pp.931–961. Available from: https://doi.org/10.1177/0011392116638396.

Chaipraditkul, N., 2013. Thailand: Beauty and globalized self-identity through cosmetic therapy and skin lightening. *Ethics in Science and Environmental Politics* [Online], 13(1), pp.27–37. Available from: https://doi.org/10.3354/esep00134.

Chamberlain-Salaun, J., Mills, J. and Usher, K., 2013. Linking symbolic interactionism and grounded theory methods in a research design: From Corbin and Strauss' assumptions to action. *SAGE Open* [Online], 3(3). Available from: https://doi.org/10.1177/2158244013505757.

Charmaz, K., 2008. *A future for symbolic interactionism*. *Studies in Symbolic Interaction* [Online], 32(08). Elsevier. Available from: https://doi.org/10.1016/S0163-2396(08)32005-5.

Chen, W., 2015. Caries outcomes after orthodontic treatment with fixed appliances: A longitudinal prospective study. *International Journal of Clinical and Experimental Medicine*, 8(2), pp.2815–2822.

Clemente-Ricolfe, J., 2017. Consumer perceptions of online banking in Spain using netnography: a positioning story. *International Journal of Bank Marketing* [Online], 35(6), pp.966–982. Available from: https://doi.org/10.1108/09574090910954864.

Coulson, N.S. and Buchanan, H., 2008. Self-reported efficacy of an online dental anxiety support group: A pilot study. *Community Dentistry and Oral Epidemiology* [Online], 36(1), pp.43–46. Available from: https://doi.org/10.1111/j.1600-0528.2007.00349.x.

Cousineau, M.J., 2020. A Blumerian Approach to Storytelling. *Symbolic Interaction* [Online], 43(4), pp.721–738. Available from: https://doi.org/10.1002/symb.518.

Creswell, J.W. and Creswell, J.D., 2018. *Research Design: Qualitative, Quantitative and Mixed Approaches*. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5th ed. London: SAGE Publications Ltd.

Creswell, J.W. and Poth, C.N., 2018. *Qualitative Inquiry and Research Design*. 4rd ed. London: SAGE Publications, Inc.

Cross, J. and MacGregor, H.N., 2010. Knowledge, legitimacy and economic practice in informal markets for medicine: A critical review of research. *Social Science and Medicine* [Online], 71(9), pp.1593–1600. Available from: https://doi.org/10.1016/j.socscimed.2010.07.040.

Crossley, M., 2007. Narrative Analysis In: Analysing Qualitative Data in Psychology Narrative Analysis. *Analysing Qualitative Data in Psychology* [Online], pp.131–144. Available from: https://doi.org/10.4135/9781446207536.

Dentalno.10, 2017. *n* [Online]. Available from: https://www.facebook.com [Accessed 12 June 2018].

Dicker, R., 2013. *Asian Teens Wearing Fake Braces As Status Symbol: Report*. *Huffpost* [Online]. Available from: https://www.huffingtonpost.co.uk/2013/01/02/fake-braces-craze-asian-teens-status-symbol_n_2396027.html?guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAGQlPrbTXk545gb2NkjZ5BUrQ-dlS2Wc2HkTtbHPOLBpWvD0fzCnNcVMJcO9DO4pdEC1IzVFiLJ5ARVuEkpP [Accessed 4 April 2019].

Dubey, M. and Sharma, O.P., 2016. Body image , self-esteem and psychological well-being of aged : A correlational study. *Indian Journal of Health and Wellbeing*, 7(10), pp.973–975.

Durham, J., Michael, M., Hill, P.S. and Paviignani, E., 2015. Haïti and the health marketplace: The role of the private, informal market in filling the gaps left by the state. *BMC Health Services Research* [Online], 15(1), pp.1–10. Available from: https://doi.org/10.1186/s12913-015-1088-5.

Edwards, R. and Holland, J., 2020. Reviewing challenges and the future for qualitative interviewing. *International Journal of Social Research Methodology* [Online], 23(5), pp.581–592. Available from: https://doi.org/10.1080/13645579.2020.1766767.

Elliot, D., Gibson, A. and Hitchins, R., 2008. Making markets work for the poor: rationale and practice. *Enterprise Development and Microfinance* [Online], 19(2), pp.101–119. Available from: https://doi.org/10.3362/1755-1986.2008.011.

Enkling, N., Marwinski, G. and Jöhren, P., 2006. Dental anxiety in a representative sample of residents of a large German city. *Clinical Oral Investigations* [Online], 10(1), pp.84–91. Available from: https://doi.org/10.1007/s00784-006-0035-6.

Eriksson, H. and Salzmann-Erikson, M., 2013. Supporting a caring fatherhood in cyberspace - an analysis of communication about caring within an online forum for fathers. *Scandinavian Journal of Caring Sciences* [Online], 27(1), pp.63–69. Available from: https://doi.org/10.1111/j.1471-6712.2012.01001.x.

Eynon, R., Fry, J. and Schroeder, R., 2017. The Ethics of Online research. In: N.G. Fielding, R.M. Lee and G. Blank, eds. *The SAGE Handbook of Online Research methods* [Online]. SAGE Publications Ltd, pp.19–37. Available from: https://doi.org/http://dx.doi.org/10.4135/9781473957992.n2.

Faculty of Dentistry Chiangmai University, 2018. *Master of Science Program in Orthodontics* [Online]. Available from: https://www.dent.cmu.ac.th/web/backend/web/uploads/files/5c35a06db390a.pdf [Accessed 12 February 2019].

Faculty of Dentistry Chulalongkorn University, 2018. *Master of Science Program in Orthodontics* [Online]. Available from: http://www.dent.chula.ac.th/grad/graduate_program_detail.php?id=986 [Accessed 12 February 2019].

Fehér, B., 2011. Understanding the Homeless Experience in Hungary through a Narrative Approach. *European Journal of Homelessness*, 5(1), pp.49–65.

Fleischmann, A. and Miller, E.C., 2013. Online narratives by adults with ADHD who were diagnosed in adulthood. *Learning Disability Quarterly* [Online], 36(1), pp.47–60. Available from: https://doi.org/10.1177/0731948712461448.

Fusch, P.I. and Ness, L.R., 2015. Are we there yet? Data saturation in qualitative research. *Qualitative Report*, 20(9), pp.1408–1416.

Gaudiano, M.C., Di Maggio, A., Cocchieri, E., Antoniella, E., Bertocchi, P., Alimonti, S. and Valvo, L., 2007. Medicines informal market in Congo, Burundi and Angola: Counterfeit and sub-standard antimalarials. *Malaria Journal* [Online], 6(1). Available from: https://doi.org/10.1186/1475-2875-6-22.

Gautham, M., Shyamprasad, K.M., Singh, Rajesh, Zachariah, A., Singh, Rajkumari and Bloom, G., 2014. Informal rural healthcare providers in North and South India. *Health Policy and Planning* [Online], 29(SUPPL. 1), pp.20–29. Available from: https://doi.org/10.1093/heapol/czt050.

George, A. and Iyer, A., 2013. Unfree markets: Socially embedded informal health providers in northern Karnataka, India. *Social Science and Medicine* [Online]. Available from: https://doi.org/10.1016/j.socscimed.2013.01.022.

Godlonton, S. and Okeke, E.N., 2016. Does a ban on informal health providers save lives? Evidence from Malawi. *Journal of Development Economics* [Online], 118, pp.112–132. Available from: https://doi.org/10.1016/j.jdeveco.2015.09.001.

Goitom, M., 2020. Multilingual Research: Reflections on Translating Qualitative Data. *British Journal of Social Work* [Online], 50(2), pp.548–564. Available from: https://doi.org/10.1093/bjsw/bcz162.

Grimes, T.C., Garfield, S., Kelly, D., Cahill, J., Cromie, S., Wheeler, C. and Franklin, B.D., 2020. Household medication safety practices during the COVID-19 pandemic: A descriptive qualitative study protocol. *BMJ Open* [Online], 10(11), pp.1–6. Available from: https://doi.org/10.1136/bmjopen-2020-044441.

Grønning, I. and Tjora, A., 2018. Digital absolution: Confessional interaction in an online weight loss forum. *Convergence* [Online], 24(4), pp.391–406. Available from: https://doi.org/10.1177/1354856516678558.

Guinness, L. and Wiseman, V., 2011. Health care markets and efficiency. *Introduction To Health Economics*. McGraw-Hill Education, pp.117–130.

Gundur, R. V., 2019. Using the Internet to Recruit Respondents for Offline Interviews in Criminological Studies. *Urban Affairs Review* [Online], 55(6), pp.1731–1756. Available from: https://doi.org/10.1177/1078087417740430.

Hakami, Z., Chung, H.S., Moafa, S., Nasser, H., Sowadi, H., Saheb, S., Bokhari, A.M. and Anderson, N.K., 2020. Impact of fashion braces on oral health related quality of life: a web-based cross-sectional study. *BMC oral health* [Online], 20(1), p.236. Available from: https://doi.org/10.1186/s12903-020-01224-1.

Hannah, D.R. and Lautsch, B.A., 2011a. Counting in qualitative research: Why to conduct it, when to avoid it, and when to closet it. *Journal of Management Inquiry* [Online], 20(1), pp.14–22. Available from: https://doi.org/10.1177/1056492610375988.

Hannah, D.R. and Lautsch, B.A., 2011b. Counting in qualitative research: Why to conduct it, when to avoid it, and when to closet it. *Journal of Management Inquiry* [Online], 20(1), pp.14–22. Available from: https://doi.org/10.1177/1056492610375988.

Harriman, S. and Patel, J., 2014. The ethics and editorial challenges of internet-based research. *BMC Medicine*, 12(124), pp.1–4.

Heinonen, K. and Medberg, G., 2018. Netnography as a tool for understanding customers: implications for service research and practice. *Journal of Services Marketing*.

Heron, J. and Reason, P., 1997. A Participatory Inquiry Paradigm. *Qualitative Inquiry* [Online], 3(3), pp.274–294. Available from: http://journals.sagepub.com/doi/pdf/10.1177/107780049700300302.

Hesse-Swain, C., 2006. Programming beauty and the absence of Na Lao: Popular Thai TV and identity formation among youth in northeast Thailand. *GeoJournal* [Online], 66(3), pp.257–272. Available from: https://doi.org/10.1007/s10708-006-9028-x.

Hewson, C., 2017. Research design and tools for online research. *The SAGE Handbook of Online Research Methods* [Online]. Available from: https://doi.org/10.4135/9780857020055.

Hewson, C. and Laurent, D., 2016. *Internet research methods*. 2nd ed. London: SAGE Publications Ltd.

Hfocus, 2016. *The Public heatlh Office of Chumporn province announced the campagin of free removal fashion braces* [Online]. Available from: https://www.hfocus.org/content/2016/11/13059 [Accessed 15 April 2019].

Hine, C., 2000. The Virtual Objects of Ethnography. *Virtual Ethnography* [Online]. London: SAGE Publications Ltd, pp.42–66. Available from: https://doi.org/http://dx.doi.org/10.4135/9780857020277 Print.

Holden, A.C.L. and Spallek, H., 2018. How compliant are dental practice Facebook pages with Australian health care advertising regulations? A Netnographic review. *Australian Dental Journal* [Online], 63(1), pp.109–117. Available from: https://doi.org/10.1111/adj.12571.

Hollway, W. and Jefferson, T., 2011. Doing Qualitative Research Differently. *Doing Qualitative Research Differently* [Online], pp.27–54. Available from: https://doi.org/10.4135/9781849209007.

Van Hout, M.C. and Hearne, E., 2016. Netnography of female use of the synthetic growth hormone CJC-1295: Pulses and potions. *Substance Use and Misuse* [Online], 51(1), pp.73–84. Available from: https://doi.org/10.3109/10826084.2015.1082595.

Howard, P.N., Neudert, L.-M. and Prakash, N., 2021. Digital misinformation / disinformation and children. *UNICEF Office of Global Insight & Policy*, (August).

Hsieh, H. and Shannon, S.E., 2005. Three Approaches to Qualitative Content Analysis. *Qualitative Health Research* [Online], 15(9), pp.1277–1288. Available from: https://doi.org/10.1177/1049732305276687.

Hsu, C., 2013. *Are the Latest Asian Fashion Trend* [Online]. Available from: https://www.medicaldaily.com/fake-fashion-braces-are-latest-asian-fashion-trend-244112 [Accessed 2 April 2019].

Huppert, F.A., 2009. Psychological Well-being: Evidence Regarding its Causes and Consequences. *Applied Psychology: Health and Well-Being* [Online], 1(2), pp.137–164. Available from: https://doi.org/10.1111/j.1758-0854.2009.01008.x.

Im, E.-O. and Chee, W., 2006. An Online Forum as a Qualitative Research Method. *Nursing Research*, 55(4), pp.267–273.

Imani, M.M., Jalali, A., Ezzati, E., Heirani, Z. and Dinmohammadi, M., 2018. A decision-making process to undergo orthodontic treatment: A qualitative study. *Patient Preference and Adherence* [Online], 12, pp.2243–2251. Available from: https://doi.org/10.2147/PPA.S177462.

Jaeken, K., Cadenas de Llano-Pérula, M., Lemiere, J., Verdonck, A., Fieuws, S. and Willems, G., 2018. Reported changes in oral health-related quality of life in children and adolescents before, during, and after orthodontic treatment: a longitudinal study. *European Journal of Orthodontics* [Online], (June 2018), pp.125–132. Available from: https://doi.org/10.1093/ejo/cjy035.

Jamison, J., Sutton, S., Mant, J. and De Simoni, A., 2018. Online stroke forum as source of data for qualitative research: Insights from a comparison with patients' interviews. *BMJ Open* [Online], 8(3), pp.1–12. Available from: https://doi.org/10.1136/bmjopen-2017-020133.

Javidi, H., Vettore, M. and Benson, P.E., 2017. Does orthodontic treatment before the age of 18 years improve oral health-related quality of life? A systematic review and meta-analysis. *American Journal of Orthodontics and Dentofacial Orthopedics* [Online], 151(4), pp.644–655. Available from: https://doi.org/10.1016/j.ajodo.2016.12.011.

Jeremiah, H.G., Bister, D. and Newton, J.T., 2011. Social perceptions of adults wearing orthodontic appliances: A cross-sectional study. *European Journal of Orthodontics* [Online], 33(5), pp.476–482. Available from: https://doi.org/10.1093/ejo/cjq069.

Jongudomsuk, P., Srithamrongsawat, S., Patcharanarumol, W., Limwattananon, S., Pannarunothai, S., Vapatanavong, P., Sawaengdee, K. and Fahamnuaypol, P., 2015. *The Kingdom of Thailand: Health System Review*. WHO.

Jovchelovitch, S. and Bauer, M.W., 2000. Narrative interviewing. *Qualitative researching with text, image and sound : a practical handbook.* [Online]. London: LSE Research Online. Available from: https://doi.org/10.4324/9780429297410-5.

Kaiser, S.B. and Green, D.N., 2021. *Fashion and Cultural Studies* [Online]. 2nd ed. Bloomsbury. Available from: https://books.google.co.uk/books?hl=en&lr=&id=fds_EAAAQBAJ&oi=fnd&pg=PT13&dq=fASHION+AND+CULTURAL+STUDIES&ots=QoPKNtppUD&sig=GiMXYJZN1iN5fOAcvm7hbO125qk&redir_esc=y#v=onepage&q=fASHION AND CULTURAL STUDIES&f=false.

Kenealy, P.M., Kingdon, A., Richmond, S. and Shaw, W.C., 2007. The Cardiff dental study: A 20- year critical evaluation of the psychological health gain from orthodontic treatment. *British Journal of*

Health Psychology [Online], 12(1), pp.17–49. Available from: https://doi.org/10.1348/135910706X96896.

Kim, J.-H., 2016. *Narrative Data Analysis and Interpretation: "Flirting" With Data*. *Understanding Narrative Inquiry: The Crafting and Analysis of Stories as Research* [Online]. Available from: https://doi.org/10.4135/9781071802861.n6.

King, N., Horrocks, C. and Brooks, J., 2019. *Interviews in Qualitative Research*. 2nd ed. London: SAGE Publications Ltd.

Komabayashi, T., Srisilapanan, P. and Korwanich, N., 2007. Education of dentists in Thailand. *International Dental Journal* [Online], 57(4), pp.274–278. Available from: https://doi.org/10.1111/j.1875-595X.2007.tb00132.x.

komchadluek, 2009. Grade 11 student died by fashion braces. *Komchadluek* [Online]. Available from: http://www.komchadluek.net/news/crime/25663.

Kozinets, R. V, 1997. 'I Want to Believe': a Netnography of the X- Philes ' Subculture of Consumption. *Advances in Consumer Research*, 24, pp.470–475.

Kozinets, R. V., 2002. The Field Behind the Screen: Using Netnography for Marketing Research in Online Communities. *Journal of Marketing Research* [Online], 39(1), pp.61–72. Available from: https://doi.org/10.1509/jmkr.39.1.61.18935.

Kozinets, R. V., 2010. The Method of Netnography. *Netnography: Doing ethnographic research online* [Online], pp.58–73. Available from: https://doi.org/10.4135/9781446268513.

Kozinets, R. V, 2015. *Netnography: redefined* [Online]. Available from: https://doi.org/10.1002/9781118767771.wbiedcs067.

Kozinets, R. V, Dolbec, P. and Earley, A., 2013. Netnographic Analysis : Understanding Culture Through Social. *The SAGE Handbook of Qualitative Data Analysis* [Online], pp.262–276. Available from: https://doi.org/10.4135/9781446282243.

Kozinets, R. V. and Nocker, M., 2018. Netnography: Engaging with challenges. *Unconventional Methodology in Organization and Management Research* [Online]. pp.1–296. Available from: https://doi.org/10.1093/oso/9780198796978.001.0001.

Krishnan, V., 2007. Orthodontic pain: from causes to management--a review. *European journal of orthodontics* [Online], 29(2), pp.170–179. Available from: https://doi.org/10.1093/ejo/cjl081.

Krouwel, M., Jolly, K. and Greenfield, S., 2019. Comparing Skype (video calling) and in-person qualitative interview modes in a study of people with irritable bowel syndrome-an exploratory comparative analysis. *BMC Medical Research Methodology* [Online], 19(1), pp.1–9. Available from: https://doi.org/10.1186/s12874-019-0867-9.

Langer, R. and Beckman, S.C., 2005. Sensitive research topics: Netnography revisited. *Qualitative Market Research* [Online], 8(2), pp.189–203. Available from: https://doi.org/10.1108/13522750510592454.

Lee, E. and Cooper, R.J., 2019. Codeine addiction and internet forum use and support: Qualitative netnographic study. *Journal of Medical Internet Research* [Online], 21(4). Available from: https://doi.org/10.2196/12354.

Levesque, J.F., Harris, M.F. and Russell, G., 2013. Patient-centred access to health care: Conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health* [Online], 12(1), p.1. Available from: https://doi.org/10.1186/1475-9276-12-18.

Li, Y., Jacox, L.A., Little, S.H. and Ko, C.C., 2018. Orthodontic tooth movement: The biology and clinical implications. *Kaohsiung Journal of Medical Sciences* [Online], 34(4), pp.207–214. Available from: https://doi.org/10.1016/j.kjms.2018.01.007.

Littlewood, S.J. and Mitchell, L., 2019. *An introduction to orthodontics*. fifth. Oxford: Oxford University Press.

Lopata, H.Z., 2003. Symbolic Interactionism and I. *Symbolic Interaction* [Online], 26(1), pp.151–172. Available from: https://doi.org/10.1525/si.2003.26.1.151.

Mahidol University, 2019. *Master of Science Program in Orthodontics* [Online]. Available from: http://www.grad.mahidol.ac.th/th/prospective-students/view.php?id=3312M02G [Accessed 13 April 2019].

Masip, J., Blandón-Gitlin, I., Martínez, C., Herrero, C. and Ibabe, I., 2016. Strategic interviewing to detect deception: Cues to deception across repeated interviews. *Frontiers in Psychology* [Online], 7(NOV), pp.1–17. Available from: https://doi.org/10.3389/fpsyg.2016.01702.

Matichon Online, 2018. Stop! Fashion braces from the market. *Matichon Online* [Online], 10 June. Available from: https://www.matichon.co.th/local/crime/news_991906.

Mavreas, D. and Athanasiou, A.E., 2008. Factors affecting the duration of orthodontic treatment: a systematic review. *The European Journal of Orthodontics* [Online], 30(4), pp.386–395. Available from: https://doi.org/10.1093/ejo/cjn018.

Maxwell, J.A., 2010. Using numbers in qualitative research. *Qualitative Inquiry* [Online], 16(6), pp.475–482. Available from: https://doi.org/10.1177/1077800410364740.

McCormack, C., 2004. Storying stories: A narrative approach to in-depth interview conversations. *International Journal of Social Research Methodology: Theory and Practice* [Online], 7(3), pp.219–236. Available from: https://doi.org/10.1080/13645570210166382.

McKee, H.A. and Porter, J.E., 2009. *The ethics of Internet research : a rhetorical, case-based process*. *Digital formations* [Online]. Available from: https://doi.org/ULB 2SIC 302.231 MCKE.

Mead, G., 1934. Mind Self and Society from the Standpoint of a Social Behaviorist . *The Self and the Organism*. Chicago: University of Chicago, pp.135–144.

de Medeiros, K. and Rubinstein, R.L., 2015. 'Shadow stories' in oral interviews: Narrative care through careful listening. *Journal of Aging Studies* [Online], 34, pp.162–168. Available from: https://doi.org/10.1016/j.jaging.2015.02.009.

Member relationship Service, 2013. *Does pantip require users to approve identity?* [Online]. Available from: https://pantip.com/topic/30864014 [Accessed 25 October 2018].

Mikulewicz, M., Chojnacka, K., Woźniak, B. and Downarowicz, P., 2012. Release of metal ions from orthodontic appliances: An in vitro study. *Biological Trace Element Research* [Online], 146(2), pp.272–280. Available from: https://doi.org/10.1007/s12011-011-9233-4.

Ming, J., Kelty, E. and Martin, K., 2020. 'Half the time it's just guessing': youth worker and youth service manager experiences of sexual health training in the Pilbara, remote Western Australia. *Sex Education* [Online], 00(00), pp.1–15. Available from: https://doi.org/10.1080/14681811.2020.1782184.

Mkono, M., 2011. The Othering of Food in Touristic Eatertainment: A Netnography. *Tourist Studies* [Online], 11(3), pp.253–270. Available from: https://doi.org/10.1177/1468797611431502.

Moore, J. and Abetz, J.S., 2019. What Do Parents Regret About Having Children? Communicating Regrets Online. *Journal of Family Issues* [Online], 40(3), pp.390–412. Available from: https://doi.org/10.1177/0192513X18811388.

Mudry, T.E. and Strong, T., 2013. Doing recovery online. *Qualitative Health Research* [Online], 23(3), pp.313–325. Available from: https://doi.org/10.1177/1049732312468296.

Murphy, C., 2019. *Why fake braces are so popular*. *Authoritydental* [Online]. Available from: https://www.authoritydental.org/fake-braces [Accessed 10 April 2019].

Murthy, D., 2008. Digital ethnography: An examination of the use of new technologies for social research. *Sociology* [Online], 42(5), pp.837–855. Available from: https://doi.org/10.1177/0038038508094565.

Murthy, D., Rodriguez, A. and Kinstler, L., 2013. The potential for virtual communities to promote diversity in the sciences. *Current Sociology* [Online], 61(7), pp.1003–1020. Available from: https://doi.org/10.1177/0011392113502994.

Naidu, R.S., Gobin, I. and Newton, J.T., 2003. Perceptions and use of dental quacks (unqualified dental practitioners) and self rated oral health in Trinidad. *International Dental Journal* [Online], 53(6), pp.447–454. Available from: https://doi.org/10.1002/j.1875-595X.2003.tb00886.x.

Nass, D. and Sreyleap, C., 2016. Faking it: the craze for 'fashion braces'. *The Phnom Penh Post* [Online], 26 August. Available from: https://www.phnompenhpost.com/post-weekend/faking-it-craze-fashion-braces.

National Statistical Office, 2017. *Survey of sanitation, health insurance and food consumption behaviour of Thai people 2017*. Bangkok: Text and General Publication.

National Statistical Office, 2018. *The 2017 Household socio-economic survey: Whole kingdom*.

Neviarouskaya, A., Prendinger, H. and Ishizuka, M., 2011. Affect Analysis Model: Novel rule-based approach to affect sensing from text. *Natural Language Engineering* [Online], 17(1), pp.95–135. Available from: https://doi.org/10.1017/S1351324910000239.

NHS, 2020. *Orthodontics* [Online]. Available from: https://www.nhs.uk/conditions/orthodontics/.

Nikander, P., 2008. Working with transcripts and translated data. *Qualitative Research in Psychology* [Online], 5(3), pp.225–231. Available from: https://doi.org/10.1080/14780880802314346.

Noble, H. and Smith, J., 2015. Issues of validity and reliability in qualitative research. *Evidence-Based Nursing* [Online], 18(2), pp.34–35. Available from: https://doi.org/10.1136/eb-2015-102054.

Nosek, B.A., Banaji, M.R. and Greenwald, A.G., 2002. E-research: Ethics, security, design, and control in psychological Research on the internet. *Journal of Social Issues* [Online], 58(1), pp.161–176. Available from: https://doi.org/10.1111/1540-4560.00254.

Nowell, L.S., Norris, J.M., White, D.E. and Moules, N.J., 2017. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods* [Online], 16(1), pp.1–13. Available from: https://doi.org/10.1177/1609406917733847.

Oliver, C., 2012. The relationship between symbolic interactionism and interpretive description. *Qualitative Health Research* [Online], 22(3), pp.409–415. Available from: https://doi.org/10.1177/1049732311421177.

Omaswa, F., 2006. Informal health workers — to be encouraged or condemned? *Bulletin of the World Health Organization*, 84.

O'Reilly, M. and Parker, N., 2013. 'Unsatisfactory Saturation': A critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research* [Online], 13(2), pp.190–197. Available from: https://doi.org/10.1177/1468794112446106.

Orth, U., Trzesniewski, K.H. and Robins, R.W., 2010. Self-Esteem Development From Young Adulthood to Old Age: A Cohort-Sequential Longitudinal Study. *Journal of Personality and Social Psychology* [Online], 98(4), pp.645–658. Available from: https://doi.org/10.1037/a0018769.

Pabari, S., Moles, D.R. and Cunningham, S.J., 2011. Assessment of motivation and psychological characteristics of adult orthodontic patients. *American Journal of Orthodontics & Dentofacial Orthopedics* [Online], 140(6), pp.e263–e272. Available from: https://doi.org/10.1016/j.ajodo.2011.06.022.

Pariyo, G.W., Mayora, C., Okui, O., Ssengooba, F., Peters, D.H., Serwadda, D., Lucas, H., Bloom, G., Rahman, M.H. and Ekirapa-Kiracho, E., 2011. Exploring new health markets: Experiences from informal providers of transport for maternal health services in Eastern Uganda. *BMC International Health and Human Rights* [Online]. Available from: https://doi.org/10.1186/1472-698X-11-S1-S10.

Patel, N., Hodges, S.J., Hall, M., Benson, P.E., Marshman, Z. and Cunningham, S.J., 2016. Development of the Malocclusion Impact Questionnaire (MIQ) to measure the oral health - related quality of life of young people with malocclusion : Part 1 – qualitative inquiry. *Journal of Orthodontics*, 43(1), pp.7–13.

Patterson, W., 2011. Narratives of Events: Labovian Narrative Analysis and its Limitations. In: M. Andrews, C. Squire and M. Tamboukou, eds. *Doing Narrative Research* [Online]. London: SAGE Publications, Ltd., pp.27–46. Available from: https://doi.org/10.4135/9781526402271.n2.

Penchansky, R. and Thomas, J.W., 1981. The Concept of Access: Definition and Relationship to Consumer Satisfaction. *Medical Care* [Online], 19(2), pp.127–140. Available from: https://doi.org/10.1097/00005650-198102000-00001.

Phakdeephasook, S., 2009. *DISCOURSE OF FEMININITY IN ADVERTISEMENTS IN THAI HEALTH AND BEAUTY MAGAZINES 1*.

Pincock, K. and Jones, N., 2020. Challenging Power Dynamics and Eliciting Marginalized Adolescent Voices Through Qualitative Methods. *International Journal of Qualitative Methods* [Online], 19, pp.1–11. Available from: https://doi.org/10.1177/1609406920958895.

Pittman, J.W., Bennett, M.E., Koroluk, L.D., Robinson, S.G. and Phillips, C.L., 2017. Characterizing the orthodontic patient's purchase decision: A novel approach using netnography. *American Journal of Orthodontics & Dentofacial Orthopedics* [Online], 151(6), pp.1065–1072. Available from: https://doi.org/10.1016/j.ajodo.2016.10.036.

Plummer, K., 2000. A World in the Making : Symbolic Interactionism in the Twentieth Century. *The Blackwell Companion to Sociology*, (January), pp.193–222.

Polander, E. and Shalin, V.L., 2013. An Analysis of Narrative and Figurative Language within Online Alcoholism Discussion Forums. *International Journal of Mental Health and Addiction* [Online], 11(4), pp.458–473. Available from: https://doi.org/10.1007/s11469-013-9431-8.

Polit, D.F. and Beck, C.T., 2010. Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies* [Online], 47(11), pp.1451–1458. Available from: https://doi.org/10.1016/j.ijnurstu.2010.06.004.

Population Statistics Group, 2012. *The 2010 Population and Housing Census: Whole Kingdom*. *National Statistical Office*.

Portes, A., 2010. The informal economy. *Economic Sociology: A systemic Inquiry* [Online]. Princetion University Press. Available from: https://doi.org/10.1177/001139290038002008.

Pothidee, T., 2007. *Body, consumption and braces wearing of young adolescents in Bangkok*.

Pothidee, T., Khamthalaeng, K., Noikeaw, J., Pitukpotong, W. and Krueachaipinit, A., 2017. Fashion braces services in the perspective of students in a northern secondary school. *Thai Journal of Dental Public Health*, 22(2), pp.39–47.

Proffit, W.R., 2013. *Contemporary orthodontics*. Ed. by H.W. Fields and D.M. Sarver. 5th ed. St. Louis, Mo.: St. Louis, Mo. : Elsevier/Mosby, c2013.

Quinton, S. and Wilson, D., 2016. Tensions and ties in social media networks: Towards a model of understanding business relationship development and business performance enhancement through the use of LinkedIn. *Industrial Marketing Management* [Online], 54, pp.15–24. Available from: https://doi.org/10.1016/j.indmarman.2015.12.001.

Ratchakitcha *1998 Sanatorium Act B.E.2541*.

Razak, H., 2015. *Fake Braces: Fashion Trend or Fashion Hazard*. *The Malaysian Medical Gazette* [Online]. Available from: http://www.mmgazette.com/fake-braces-fashion-trend-or-fashion-hazard-dr-husna-razak/ [Accessed 20 March 2018].

Redmond, W., 2018. Marketing Systems and Market Failure: A Macromarketing Appraisal. *Journal of Macromarketing* [Online], 38(4), pp.415–424. Available from: https://doi.org/10.1177/0276146718796913.

Regmi, K., Naidoo, J. and Pilkington, P., 2010. Understanding the Processes of Translation and Transliteration in Qualitative Research. *International Journal of Qualitative Methods* [Online], 9(1), pp.16–26. Available from: https://doi.org/10.1177/160940691000900103.

Reissman, C.K., 2005. Narrative analysis. *Narrative, Memory & Everyday Life*. pp.1–7.

Riessman, C.K., 2005. *Narrative analysis*. *Narrative, Memory & Everyday Life* [Online]. Available from: https://doi.org/10.4135/9781412963909.

Rityoue, A. and Sasiwongsaroj, K., 2009. Pseudo-orthodontics among Thai teenager and its effects on oral health. *Thailand Journal of Dental Public Health*, 14(1), pp.7–18.

Robinson, L., 2007. The cyberself: The self-ing project goes online, symbolic interaction in the digital age. *New Media and Society* [Online], 9(1), pp.93–110. Available from: https://doi.org/10.1177/1461444807072216.

Rodriquez, J., 2013. Narrating dementia: Self and community in an online forum. *Qualitative Health Research* [Online], 23(9), pp.1215–1227. Available from: https://doi.org/10.1177/1049732313501725.

Royal Thai Dental College, 2018. *Residency Training Program in Orthodontics* [Online]. Available from: https://www.royalthaident.org/course/search/?specialty_id=4&institute_id=0 [Accessed 12 February 2019].

Ryan Force, W., 2009. Consumption Styles and the Fluid Complexity of Punk Authenticity. *Symbolic Interaction* [Online], 32(4), pp.289–309. Available from: https://doi.org/10.1525/si.2009.32.4.289.

Sade-beck, L., 2004. Internet Ethnography : Online and Offline. *International Journal of Qualitative Methods* [Online], 3(2), pp.45–51. Available from: https://doi.org/10.1177/160940690400300204.

Saldaña, J., 2014. *The Coding Manual for Qualitative Researchers*. *Sage* [Online]. Available from: https://doi.org/10.1007/s13398-014-0173-7.2.

Salzmann-erikson, M. and Eriksson, H., 2012. A netnographic research method for nursing science. *Aporia*, 4(4).

Samsonyanová, L. and Broukal, Z., 2014. A Systematic Review of Individual Motivational Factors in Orthodontic Treatment: Facial Attractiveness as the Main Motivational Factor in Orthodontic Treatment. *International Journal of Dentistry* [Online], pp.1–7. Available from: https://doi.org/10.1155/2014/938274.

Sandilands, T., 2018. *Risk of fake braces for kids* [Online]. Available from: https://www.colgate.com/en-us/oral-health/cosmetic-dentistry/early-orthodontics/risk-of-fake-braces-for-kids-0315 [Accessed 17 April 2019].

Santelli, J.S., Haerizadeh, S. and Mcgovern, T., 2017. Inclusion with Protection: Obtaining informed consent when conducting research with adolescents. *Innocenti Research Briefs* [Online], pp.1–18. Available from: https://www.unicef-irc.org/publications/877-inclusion-with-protection-obtaining-informed-consent-when-conducting-research-with.html.

Santiwongkarn, P., 2017. When 'Smiley clinic' was arrested. *Thai Dental Magazine* [Online], 2(4), pp.16–20. Available from: http://www.thaidentalmag.com/issues-detail.php?id=152.

Scally, A., 2014. Ethical issues in research involving children and young people. *Radiography* [Online], 20(3), pp.202–205. Available from: https://doi.org/10.1016/j.radi.2014.01.006.

Schiermer, B., 2011. Quasi-objects, Cult Objects and Fashion Objects: On Two Kinds of Fetishism on Display in Modern Culture. *Theory, Culture & Society* [Online], 28(1), pp.81–102. Available from: https://doi.org/10.1177/0263276410374632.

Schreier, M., 2012. *Qualitative content analysis in practice* [Online]. London: SAGE Publications. Available from: https://doi.org/10.1002/qsar.200540005.

Seewan, S. and Benjarongkij, Y., 2014. The Influencing Factors Pressuring Thai Women on Decision Making on Beauty and Appearance Transformation. *Journal of Public Relations and Advertising*, 7(2).

SGS, n.d. *Ensuring performance confidenct in Packaging Componentry*.

Shaw, W.C., Richmond, S., Kenealy, P.M., Kingdon, A. and Worthington, H., 2007. A 20-year cohort study of health gain from orthodontic treatment: Psychological outcome. *American Journal of Orthodontics and Dentofacial Orthopedics* [Online], 132(2), pp.146–157. Available from: https://doi.org/10.1016/j.ajodo.2007.04.009.

Silverstein, A., 2013. *Fake Braces Trend Takes Asia by Storm* [Online]. Available from: [Accessed 2 April 2019].

Smedley, R., Coulson, N., Gavin, J., Rodham, K. and Watts, L., 2015. Online social support for Complex Regional Pain Syndrome: A content analysis of support exchanges within a newly launched discussion forum. *Computers in Human Behavior* [Online], 51(PA), pp.53–63. Available from: https://doi.org/10.1016/j.chb.2015.04.040.

Smedley, R.M. and Coulson, N.S., 2017. A thematic analysis of messages posted by moderators within health-related asynchronous online support forums. *Patient Education and Counseling* [Online], 100(9), pp.1688–1693. Available from: https://doi.org/10.1016/j.pec.2017.04.008.

Smedley, R.M. and Coulson, N.S., 2018. A practical guide to analysing online support forums. *Qualitative Research in Psychology* [Online], 00(00), pp.1–28. Available from: https://doi.org/10.1080/14780887.2018.1475532.

Social Security Office, 2017. *Social Security Fund*.

Sorooshian, S. and Kamarozaman, A., 2018. Fashion braces : an alarming trend. *Sao Paulo Medical Journal* [Online], 136(5), pp.497–498. Available from: https://doi.org/10.4172/2167-1079.1000197.3.

Squires, A., 2009. Methodological challenges in cross-language qualitative research: A research review. *International Journal of Nursing Studies* [Online], 46(2), pp.277–287. Available from: https://doi.org/10.1016/j.ijnurstu.2008.08.006.

Sriarunotai, S. and Boonyagul, S., 2016. Ion released from fashion orthodontic brackets and standard orthodontic brackets in artificial saliva I. *Bulletin of Health, Science and Technology*, 14(2), pp.40–46.

Strategy and Planning Division, 2018. *Statistical Thailand 2017*. Ministry of Public Health.

Sudhinaraset, M., Briegleb, C., Aung, M., Khin, H. and Aung, T., 2015. Motivation and challenges for use of malaria rapid diagnostic tests among informal providers in Myanmar: a qualitative study. *Malar. J.* [Online], 14(1). Available from: https://doi.org/10.1186/s12936-015-0585-7.

Sudhinaraset, M., Ingram, M., Lofthouse, H.K. and Montagu, D., 2013. What Is the Role of Informal Healthcare Providers in Developing Countries? A Systematic Review. *PLoS ONE* [Online], 8(2). Available from: https://doi.org/10.1371/journal.pone.0054978.

Sumitra, 2012. *Fake Braces Worn as Fashion Accessories* [Online]. Available from: https://www.odditycentral.com/news/style-oddities-fake-braces-as-fashion-accessories.html [Accessed 2 April 2019].

Tavakoli, R. and Wijesinghe, S.N.R., 2019. The evolution of the web and netnography in tourism: A systematic review. *Tourism Management Perspectives* [Online], 29(August 2018), pp.48–55. Available from: https://doi.org/10.1016/j.tmp.2018.10.008.

Taylor, J., Lamont, A., Murray, M., Taylor, J., Lamont, A., Murray, M., Taylor, J., Lamont, A. and Murray, M., 2018. Talking about sunbed tanning in online discussion forums : Assertions and arguments Assertions and arguments. *Psychology & Health* [Online], 0446. Available from: https://doi.org/10.1080/08870446.2017.1375496.

Taylor, N.G., 2018. Youth information-seeking behavior and online government information: Tweens' perceptions of US federal government websites. *Journal of Documentation* [Online], 74(3), pp.509–525. Available from: https://doi.org/10.1108/JD-06-2017-0093.

TDC, 2008. *Dental benefits* [Online]. Available from: http://www.dentalcouncil.or.th/public/health_coverage_service.php.

TDC, 2018. *Thai Dental Council statistics* [Online]. Available from: http://www.dentalcouncil.or.th/th/statistic.php.

Temple, B., 2005. Nice and tidy: Translation and representation. *Sociological Research Online* [Online], 10(2). Available from: https://doi.org/10.5153/sro.1058.

Thai Association of Orthodontists, 2018. *List of Orthodontists* [Online]. Available from: http://www.thaiortho.org/รายชื่อทันตแพทย์จัดฟัน/ [Accessed 4 February 2018].

Thai Association of Orthodontists, n.d. *What is orthodntic treatment* [Online]. Available from: https://thaiortho.org/why-orthodontic/.

Thailand *1979 Customer Protection Act B.E.2522 (1979)*.

Thailand *1994 Dental Professional Act B.E.2537*. Thailand.

Thailand *2006 Customer Protection Board Order 1/2549*. Thailand.

Thailand *2009 Customer Protection Board Order 10/2552*. Thailand.

Thailand *2017 Direct sale and Direct marketing Act B.E. 2560*.

Thailand *2018 Consumer Protection Board Oder 1/2561 (2018)*.

Thairath, 2009. The Ministry of Public Health provides free fasion braces removal. *Thairath*, 18 September.

Thanh, T.V. and Kirova, V., 2018. Wine tourism experience : A netnography study. *Journal of Business Research* [Online], 83(December 2016), pp.30–37. Available from: https://doi.org/10.1016/j.jbusres.2017.10.008.

The Academy of Medical Sciences, 2017. *Unmet need in healthcare*. London.

The British Psychological Society, 2014. *Code of Human Research Ethics*. *The British Psychological Society* [Online]. Leicester: The British Psychological Society. Available from: http://www.bps.org.uk/sites/default/files/documents/code_of_human_research_ethics.pdf.

The National Health Commission Office *2018 11th National Health Assembly: Consumer Protection in Dental Service*.

The National Health Service, 2017. *Overview: Orthodontics* [Online]. Available from: https://www.nhs.uk/conditions/orthodontics/ [Accessed 22 October 2018].

The standard, 2017. *Talk with Pantip.com co-founder: Why pantip is never out of trend.*

The UK Department for International Development (DFID) and The Swiss Agency for Development and Cooperation (SDC), 2008. *A synthesis of the making markets work for the poor (M4P) approach*. Switzerland: Swiss agency for Development and Cooperation.

The University of Sheffield, n.d. *Research Services*.

Thomas, J.B. and Peters, C.O., 2011. Which dress do you like? Exploring brides' online communities. *Journal of Global Fashion Marketing* [Online], 2(3), pp.148–160. Available from: https://doi.org/10.1080/20932685.2011.10593093.

Tolich, M., 2004. Internal confidentiality: When confidentiality assurances fail relational informants. *Qualitative Sociology* [Online], 27(1), pp.101–106. Available from: https://doi.org/10.1023/B:QUAS.0000015546.20441.4a.

Tsichlaki, A., Chin, S.Y., Pandis, N. and Fleming, P.S., 2016. How long does treatment with fixed orthodontic appliances last? A systematic review. *American Journal of Orthodontics & Dentofacial Orthopedics* [Online], 149(3), pp.308–318. Available from: https://doi.org/10.1016/j.ajodo.2015.09.020.

Twigge, E., Roberts, R.M., Jamieson, L., Dreyer, C.W. and Sampson, W.J., 2016. The psycho-social impact of malocclusions and treatment expectations of adolescent orthodontic patients. *European journal of orthodontics* [Online], 38(6), pp.593–601. Available from: https://doi.org/10.1093/ejo/cjv093.

Vachirarojpaisan, T., 2009. *From orthodontics treatment to 'fashion braces', Not worth it*. Bangkok: Usa Printing.

Vachirarojpaisan, T., 2017. *Braces News*. pp.11–12.

Varpio, L., Ajjawi, R., Monrouxe, L. V., O'Brien, B.C. and Rees, C.E., 2017. Shedding the cobra effect: Problematising thematic emergence, triangulation, saturation and member checking. *Medical Education* [Online], 51(1), pp.40–50. Available from: https://doi.org/10.1111/medu.13124.

Viner, R.M., 2012. Life stage: Adolescence. *Annual Report of the Chief Medical Officer 2012, Our Children Deserve Better: Prevention Pays*, p.Chapter 8;1-8.

Wahab, R.M.A., Hasan, S.K., Yamin, E.M.N. and Ibrahim, Z., 2019. Awareness of Fake Braces Usage Among Y- Generations. *J Int Dent Med Res* [Online], 12(2), pp.663–666. Available from: http://www.jidmr.com.

Wang, Y.S., 2018. Addiction by Design: Using Netnography for User Experiences in Female Online Gambling Game. *International Journal of Human-Computer Interaction* [Online], 34(8), pp.774–785. Available from: https://doi.org/10.1080/10447318.2018.1461758.

Watson, S., 2016. *Fake braces fashion takes over - But docs warn against the practice* [Online]. Available from: http://jamaica-star.com/article/news/20160512/fake-braces-fashion-takes-over-docs-warn-against-practice [Accessed 1 May 2018].

Weller, S., 2017. Using internet video calls in qualitative (longitudinal) interviews: some implications for rapport. *International Journal of Social Research Methodology* [Online], 20(6), pp.613–625. Available from: https://doi.org/10.1080/13645579.2016.1269505.

Wendl, B., Wiltsche, H., Lankmayr, E., Winsauer, H., Walter, A., Muchitsch, A., Jakse, N., Wendl, M. and Wendl, T., 2017. Metal release profiles of orthodontic bands, brackets, and wires: an in vitro study. *Journal of Orofacial Orthopedics* [Online], 78(6), pp.494–503. Available from: https://doi.org/10.1007/s00056-017-0107-z.

WHO, 2006. Informal health workers — to be encouraged or condemned? *Bulletin of the World Health Organization*, 84(6).

Williams, J.P. and Copes, H., 2005. "How Edge Are You?" Constructing Authentic Identities and Subcultural Boundaries in a Straightedge Internet Forum. *Symbolic Interaction* [Online], 28(1), pp.67–89. Available from: https://doi.org/10.1525/si.2005.28.1.67.

Winiecki, J., 2001. FORMAL RULES , INFORMAL RULES ,. *Acta Oeconomica*, 51(2), pp.147–172.

Wongsamuth, N., 2016. A Kick in The Teeth. *Bangkok Post* [Online], 2018. Available from: https://www.bangkokpost.com/thailand/special-reports/1122637/a-kick-in-the-teeth [Accessed 18 May 2018].

World Health Organization, 2018. *Guidance on ethical considerations in planning and reviewing research studies on sexual and reproductive health in adolescents* [Online]. Available from: http://apps.who.int/iris/bitstream/handle/10665/273792/9789241508414-eng.pdf?sequence=1&isAllowed=y%0Ahttp://apps.who.int/iris/bitstream/handle/10665/273792/9789241508414-eng.pdf?ua=1.

Wright, J., Williams, R. and Wilkinson, J.R., 1998. Health Needs Assessment : Development and Importance of Health Needs Assessment. *British Medical Journal*, 316(7140), pp.1310–1313.

Zakyah, A., Rosabella, S., Hafizoh Az, N. and Laviana, A., 2016. The influencing factors of citizen of Bandung preferences towards dental quack on constructing custom-made orthodontic appliances. *Padjadjaran Journal of Dentistry*, 28(1), pp.188–193.

Appendix I Study 1

Appendix A:

Ethical approval study 1 “People’s talk about fashion braces”

Downloaded: 25/04/2022
Approved: 09/05/2019

Thitika Kimise
Registration number: 170271376
School of Clinical Dentistry
Programme: PhD in Dentistry

Dear Thitika

PROJECT TITLE: People's talk about 'fashion braces'
APPLICATION: Reference Number 024362

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 09/05/2019 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 024362 (form submission date: 09/05/2019); (expected project end date: 31/08/2019).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

Janine Owens
Ethics Administrator
School of Clinical Dentistry

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy: https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/approval-procedure
- The project must abide by the University's Good Research & Innovation Practices Policy: https://www.sheffield.ac.uk/polopoly_fs/1.671066!/file/GRIPPolicy.pdf
- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
- The researcher must comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

Appendix B full stories of threads posted by those who escaped from fashion braces in the Section 3.7.3

Appendix B1 Mon's story and Analytic sheet by TK (Thitika Kimise – the researcher) (from a thread called FB 174)

Line	Contents	Structure	Themes/ identities	characters	Narrator's Evaluation	Analytic memos
Title	I have a deep bite. What types of orthodontic treatment should I get? (Please answer me, this is my first thread).	A				Clear title Problems+questions
Tag	Dentistry	A				
	Story 1: Life while having fashion braces					
1	I had gorgeous teeth in the first place	O		Mon: -2 times of FB - escape from the fashion braces by herself	Knew that tooth good enough	No desire mentioned
2	8-9 months ago, I wore fashion braces;	O1+CA1	Life with fashion braces			
3	I had them twice—3-4 months at a time.	CA1				
4	Now, the braces were taken off by myself.	CA1	Removed braces			
5	It was okay at the beginning with some glue stains and heavy calculus and cavities in many teeth.	E1+R1 (early)	What happened			Two stages of consequences after removed fb. -early glue stain, calculus, cavities X -Late: toothache, jaw problem / go to dentist
6	After the braces removal around 3 months, I knew the consequences	R1(later)				
7	I have caries in many teeth, have a toothache and have jaw pain.	R1 (later)				
8	It hurts until I couldn't stand for it.	R1 (later)	What happened + turning point			
9	So I visited a dentist.	CA2				

	Story 2: I visited the dentist					
10	The dentist told me that molar and canine teeth rotated and the jaw dislocated with a deep bite.	CA2+R1	Solution	Mon: -underage -blaming herself, emotionally - learnt a lesson - seek information Dentist: Examined; told her problems Mother (14): protecting child but not success		** a lot of emotions in this thread. I think because she doesn't completely escape. Maybe she just met dentists and parents didn't involve yet. So, she may feel frustrated facing this problem alone….
11	I am so terrified because my beautiful teeth became the ruined one	E2	Self-blaming		Feeling regret	
12	because I didn't think it through.	E2				
13	I didn't listen to my mother.	E2				
14	My mother told me that there would be a long term consequence.	CA				
15	I didn't believe her.	CA				
16	Now I knew #heavy crying	E (evaluative action)	Feeling			
17	#I want to know what kind of orthodontic treatment should I get.	IS				Lack of dentist-pt. communication?
18	(The dentist said that I need jaw surgery, but I am underage, so I need orthodontic treatment before.)	R2				

Appendix B2 Amy's story and Analytic sheet by TK (Thitika Kimise – the researcher) (from a thread called FB 186)

Line	Contents	Structure	Themes/ identities	characters	Narrator's Evaluation	Analytic memos
Title	Sharing experience of having the big dental treatment in my life.	A				
Tags	Dentistry	A				
1	The first thing is to say hello to every pantip users. The story I am telling you today is about tooth. (it is a long story)	SS				
	Story 1: life before fashion braces					
2	In the past, I was very scared of visiting dentists.	O+E1	Scared of dentists	Amy - neg.attitude/practice to OHI - problems after uncle died Uncle: -regularly brought Amy to dentists - SA_died Mother:	Scared of dentists	I feel that her uncle look after her very well. Without him no one bring her to dentists. Because mother has a financial issue so she couldnt cover for dental tx. By private dental clinic. If they go to public hospital, the cost of tx. Might not be a problem but It is a long queue.
3	I remembered that my uncle always brought me to dentists when I were young. Since he died (when I was grade 2); I never meet dentists after that.	O1				
4	When I had a toothache (primary teeth), I left until it naturally loss and fell out.	O1	Incorrect OH knowledge			
5	I loved eating candy and snacks, and rarely split out or brushed teeth before bed. I sometimes slept while candy or gum were in my mouth. I didn't look after teeth when I were young. Because	O1	Oral hygiene care			

Line	Contents	Structure	Themes/ identities	characters	Narrator's Evaluation	Analytic memos
	dental caries and tooth loss are normal for young.			- financial issue		I don't think her mother didn't look after her as her uncle did but because of financial issue. So that she can't support her daughter dental tx.
6	When I grew up, a caries condition was worse. There were only 2 teeth in the first place.	O1				
7	When I was at high school, I felt ashamed of my friends. I didn't feel confidence when I smiled. I never once smiled to show my teeth. I was being like this until I almost graduated grade 12.	O1+E1	Low-self esteem		Ashamed of Not confidence Never smile	
8	I asked my mom to get dental treatment, but my family had a financial issue. Dental treatment fees are rather costly. My mom sought a dental clinic. The dentist told that filling cost 500 THB/side. So, I decided to get the treatment. But the dentist told me during the operation that there are 4 sides to fill, and the total cost is 2000 THB. But my mom didn't have enough	O1				

Line	Contents	Structure	Themes/ identities	characters	Narrator's Evaluation	Analytic memos
	money as she didn't prepare that much of money.					
9	So, I got fillings just 2 sides. it looks better than it was, but I still didn't feel confident**. Caries on another tooth could be seen anyway.**	O1	Unsatisfied dental appearance Caries)			
10	However, it is better than do nothing. I discussed with my mom that I will get the treatment when we have money. After I graduated grade 12, I started working.	E1+O1	Unaffordable dental tx.			
11	It has been 5 years after that tooth was filled but another one still gets no treatment. I **never had toothache at all**. But the caries became worse.	O2				
12	Currently, both left and right molar have deep caries, I can't chew. When I eat sugary food, I have a sharp pain, I suffer.	A	What happened turning point (2)			I guess this happened later. As it is not get along with the certain timeline. May link with line 19
	Story 2: I decided to get fashion braces					
13	I decided to get fashion brace	CA2	Desire (main)			Not sure when she wore fashion braces she said

Line	Contents	Structure	Themes/ identities	characters	Narrator's Evaluation	Analytic memos
						like just wear to cover caries at front teeth
14	because I want to hide caries at anterior teeth.	E2				
15	But it's gone worse. My teeth moved and lower teeth became crooked.	R2	What happened + turning point (1)			
16	I have worn fashion braces for 1 year	O2				
17	and decided to remove them by myself.	CA2				
18	Hence, the glue stains still remain	R2	What happened			
	Story 3: I chose a public hospital					
19	I decided to save some money to get dental treatment which is the big time in my life. My reason is to get orthodontic treatment from orthodontists.	CA3	Solution	Amy: - need to save money to get tx. - public hospital cheap but long queue. - positively life changing Boyfriend: - suggested to go public hospitals		Amy selected 'Public Hospital'
20	The practice I selected is a public hospital. My boyfriend told me that private practices are expensive. The public hospital near my place require to be in the queue since early morning.	CA3				
21	The rests are about dental procedure very long…… (not yet finish the entire tx.)					

Line	Contents	Structure	Themes/ identities	characters	Narrator's Evaluation	Analytic memos
22	Now, I can tell you that I feel very great. I don't feel ashamed while smiling any more.	E3+R3	Life changing (happy)		I feel great I don't feel ashamed	
23	I started looking after my teeth. Brush my teeth twice a day, and use mouthwash 2 times after brushing.	Coda	Oral hygiene care (changing)			
24	She needs RCT at molar teeth.					
25	I encourage those who are reading and feel afraid of dentists, it is not too late to see dentists. Because teeth are essential for our life.	Public account	Public account			
26	Thank you everybody to read through this thread. If I made a mistake, I do apologise.	Coda				

Appendix B3 Karn's story and Analytic sheet by TK (Thitika Kimise – the researcher) (from a thread called FB 5)

Line	Contents	Structure	Themes/ identities	characters	Narrator's Evaluation	Analytic memos
Title	Warning!! Those who have fashion braces, sharing an experience.	A				
Tags	Dentistry, orthodontics, orthodontic clinics, cosmetic surgery	A				
1	Hello, readers.	O				
2	Today I would like to share my experience of wearing fashion braces.	SS				
	Story 1: :Life before having fashion braces					
3	My teeth were in a good alignment with buck front teeth. They were a little bit protruded. The upper teeth were big and small in the lower teeth.	O+E		Karn: -underage of 18 - unhappy with tooth appearance - could not find the place - be convinced by peers Senior: - suggested retainers		
4	There was my senior told me that if I don't want my teeth more protruded, I should get retainers to prevent the larger overbite.	CA1	Peer influenced			I think the senior sparked her idea of having retainers which might help her concern. - the first desire
5	At that time, I craved them	E1	Desire			
6	but I didn't know where I could get them	R1				No availability
	Story 2: friends have got fashion retainers from the dental clinic					

7	Since there was a dental clinic recently opened nearby	O2		Friend: - got retainers from the dental clinic The dentist: - provided retainers for non-treatment		Availability changes the situation changes
8	Friends at the school have massed into the clinic.	O2				
9	A friend *who had lovely teeth* but she/he wanted to get braces.	O2+*E2*				
10	She, then, asked a dentist from the new clinic to make her retainers.	CA2				
11	The dentist made her retainers with o-ring attachment*.	CA2				
12	She looked like those who have genuine orthodontic appliances.	E2				
13	The cost was around 7000 THB	O2				
	Story 3: I decided to get fashion retainers too.					
14	I saw her and really wanted them	E3	Desire	Karn: - wanted to be like friend - went to the clinic - observed what happened to friend	I want…	What to be like friend (second desire)
15	Therefore, I asked the dentist to make retainers with o-ring as well.	R3				Demand met supply
16	I was very crazy about them	E3	Positive feeling		I was crazy..	Happiness after having retainers
17	And often wore at the beginning but I was lazy to wear later.	O3				
18	My friend, who started wearing retainers before me, ended up with collapsed teeth.	R3	What happened			
19	I was frightened.	E3	Negative feeling		Frightened	
20	she/he required to get the orthodontic treatment afterwards.	R3				

21	From one who had good looking teeth, but because of the small size of teeth, the appearance radical changed.	E3	consequences			
22	When I saw what happened to her, I was afraid of wearing them.	CA3+E3	Negative feeling		Afraid	
	Story 4: my teeth changed					
23	I checked my teeth; I found the massive gaps between lower teeth. It was very large and I was shocked.	CA4+E4	What happened	Karn: - check herself and found the same outcome -		
24	My teeth were transformed and because my lower teeth were small, so the changing more obvious.	E4				
25	From a person didn't need orthodontic treatment to those who need the treatment	E4(comparative)				she didn't concern about pain from fashion braces but from orthodontic treatment
26	and need to withstand the pain.	R4				
27	It is just because I wanted to be similar to friends.	Coda (repetition)	Self-blaming		Feeling regret	
28	Just because of the short-term desire of beauty.	Coda				
29	I really want to warn people who are seeking fashion braces or wearing fashion braces, e.g., the fixed type, retainer with a plate or retainer without a plate.	Coda (Public account)	Warning messages			
30	Please stop wearing them; otherwise, your teeth will be damaged.					

31	Orthodontics is not easy; even some dentists can't provide them. It needs to be practised by orthodontists.					
32	You shouldn't take the risk of the low quality of tools and equipment as well as the providers who aren't dentists.					
33	Additionally, those who get retainers without the experience of orthodontic treatment, you shouldn't wear them.					
34	That's because orthodontic treatment can't skip the treatment procedure; otherwise, there will be negative consequences.					

Appendix II Study 2

Appendix C

Ethical approval Study 2 “The experiences of fashion braces wearers”

Downloaded: 25/04/2022
Approved: 05/05/2021

Thitika Kimise
Registration number: 170271376
School of Clinical Dentistry
Programme: PhD in Dentistry

Dear Thitika

PROJECT TITLE: The experience of fashion braces wearers in Thailand
APPLICATION: Reference Number 038736

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 05/05/2021 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 038736 (form submission date: 26/03/2021); (expected project end date: 31/12/2021).
- Participant information sheet 1089199 version 1 (24/03/2021).
- Participant consent form 1089200 version 1 (24/03/2021).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

Dentistry Ethics
Ethics Administrator
School of Clinical Dentistry

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy: https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/approval-procedure
- The project must abide by the University's Good Research & Innovation Practices Policy: https://www.sheffield.ac.uk/polopoly_fs/1.671066!/file/GRIPPolicy.pdf
- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
- The researcher must comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

Appendix D

Study 2 information sheet

The University Of Sheffield. School Of Clinical Dentistry.

Participant Information Sheet

1. Research Project Title:

The experience of fashion braces wearers in Thailand

2. Invitation

You are being invited to take part in a research project about 'fashion braces' in Thailand. Before you decide if you want to take part, we want to share some important information with you about what the research will involve and why we are doing it. Please take time to read the following information carefully and to decide whether you would like to take part in this research. Feel free to discuss it with your family and friends if you wish and do contact us if you would like any further information or to discuss any aspect of the research in more detail. Thank you.

3. What is the project's purpose?

'Fashion braces' look like normal orthodontic braces, but they are more usually supplied by non-dentist providers or by the person themselves (i.e. do-it-yourself (DIY)). We are interested in knowing more about why people want to have these braces. We also interested in hearing about people's experiences of wearing these braces.

4. Why have I been chosen?

You have been chosen because you have considered wearing a fashion brace or you are still wearing a fashion brace, or you have worn a worn a fashion brace in the past. You have/had fashion braces for non-therapeutic purposes. By taking part you will help improve our understanding about fashion braces, including why people seek them, what they expect from them, as well as their experiences of living with fashion braces.

5. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. However, you can still withdraw at any time without any negative consequences. You do not have to give a reason. If you wish to withdraw from the research, please contact

The principal researcher: Thitika Kimise (TK)

Email: tkimise1@sheffield.ac.uk

Telephone +66836588660

6. What will happen to me if I take part? What do I have to do?

If you would like to participate in the study, a written consent and information sheet form will be sent via email or messenger programme prior to the interview session and you will be asked to sign a consent form.

The principal researcher (TK) will arrange a convenient time to talk with you about your experiences. The interview will be conducted via an online video call programme of your choice such as Line or Facebook Messenger. The interview session may take any time between 30-60 minutes. Your interview will be audio recorded

7. What are the possible disadvantages and risks of taking part?

There should not be any risks. You will not have to talk about anything that makes you feel distressed or uncomfortable. However, if you feel distressed or emotional during/after the interview, you can call 1323 for Mental health support provided by the Department of Mental Health, Ministry of Public Health, Thailand. You can pause the interview at any time if you feel uncomfortable. If you decide to withdraw, you do not have to explain, just tell the researcher carrying out your interview.

8. What are the possible benefits of taking part?

Everyone who participates in this study will be offered a 100 THB internet top-up card (about £2.5) and a 500 THB Gift card from Tesco Lotus, Big C or Starbucks (about £12.5) for compensating your time.

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this study will help us gain a better understanding of people who have experiences of wearing fashion braces, including various stages of living with fashion braces; the decision to wear fashion braces; and any positive and negative impacts of wearing fashion braces.

9. Will my taking part in this project be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential and will only be accessible to members of the research team. The study will be conducted according to ethical guidance from the University of Sheffield. All the information and responses that you give will be completely anonymous. Your real name is not required. You will not be able to be identified in any reports or publications.

10. What will happen to the data collected and the results of the research project?

After the interview session ends, your interview will be transcribed verbatim by Google Doc's Voice over and the researcher (TK) will recheck it. Your identity will be anonymised by using a pseudonym. Then, the transcript will be translated from Thai Language to English using a professional translation service.

No-one will be able to recognise your identity in any report or related publication.

Your interview recoding and Thai and English transcripts will be stored in the standard research storage provided by the University of Sheffield for ten years for research purposes. Your identity will be anonymised.

11. Who is organising and funding the research?

There is no funding for this project; it is part of a PhD programme in the School of Clinical Dentistry at the University of Sheffield. The principal researcher is a PhD student, and the co-researchers are academic staff members at the University of Sheffield.

12. Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

13. Who has ethically reviewed the project?

This project has been reviewed and ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the School of Clinical Dentistry, the University of Sheffield.

14. What if something goes wrong and I wish to complain about the research?

This study is conducted by Thitika Kimise (tkimise1@sheffield.ac.uk) Tel. +66(0)836588660. It is being supervised by

1. Professor Sarah Baker: s.r.baker@sheffield.ac.uk
2. Professor Philip Benson: p.benson@sheffield.ac.uk
3. Professor Barry Gibson: b.j.gibson@sheffield.ac.uk

If you have any concerns or complaints, or would you like to provide feedback about the research, you can contact any of the above emails.

If your complaint or query is not handled to your satisfaction, you can contact Professor Chris Deery, Dean of School of Clinical Dentistry, The University of Sheffield or contact him by email at C.deery@sheffield.ac.uk

As the contact people above speak only English, if you only feel comfortable raising concerns or complaints in Thai language, you can contact the principal researcher: Thitika Kimise (tkimise1@sheffield.ac.uk) or another PhD student who is Thai: Arisa Srikong (asrikong1@sheffield.ac.uk). Then your concerns will be translated into English and consulted with supervisors.

15. Contact for further information

If you need any further information about this study, please contact Thitika Kimise via email tkimise1@sheffield.ac.uk or telephone number +66(0)836588660

Alternatively, you can contact Professor Sarah Baker via email s.r.baker@sheffield.ac.uk

Thank you for reading this and participating in this study.

A copy of this information sheet and the consent form should be kept by you during the research study either in your email, computer or a hard printed copy if you are able to print.

Appendix E

Study 2 consent form

The experience of fashion braces wearers in Thailand

Consent Form

Please tick the appropriate boxes	Yes	No
Taking Part in the Project		
I have read and understood the project information sheet dated ___/...../..... or the project has been fully explained to me. (If you will answer No to this question please do not proceed with this consent form until you are fully aware of what your participation in the project will mean.)	☐	☐
I have been given the opportunity to ask questions about the project.	☐	☐
I agree to take part in the project. I understand that taking part in the project will include being interviewed and audio recorded.	☐	☐
I understand that my taking part is voluntary and that I can withdraw from the study at any time; I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.	☐	☐
How my information will be used during and after the project		
I understand my personal details such as name, phone number, address and email address etc. will not be revealed to people outside the project.	☐	☐
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.	☐	☐
I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.	☐	☐
I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form.	☐	☐
I give permission for the interviews that I provide to be deposited in standard research storage provided by the university of Sheffield so it can be used for future research and learning	☐	☐
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	☐	☐

Name of participant [printed] Signature Date

Name of Researcher [printed] Signature Date

Appendix F

Recruitment Flyer (in Thai)

Appendix G

Study 2 Interview guide

This version was revised after interviewing the first case 24_June_2021 (red fonts)

Interview guide

Study 2: The experience of fashion braces wearers in Thailand

Aim: To explore the lived experience of fashion braces wearers

Research questions:

1. What are the experiences of those wearing fashion braces?
2. What are the experiences of those who have had stopped wearing fashion braces?

Objectives:

1. To conduct a narrative inquiry using a narrative interview via video calls or voice calls on the experience of getting and living with fashion braces.
2. To explore the detail of the lived experiences of wearing fashion braces
3. To understand motivations that influence people to wear fashion braces.
4. To identify reasons why people decide to stop wearing fashion braces

Duration: 30-60 minutes

Introduction

- Summary of the project
- Information sheet
    - Emphasise that this research is about their experiences and that I want to hear about memories (but not to worry if you can't remember)

- Consent form
- Verbally communicate that I am the researcher who interested in life experience of fashion braces wearers (If they ask am I a dentist; the answer is Yes)
- Tell participants that they should avoid mentioning names of premises or providers offered them fashion braces

- Tell participants as follows if they ask about
    - How to look after their oral health: *This will be answered at the end of interviews*
    - If they want expert opinions from me about their oral health about perceived dental treatment: *Advise participants to speak with their dentists*
    - If they ask about their teeth conditions and the treatment, they should be received: *Giving them a list of practices in their area where offering dental treatment.*

Case: .....

Status: Wearing / had fashion braces removed

Date of interview:.....

Interview – Lived experience

Q: Tell me about yourself?

Q: Tell me about your mouth?

Q: "Can you tell me the story of your fashion braces?"

Listen carefully to the first answer then ask probing questions on the following topics:

> *In the middle of these stories get them to tell you more by asking:*
>
> *Can you tell me more about that?*
>
> *What do you mean?*

1. Before having fashion braces

Q: Can you tell me more about your life leading up to getting fashion braces?

Q: Can you tell me about how you came to the decision? What prompted you to seek out fashion braces?

Things to potentially cover

- Personal reasons: Can you tell me about that? / What do you mean?
- Peers
- Information seeking: Can you tell me about how did you hear about fashion braces?

2. While wearing fashion braces

Q: Can you tell me the story of what it was like to wear your fashion braces?

Things to potentially cover/explore

- Duration: Can you tell me more about how long you were/have been wearing them?/ frequency
- Feeling/emotions:
  - How did you feel when wearing them? (* to explore their memories of wearing them)
  - How do you feel now after wearing them for some time?
- Other's reaction: People reaction when they saw you wearing fashion braces?
- Oral health practice: When you got your fashion braces did this change how you cared for your mouth and teeth?

Q: In the interview you told me you have had some problems with your fashion braces, can you tell me more about that? (If applicable)

- How has this made you feel?
- What did you do to get rid of the problem?

Things to potentially cover

- Problems and solution
- Feeling/ emotions
- Help-seeking

If participants had fashion braces removed, please go to number 3,4 If participants are wearing fashion braces, please go to number 4

3. When you get braces removed (questions for participants had fashion braces removed)

Q: Can you talk me through when you decided to get fashion braces removed?

Things to potentially cover

- Reasons
- Peer involvement
- Barriers: Tell me about barriers/obstacles to get fashion braces removed? What happened?
- Feeling/emotions

Q: Can you tell me about your dental experience after you had fashion braces removed? (if applicable)

Things to potentially cover

- Dental service: what kind of treatment have you received?
- How do you feel about dental treatment, including dentist?

Q: In the interview you told me you did not visit dentists; can you tell me more about that? (if applicable)

4. Future plan

Q: Can you tell me about your future? What will you do next? Could you tell me more about that?

5. Follow up questions (Fill the form by the researcher)

Background – Demographic/ socio-economic/ past dental experiences

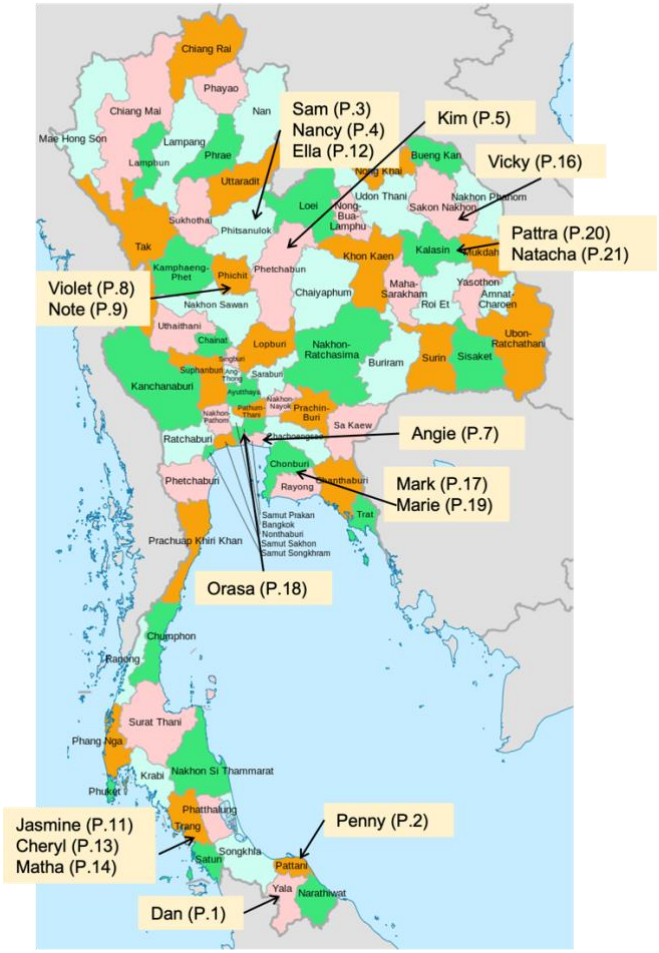
- Could you tell me about yourself? Who are you?
    - Age ……
    - Sex and gender……
    - Highest Educational level……
    - Current occupation……
    - Student?
    - Income ……
    - Where do you live? ……
    - How many family members? Who do you live with?
      ……
    - Marital status/ children? ……
- Could you tell me about your dental experiences up to date?
    - How often do you typically visit the dentists? ……
    - When did you last go to the dentist? ……
    - What did you go to the dentist for the last time? ……
- Could you tell me what you think about dental services available to you, including dentists and orthodontists?
  ……
- Could you give me your brief experiences on fashion braces as follows:
    - How long have you worn fashion braces? since when? ……
    - How many times have you worn fashion braces (first time, or other?)
      ……
    - How long have you stopped wearing fashion braces? (if applicable)
      ……

Anything else you think is relevant?

Anything you want to ask me?

Appendix H

Introducing the participants



P.1-Dan (Male 21)

Dan grew up in orphanages for boys in one province in the South of Thailand. He is currently studying for a bachelor' degree in Year 4.

Dan had fashion braces when he was 18 years old. He chose fixed fashion braces and could wear them for only 2-3 days. I recruited him via my friend who worked at the orphanage.

P.2-Penny (Female 20)

Penny is a single mother with a 5-year-old son. She lived in the South of Thailand. Her highest education is M.3 (Year 9). Currently, she is unemployed but helping her mother at the fish dock.

Penny has experience as being a wearer and a provider. She began with having fixed fashion braces at the age of 14 wore them for one week. Then, she became a provider as her friends asked her to install fashion braces. She later ran a fashion braces business providing fixed fashion braces and fashion retainers to customers in her area and nearby. Currently, she still wears fashion retainers. I recruited her via snowball from Dan (P.1)

P.3 Sam (Female,22)

Sam is a teacher in a kindergarten. She had fixed fashion braces since she was 15-16 years old. She spent 1-2 years with fashion braces and had them removed for 7-8 years. Sam was the first participant who contacted me directly. she heard about this project from a recruitment flyer posted via a dental clinic's Facebook page.

P.4 Nancy (Female, 18)

Nancy is studying M.6 (Year 12) and has been a dancer since she was 13 years old until now. She got fashion braces, as her seniors suggested during her early dancing career. She had worn fashion braces for four years – the most prolonged wearing duration among participants. She had fashion braces removed for two years. She used the income from dance performing to buy fashion braces service. I recruited her via snowball from Sam (P.3).

P.5 Kim (Female, 28)

Kim is currently a teacher. She started wearing fashion braces at the age of 14-15. She wore them for about one year. After that, she quit wearing fashion braces for more than ten years. I would consider her a pioneer wearer as her time with fashion braces was in 2008. She was the first participant I successfully recruited through social media (TikTok). I saw her clip where she told her experiences on fashion braces and the disappointment caused by them.

P.6 Unknown name – She refused when she knew that the incentive did not give by cash.

P.7 Angie (Female, 22)

Angie is a working mother with a 5-year-old-daughter; her job is as an office worker. Her highest education is M.3 (Year 9). Angie had fixed fashion braces when she was 19-20 years old. She had worn fashion braces for one year, and now she had them removed for about two years. She got the fashion braces from a market. Wages were used for fashion braces.

She heard about this project via the recruitment flyer posted on a dental clinic's Facebook page. She was willing to participate in this project as she attempted to pass warning messages about the danger of fashion braces via my project.

P.8 Violet (Female, 18)

Violet is a student studying in Vocational Year 3. She helps her parents sell noodles as a part-time job.

Violet had many experiences with fashion braces. She got fixed fashion braces for the first time while she was 13-14 years old. Her second ones were fashion retainers from a dental clinic, and the last ones were fashion retainers from an online shop. In total, she had worn fashion braces for three years. I saw her on TikTok and contacted her via her Facebook messenger. She admitted that she was afraid I was a scammer in the first place.

P.9 Note (Female,19)

Note is studying in non-formal education and working in a pesticide factory. Note had fashion braces when she was 16-17 years old; she had worn them for 5-6 months. She is another Tiktoker and told me that she is a trends follower. Violet (P.8) suggested she take part in this project.

P.10 Kan (Female)

I recruited her via one fashion braces selling group. She agreed to participate and chose to be interviewed by texting via Facebook messenger. We chatted at our paces- I asked, and she answered; however, she did not reply to my text after that one week. I did not receive much information; therefore, I dropped her out.

P.11 Jasmine (Female,15)

Jasmine is a student. She was younger than what I proposed in the ethics approval. Therefore, I amended ethics approval as she was keen to participate in this project, and her guardian allowed her to do so.

Jasmine had fashion braces two times since she was 13 years old and had worn them for less than a year. I recruited her via my friend's parents. The parents are well-known in the local.

P.12 Ella (Female, 21)

Ella is running her animal product shop. Her highest education is M.6 (Year 12). She was a dancer when she was 13-14 years and paused this career at some point and later came back to this job again.

Ella life with fashion braces was related to her dancing career. She had fixed fashion braces two times. Her first fashion braces were fitted while she was 13 years old – at the beginning of the job. She had worn them for 1-2 years and then stopped dancing. A few years later, she came back to fashion braces again as she came back to perform dancing again. I recruited her via snowball from Nancy' suggestion (P.4)

P.13 Cheryl (Female, 19)

Cheryl is a student in Higher vocational Year1. She had fixed fashion braces for 4months and recently had them removed for about one month on the interview date. She spent money on fashion braces from a part-time job as a waitress 350 Baht/day. I recruited via my friend's parents

P.14 Matha (Female, 17)

Matha is currently studying in the non-formal educational system. She helps her parents cut rubber trees. Her highest education level is M.3 (Year 9).

Matha has been wearing fashion braces for 3-4 months and plans to remove them when she gets enough money for orthodontic braces.

P.15 Malee (Female, 25)

I first met her in the fashion braces selling group. She posted to find a fashion braces provider. So I assumed that she would be interested in fashion braces. After her post about three months, the

interview session happened. I just realised that she undertook real braces during the interview. So I decided to drop her out from the study.

P.16 Mary (Female, 21)

She is currently working as a convenience store assistant. Her highest education level is M.6 (Year 12). She lives with her boyfriend and their son.

She started having fashion braces when she was 14-15 years old. She had worn fashion braces for less than one year and removed them for 4-5 years. The money she spent on fashion braces saved from doing household chores. I recruited her via my friend who was not a dentist.

P.17 Mark (Male, 24)

Mark is working as a security guard. He got removable fashion braces while he was 18-19 years old. He had worn them for about one year. I found him on the Tiktok in clips a user duet with his original clip. The clip was he was wearing fashion braces and people who duet with a clip used household rubber band. He was considered a famous person on Tiktok with more than 23,000 followers. He posted several of his clips wearing fashion braces aiming for entertaining purposes.

He told me that he had stopped wearing fashion braces for 3-4 years. But when I explored his clips on TikTok, I found that he still posted clips in which he was wearing fashion braces after the day of our session. In addition, he provided an inconsistent timeline in which the story he told did not match the clips posted on Tiktok.

P.18 Orasa (Female, 29)

Orasa is the oldest participant recruited in my study. She is currently unemployed. She was the only participant who sought fashion braces while she was an adult – at 28. She wore them for three months and had fashion braces removed for one year. She expected that fashion braces could fix her teeth spacing. During the interview, she asked about my job; I explained that I was a dentist and a PhD student. Then she asked my opinion about her case. I suggested she contact the nearby hospital to get the consultation. I recruited her via snowball technique from Malee (P.15)

P.19 Marie (Female, 24)

Marie is another Tiktoker; I found her in the clip that tried to warn people to go away from fashion braces. Her life was like a roller coaster. Her highest education was P.6 (Year 6), and teen single

mother. She started her career as an entertaining girl in a local pub for a living and raised two kids. Currently, she has become a farmer and online seller.

She had many experiences with fashion braces – Two times with orthodontic braces and two times fashion retainers. Firstly, she had orthodontic braces fitted for three months; then, she removed them as she could not resist pain. Then, she wore fashion retainers for one year to return for another orthodontic brace as the fashion braces caused her crooked teeth. She could wear the latter orthodontic braces for six months as she thought that her teeth were good enough. Lastly, she went for fashion retainers for six months before she has done with it.

P.20 Pattra (Female, 18)

Pattra is currently studying in M.6 (Year 12). She wore fashion braces for about 1-2 months while she was 14. After that, she had them removed for 3-4 years. She spent money on fashion braces earning from selling mushrooms as a side job. She lived in a rural area surrounded by mountains in the North-East region of Thailand.

P.21 Natacha (Female, 18)

Cherry was Pattra's friend (P.20). She is studying in M.6 (Year 12), she is a Thai traditional dance club member. She had fashion braces fitted two times, when she was in M.3 (Year9) and M.4 (Year 10). She wore fashion braces for a very short time, only one week for the first time and one day for the second time. She lived in the same district and province as Pattra (P.20)