# Understanding and Responding to Mental Health Stigma in Chinese Young People

## Towards a Culturally Acceptable Anti-Stigma Intervention

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Submitted in accordance with the requirements for the degree of
Doctor of Philosophy

The University of Leeds

Leeds Institute of Health Sciences

School of Medicine

March 2024

The doctoral student confirms that the work submitted is her own, except where work which has formed part of jointly-authored publications has been included. The contribution of the doctoral student and the other authors to this work has been explicitly indicated below. The doctoral student confirms that appropriate credit has been given within the thesis where reference has been made to the work of others.

a. Chapter 3 is based on work from a jointly authored publication;
b. The paper was published online in Global Mental Health (Cambridge University Press) on 10th July 2023. The title, parts of the methods, results, and parts of the discussion have been included in Chapter 3;
c. The doctoral student led the development of the protocol for the published review, conducted the databases searches, screened all studies, extracted data, led the synthesis of results, quality assessment and data interpretation, and drafted the paper;
d. Ghazala Mir contributed to protocol development, double screened 50% of the included studies and contributed to the development of each draft of the manuscript. Siobhan Hugh-Jones contributed to protocol development, double screened the remaining 50% of included studies and contributed to the development of each draft of the manuscript. John Pickavance conducted the statistical analysis in consultation with the doctoral student, data visualisation, and contributed to the interpretation of results. Robert West gave guidance on the statistical analysis and made final edits to the manuscript. All authors approved the final article.

## Acknowledgements

First and foremost, I would like to express my heartfelt gratitude to my supervision team: Siobhan Hugh-Jones and Ghazala Mir. To me, Siobhan is the most reliable supervisor with keen and deep insights. She can always quickly find the core of problems and give me feasible solutions. She has a strong ability of empathy - thank Siobhan for being understanding and supportive. Ghazala is always conscientious and principled. Thanks to Ghazala's perceptive ideas, I could produce high-quality work. As female researchers who have impressive achievements in their respective fields, their diligence, modesty and perseverance always inspire me to keep rolling.

Second, I am deeply indebted to all my participants. This doctoral work would not have been possible without their participation. Thanks to my participants for trusting me and sharing their lived experience and innovative thoughts with me.

Third, I would like to thank my friends: Chu Chen, Shuhan Dong, John Pickavance, George Gabriel, Matthew Warburton, Amy Miller, Kier Harris, Xiaowen Liu, Anne Wu, Una Higgins and Amy Palmer. I am grateful for them being there by my side supporting me and offering help with my PhD work.

Special thanks to my psychotherapist: Michelle Shortland. She creates a safe environment for me where all my worries can be heard.

Words cannot express my gratitude to my parents. Their emotional and financial support is never-ending. My parents are always my backbone, being there by my side through all the highs and lows. I appreciate that they understood and supported my 'headstrong' decision to give up my comfortable life in China and return to the UK for further study.

Lastly, thanks to myself for the decision I made to pursue a PhD. It was a wise decision. Beyond my academic achievements, I have witnessed my huge personal growth throughout this journey. Thank myself for holding on through countless emotional breakdowns. My persistence, determination and perseverance have created more possibilities for me. Well done, Ning!

## Abstract

The experience of mental health stigma during adolescence can exacerbate mental health conditions, limit help-seeking and reduce quality of life. The stigmatising of young people with poor mental health is prevalent in China, but anti-stigma interventions relating to mental health there are rare and under researched. Internationally, existing anti-stigma interventions have mainly been developed and delivered in Western countries. There is a lack of interventions for young people that are adapted for delivery in China.

The aim of this doctoral thesis was to explore the nature and understanding of mental health stigma among Chinese youth and to use insight to co-adapt an intervention to reduce it. The thesis realised this aim via a number of research questions driving four studies: (1) a systematic review on the effectiveness of anti-stigma interventions in young people; (2) a qualitative study to explore the experience and views of mental health stigma in Chinese youth and their views on stigma reduction; (3) co-adaptation of a prototype intervention for reducing mental health stigma for Chinese young people; and (4) refinement of the proposed intervention ready for feasibility testing.

Study 1 found that reviewed anti-stigma interventions for young people can secure small, short-term positive effects. Education-based interventions showed more significant effects than other types of interventions. Study 2 indicated that dismissal of mental health conditions as real was the most reported form and cause of stigma. Participants with mental health conditions perceived that some peers pretended to experience mental health conditions as attention-seeking, fuelling their own self-stigma further. The most reported intervention suggestions targeted schools. Advice was proposed to thoughtfully use social media platforms for stigma reduction. Study 4 refined Prototype V1 that was developed in Study 3 and produced school-based Prototype V2 for reducing self-stigma and public stigma in Chinese youth.

Chinese youth strongly advocated for action to address mental health stigma although the implementation and scale-up of interventions would likely face a number of societal and political challenges.

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# Chapter 1

# Introduction

## 1.1 Background

According to the World Health Organisation, adolescence is defined as 10 to 19 years old. In terms of the population of adolescents with disease and injury, 16% of young people are living with a mental health condition (World Health Organisation, 2021). Undetected and untreated mental health conditions are associated with negative life impacts (Yang et al., 2010), such as substance abuse and suicide risk (Pompili et al., 2012; Riegler et al., 2017). Mental health stigma (Goffman, 1963) is a major barrier to help-seeking for a mental health need (Calear et al., 2021). It is defined as "negative thoughts, beliefs and discriminatory behaviours towards individuals with mental illness or those receiving mental health services" (Pederson et al., 2020, p. 2). Stigma is embedded in society relations. Goffman (1963, p. 3) viewed stigma as a "spoiled identity" and a form of social marking to indicate social difference and ostracization. Young people can experience mental health stigma. In terms of young people, understanding the processes and barriers in relation to youth mental health, including attitudes towards mental health, perceptions of peers with a mental health condition, and help-seeking for a mental health need is essential, because this can inform to develop approaches to reduce mental health stigma (DeLuca, 2020). Addressing mental health stigma towards young people to improve wellbeing and help-seeking is a global issue (Hartog et al., 2020).

Mental health, and mental health stigma, are heavily influenced by culture in its forms and effects (Abdullah & Brown, 2011). Reducing mental health stigma requires consideration of specific contexts and populations (Semrau et al., 2015). In China, mental health stigma is influenced by Chinese traditions, involving Confucianism, Buddhism and Taoism. For instance, an individual who experiences a mental health condition is seen as "losing face" (Yang et al., 2007), because a mental health condition represents disgrace, which taints family honour, name and ancestors. Hence, to maintain "face" in public, Chinese people often keep their mental health conditions private to avoid shame (Ng, 1997).

Stigmatising of people with mental health conditions is prevalent in China (Xu et al., 2018), and mental health stigma mainly manifests in interpersonal relationship (e.g. social distance), employment environments (e.g. employment discrimination) and mental health services (e.g. being differently treated by professionals; Xu et al., 2017). Although Chinese researchers have been aware of the importance of stigma-related issues, there is little research which aims to understand mental health stigma in order to develop anti-stigma interventions (Xu et al., 2018), namely, to design interventions for reducing mental health stigma. The national conditions in China generate obstacles for successfully implementing anti-stigma interventions, such as it being of low political priority and having inadequate financial support (Li et al., 2012).

In terms of young people in China, in 2019 10-to-19-year-olds made up 10.59% of the whole population (Statista, 2021). The prevalence of different kinds of mental health conditions in Chinese children and young people is poorly researched (Shen et al., 2018). The majority of studies into mental health stigma in young people have primarily been completed in Western countries (Hartoga et al., 2020). Some studies with Chinese young people have focused on the relationship between mental health stigma and help-seeking via quantitative methods (e.g. Chen et al., 2014; Zhu, 2020). There is very little known about young people's viewpoints and how they experience mental health stigma. This hinders understanding and new insights that could address this issue, as a better understanding of the nature and impact of mental health stigma towards young people could inform interventions for reducing stigma (Stutterheim & Ratcliffe, 2021).

As part of global efforts to tackle the societal challenges linked to mental health, there is a need to understand the forms of mental health stigma experienced by Chinese young people, how they account for the existence of stigma and their views on what action is needed to reduce it. Doing so could inform the development of anti-stigma interventions for young people that are adapted to the Chinese culture. Reduced mental health stigma has significant potential to increase help-seeking (Xu et al., 2018), reduce self-stigma (Yanos et al., 2015) and suicide (Rogers et al., 2018), improve social acceptance and engagement (Liamputtong & Rice, 2021), and overall

reduce negative impacts on quality of life (Guo et al., 2018). This thesis is concerned with understanding and addressing mental health stigma among adolescents in China.

## 1.2 Thesis Aims and Objectives

The aim of this doctoral work is to improve understanding of mental health stigma among Chinese young people and for this understanding to inform development of a prototype anti-stigma intervention targeting young people in China, taken to the point of readiness for a feasibility study.

This thesis addresses the following research questions:

1. How effective are anti-stigma interventions for reducing mental health stigma for young people?
2. What aspects of Chinese culture appear to be influencing mental health stigma in young people?
3. How do Chinese young people experience mental health stigma?
4. What do Chinese young people think about mental health stigma reduction?
5. What approaches do Chinese young people think could be helpful in reducing mental health stigma?
6. What should a prototype anti-stigma intervention for Chinese young people be like, and how could it be optimised for feasibility in a future study?

The objectives of this thesis were:

I. To conduct a systematic review and meta-analysis of the effectiveness of global interventions for reducing mental health stigma in young people and to identify components of interventions for co-adaptation to a Chinese youth population.

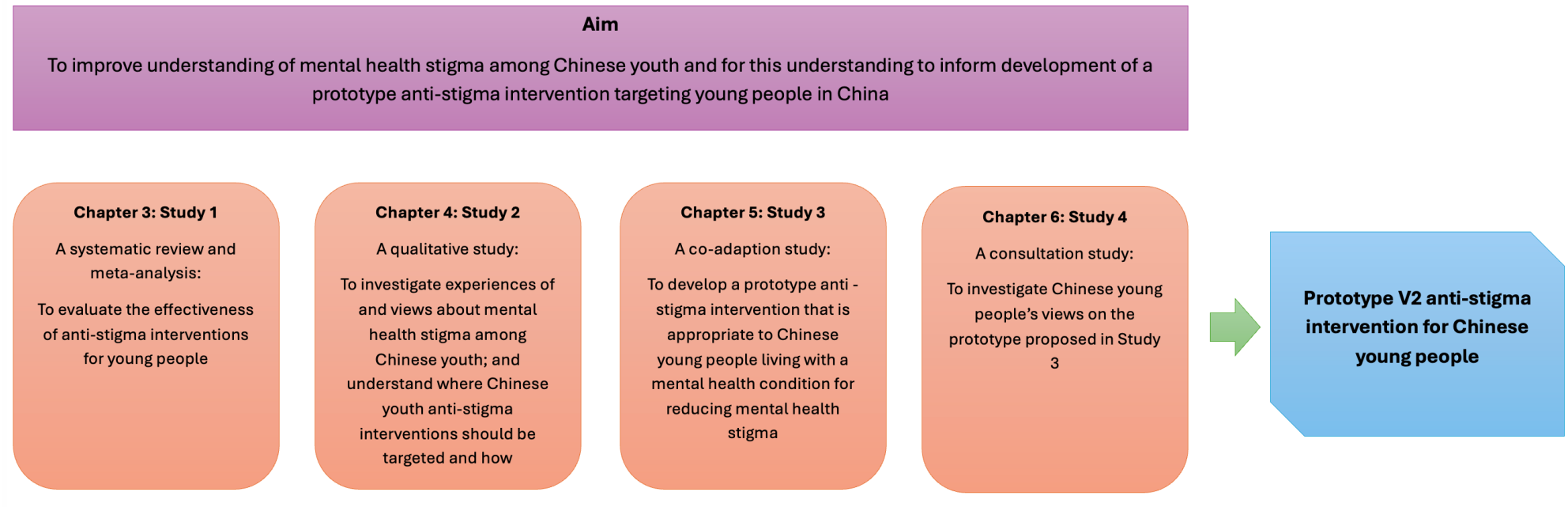
II. To conduct a qualitative study to explore Chinese young people's (i) experiences of and opinions about mental health stigma, (ii) how they view mental health stigma reduction, and (iii) what they think is needed in an anti-stigma intervention.

III. To culturally adapt (or if necessary, co-produce) an anti-stigma intervention into one suitable for delivery to Chinese youth and to improve the prototype anti-stigma intervention via local consultations to increase its readiness for a feasibility study.

## 1.3 Thesis Chapter Outline

This thesis consists of seven chapters. Chapter 1 is an introduction to the thesis aims and objectives. Chapter 2 examines current knowledge of mental health stigma among young people in a global context and in China; summarises and analyses relevant theories about stigma and stigma reduction, and highlights research gaps to date in the field of mental health stigma among young people. Chapter 3 reports on Study 1, *The effectiveness of anti-stigma interventions for reducing mental health stigma in young people: a systematic review and meta-analysis*. The aim of Study 1 was to evaluate existing anti-stigma interventions with global relevance for reducing mental health stigma towards young people, and importantly, identify components that might be effective for reducing mental health stigma for young people. Chapter 4 reports on Study 2, *Understanding mental health stigma in Chinese young people: a qualitative study*. The aims of Study 2 were to explore lived experience of and views about mental health stigma in Chinese young people; and to understand where and how Chinese youth anti-stigma interventions should be targeted. This study was a specific-context investigation on mental health stigma among Chinese young people and obtained culture-specific findings that informed Study 3. Chapter 5 reports on Study 3, *Developing a prototype of anti-stigma intervention for Chinese young people: a co-adaptation study*. The aim of Study 3 was to develop a prototype of anti-stigma intervention for reducing mental health stigma for Chinese young people. Based on the findings of Study 1 & 2, Study 3 followed a framework called *ADAPT* (Movsisyan et al., 2019) to develop the prototype. Chapter 5 describes each step of co-adapting the anti-stigma intervention and the process of developing the prototype intervention for reducing mental health stigma towards Chinese young people. Chapter 6 reports on Study 4, *Refining the prototype anti-stigma intervention for Chinese young people: a consultation study.* The aim of Study 4 was to refine the prototype that was developed in Study 3 to explore its likely feasibility, acceptability and effectiveness. Chapter 7 sets out a final discussion and conclusions from the thesis regarding original contributions, strengths and limitations and recommendations. Figure 1.1 presents the flow of this doctoral work.

**Figure 1.1 The Diagram of the Doctoral Work**



# Chapter 2
# Literature Review

This chapter first documents the outcomes of a literature review on the existing research knowledge about mental health stigma among young people both in a global context and in China. It then offers a brief description and analysis of relevant theories about stigma and stigma reduction, and highlights research gaps to date in the field of mental health stigma among young people. This chapter makes a number of key points: (a) youth mental health stigma is a global issue, which is associated with young people's wellbeing; (b) youth mental health stigma has been studied extensively in a global context, but this is poorly researched in China; (c) mental health stigma in China involves Chinese traditional cultures; and (d) education and contact interventions are common choices for reducing mental health stigma in young people, but outcomes from these interventions are inconsistent.

## 2.1 Key Definitions and Conceptualisations

### 2.1.1 Mental Health

In this thesis, mental health was defined as "a state of mental well-being that enables people to cope with the stresses of life, realise their abilities, learn well and work well, and contribute to their community" (World Health Organisation, 2022). Mental health conditions were defined as "health conditions involving changes in emotion, thinking or behaviour (or a combination of these) (American Psychiatric Association, 2022), and those conditions could link with distress in the areas of social, employment or family activities. This doctoral work aimed to examine stigma linked to the most common mental health conditions, such as anxiety and depression. People living with severe mental health conditions, such as psychosis and schizophrenia, were not the focus as (i) they appear to be linked to particular forms of stigma (Martinez & Hinshaw, 2016) and (ii) I am not suitably qualified to support young people with these complex needs.

### 2.1.2 Mental Health Stigma

The term stigma was initially used in relation to Greek slaves or criminals, referring to a burn or cut mark that distinguished them from free people (Gray, 2002). Erving Goffman's (1963) landmark publication described stigma as leading to a "spoiled identity". He argued that just as physical

marks such as burns or cuts historically identified slaves or criminals, stigma is a form of social marks to indicate social difference and ostracization. In contemporary work, the mark is viewed as symbolic and has three aspects: (a) a social judgment that is placed on groups members who are seen as deviant or immoral; (b) discrimination that is received; and (c) shame, degradation, and possible destruction that are likely to be undergone by those people who are stigmatised (Martinez & Hinshaw, 2016). Mental health stigma in particular is defined as “negative thoughts, beliefs and discriminatory behaviours towards individuals with mental illness or those receiving mental health services” (Pederson et al., 2020, p. 2). In this thesis, as mentioned above, severe mental health conditions were excluded. Thus, mental health stigma was defined as negative attitudes/beliefs and discriminatory behaviours towards people living with a mental health condition excluding those severe mental health conditions and those currently receiving mental health services.

Researchers have raised several points to explore current notions of stigma. First, it has been argued that stigma is indissociable from social hierarchies (Martinez & Hinshaw, 2016), as stigma exists in social contexts in which a group with strong social power discriminates against a group with low power (Link & Phelan, 2006). Sociocultural norms determine what is acceptable or not, and also impact how mental health conditions are viewed. Martinez and Hinshaw (2016) stated that mental health stigma could be reduced in future by greater knowledge, changes of cultural standards, and intergroup contact.

Second, stigma has negative consequences if individuals conceal their stigmatised conditions (Martinez & Hinshaw, 2016). For those with mental health conditions, disclosing their mental health conditions involve a series of concerns, including to whom, when and how to disclose, leading to anxiety for themselves and their families. Hence, there are negative consequences when both disclosing and concealing mental health conditions.

Third, stigma shares essentials with stereotypes, prejudice, and discrimination in terms of social cognition and relevant behaviour (Martinez & Hinshaw, 2016). According to Link and Phelan (2001), stigma involves four primary process elements: labelling, negative stereotypes, prejudice,

status loss and discrimination. In mental health, labelling is the way the society can tag individuals with mental health conditions by using negative mental health-related terms, such as “psycho” and “crazy” (Wright et al., 2011). A stereotype is an assumption, referring to “associations and attributions of specific characteristics to a group” (Dovidio et al., 2019, p. 5). Pescosolido and Martin (2015, p. 92) defined negative stereotypes as “negative beliefs and attitudes assigned to labelled social entities”. Prejudice is a belief, “reflecting an overall evaluation of a group” (Dovidio et al., 2019, p. 5). Discrimination is an action, presenting a series of behaviours that endorse and reinforce negative stereotypes, putting labelled people at a disadvantage. Cherry (2020) reported that stereotypes bring about not merely incorrect beliefs but prejudice and discrimination as well. The four primary elements concerning stigma go through the following process: first, individual differences are distinguished and labelled in general; second, the rooted cultural values associate a labelled person with negative stereotypes; third, in order to reach a goal of separating “us” from “them”, people who are labelled are categorised into groups that are different from “us” who are mentally healthy; and finally, status loss and discrimination that bring about adverse outcomes could happen to the labelled person (Link & Phelan, 2001).

Fourth, stigma has been viewed as culturally specific. Contemporary work has begun to focus on culture-specific forms of stigma (of any kind). Yang et al. (2007) argued that everyday life and interactions in a culture indicate “what matters most” in that context. Termed “moral experience”, the position argues that if a person can engage with “what matters most” in that context then they have “full status” (or personhood) within that cultural group (Kleinman, 2006). Stigma can affect a person’s opportunity to participate in “what matters most” and this may vary by cultural contexts (Yang et al., 2007). What become stigmatised, and the form and practice of stigma, will also vary by culture and sub-culture (Yang et al., 2007).

In terms of mental health stigma in China, Chinese cultures value social hierarchies and harmonious relationships with others (Uba, 1994), and this might influence what become stigmatised. A detailed discussion about Chinese cultures and stigma is presented in 2.3.2.

### 2.1.3 Types of Mental Health Stigma

Researchers have also divided stigma into various types based on different situations. The most reported mental health types of stigma are public stigma and self-stigma. Public stigma refers to negative attitudes and beliefs that drive people to discriminate against those people with mental health conditions (Corrigan et al., 2012). Public stigma is also called social stigma or enacted stigma (Livingston & Boyed, 2010). Self-stigma, which is also known as internalised stigma (Park et al., 2019), can be defined as internalised devaluation through endorsement of public, societal negative stereotypes towards mental health conditions (Corrigan et al., 2012). A person's subjective negative attitudes or behaviours towards other people with mental health-related conditions is defined as personal stigma (Grant et al., 2016; Griffiths et al., 2006). The concept of courtesy stigma, which also stemmed from Goffman (1963), describes the spread of stigma to someone who is close to a person with mental health conditions. For example, family members of a person with a mental health stigma might also be stigmatised by others. Provider-based stigma refers to the stigmatising by professionals or institutions whose primary responsibility is to offer help to stigmatised groups. Professionals and institutions can display stigmatisation by conscious or unconscious language and practices (Pescosolido & Martin, 2015). Structural stigma is also known as institutionalised stigma, referring to prejudice and discrimination from individuals to organisations, and including policies, laws and constitutional practices (Pescosolido & Martin, 2015).

These types of stigma might result in different consequences and effects. For instance, those people with a mental health condition might receive overdiagnosis of a health condition by professionals as a result of provider stigma (Peris et al., 2008); and literature suggests that self-stigma is associated with lower self-esteem (Moses, 2009a). Hence, it is important to investigate and distinguish different types of stigma, including their forms and effects, to develop targeted and effective interventions for reducing them.

## 2.2 Theories/Models of Mental Health Stigma

Several theories and models have been proposed by researchers to describe and explain the phenomenon of mental health stigma. Unified theories about mental health stigma, e.g. mental illness stigma framework

(Fox et al., 2018), were explored. However, a unified theory was considered not appropriate for this thesis. In terms of China, mental health stigma is poorly researched and very little is known about what the usual practice of mental health stigma is. This makes it difficult to understand which theory/unified theory is line with the practice. Therefore, this thesis was informed by specific contributions of several individual theories. The following sections introduce four theories/models in relation to public stigma and self-stigma.

### 2.2.1 Modified Labelling Theory

Labelling theory is considered as an important theory to understand the impacts of mental health stigma. Labelling theory posits that minority groups are viewed and labelled as deviations from the “normal” by majority groups; such a label impacts on minority groups in how they view themselves and how they behave in society (Sheehan et al., 2022). Link et al. (1989) proposed modified labelling theory to further explain how people are socialised to take in negative attitudes towards people living with a mental health condition (Sheehan et al., 2022). Modified labelling theory postulates that a person can perceive social differences between themselves and those persons or groups who are stigmatised within a specific culture through socialisation. If a person has a mental health condition, they will expect devaluation and social rejection, because those negative attitudes towards people living with a mental health condition become relevant to them. Therefore, to respond to these negative attitudes, they will keep their mental health condition a secret, withdraw from social relationships, or educate others about their experiences (Link & Phelan, 2001). Two components are considered impactful to form stigma: one is how much individuals perceive that they are devalued by society, and another is how much those individuals perceive that they are discriminated against (Mingus & Burchfield, 2012). Also, modified labelling theory argues that the negative outcomes that result from being labelled partially derive from those persons who are labelled themselves, because they can perceive that they might be devalued, resulting in their avoidance of situations in which they might experience stigma (Mingus & Burchfield, 2012).

This theory was included in this thesis as it conceptualises stigma and explains the process of stigma via four elements (i.e. labelling, stereotyping, separation, status loss and discrimination) that co-occur. Given the current context in which very little is known about the nature of stigma including

forms and effects, this theory can contribute to exploring what these four elements look like and how they work in China. However, some critiques are worth considering. First, according to this theory, once a person with a mental health condition is labelled as different, their future behaviour is predetermined. Thus, the modified labelling theory is considered deterministic, overlooking the agency and free will of persons to challenge stereotypes (Triplett & Upton, 2016). Second, inequalities in the labelling process might not be adequately addressed, i.e. this theory is limited when addressing how structural factors impact the labelling process. For those marginalised groups, people with less social capital might be more likely to be labelled as deviant and have negative consequences as a result.

### 2.2.2 Social Cognitive Model

Social cognitive model explains the connection of thoughts, emotions and behaviours to stigma. It has been argued that stereotypes, prejudices and discrimination are three social psychological constructs constituting a complex phenomenon, which is stigma (Sheehan et al., 2017). Social cognitive model posits that the process of public stigma is based on a cognitive-behavioural process in which cognitions result in emotions and behaviours. Corrigan et al. (2001, p. 219) distinguished stereotypes from prejudice and discrimination, demonstrating that stereotypes “represent collectively agreed upon notions of groups of persons; prejudice could be developed by manifesting an emotional reaction when persons agree with such stereotypes; and discrimination refers to individuals who act on this prejudice.” In other words, once a person with a mental health condition is labelled, the stereotype that is associated with mental health conditions is activated, then leading to prejudice and discrimination (Sheehan et al., 2022).

This model was applied to this thesis for informing the conceptualisation of mental health stigma because there is a lack of understanding of mental health stigma forms and effects in China. This model values a cognitive-behaviour process, which can help me examine different components of stigmatising attitudes and behaviours and their modifiability by anti-stigma interventions. This model emphasises the process of mental health stigma via stereotypes, prejudice, and discrimination, which is paralleled with stereotyping, separation, status loss and discrimination in modified labelling theory. Despite this, one difference between these two theories is that the social cognitive model does not emphasise the difference between persons

(i.e. people living with a mental health condition are different from those without a mental health condition), but the modified labelling theory does and believes that such difference should be the pre-condition of stigma. According to the social cognitive model, it is worth noting that individual cognitive processes are considered a major influencing factor on behaviour but the broader social context where behaviour occurs is neglected. Social factors, such as social support and structural inequalities, might also play a significant role in shaping behaviour (Alahmad, 2020). Furthermore, biological factors and neurological processes may have a significant impact on behaviour, but this is not accounted for in the social cognitive model.

### 2.2.3 Implicit Stigma

It has been argued that stigma is formed by a dual process model, which involves implicit and deliberate mental processing (Reeder & Pryor, 2008). Heuristics, such as stereotypes and attitudes, are used to guide reactions to complete implicit processing; cognitive effort and control are associated with deliberate processing. Sometimes there is contradiction between emotional and behavioural responses by this dual processing (Reeder & Pryor, 2008). For instance, although a person may treat those with a mental health condition well, they might have an implicit reaction of prejudice on meeting those with a mental health condition. Thus, people might not be aware of implicit bias and the Implicit Association Test was developed to measure implicit bias (Greenwald et al., 1998). Prior literature suggests that most people including those with a mental health condition, have more explicit and implicit bias towards people living with a mental health condition than towards those with a physical condition (Teachman et al., 2006). Those without experience of a mental health condition had higher implicit bias towards those with a mental health condition than did individuals who had experience of a mental health condition (Sandhu et al., 2019). Implicit stigma has been argued to be more prevalent in the field of healthcare. For example, patients were more likely to be over-diagnosed, that is, diagnosis of more severe conditions, by mental health professionals and medical students by professionals who had higher scores in an implicit bias task (Peris et al., 2008).

This theory was included in the thesis for understanding and explaining the forms of mental health stigma in Chinese young people. In China, people value harmonious relations. This might lead Chinese people to have implicit stigma, hiding their discriminatory behaviours towards those with a mental

health condition in order to maintain harmonious relations. However, this theory is subject to some limitations. For instance, given that implicit stigma is limited when explaining explicit stigmatising behaviours, clear guidance on effectively reducing mental health stigma might not be provided by this theory (Stier & Hinshaw, 2007). Also, this theory might be oversimplified, and it solely emphasises unconscious biases. However, stigma is multifaceted and impacted by a variety of factors, including social, cognitive, and affective factors. Therefore, it would be inadequate to only draw upon this theory in order to understand the nature of mental health stigma in China.

### 2.2.4 Attribution Theory

Attribution theory is considered helpful to explain how stigma is developed towards various mental health conditions (Sheehan et al., 2022). Attribution theory postulates that causal attributions cause prejudice and discrimination, namely, the responses to people living with a mental health condition are determined by perceived causes of stigmatised identity (Weiner, 1995). It has been argued that those people who are perceived to be personally responsible for their mental health condition might experience greater stigma (Sheehan et al., 2022). Another common attribution of experiencing mental health stigma is based on biogenetic explanations of mental health conditions. For example, one explanation for schizophrenia is related to a disease of the brain. Although these biogenetic explanations might reduce stigma by challenging beliefs about personal responsibility for the mental health condition, they might emphasise the differences between people with and without a mental health condition. This could decrease the possibility of recovery, because of the belief that it is futile to make efforts towards a recovery when the illness has a biological cause (Kvaale et al., 2013). In terms of mental health stigma, attribution theory explains how causal attributions cause stigmatising attitudes and behaviours towards people living with a mental health condition, and that changes in attributional beliefs contribute to attitude changes.

This theory was applied to the thesis to explore causal attributions of mental health stigma in Chinese young people. Once incorrect attributional beliefs of mental health stigma are identified, I could further analyse these causes to explore whether they are modifiable. If these causes are modifiable, change mechanisms could be explored to inform the development of an anti-stigma intervention. Thus, this theory was used to develop qualitative

interview questions in Study 2. However, this theory only emphasises individual-level factors but overlooks the role of broader factors, including social and cultural factors, in contributing to mental health stigma (Manusov & Spitzberg, 2008). Also, this theory might reinforce the stereotypes by blaming victims who are believed to be responsible for their mental health conditions.

### 2.2.5 Progressive Model of Self-Stigma

Based on a social cognitive theory, a progressive model of self-stigma was proposed to explain the process of self-stigma. Researchers used four stages to describe this process: an awareness of stereotypes, personal endorsement of stereotypes, application of these stereotypes to self, and negative consequences, such as harm (Sheehan et al., 2022). More specifically, first, it is similar to the modified labelling theory, involving a socialisation process in which people are able to perceive social differences between those with and without a mental health condition. Then, a person who is aware of stereotypes towards people living with a mental health condition might apply these stereotypes to themselves. Lastly, those who apply stereotypes to themselves experience negative consequences from their endorsement of stereotypes, including harm, resulting in shame, low self-esteem, and this might even worsen their mental health condition. This theory postulates that there are two different processes in this progressive model. The first is a “trickle down” process, in which individuals start with the highest level of endorsement of the awareness of stereotype, and at the subsequent stages, the level of endorsements gradually declines. The second process involves proximal stages, in which means that the two adjacent stages have a stronger association with each other than other stages (Sheehan et al., 2022). These suggest that a person who has a strong endorsement of stereotype awareness might not always apply those stereotypes to themselves, and then experience negative consequences.

This model was included to understand the nature of self-stigma in Chinese young people. As discussed above, the current context in which the nature of mental health stigma including self-stigma is poorly researched. Hence, it would be appropriate to use this model to provide explanation of the process of self-stigma. Different to the social cognitive model, this model is helpful for me to examine different components of self-stigmatising attitudes and behaviours and their modifiability by anti-stigma interventions for reducing self-stigma. Similar to the social cognitive model, this model emphasises the

role of cognitive processes in shaping stigma and might neglect the impacts of social factors, including social norms and structural inequalities (Alahmad, 2020).

### 2.2.6 Summary

In terms of this doctoral work, these theories/models provide theoretical approaches to understanding the process of mental health stigma in Chinese young people, i.e. how youth mental health stigma is formed in China. Modified labelling theory (Link et al., 1989), social cognitive model (Sheehan et al., 2017), and implicit stigma (Reeder & Pryor, 2008) explain the process of public stigma; and a progressive model of self-stigma describes how self-stigma is formed. These theories are helpful for developing interview questions in Study 2 to explore understandings of mental health stigma in Chinese young people. In turn, findings about the experience of public stigma and self-stigma in Chinese young people might extend the application of these theories in China. Attribution theory (Weiner, 1995) is also helpful in exploring the perceived causes of mental health stigma in Chinese young people, identifying incorrect attributional beliefs. This can generate insights into changing these incorrect attributional beliefs for anti-stigma interventions.

## 2.3 Mental Health Stigma and Young People

### 2.3.1 Youth Mental Health Stigma Globally

Adolescence is viewed as a crucial period for introducing early interventions for wellbeing, as 14 years old is considered the mean age by which half of all lifetimes mental health difficulties arise (Kessler et al., 2005). However, the proportion of undetected and untreated cases concerning mental health issues is likely to be higher among young people (Kessler et al., 2007). One of the reasons for the low rate of mental health treatment in young people is stigma (Calear et al., 2021). There is evidence that the experience of mental health stigma during adolescence exacerbates mental health conditions and leads to significant negative life impacts (Yang et al., 2010).

Kaushik, Kostaki and Kyriakopoulos (2016) conducted a systematic review on mental health stigma towards children and youth and found that when young people hold a viewpoint blaming those with mental health conditions, they are more likely to keep a distance from a young person with a mental health condition. In Moses's (2010) interview study with 56 American young

people with mental health conditions, 25 reported experiences of being rejected by peers. American young people reported that they were viewed as lazy by their families when they took medication for a mental health need (Elkington et al., 2012). Nearchou et al. (2018) investigated mental health stigma in Irish young people and found that public stigma predicted lower intention to seek help.

Self-stigma has also been identified as a barrier to help-seeking. For example, Yap et al. (2011) found that Australian young people were unwilling to see psychology professionals in school-based mental health services when they considered mental health conditions to be an individual weakness. Shechtmana et al. (2018) investigated stigma and help-seeking in Israeli adolescents and found that self-stigma was negatively associated with attitudes towards seeking help. According to a systematic review on psychological outcomes of adolescent mental health stigma, self-stigma can aggravate a young person's mental health conditions (Ferrie et al., 2020). Additionally, researchers found that, in American adolescents, internalised stigma mediates the relationship between psychosis and subjective quality of life (Akouri-Shana et al., 2022). Mitten et al. (2016) investigated the perceptions of self-stigma in Canadian young people with self-harm experience and reported that young people believed that others would avoid contacting them out of fear of their mental health conditions. In addition, the main reason for unwillingness to seek help was the worry among American young people about peers' pejorative or stigmatising attitudes towards their help-seeking, as well as concerns with confidentiality in mental health services (Heflinger & Hinshaw, 2016).

Several factors have been identified as driving youth-imposed negative stereotypes of people with mental health conditions. Firstly, negative stereotypes are linked to low levels of mental health literacy. Studies have found that mental health literacy predicts young people's attitudes toward mental health conditions. The more knowledgeable adolescents are about mental health, the less they endorse stigmatising beliefs (Chandra & Minkovitz, 2007). Secondly, negative stereotypes can arise from family and school environments. For instance, Gilchrist and Sullivan (2006) investigated Australian young people's viewpoints on hindrances to help-seeking concerning suicide. These young people indicated that they were fearful of being labelled negatively, such as "inadequate" and "inferior", and avoided

seeking mental health support as a result of perceiving negative stereotypes from their parents, teachers or professionals. Thirdly, cultural values are closely associated with negative labelling. For example, McCann et al. (2018) reported that sub-Saharan African people with mental health conditions were regarded as “lunatics” and mental health professionals were called “shrinks” (McCann et al., 2018, p. 961). In addition, for many people in this culture, utilising mental health services formally or informally was considered equal to “weakness” or “failure” (McCann et al., 2016, p. 4). Thus, poor mental health literacy, unfriendly family or school settings and certain cultural values are associated with negative stereotypes on mental health in young people, and which drives stigma to be generated.

### 2.3.2 Youth Mental Health Stigma in China

Mental health stigma in young people is a global issue and is also important in China. Such stigma is argued to have emerged from historic Chinese traditional cultures and is deeply rooted in Confucianism, Buddhism and Taoism. These value social hierarchies, emotional suppression and the avoidance of things that bring disgrace to self or family (Uba, 1994). Chinese cultures value relationships with others, because a person’s sense of self is considered to be embedded in social relationships, especially family (Hsiao et al., 2006). Family has been viewed as the “great self” in China, and the person is responsible for maintaining a well-functioning family (Hsiao et al., 2006). Having a mental health condition is seen as losing “face” or reputation (Yang et al., 2007), and can quickly influence a whole family as shared etiological beliefs about poor mental health assign to sufferers and their families a moral “defect” (Yang & Pearson, 2002). “Guanxi wang” - the vital connections linking individuals to social networks of support, resources, and life chances - can be broken by such family stigma; the existence, value and perpetuity of the family can be threatened, resulting ultimately in a kind of ‘social death’ for those affected (Yang et al., 2007). To maintain “face” in public, Chinese people often go to great lengths to conceal mental health conditions and avoid social shame (Ng, 1997). However, it is worth noting that such traditional values are often associated with severe mental health conditions, such as schizophrenia (which can be viewed as spiritual forces). Such ‘social death’ is not always related to common mental health conditions.

As in Western countries, studies have found that both self and public stigma are a barrier to help-seeking for Chinese young people. A survey study

administrated to 251 Chinese adolescents aged 11-17 years old in Beijing looked at the relationships between mental health stigma, mental health conditions and help-seeking (Chen et al., 2014). This study reported that self-stigma mediated the relationship between the number of mental health conditions and willingness to seek help. Zhu (2020) investigated 77 teenagers aged 13-19 years old in urban China and found that the high level of perceived public stigma in Chinese young people predicted low intentions to seek psychological help for their mental health. Also, it has been found that both public stigma and self-stigma are negatively associated with health-related quality of life in people living with mental health conditions in Hong Kong (Chan & Fung, 2019). Researchers investigated people living with schizophrenia in China and found that their quality of life was adversely affected by stigma (Hong et al., 2015; Guo et al., 2018). Despite little research on the impact of stigma on quality of life in Chinese young people, this small number of available studies in China suggest that self-stigma and public stigma for young people living with a mental health condition exists and this impacts significantly on young people's wellbeing. Reducing stigma associated with mental health could have a significant effect on people's quality of life and access to support from professionals.

## 2.4 Anti-Stigma Interventions for Young People

### 2.4.1 Current Evidence on Anti-Stigma Interventions for Young People

There is a strong history of the development and evaluation of anti-stigma interventions challenging mental health stigma in many parts of the world. Protest, education and contact have been identified as three main approaches to addressing stigma (Corrigan & Penn, 1999). Protest refers to taking exception to situations where stigmatising experiences occur (Corrigan & Penn, 1999), such as when advocacy and service groups organise events to protest against social stigma. Education anti-stigma interventions work by providing factual mental health knowledge to correct misconceptions about mental health (Morgan et al., 2018). As a primary environment in which young people are able to socialise, acquire knowledge, and mould their values and beliefs, schools have been viewed as suitable for mental health interventions delivery (Moore et al., 2022). Numerous interventions for reducing stigma have been developed and delivered in Western schools. Contact interventions create opportunities to get involved with those living with a mental health condition to lower fear of mental health

conditions and to develop empathy (Pettigrew & Tropp, 2008). Previous literature indicates that contact-based components are usually incorporated into education-based interventions to reduce mental health stigma towards youth (Koller & Stuart, 2016).

According to a systematic review on anti-stigma interventions with secondary and primary students (Mellor, 2014), education and contact interventions are common choices. Yet outcomes from anti-stigma interventions based on these approaches are inconsistent. For example, in two anti-stigma programmes that included education and targeted depression in youth, Ibrahim et al. (2020) reported significant positive effects in post-intervention with a large effect size ($\eta 2p=.171$, which is value of Cohen effect size cut-off points), but Townsend et al. (2019) reported no effects. Also, Mulfinger et al. (2018) and Pinto-Foltz et al. (2011) evaluated contact-based interventions respectively, but the former showed positive effects and the later reported no effect. The inconsistent results may link to specific components of the interventions, delivery, dosage and/or characteristics of participants. Studies also often have considerable methodological limitations (Sakellari et al., 2011) meaning caution is needed when interpreting any reports of effectiveness (Mellor, 2014).

Whilst existing anti-stigma interventions for young people have been predominately delivered in schools, this limits the reach of such interventions to the schools hosting those programmes. To address this issue, other strategies have been also incorporated into anti-stigma interventions. Social media and mass media are viewed as effective vehicles to deliver interventions to tackle mental health stigma by promoting mental health knowledge and challenging negative attitudes towards mental health conditions (Alvarado-Torres et al., 2023). Social media platforms have been argued to be helpful for those people living with mental health conditions by sharing personal experiences, seeking resources about treatments, and giving and receiving support from others who have similar mental health conditions (Naslund et al., 2020). Also, Robinson et al. (2016) argued that social media platforms have been identified as a benefit to youth by creating a non-stigmatising and non-judgemental environment where they can help others, enhance a sense of community and connection, seek help, and express feelings. Such digital communities can alleviate self-stigma. Previous literature also indicates that social media-related interventions were

beneficial to public stigma reduction. For example, mental health literacy on depression and anxiety was increased after receiving an internet-based intervention for elite athletes (Gulliver et al., 2012). Thus, aside from traditional approaches to challenge stigma, social media could have promise as an approach to reduce stigma towards young people.

To address mental health stigma, researchers have focused on theories of stigma reduction and have proposed several theoretical models/frameworks to inform the development of anti-stigma interventions for young people. In Chapter 5, elaboration likelihood model (Petty & Cacioppo, 1981), intergroup contact theory (Allport, 1954), constructivism learning theory (Bada & Olusegun, 2015), empathy-related theory (Shamay-Tsoory et al., 2009), the COM-B model of behaviour (West & Michie, 2020), the PRIME theory of motivation (West & Michie, 2020), social influence theory (Li, 2013), and social-cognitive model of self-stigma (Corrigan et al., 2008) and integrative cognitive model (Wood et al., 2017) are detailed to demonstrate how these theories/models inform the development of prototype anti-stigma interventions for young people in China.

### 2.4.2 Anti-stigma Interventions in China

Anti-stigma interventions have also been developed and evaluated in China. To reduce public stigma, researchers included education and contact approaches in anti-stigma interventions. According to a systematic review and meta-analysis, reviewed interventions indicated small effects on negative stereotypes reduction regarding mental health and mental health knowledge increase; and a contact approach did not show greater effects than education or education plus contact (Xu et al., 2017). Of the reviewed interventions, some interventions targeted school students, but they all were conducted in Hong Kong where political, cultural, economic and linguistic differences exist with Mainland China (Yu & Zhang, 2016). Hence, the anti-stigma interventions that were conducted for young people in Hong Kong might not be suitable for Mainland Chinese young people on whom this doctoral work is focused. Xu et al. (2017) also conducted a systematic review and meta-analysis to evaluate interventions for reducing self-stigma in China. They found that cognitive behavioural therapy and psychoeducation were effective in reducing perceived mental health stigma. However, these two systematic reviews included non-randomised controlled trials, which might introduce biases to the assessment of efficacy of interventions.

Prior interventions for reducing mental health stigma in China also focused on health staff. For example, Li et al. (2014) evaluated a training programme for community mental health staff and found that this programme improved participants' attitudes towards people with mental health conditions for a short term and lessened social distance between participants and those living with mental health conditions. A pilot randomised controlled trial was conducted to evaluate the efficacy of a contact-based education intervention for reducing mental health stigma among community health and care staff, and significant effects of the interventions were obtained on attitudes and intended behaviours towards people with mental health conditions (Zhang et al., 2022). However, there is a paucity of research on anti-stigma interventions for young people in China, i.e. there is very little known about how to develop anti-stigma interventions for young people and further evaluation on those anti-stigma interventions.

# Chapter 3
# Study 1 The Effectiveness of Anti-stigma Interventions for Reducing Mental Health Stigma in Young People: A Systematic Review and Meta-Analysis

## 3.1 Introduction

This chapter describes Study 1, which is a systematic review and meta-analysis of evaluating the effectiveness of global anti-stigma interventions for young people. The outcomes of this review, and particularly its identification of intervention components that might be effective for reducing mental health stigma for young people, informed Study 3 (co-adapting an anti-stigma intervention for Chinese young people). The chapter describes the methods, findings and conclusions of this systematic review. This systematic review was conducted independently by me; the meta-analysis was conducted collaboratively and has been published in *Global Mental Health* (*Cambridge University Press*; Song et al., 2023).

### 3.1.1 Study Rationale

To develop an anti-stigma intervention that is effective for Chinese young people, it is critical to learn from existing anti-stigma interventions for young people that have been effective. Several systematic reviews have been conducted to investigate the effectiveness of interventions for stigma reduction in young people. However, previous reviews have focused on a specific intervention delivery platform, such as video (Janoušková, 2017), have only paid attention to school-based interventions (Mellor, 2014) or have focused on other types of stigma, such as HIV stigma rather than mental health stigma (Hartoga et al., 2020). There are no systematic reviews of mental health anti-stigma interventions conducted via randomised controlled trials for young people or meta-analyses synthesising their effectiveness. Therefore, there is a need to identify the effective components of interventions to reduce mental health stigma in young people. A meta-analysis of high-quality studies would also be valuable in determining the strength of evidence for particular types of interventions.

### 3.1.2 Study Aims and Objectives

Study 1 aimed to fill an evidence gap through a systematic review and meta-analysis to explore the effectiveness of mental health anti-stigma interventions for young people, and where possible, to identify effective interventions with global relevance. The objectives of this study were to

evaluate the effectiveness of interventions for reducing mental health stigma in young people and identify components that might be effective for stigma reduction for young people for a cultural adaptation.

## 3.2 Methods

This review followed Cochrane and PRISMA guidelines (Page et al., 2021).

### 3.2.1 Protocol and Registration

A written protocol for the systematic review has been completed and registered on PROSPERO (registration number is CRD42021251932).

### 3.2.2 Eligibility Criteria and Exclusion Criteria

The PICOS framework (Amir-Behghadami & Janati, 2020) was employed to identify eligibility and exclusion criteria. Table 1 demonstrates the selection criteria.

#### 3.2.2.1 Population

This review focused on young people who are between 10 and 19 years old. The age range followed the definition of ‘adolescence’ by the World Health Organisation (2021). Young people of any gender and ethnicity were included. Studies were included where the mean age of the study sample was between 10-19 years old. Studies with participants who are outside the 10-19 age range were excluded.

#### 3.2.2.2 Intervention

Any interventions, programmes or campaigns whose aim was to reduce mental health stigma were eligible. This review excluded anti-stigma interventions unrelated to mental health.

#### 3.2.2.3 Comparator

This review included any interventions/programmes/campaigns that had at least one comparator, which as was a control group.

#### 3.2.2.4 Outcomes

The review focused on any interventions/programmes/campaigns whose primary outcome was the level of mental health stigma including stigmatising attitudes and social distance.

#### 3.2.2.5 Study Design

The review included randomised controlled trials or experimental designs involving intervention and control groups with random allocation of participants. It excluded qualitative studies and single case studies.

Notably, Study 1 was an exception to the definition from Chapter 1 (see p. 7). In Study 1, there was no limit to mental health conditions in order to review more studies relating to the efficacy of anti-stigma interventions for young people, i.e. mental health stigma in Study 1 referred to negative attitudes/beliefs and discriminatory behaviours towards people with unlimited types of mental health conditions.

**Table 3.1 Eligibility and Exclusion Criteria**

| | Eligibility | Exclusion |
|---|---|---|
| **Population** | Mean age between 10 to 19 years old with any gender and ethnicity. | Mean age younger than 10 years old or older than 19 years old. |
| **Intervention** | Any interventions/programmes/campaigns for mental health stigma reduction. | Anti-stigma interventions/programmes/campaigns not related to mental health, such as anti-stigma for HIV or disability. |
| **Comparator** | At least one control group. | No comparator. |
| **Outcome** | The degree of reduction of mental health stigma. | Degree of stigma reduction was not related to mental health. |
| **Study Design** | Randomised controlled trials, cluster-randomised trials, experimental designs. | Other study designs, such as qualitative studies, case studies. |

### 3.2.3 Information Sources

Eight databases were searched to identify eligible studies: PubMed, PsycINFO (2002 to present), MEDLINE (1950 to present), Web of Science (1999 to present), Scopus (1823 to present), EMBASE (1996 to present), British Education Index (1975 to present) and the Chinese database CNKI (1999 to present). A Chinese database was included to address the lack of

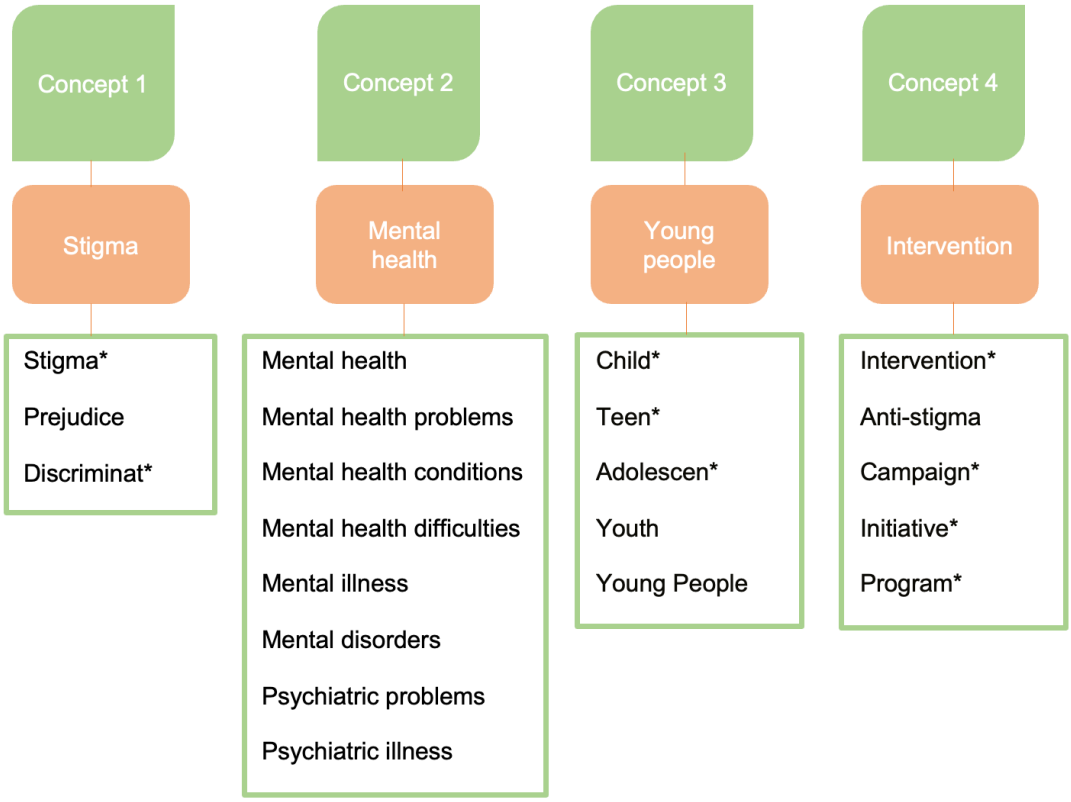
evidence from China in existing reviews because of the availability of language expertise within the research team. A manual search was conducted to identify further eligible studies by examining reference lists of included papers. Any potential papers were found via this search and then screened following the procedures described below.

The search was conducted from May 2021 to July 2021, and a manual trace back literature search was conducted in March 2022. No limits were applied to publication year or language for the database search. However, if studies were not written in English or Chinese, they were excluded from the review.

### 3.2.4 Search Strategy

Search terms were determined around four domains: stigma, mental health conditions, young people and intervention. Figure 3.1 specifies the search terms that were used in this review.

**Figure 3.1 Concepts of Search Terms**



### 3.2.5 Study Selection

This review followed the PRISMA guidance (Page et al., 2021) for study selection. All documents and data from reviewed papers were stored in Rayyan (Ouzzani et al., 2016). Following search returns, duplicate papers were removed, and the titles and abstracts of the remaining papers were screened. Double screening was also conducted. Eligible papers were then subjected to full-text review. Papers without full access were sought by contacting authors for copies. The full-text papers were screened according to the inclusion criteria. A second reviewer reviewed a random 50% of the full-text papers. Disagreements were resolved through discussion.

### 3.2.6 Data Extraction

Data were extracted using the Cochrane Collaboration-recommended templates ‘Data Collection for Intervention Reviews for Randomised Controlled Trials Only’ (Cochrane, 2021). Tables 3.2 and 3.3 provide information on study characteristics of included studies.

### 3.2.7 Quality Assessment

Given that the included studies were randomised controlled trials, cluster-randomised trials and quasi-experimental designs involving intervention and control groups with random allocation of participants, Risk of Bias 2 (Sterne et al., 2019) was employed for the quality assessment of randomised controlled trials and quasi- experimental designs (Cochrane, 2021), and Risk of Bias 2 Cluster- Randomised Trials (Sterne et al., 2019) was used for the quality of assessment of cluster-randomised trials. After assessing the quality of included studies, a second assessor conducted a double quality assessment. Disagreements were resolved by discussion.

### 3.2.8 Data Synthesis

A narrative synthesis was used to analyse the findings of the eligible studies and the components of the reported interventions. This allowed results of included studies to be assessed systematically and comprehensively and significant features of the included studies to be highlighted (Ryan, 2013).

Meta-analysis was performed using *R* (v4.2.0). Models were fit using the *metafor* (v3.4.0) package with covariance imputed for robust estimation using *clubSandwich* (v0.5.6). The sample size, mean and standard deviation were obtained for control and intervention groups at up to three time points for all screened studies. They were *Pre-Intervention*, *Post-*

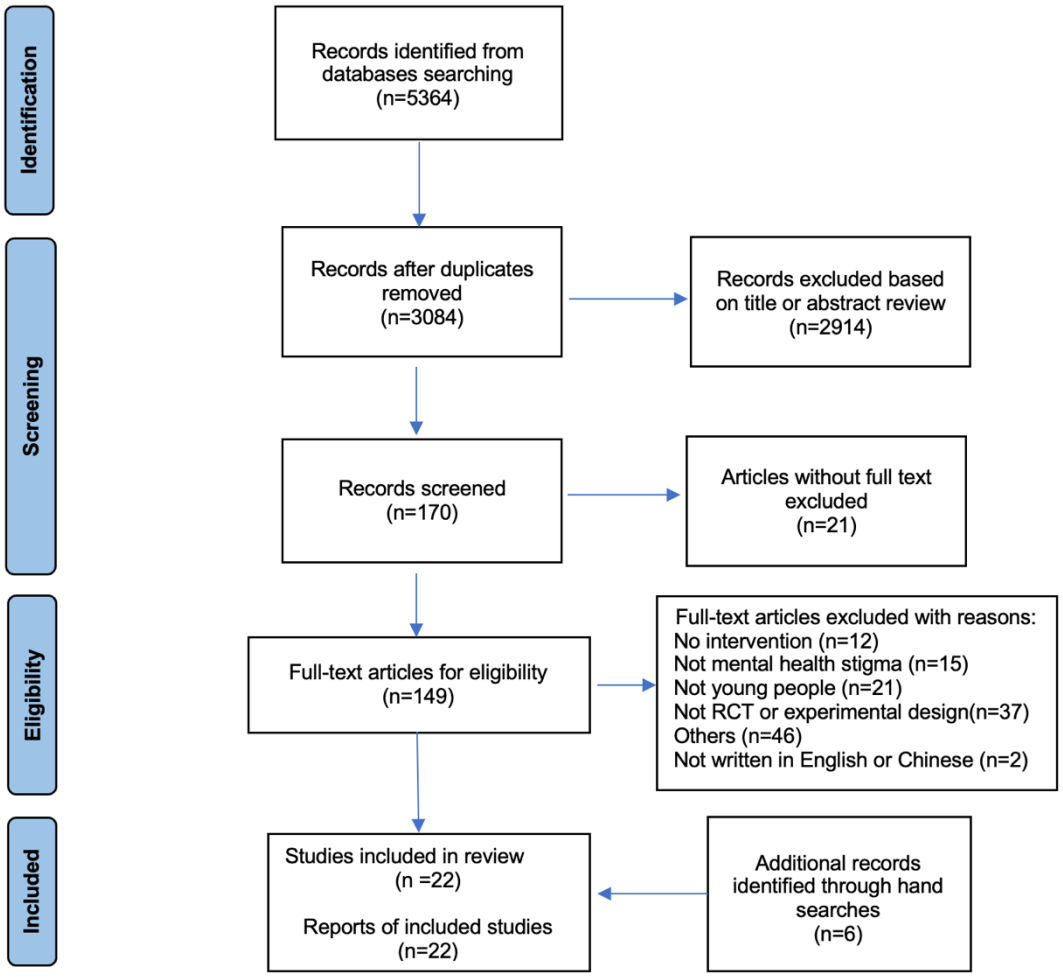
*Intervention* and *Follow-Up.* All measures were transformed such that a positive mean difference indicated a reduction in stigma. Cohen's *d* was then computed as the standardised mean difference at each time point available for each study (Cohen, 1988). Firstly, a multivariate meta-analysis model on *Pre-Intervention* effect sizes was conducted as a control. In many studies, multiple measures of stigma were taken (see Table 3.2 and 3.3). Therefore, a random effect was specified to better account for the variance both within and between the studies (Harrer et al., 2021). Moreover, robust variance estimation was used to account for the fact that measures within the studies were likely to be highly correlated having been generated from the same sample or intervention. The correlation coefficient was set to .6 a priori, but subsequent fits with coefficients ranging from .2 to .8 showed no discernible difference. The variance of the distribution of effect sizes ($\tau^2$) was calculated using restricted maximum likelihood. Once it was confirmed that there were no effects at baseline, separate multivariate meta-analysis models were fit to estimate pooled effect sizes at *Post-Intervention* and *Follow-Up* using the same specifications as above. Finally, for completeness, *Post-Intervention* and *Follow-Up* effects were combined, and a multivariate meta-analysis model was fit with time as a moderating effect. This was coded as a dummy variable with *Post-Intervention* as the intercept and *Follow-Up* as the coefficient. This was to determine whether any decline in the efficacy of interventions was significant.

## 3.3 Results

### 3.3.1 Study Selection

A PRISMA flow diagram (see Figure 3.2) shows the procedures for study selection. In total, 170 studies were identified for full-text screening. Of these, 21 studies were excluded as full texts were not accessible, leaving 149 for full-text reviews. The agreement between two reviewers for study selection was calculated at a full-text review using Cohen's *k* coefficient, and the value was .9, suggesting excellent interrater reliability. Following this, 16 studies were assessed as eligible for the review. Other reasons for exclusion included studies that were protocols or not relevant to the review topic. A further six studies were identified via a hand searching from the included studies. A final total of 22 papers were included in the review.

**Figure 3.2 PRISMA Flow Diagram**




## 3.3.2 Study Characteristics

### 3.3.2.1 Population Characteristics

The interventions were conducted in 14 countries and mainly distributed in Europe (n=8), North America (n=9), Australia (n=4) and Asia (n=1). The number of participants including control groups ranged from 98 to 6025. The age range of study samples was 12-19 years. Seven studies indicated the mean age of participants ranged from 14.52 to 18.41, and six studies did not report participants' age but stated that these were secondary/high school students. Most studies investigated the efficacy of interventions for both boys and girls with two exceptions: Staniland and Byrne (2013) only included boys and Pinto-Foltz et al. (2011) recruited only girls. Except for Mulfinger et al. (2018), who recruited participants with a diagnosed mental health

condition, all other study samples were community groups. Table 3.2 shows the overall characteristics of included studies.

#### 3.3.2.2 Intervention Characteristics

Seven interventions aimed to reduce stigma linked to a specific mental health condition (such as depression); one targeted stigma about autism and the remaining interventions aimed to reduce stigma around general mental health conditions. One study (Mulfinger et al., 2018) was conducted in an inpatient setting, and the other 21 studies were implemented in secondary/high schools.

Eighteen studies used randomised controlled trials, including cluster-randomised trials to evaluate intervention efficacy, and the other four interventions used experiment designs involved random allocation of participants to intervention and control groups but did not use the term randomised controlled trials.

Four studies had comparator intervention(s) (Chisholm et al., 2016; Painter et al., 2017; Ahmad et al., 2020; Link et al., 2020). Participants were grouped in no intervention control condition in seven studies (Pinto-Foltz et al., 2011; Staniland & Byrne, 2013; Perry et al., 2014; Vila-Badia et al., 2016; Painter et al., 2017; Link et al., 2020; Nguyen et al., 2020). Eight studies adopted active control groups, where participants received a leaflet (Winkler et al., 2017), a talk about nutrition and healthy living (Economou et al., 2012), a presentation of parallel length on “careers in psychology” (DeLuca, 2020), treatment (not described) as usual (Mulfinger et al., 2018), a parallel 35-min educational presentation with content unrelated to mental health (Saporito et al., 2011), a 2-hour discussion on immunisation (Economou et al., 2014), neutral information on the symptoms of depression (Howard et al., 2018) and another video game unrelated to mental health (Cangas et al., 2017). Thirteen studies reported some details on intervention compliance. Table 3.2 shows information on outcomes, intervention sessions, post-intervention time, indicators of intervention compliance, comparator interventions and control condition.

Included interventions were mainly based on education, contact or education plus contact. Education interventions provided factual mental health

information via teaching and workshops that aimed to challenge mental health stereotypes (Morgan et al., 2018). Contact interventions aimed to lower fear and to develop empathy through contact with people living with mental health conditions (Pettigrew & Tropp, 2008). Sixteen interventions were education- based, and they were delivered by trained teachers/professionals/facilitators via the curriculum, lessons, discussions, lectures, activities, meetings and seminars. The delivery forms were interactive, which meant participants needed to interact with facilitators/peers, such as participating in a discussion, rather than passively receiving content from facilitators. Five studies were contact-related interventions, inviting people who had poor mental health to share their lived experience or personal story via video delivery or presentation (Pinto-Foltz et al., 2011; Vila-Badia et al., 2016; Painter et al., 2017; Winkler et al., 2017; Mulfinger et al., 2018). Three interventions included both education and contact elements (Saporito et al., 2011; Staniland & Byrne, 2013; DeLuca, 2020).

Interventions were commonly delivered via an educational curriculum approach; this introduced symptoms and basic information on mental health conditions to increase mental health knowledge, interaction and discussion on how to reduce stigma and videos that shared the experience of people living with mental conditions. Cangas et al. (2017) delivered the intervention using a video game that featured characters with various mental health conditions (e.g. schizophrenia and depression), presenting knowledge on mental health conditions to correct participants' misunderstanding or stereotypes. Guidebooks, leaflets, booklets, printed materials and some supplementary resources on stigma reduction were also incorporated into education, contact or education plus contact interventions. Participants could access these materials online through a website designed for the intervention. Three studies (Staniland & Byrne, 2013; Painter et al., 2017; Link et al., 2020) also introduced homework exercises.

Fifteen studies reported the intervention delivery agent (see Table 3.2). Teachers who were trained to deliver the intervention were reported in six studies (Perry et al., 2014; Milin et al., 2016; Painter et al., 2017; Townsend et al., 2019; Link et al., 2020; Nguyen et al., 2020). Four studies showed that their delivery agents were mental health professionals, psychologists or psychiatrists (Economou et al., 2012; Economou et al., 2014; Winkler et al.,

2017; Mulfinger et al., 2018). Other delivery agents included the researcher (Staniland & Byrne, 2013), trained peer facilitator (O'Mara et al., 2013) and trained graduate and undergraduate psychology students (Saporito et al., 2011). Contact elements were delivered by healthcare staff (Vila-Badia et al., 2016), and young people and adults who had a mental health condition (Pinto-Foltz et al., 2011; Painter et al., 2017; Mulfinger et al., 2018).

Thirteen studies reported how many sessions the intervention involved. Ten interventions were single session only. The longest intervention was 12x60 min sessions (Cangas et al., 2017). Among those who reported intervention dose (k=17), the shortest and longest interventions lasted 2 min (Winkler et al., 2017) and 120 min (Economou et al., 2014), respectively.

All studies collected post-intervention data. Nine studies collected data immediately after the intervention was completed. Other studies assessed their outcomes at different time points. Twelve studies collected follow-up data. Pinto-Foltz et al. (2011) and DeLuca (2020) had two follow-up points, and Cheetham et al. (2020) had three. The longest follow-up point was 24 months (Link et al., 2020), and the shortest one was 3 weeks (Mulfinger et al., 2018).

The intervention outcomes examined in the studies included: self-stigma, stigmatising beliefs/attitudes, stigma stress, mental health knowledge, help-seeking intentions, social distance, disclosure worries, suicidal ideations, alcohol use, resilience, quality of life, acceptability, confidence, implicit bias, empowerment and recovery. Some studies investigated outcomes related to specific mental health conditions, such as stigmatising attitudes towards schizophrenia.

Most studies did not report a primary outcome or distinguish between the primary and secondary outcomes; only five studies distinguished and reported these. Two of these studies investigated stigma-related outcomes as the primary outcomes, whereas these were secondary outcomes in the other two studies. Researchers used different standardised measures to measure outcomes. This review focused on stigma-related outcomes for which results are reported in Table 3.3.

## Table 3.2 Characteristics of Included Studies

| Study Citation | Study Design | Intervention(s) | N<br>Age<br>(years) | Delivery | Stigma-related Measure | Post-test effect size (Cohen's d)/p-value | Follow-up effect size (Cohen's d)/p-value |
|---|---|---|---|---|---|---|---|
| Cangas et al. (2017) | QED | Education | 552<br>14-18 | Video game | Questionnaire on Student Attitudes toward Schizophrenia | p=.000 (Dangerousness)<br>p=.001 (Stereotypes) | NA |
| Perry et al. (2014) | CRT | Education | 380<br>Mean 14.94 | Programme teachers | The Depression Stigma Scale | Interaction effect: p<.05 | Interaction effect: p<.05 |
| Nguyen et al. (2020) | RCT | Education | 3000<br>Mean 15 | Trained teachers | Mental Health Knowledge and Attitude Test | p<.0001 (Vietnamese)<br>p<.0001 (Cambodian) | NA |
| Link et al. (2020) | CRT | Education | 416<br>NI | Teachers | Knowledge and Positive Attitudes<br>Children's social distance | p<.001 (Attitudes)<br>p<.05 (Social distance) | p<.001 (Attitudes)<br>p<.05 (Social distance) |
| Winkler et al. (2017) | RCT | Education;<br>Contact | 499<br>Mean 18.41 | A mental health professional (psychiatrist or case manager) and an expert by experience. | The Community Attitudes towards Mental Illness;<br>Reported and Intended Behaviour Scale. | Seminar arm: d=0.61 (Attitudes); d=0.58 (Behaviour);<br>Video arm: d=0.49 (Attitudes); d=0.26 (Behaviour) | Seminar arm: d=0.43 (Attitudes); d=0.26 (Behaviour);<br>Video arm: d=0.22 (Attitudes); d=0.21(Behaviour) |
| Mulfinger et al. (2018) | RCT | Contact | 98<br>13-18 | A young adult peer with mental illness and a young mental health professional. | Stigma Stress Scale | p<.001 | p<.001 |
| Economou et al. (2014) | RCT | Education | 1081<br>13-15 | Two psychologists, trained in child psychology and group dynamics. | Alberta Pilot Site Questionnaire Toolkit;<br>Social Distance measure | p<.001(Attitudes)<br>p<.001 (Social distance) | NA |
| Milin et al. (2016) | RCT | Education | 534<br>NI | Trained teachers | Attitudes Toward Mental Illness | Interaction effect: p<.01 | NA |
| Staniland & Byrne (2013) | QED | Education + Contact | 395<br>NI | The author | Adjective Checklist;<br>Shared Activities Questionnaire | p<.001(Attitudes)<br>NI (Behaviour) | p=.01 (Attitudes)<br>p=.22 (Behaviour) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Vila-Badia et al. (2016) | RCT | Contact | 280<br>14-18 | Healthcare staff | The Community Attitudes towards Mental Illness | p=.000 (Authoritarianism)<br>p=.742 (Benevolence)<br>p=.019 (Social restrictiveness)<br>p=.117 (Community mental health ideology) | NA |
| O'Mara et al. (2013) | RCT | Education | 294<br>NI | Trained peer facilitators | The Stigma Scale- Attribution Questionnaire Revised | p<.001 (Low-need schools)<br>p>.05 (Overall schools) | NA |
| Gonçalves et al. (2015) | RCT | Education | 207<br>NI | Treatment group | Self-Stigma of Seeking Help Scale;<br>Social Stigma for Receiving Psychological Help Scale;<br>Attribution Questionnaire-Children form | p<.05 (Self-stigma)<br>p<.05 (Social stigma)<br>p<.05 (Attribution) | p>.05(Self-stigma)<br>p>.05 (Social stigma)<br>p>.05 (Attribution) |
| Economou et al. (2012) | RCT | Education | 616<br>13-15 | An educational psychologist and a psychiatrist, especially trained in group dynamics. | Alberta Pilot Site Questionnaire Toolkit;<br>Social Distance measure | p<.05 (Attitudes)<br>p<.05 (Social distance) | p<.05 (Attitudes)<br>p>.05 (Social distance) |
| DeLuca (2020) | CRT | Education + Contact | 232<br>13-18 | NI | The Perceptions of Stigmatization by Others for Seeking Help scale;<br>The Self-Stigma of Seeking Help scale | NI | Anticipated stigma: p=.020<br>Self-stigma: p>.05 |
| Chisholm et al. (2016) | CRT | Education | 769<br>12-13 | NI | The Reported and Intended Behaviour Scale | p=0.5 | p=0.03 |
| Ahmad et al. (2020) | CRT | Education | 731<br>Mean 17.4 | NI | The Attitude scale;<br>The Social Distance scale;<br>The Positive Action scale | p=.010 (Attitudes)<br>p>.05 (Social distance)<br>p<.001 (Action) | NA |
| Painter et al. (2017) | QED | Education; Contact; Printed material | 721<br>Mean 11.5 | Teachers; Two college students with a history of bipolar I disorder and bipolar II disorder. | NI | Printed materials: p> .05<br>NI | NA |
| Cheetham et al. (2020) | RCT | Education | 463 | NI | A 5-point stigma scale | NI | p=.171 (Weak no sick) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Mean 14.94 | | | | P=.242 (Dangerousness)<br>Interaction effect: p<.001 (Weak no sick) |
| Saporito et al. (2011) | QED | Education + Contact | 159<br>Mean 14.76 | Ten trained graduate and undergraduate psychology student. | Community Attitudes toward the Mentally Ill;<br>Attitudes toward Seeking Professional Psychological Help;<br>Implicit Association Test | P=.03 (Attitudes to mental health)<br>p=.001 (Attitudes to treatment)<br>p>.05 (Implicit Attitudes to mental health)<br>p>.05 (Implicit Attitudes to treatment) | NA |
| Townsend et al. (2019) | RCT | Education | 6025<br>NI | High school teachers | Reported and Intended Behaviours Scale | NI | P=.08 |
| Pinto-Foltz et al. (2011) | CRT | Contact | 156<br>13-17 | Trained consumers who were recovery from mental illness. | A five-item subscale of the Revised Attribution Questionnaire | p=.33 | p>.05 |
| Howard et al. (2018) | RCT | Education | 327<br>16-19 | NI | Self-Stigma for Depression Scale | p>.05 | NA |

Positive effects | Mixed effects | No effects

RCT: Randomised controlled trial

CRT: Cluster-randomised trial

QED: Quasi-experimental design

NI: No Information

NA: Not Available

## Table 3.3 Outcomes and Intervention Sessions

| Study Citation | Country | Target | Primary or only outcome | Other outcomes (no primary outcome indicated) | Intervention sessions | Indicators of intervention compliance | Comparator intervention(s) | Control condition |
|---|---|---|---|---|---|---|---|---|
| Cangas et al. (2017) | Spain | Schizophrenia | Stigmatising attitudes towards schizophrenia. | NI | 12 sessions X 60min | NI | NA | Another video game unrelated to mental health |
| Perry et al. (2014) | Australia | Depression | Mental health literacy. | Stigma, help-seeking, psychological distress, and suicidal ideation. | 10 hours | Data were obtained from 380 participants at baseline, 322 participants post-intervention and 208 participants at 6-month follow-up. | NA | No intervention control condition |
| Nguyen et al. (2020) | Vietnam & Cambodia | Mental health | NI | Knowledge and stigma about mental health. | NI | 89% of students in intervention group and 78% in control group provided data. | NA | No intervention control condition |
| Link et al. (2020) | USA | Mental health | NI | Knowledge and attitudes towards menial health, social distance. | NI | 75% participants completed assessment at 24 moths. | Contact; Printed materials | No intervention control condition |
| Winkler et al. (2017) | Czech Republic | Mental health | NI | Stigma-related attitudes and behaviours. | 1 session | 68.4% in seminar, and 73.1% in video completed assessment. | NA | Active control group-received leaflet. |
| Mulfinger et al. (2018) | German | Mental health | Stigma stress; quality of life. | Empowerment; self-stigma, disclosure-related distress, empowerment, help-seeking intentions, recovery, and depressive. | 3 sessions X 2hours | 86% completed post assessment and 78% completed follow-up assessment. | NA | Treatment as usual |
| Economou et al. (2014) | Greece | Schizophrenia | NI | Adolescents' beliefs, attitudes and desired social distance. | 1 session X 120min | NI | NA | Received a 2- hr discussion on immunisation |
| Milin et al. (2016) | Canada | Mental health | NI | Mental health knowledge and attitudes toward mental illness/stigma. | NI | 87.8% completed both pre- and post-questionnaires. | NA | Teaching as usual |
| Staniland & Byrne (2013) | Australia | Autism | NI | Autism knowledge, attitudes towards disabilities, behavioural intentions. | Six sessions X 50min | NI | NA | No-intervention non-peer |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Vila-Badia et al. (2016) | Spain | Mental health | Social stigma towards mental health. | NI | One session | NI | NA | No intervention control condition |
| O'Mara et al. (2013) | Canada | Mental health | NI | Stigma and depression. | 1 session X 75min | 91.2% overall completion rate | NA | NI |
| Gonçalves et al. (2015) | Portugal | Mental health | NI | Self-stigma, social stigma, attribution for mental health. | 1 session | NI | NA | NI |
| Economou et al. (2012) | Greece | Schizophrenia | NI | Participants' beliefs and attitudes; social distance. | 1 session | NI | NA | A talk about nutrition and healthy living |
| DeLuca (2020) | USA | Mental health | Negative stereotypes; intended social distance; knowledge; negative effects; help-seeking intentions. | Anticipated stigma; self-stigma; disclosure worries. | 1 session | 89% of students participated in the study | NA | Received a presentation of parallel length on "careers in psychology" |
| Chisholm et al. (2016) | UK | Mental health | Stigma of mental illness. | Knowledge of mental illness; emotional wellbeing; resilience; help-seeking; acceptability. | 1session (1 day) | 14.6% dropout | Education + Contact | NI |
| Ahmad et al. (2020) | USA | Mental health | NI | Knowledge; attitudes; social distance; positive actions. | Weekly/ biweekly | 58.9% provided data at T1 and one additional time point (T2 or T3) | In delayed condition | NA |
| Painter et al. (2017) | USA | Mental health | NI | Stigmatizing attitudes, beliefs, behaviours, and behavioural intentions and recognition of mental illnesses and favourable attitudes toward help seeking. | Curriculum (3-6days per period) | NI | Education; Contact; Printed material | No intervention control condition |
| Cheetham et al. (2020) | Australia | Alcohol misuse | | Stigma; help-seeking; confidence; alcohol use. | 1 session | NI | NA | NI |
| Saporito et al. (2011) | USA | Mental health | NI | Community Attitudes toward the Mentally Ill; Attitudes toward Seeking Professional Psychological Help; Implicit Bias; Semantic Differential | 1 session X 35min | NI | NA | A parallel 35-minute educational presentation with content unrelated to mental health |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Willingness to Seek Treatment; Treatment Information;<br>Positive and Negative Affect. | | | | |
| Townsend et al. (2019) | USA | Depression | NI | Depression knowledge, mental health stigma. | NI | NI | NA | NI |
| Pinto-Foltz et al. (2011) | USA | Mental health | NI | Mental health stigma and literacy. | NI | 8% of participants failed to complete the standard measures at all time points. | NA | No intervention control condition |
| Howard et al. (2018) | Australia | Depression | Anticipated self-stigma for depression. | Help-seeking intentions; Causal attribution;<br>Depressive symptoms. | NI | 93.2% completed the intervention. | NA | Neutral information on the symptoms of depression. |

Positive effects | Mixed effects | No effects

NI: No Information NA: Not Available

### 3.3.3 Intervention Effectiveness

#### 3.3.3.1 Positive Effects

In total, eight interventions showed positive effects, including six education-only interventions, one contact-only intervention and one intervention that included education and contact. Six education-based interventions reported significant stigma reduction immediately after the intervention (Perry et al., 2014; Milin et al., 2016; Cangas et al., 2017; Winkler et al., 2017; Nguyen et al., 2020), and 2 weeks afterwards (Economou et al., 2014). Of these, the following five interventions were conducted in classrooms and aimed to both deliver mental health literacy and correct misconceptions about mental health conditions. Perry et al. (2014) delivered an anti-stigma intervention to Australian youth and found significant effects on stigma reduction at different test time points ($p<.05$) compared with the control group. Intervention delivery was via a booklet, slideshow and various appendices in class. Nguyen et al. (2020) evaluated an intervention for Vietnamese and Cambodian young people and reported significant effects on stigma reduction in both Vietnamese ($p<.0001$) and Cambodian young people ($p<.0001$) at post-intervention compared to the control group. This intervention involved six modules that were on mental health-related knowledge and responses to mental health conditions. Link et al. (2020) evaluated the efficacy of a curriculum intervention compared with two comparator interventions (contact and printed materials) and a control group. The curriculum intervention involved a didactic component group discussion and homework exercises in each module. The curriculum intervention significantly increased knowledge and improved attitudes towards mental health conditions ($p<.001$) and reduced social distance ($p<.05$), with these effects being maintained over 2 years. Only the curriculum aspect of the intervention was effective, and neither contact nor printed materials showed significant effects on measured outcomes. Economou et al. (2014) obtained significant reductions in the intervention group in negative attitudes towards schizophrenia at post-intervention ($p<.001$) and social distance ($p<.001$). This intervention was delivered through an educational talk in class. Milin et al. (2016) intervention for stigma reduction in youth also obtained positive findings showing an increase of positive attitudes towards mental health conditions compared to the control group ($p<.01$). Researchers delivered this intervention via six mental health stigma-related modules, which were embedded in classroom activities.

Winkler et al. (2017) evaluated two interventions (seminar and short video) and an active control group (leaflets). At post-intervention, there were small effects in the flyer arm, medium in the seminar arm and medium in the video arm. At a 3-month follow-up, there were medium effects in the seminar arm and small effects in the video arm but no effect in the flyer arm. The seminar showed the strongest and relatively most stable effect on outcomes, which suggested that the role of facilitators could be of importance in changing attitudes. One study (Cangas et al., 2017) designed a video game to deliver the education intervention. They reported a statistically significant stigma reduction towards schizophrenia (dangerousness: p=.000; stereotypes: p=.001). Finally, Mulfinger et al. (2018) conducted a contact-based intervention in an inpatient setting. This peer-led programme covered five themes aiming to increase disclosure of mental health conditions. The intervention was delivered by a young adult with experience of a mental health condition and a young mental health professional. At post-intervention, there was a significant improvement in stigma stress (i.e. person feels stigma-related harms outweigh the coping resources; the level of stigma stress will be high if that person feels less confident to cope with stigma; p<.001) as well as at a 3-week follow-up (p<.001).

#### 3.3.3.2 Mixed Effects

Eleven interventions reported mixed effects. Of those, the following six studies evaluated education-based interventions. O'Mara et al.'s (2013) intervention involved videos followed by researcher-facilitated discussion and focus groups. It did not significantly reduce stigma overall but showed significant decreased stigma in the low-needs schools (i.e., less needy in the Learning Opportunity Index), resulting in lower rates of depression and more uses of healthy coping strategies after the intervention (p<.001). Gonçalves et al. (2015) reported significantly higher intervention effects on self-stigma (p<.05), social stigma (p<.05) and attribution (p<.05) for the intervention group than the control group, but at a 1-month follow-up, the effects diminished for these three outcomes to become non-significant. Economou et al.'s (2012) intervention involved discussions delivered by an educational psychologist and a psychiatrist. They found a significant change in participants' beliefs and attitudes towards people with schizophrenia (p<.05), and this effect was retained at a 12-month follow-up (p<.05). The effect on social distance (p<.05) was shown at post-intervention but not at the follow-up point.

Ahmad et al. (2020) evaluated a school club where students engaged in club activities and meetings and reported that the intervention had overall effects on attitudes towards mental health conditions (intervention group: p=.010; delayed group [i.e., received the intervention later]: p=.004), but from the second to third test time point, the effects were non-significant. A significant overall improvement in positive actions was also found (intervention group: p<.001; delayed group: p<.001). For social distance outcome, significant effects over time were found in the delayed group (p=.037) but not in the intervention group. Cheetham et al. (2020) reported an intervention providing information on mental health condition and help-seeking did not demonstrate its efficacy over 12 months in reducing stigmatising attitudes towards mental health for both 'weak not sick' (p=.171) and 'dangerousness' (p=.242). However, compared with the control group, more stigma reduction was reported (p<.001). One study (Vila-Badia et al., 2016) was contact-only content. They found that the intervention had positive effects on authoritarianism (i.e., a viewpoint that people who are living with mental health conditions are inferior; p=.000) and social restrictiveness (i.e., the attitude that individuals with mental health conditions are a danger to society and should be restricted during or after hospitalisation; p=.019), two factors in The Community Attitudes towards Mental Illness (Taylor & Dear, 1981), but had no effect on benevolence (i.e., attitudes that include encouragement and paternalism towards people living mental health conditions; p=.742) and community mental health ideology (i.e., beliefs that people with mental health conditions should integrate into society in general; p=.117). Participants in this intervention were shown a documentary film that was related to mental health conditions. Three studies assessed interventions combining education and contact content and obtained mixed effects. Staniland and Byrne (2013) evaluated an intervention to reduce stigmatising attitudes and behaviours towards autistic people. This covered education with both direct and video contact with autistic people. For attitudes, more positive attitudes were found in the intervention group and were maintained at the follow-up point (p=.01). As for behaviours, this intervention failed to work in the intervention group (p=.22), nor did it work when compared to the control group (p=.37). In addition, researchers examined the online activity usage effects and reported no pre-post differences between online activity users' attitudes and behaviours towards their autistic peers. DeLuca (2020) found that their intervention did significantly reduce anticipated stigma (p=.020) across test time points but not self-stigma. This intervention

consisted of an educational presentation and a presentation of the personal story of the presenter.

Saporito et al. (2011) evaluated the efficacy of an intervention to decrease explicit and implicit stigma around adolescents' mental health, consisting of a presentation with slides on mental health conditions in young people and a video presentation of a youth currently suffering from a mental health condition. The findings indicated that the intervention had effects on reducing explicit stigma (attitudes to mental health: p=.03; attitudes to treatment: p =.001) but not implicit stigma that was assessed by using automatic associations in memory related to help-seeking and people with mental health conditions. One study' intervention was education-based, and it had education plus contact as the comparator intervention (Chisholm et al., 2016). Those two were allocated to the education and contact condition received educational curriculum-based modules and a contact session working with a young person with experience of a mental health condition. The authors reported that their primary outcome, attitudinal stigma, was significantly decreased in both interventions (education-only condition or education plus contact intervention), but there was no significant effect of either intervention at a 2-week follow-up (p=.5). At a 6-month follow-up, a significant effect was shown in the education-only intervention compared with the education plus contact condition (p=.03).

One study had three interventions: education, contact and printed material (Painter et al., 2017). A curriculum with active learning and encouragement of empathy was delivered by teachers who introduced stigma-related knowledge and concepts of and coping with specific mental disorders. College students with histories of bipolar disorder were invited to do presentations in the contact section. Printed material consisted of posters focusing on individuals' personal traits and abilities as opposed to language that labels a person as 'mentally ill'. Finding showed that there was no effect from using posters (p>.05). Also, compared with the control group, the curriculum-only group had significantly more positive outcomes for 8 of 13 outcomes, and the contact-only group reported less effects than the curriculum-only group.

#### 3.3.3.3 No Effects

Two education-only interventions reported no effects. Townsend et al. (2019) implemented an intervention delivered by high school teachers and explored efficacy for increasing depression knowledge and reducing stigma. No main effect of the intervention on stigma scores (p=.08) were found. Howard et al. (2018) evaluated whether education information that described biological or psychological causes of mental-ill health could reduce stigma; neither information on biological nor psychological causes had significant effects on anticipated self-stigma or personal stigma. One study was a contact-related intervention that did not produce a positive effect. Pinto-Foltz et al.'s (2011) knowledge-contact programme involved narrative story, discussion, and video presentation. They found that stigma did not show reduction after the intervention (p=.33), and at 4- and 8-week follow-ups, there was no significant difference between adolescents in the intervention and control groups.

#### 3.3.3.4 Sex Differences

Intersectional analysis showed that four studies reported findings of gender difference in measured outcomes. Except for Townsend et al. (2019) who did not find a gender difference in stigma reduction, other studies consistently suggested that their interventions had more efficacy in females. Cheetham et al. (2020) reported that female stigma scores decreased over time, and females showed more positive attitudes towards stigma and less social distance than males in Economou et al.'s (2012) study. From baseline to follow-up, O'Mara et al. (2013) found that increased stigma scores were found in both males and females, but females increased less than males. No interventions reported details of any analysis or findings with regard to ethnic difference.

### 3.3.4 Overview

According to these findings, education-based interventions were most likely to have positive effects on stigma reduction in young people, even though some education interventions showed mixed and no effect. Four studies (including Winkler et al., 2017) adopted contact interventions; two reported positive effects (Winkler et al., 2017; Mulfinger et al., 2018) and another two reported mixed (Vila-Badia et al., 2016) and no effect (Pinto-Foltz et al., 2011) respectively, making it hard to assess effectiveness of contact-only approaches for stigma reduction in this review. Education plus contact

interventions could have positive effects on stigma reduction, but these were not significant or stable for long-term effects (e.g. Staniland & Byrne, 2013).

Effective intervention components were educational approaches, including lessons, curriculum that consisted of modules explaining stigma-related concepts and strategies, activities such as video games and facilitated discussion, which could be effective in reducing stigma through correcting misinformation on mental health. Also, contact with people with mental health conditions could potentially work for stigma reduction. Apart from one intervention, those with positive effects invited trained teachers or psychologists to deliver interventions, which may have contributed to the efficacy of these anti-stigma interventions.

### 3.3.5 Meta-analysis

This section was conducted collaboratively: I collected data and a co-worker conducted statistical analysis and contributed to the interpretation of results (see page ii – statements c & d). In total, 11 of the 22 studies did not report adequate statistics to be included in the formal analysis. Accordingly, a total of 11 studies were included in the meta-analytic models. Of these, six were education-only (Perry et al., 2014; Chisholm et al., 2016; Milin et al., 2016; Cangas et al., 2017; Howard et al., 2018; Nguyen et al., 2020), two were contact-only (Pinto-Foltz et al., 2011; Vila- Badia et al., 2016), two were education plus contact (Staniland & Byrne, 2013; DeLuca, 2020) and one (Winkler et al., 2017) had two anti-stigma interventions (seminar and short video) and an active control group (leaflets). Since some studies had more than one outcome, sample or intervention, these studies were further comprised of studies nested within them. For example, at *Post-Intervention*, Nguyen et al. (2020) reported results from a Vietnamese sample and a Cambodian sample, thus comprised two nested studies. In total, at *Post-Intervention*, there were 22 studies nested within the 11 parent studies selected, and at *Follow-Up*, there were 11 studies nested within the 6 parent studies.

At *Pre-Intervention*, the pooled effect size based on the three- level meta-analytic model was not significant (d=.008, p=.856). In other words, as expected, there was no discernible difference between control and intervention groups when tested Pre-Intervention. The multivariate model at *Post-Intervention* revealed a small, significant effect (d=.21, p<.001). Overall,

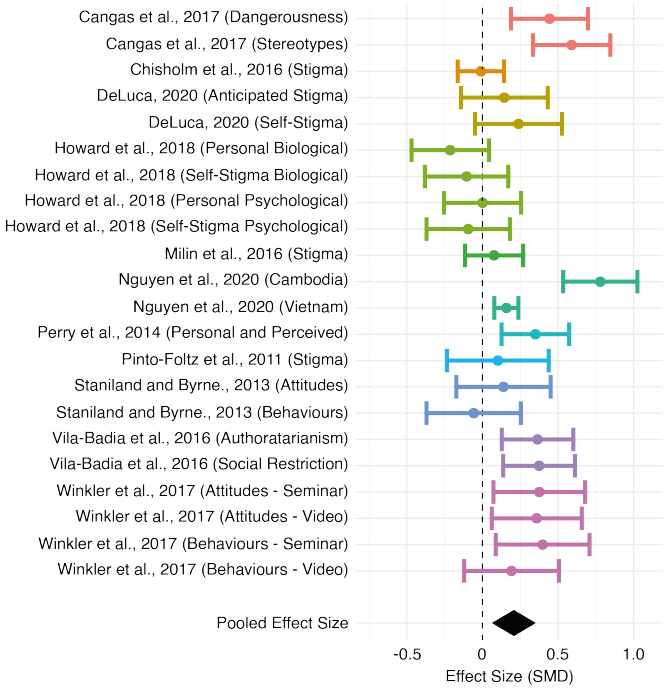
heterogeneity was high (Q(21)=76.63, p<.001). More specifically, the estimated variance components were $\tau^2_{\text{Level 3}}$ =0.020 and $\tau^2_{\text{Level 2}}$ = 0.017, with $I^2_{\text{Level 3}}$= 40.2% of the total variation attributed to between-cluster, and $I^2_{\text{Level 2}}$=33.9% to within-cluster heterogeneity. In other words, approximately a third of variance can be explained by differences within parent studies, with a slightly larger proportion of the variance accounted for by differences between parent studies. At *Follow-Up*, the multi-variate model revealed that interventions were no longer effective at reducing stigma (d=.069, p=.347). Funnel plots for both models were symmetrical (see Appendix A), showing no evidence of publication bias, thus indicating no need for adjustment (Duval & Tweedie, 2000). Finally, pooled effect sizes for both *Post-Intervention* and *Follow-Up* were considered in a model with time as a moderating factor. We found that the intercept (i.e. *Post-Intervention*) was significantly different from zero, with a small pooled effect size (d=.212, p<.001). Moreover, the coefficient (i.e. *Follow-Up*) was negative and significantly different from zero (d=.128, p=.046), suggesting that there was a significant decline in the efficacy of intervention at Follow-Up. Once again, heterogeneity was high (QE(31)=99.37, p<.001). More specifically, the estimated variance components were $\tau^2_{\text{Level 3}}$ = 0.021 and $\tau^2_{\text{Level 2}}$ = 0.015, with $I^2_{\text{Level 3}}$=41.26% of the total variation attributed to between- cluster, and $I^2_{\text{Level 2}}$=29.3% to within-cluster heterogeneity. Overall, the included interventions had a small effect reducing mental health stigma, but this decayed to no effect in the weeks following intervention delivery (see Figure 3.3).

### 3.3.6 Risk Assessment

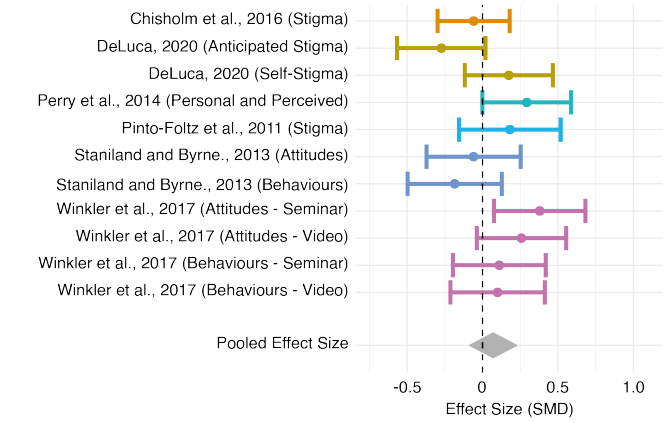
Following the Cochrane guidance, the Risk of Bias 2 risk assessment tool was employed to assess risk of bias in randomised controlled trials and cluster-randomised trials (Sterne et al., 2019). The studies that were cluster-randomised trials design were assessed by Risk of Bias 2 for cluster-randomised trials and those randomised con- trolled trials and experiment designs with randomisation were evaluated by Risk of Bias 2. Overall, the included studies in this review indicated poor quality. No studies were rated in the low-risk category, few studies showed some concerns and others were evaluated as high risk of bias (see Appendix A).

## Figure 3.1 Effectiveness of Anti-stigma Interventions

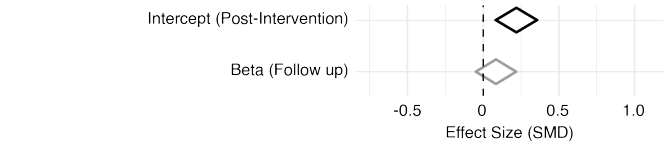
**Post-Intervention**




**Follow up**




**Moderating Effects**




Standardised mean differences are presented for each measure of stigma for each study at Post-Intervention (Top) and Follow Up (Middle). Dots represent the overall effect size, with error bars showing 95% confidence intervals. The colours are common between studies nested within the same parent study. Pooled effect sizes calculated for each model (Separate: Top and Middle; As Moderating Effects: Bottom) are shown as diamonds, which are centred over the pooled effect size, extending as far as the 95% confidence interval.

## 3.4 Discussion

The study fills a gap in the current evidence on the effectiveness of anti-stigma interventions for young people and is the first to conduct a systematic review and meta-analysis exploring the global literature. Of the 22 studies included in this review, more than half of the interventions adopted education-based interventions. Review findings indicated that education-based interventions were most likely to have positive effects compared with contact-based or education plus contact interventions.

It has been argued that it is often ineffective to reduce stigma in the general public using educational programmes alone and that contact-based interventions are more successful than education-based interventions for adults (Corrigan et al., 2012). This review showed the opposite findings for young people. A possible reason for this inconsistency is the target population: compared with adults, educational interventions might be more effective for youth because school is the place where young people easily have access to mental health knowledge, and it is routine for young people to have classroom-based learning (Mcluckie et al., 2014). There might also be cohort effects in school, where young people influence each other. Additionally, education-based interventions are relatively more economical and easier to deliver than contact-based interventions, for which it can be difficult and time-consuming to prepare people with mental health conditions to participate (Malachowski & Kirsh, 2013). This is evidence that young people could be suitable audiences for education-based interventions because these could help lay a solid foundation of having positive attitudes towards people with mental health conditions and prevent stigmatising behaviours in adulthood (Corrigan et al., 2005).

However, it is worth noting that six education-based interventions showed mixed effects and two were ineffective. This could be related to intervention intensity and the role of trained facilitators. Some education-based interventions with mixed effects had low intensity with only one session (e.g. O'Mara et al., 2013). In education-based interventions with mixed/no effect(s), some were delivered by teachers who did not receive training (e.g. Painter et al., 2017), which could have affected intervention fidelity and efficacy. In contrast, trained teachers or psychology-related professionals

participated in interventions with more efficacy (e.g. Winkler et al., 2017). Moreover, for interventions with positive effects, some interventions included several modules to improve the understanding of relevant concepts of mental health and coping strategies in youth. Students not only received basic knowledge on stigma from facilitators, but also engaged in facilitated discussions improving interactivity. These components that were interactively delivered could have contributed to efficacy (e.g. Milin et al., 2016). Although the previous findings showed the advantages of education-based interventions for stigma reduction by correcting stigmatising attitudes, there is no robust evidence supporting that specific non-stigmatising behaviours can be predicted from attitudes (Crano & Prislin, 2011). Thus, it is essential to explore other approaches to achieve destigmatising behaviours via further research.

Contact-based interventions did not demonstrate as much effectiveness as education-based interventions. The limited number of contact-based interventions that were included in this review could have made it difficult to evidence the same level of efficacy as for educational-based interventions. Included studies suggest that contact time could be a factor that affects efficacy (Gronholm et al., 2017), and longer contact time could be associated with more significant effects. For example, Mulfinger et al. (2018) had longer intervention contact time than Vila-Badia et al. (2016) did, and the former showed more positive effect than the latter. A possible explanation for the inconsistent findings in contact-based interventions could be the differences between measures for mental health stigma which assess different aspects of stigma. Although the included studies all aimed to evaluate interventions for reducing stigma, the measures used varied. For instance, Mulfinger et al. (2018) adopted the Stigma Stress Scale, Vila-Badia et al. (2016) used The Community Attitudes towards Mental Illness and Pinto-Foltz et al. (2011) employed a five-item subscale of the Revised Attribution Questionnaire. Also, interventions were not all delivered in a context with equivalent levels of stigma, and it might be easier to show an effect when the levels of stigma are high at baseline. The education plus contact interventions showed mixed effects in this systematic review. This is inconsistent with previous studies showing that it is more effective to use a combination of education and contact interventions instead of employing each of these interventions alone (e.g. Chan et al., 2009). In Chan, Mak and Law’s intervention, they had only one intervention group with three

conditions but no control group, which could be a reason for the inconsistency.

Intersectional analysis within included studies focused only on gender, showing that interventions had more efficacy in females. Owing to a lack of detail on ethnicity and differences in stigma reduction within included studies, this review was not able to cover this aspect of diversity among young people. Further research is needed that includes more intersectional analysis of interventions for reducing stigma in young people, including any differences in interventions outcomes for people of different ethnicities.

Stigma reduction, it is argued, needs to be delivered in culturally specific ways, in order to align with ‘what matters most’ in given cultures, and the subsequent impact of stigma on people’s ability to engage in ‘what matters’ in their society (Yang et al., 2007). With this in mind, the following three agendas (Corrigan, 2015; Corrigan & Al-Khouja, 2018) could be considered in future anti-stigma efforts to prevent young people from being excluded from ‘what matters most’ in society. A ‘services agenda’ is associated with promotion of mental health literacy and care-seeking; a ‘rights agenda’ achieves stigma reduction by affirming attitudes and behaviours to replace discrimination; a ‘self-worth’ agenda helps reduce self-stigma by promoting self-affirming attitudes in place of shame. The reviewed findings indicate that interventions focused on these agendas included promoting mental health literacy, non-discriminatory attitudes towards mental health and reducing stigmatising behaviours, and reported positive effects in some studies (e.g. Milin et al., 2016; Cangas et al., 2017; Link et al., 2020). In particular, interventions based on a rights agenda and a self-worth agenda demonstrated more efficacy in this review. This suggests that such interventions would support young people with mental health conditions would be more able to take part in ‘what matters most’ in their culture. Intervention content would, however, need to be tailored to the form and causes of mental health stigma in any specific cultural context.

### 3.4.1 Risk of Bias

The overall quality of included studies was poor, and the primary concern was randomisation as only few of studies reported how allocation to intervention and control groups took place. Other concerns were “Deviations from the intended interventions”, which could be “the administration of

additional interventions that are inconsistent with the trial protocol, failure to implement the protocol interventions as intended or non-adherence by trial participants to their assigned intervention" (Higgins et al., 2016). In other assessment categories including report of missing data, measurement of outcome and results report, most studies were rated as having some concerns as there was a lack of information demonstrating how authors dealt with these issues. These omissions were possibly due to limited word counts for the publications, which adversely affected the risk assessment.

### 3.4.2 Implications

This review has found that anti-stigma interventions were effective overall but yielded small improvements that did not endure in the long term. Findings indicate that education-based interventions showed advantages for reducing stigma in youth compared with other interventions. Thus, incorporating education-related approaches, such as having interactive discussions, workshops and seminars, is recommended when developing anti-stigma interventions. The results suggest the importance of intervention intensity for education-based interventions. More sessions could contribute to positive and stable effects on reducing stigma in youth. Findings from the meta-analysis show that the intervention conducted by Cangas et al. (2017) had a larger effect than other approaches. This suggests that educational components could usefully include video games as an effective and innovative approach to reducing mental health stigma perpetuated by young people.

Schools have been identified as important sites to deliver mental health and well-being campaigns (Moore et al., 2022). Findings from this review confirm that schools are potentially effective sites from which to reach young people to reduce mental health stigma, however, the complexity of school settings needs to be considered. Prioritising other tasks, such as academic achievements, over mental health and well-being interventions, has been identified as an obstacle to effectiveness (Nadeem & Ringle, 2016; Dijkman et al., 2017; Crane et al., 2021). Staff turnover is another barrier to the sustainability of school-based interventions (Moore et al., 2022). Low intervention fidelity has been reported from school-based mental health and well-being interventions when an intervention was delivered partially by teachers who had not been trained or received materials (Friend et al., 2014). This is consistent with this review findings that those anti-stigma interventions that were delivered by trained teachers or psychology-related

professionals were more effective. Additionally, school staff capacity to deliver interventions and the impact of this on intervention sustainability has been questioned (Moore et al., 2022). For example, in one study, adequate supervision was not provided by coordinators to teachers (Dijkman et al., 2017). There is evidence that engaged school leaders who were inclined to provide support and encouragement for school staff in the use of an intervention could facilitate its implementation (Hudson et al., 2020). This suggests that, to develop and deliver anti-stigma interventions in school settings, it is important to have support from school-based needs and decision-makers as a key factor.

The evidence base for anti-stigma interventions is itself a further issue highlighted by the review. With regard to the countries in which intervention studies were conducted in this review, only one study (Nguyen et al., 2020) was conducted in an Asian country and all other intervention studies were in Western countries. Thus, this review provides most evidence for anti-stigma interventions targeting youth in a Western context. To determine the components of effective anti-sigma interventions for youth in other contexts, and particularly in low-and middle-income countries, more studies on mental health stigma in young people need to be conducted in those settings.

It is worth noting that the interventions that have been found to be effective from this systematic review might not generalise to China. It has been argued that stigma is a form of social marking to indicate social difference and ostracization (Goffman, 1963). Thus, stigma might look different in different contexts with various effects and forms. In China, there is very little known about the nature of mental health stigma in young people and how they account for the existence of mental health stigma. Given this, it is difficult to conclude whether interventions with efficacy in other countries will generalise to Chinese young people.

# Chapter 4
# Study 2 Understanding Mental Health Stigma in Chinese Young People: A Qualitative Study

## 4.1 Introduction

This chapter describes Study 2 investigating the views and experiences of Chinese young people in relation to mental health stigma. The findings of Study 2 were the basis for Study 3. This chapter reports on the rationale, methods, findings and conclusions of this qualitative study.

### 4.1.1 Study Rationale

In research, the complexity of stigma requires stigma-related research to be conducted based on specific social contexts and populations. Due to cultural views about mental health, stigma in China might look different to stigma in another country with different effects. In Chapter 3, effective anti-stigma interventions and components that might be effective in those interventions have been identified. Despite this, there is unknown whether those interventions and their components are appropriate for Chinese young people. Hence, it is essential to conduct specific country investigation on mental health stigma. Also, there has been a general lack of exploration of the direct subjective experience of mental health stigma in young people. It is paramount importance of hearing from young people directly and for research on mental health stigma to be informed by them to understand youth sub-cultures and fill generation gaps. Therefore, there is a need to explore the nature and impact of mental health for young people to develop effective anti-stigma interventions (Stutterheim & Ratcliffe, 2021). Moreover, to address mental health stigma among Chinese young people and develop a prototype anti-stigma intervention for them, as service end-users, Chinese young people's views of what kind of anti-stigma approaches would be helpful is vital.

### 4.1.2 Study Aims and Research Questions

Study 2 aimed to investigate experiences of and views about mental health stigma among Chinese young people; and understand where Chinese young people anti-stigma interventions should be targeted and how.

This study addressed four research questions:

a. What is Chinese context affecting mental health stigma in young people?
b. How do Chinese young people experience mental health stigma?
c. What do Chinese young people think about mental health stigma reduction?
d. What approaches do Chinese young people think could be helpful in reducing mental health stigma?

## 4.2 Methods

This was a qualitative study, involving an exploratory, semi-structured online interview between individual participants and the researcher. It adopted an interpretative view focusing on knowledge arising out of studying what mental health stigma meant to young people in China. There is evidence that research questions that are most closely from the participants' standpoint in relation to experience, meaning and perspective are suitable to be answered by qualitative methods (Hammarberg et al., 2016). In Study 2, research questions were about lived experiences of and viewpoints on mental health stigma in Chinese young people as well as their opinions about and suggestions for mental health stigma reduction. Hence, qualitative methods were used.

### 4.2.1 Ethics

The study acquired ethical approval from the Faculty of Health and Medicine (School of Psychology) Research Committee (reference: PSY-270 and PSY-356 on 5th November 2021).

Ethical considerations about safeguarding were considered for the qualitative interviews. The topic focused on mental health stigma, which may lead participants to recall unpleasant memories and feel upset. A stepped approach was prepared to manage different levels of distress: (i) If they felt uncomfortable, I would pause the interview and offer to take a break; (ii) if the participant did not wish to carry on, the interview would stop, and the participant would be asked if they wished to withdraw their data and how they could be supported; (iii) if the participant would find it helpful, a person who was trusted by the participants would be contacted for support. There was a small possibility that participants might disclose harm to self or others during the interview. If so, the protocol of confidentiality would be broken, and I would report to my supervisors to discuss what actions should be

taken to ensure safety. This was clear on the participant information sheet (see Appendix B.1).

### 4.2.2 Participants Eligibility and Recruitment

Participants were eligible if they were Chinese, were currently in high school or had completed high school education in China, aged 16 to 19 years old, and able to complete an online interview in Chinese. According to the World Health Organisation, adolescence is considered as being between the age 10 to 19 (World Health Organisation, 2023). This study targeted young people aged 16 to 19 years because this group is generally in high school in China. Also, they were at same education level so that they had similar levels of understanding of the interview questions. To gain wider perspectives on both self-stigma and public stigma, participants who both had and did not have lived experience of mental health conditions, which I refer to as Group A and B respectively were sought. Participants were asked if they have/had a mental health condition before the interview. Mental health conditions in this study were defined as “health conditions involving changes in emotion, thinking or behaviour (or a combination of these). Mental illnesses can be associated with distress and/or problems functioning in social, work or family activities” (American Psychiatric Association, 2022). Notably, “mental illnesses” in the above definition refers to clinical rather than sub-clinical in this study. A mental health condition can be determined via self-report or diagnosis for this study. Different types of mental health stigma can elicit different forms of intensity of stigma (Rössler, 2016). In this study, young people who were diagnosed with a severe mental health condition, such as schizophrenia, were excluded, as this study examined stigma linked to more common mental health conditions, such as depression and anxiety. A further factor in this decision was that I was not suitably qualified to support participants with complex needs. In this study, I intended to develop an intervention that could break time and space limits. As a potential approach to reduce mental health stigma, social media was considered as a way to deliver an anti-stigma intervention, and discussion of this possibility was included in the qualitative interview. In this study, social media was defined broadly. It referred to social activity online, allowing users to create, share, and interact with content with each other in virtual communities. It also included any electronic delivery of information/content including internet-enabled and audio-visual materials.

The participants were recruited in Feidong and Hefei in China. Group A participants were approached by mental health teachers (who taught mental health as a subject or undertook counselling) in schools. These mental health teachers approached potential participants who they knew had experience of a mental health condition (either part of ongoing condition) and offered them the study information. For Group B recruitment, a study poster was put up in schools. Given that some Chinese schools were unresponsive about assisting with recruitment, recruitment was also conducted via personal networking and snowballing (see Appendix B). To increase ethnic diversity, participants and recruiters were asked if they knew anyone from minority groups who might be interested in this study. Interested participants were invited to contact the researcher via email to gain further study information, have the opportunity to ask questions, and proceed to informed consent if they wished.

### 4.2.3 Interview Schedule

An interview guide and interview questions were developed following careful preparation to enable effective interviews (Turner, 2010; see Appendix B). In line with recommended approaches, interview questions were closely in line with the research question as well as the purpose of the study (Brinkmann & Kvale, 2015). This study aimed to understand experiences and views of mental health stigma, and opinions about strategies for reducing mental health stigma, including the role of social media in stigma reduction. Interview questions were grouped in three sections: lived experience of and viewpoints on mental health stigma, need for interventions for mental health stigma reduction, and opinions on social media for mental health stigma reduction (see Table 4.1). Neither the questions, nor their order, were strictly fixed. Follow up questions were raised to further investigate the experience of mental health stigma from a holistic view (Roberts, 2020).

A synchronous online interview was employed, i.e. participants and the researcher used the internet simultaneously to join a real time conversation via software (Jowett et al., 2011). The procedure of interviews conducted consisted of six steps. The first step was pre-interview in which I contacted participants to collect demographic information and discuss interview time. The second step was welcome and greetings, used as an opening in the interview. The third step was an introduction to the interview. The fourth step was clarification, used to confirm whether participants fully understand the format of interview and have any questions. The fifth step was the stage

where I stated that participant's written consent form had been received and stored safely. The last step was the interview session where I conducted the interview by asking interview questions to collect data.

It has been argued that participants give more than they receive when taking part in research studies (Brinkmann & Kvale, 2015). Also, participants might experience stress or doubt during the interview and debriefing can help to mitigate this (Roberts, 2020). Therefore, to help participants feel comfortable at interview end, I asked some questions, such as are there anything you would like to add? How was the interview process for you? Next, I reminded them how the data they provided would be handled and in what circumstances I may contact them again. Additionally, participants were reminded that they have rights to withdraw data and how to do it. At last, I thanked them for their time, expressed gratitude for willingness to share personal experience, and appreciated their contributions for the study.

Reflection is needed by researchers after each interview (Brinkmann & Kvale, 2015). To reflect my questioning and interview style, I put a list of points that are helpful to reflect in the interview guide, including interview questions (scope, sequence, and follow-up questions), some details, such as manner, language, rapport, unanticipated circumstances, and influence of interviewer (see Appendix B). This was also beneficial to improve my interview skills during further interviews.

**Table 4.1 Interview Questions**

| Section 1 | Interview Questions | Purpose of the Interview Question |
|---|---|---|
| **Q1** | Could you briefly help me understand why you interested in taking part this study? | An easy entry point into the interview and to understand participant motivation. |
| **Q2** | This study focuses on mental health stigma. Have you ever heard of mental health stigma? (If so, I ask - would you please tell me what mental health stigma is; if not, I give an explanation and ask them to reiterate the meaning of mental health stigma to make sure they have understood it). | The question was to understand their knowledge of mental health stigma in Chinese young people. It was important to ensure a shared understanding about the key concept before the interview delved further. |
| **Q3** | Group A: Can you tell me a little bit about what stigma, or other difficult experiences like this, you have experienced?<br>Group B: Can you tell me a little bit about what stigma, or other difficult experiences like this, your peers or people around you have experienced? | This question was to understand what settings/situations/forms/nature about stigma Chinese young people experienced, namely, their lived experiences. |

| | | |
|---|---|---|
| **Q4** | How has the experience affected you/your peers?<br>Prompts:<br>Have you shared your experience with other people, such as peers, parents and teachers? Why?<br>Have you sought help for your difficulties? Why?<br>Have you noticed any differences that other people treat with you after others are aware of your difficulties? How did they treat with you? | This question aimed to investigate how mental health stigma impacted on the young person. These prompts are related to literature which reports that mental health stigma could bring about delayed treatment, isolation, and concealment etc. |
| **Q5** | What is your view on mental health stigma? | The question helped understand attitudes/viewpoints on stigma in Chinese young people. It was a very broad exploratory question to be sensitive to what mattered to the participant. |
| **Q6** | What do you think causes mental health stigma exists? (Questions about social moral/norm, cultural beliefs/values, parental pressures etc. could follow up). | The question was to understand what young person perceive to be the main drivers of mental health stigma which is a basis for navigating stigma reduction. |
| **Section 2** | **Interview Questions** | **Purpose of the Interview Question** |
| **Q7** | In terms of the causes of stigma produced that you talked about, any of them could be changed in order to lower stigma? How? | This question explored thoughts/options on stigma reduction in Chinese young people. We were interested in participant-led solutions to the problem of mental health stigma. |
| **Q8** | What do you think is the most important thing to focus on stigma reduction? | The question was to generate content of approaches to mental health stigma and anti-stigma intervention. |
| **Q9** | If you were in charge of project to reduce stigma, what approaches/components you want to include and exclude?<br>Prompts:<br>Developing anti-stigma handbook.<br>Carrying out mental health stigma-related school play.<br>Playing video game around anti-stigma components.<br>Delivering interactive workshop about anti-stigma etc. | These questions explored the acceptability of anti-stigma approaches and components. These prompts are related to literature which reports common approaches that were used to reduce mental health stigma. |
| **Q10** | What do you think parents/families, teachers and peers could contribute to anti-stigma programme? (This question could be as a follow up of Q8 & Q9). | This question was to understand Chinese young people's needs for the role that parents/families, teachers and peers play in reducing stigma, which also helps to generate content of intervention. We were interested in these groups as despite they have not been involved existing interventions for reducing mental health stigma in young people, they could work. These could be included when developing an intervention that adapts to Chinese young people. |

| Section 3 | Interview Questions | Purpose of the Interview Question |
|---|---|---|
| **Q11** | What social media do you use most? Do you think it could be used to be a platform for reducing stigma? How? | These questions aimed to know Chinese young people's viewpoints on using a social media platform in anti-stigma intervention. The literature has reported that social media could be a useful tool to deliver mental health-related interventions. |
| **Q12** | If you think some weaknesses existed when using social media to reduce stigma, how do you think to improve its usage? How to maximum its function for reducing stigma? | These questions were to identify acceptable and potentially effective components of social media-related anti-stigma intervention. |
| **Q13** | If you have a chance to establish contents on anti-stigma by social media, what will you do? Why?<br>Prompts:<br>Creating a public account in social media for delivering knowledge about mental health stigma and strategies for reducing stigma.<br>Having an account in social media for posting videos to share experiences that people living with mental health.<br>Designing online quiz about mental health literacy and tips on wellbeing. | The question helped generate content of social media-related intervention. It was deliberately open at the outset to hear participant ideas, but if they could not generate any, then prompts were offered. |

### 4.2.4 Pilot Testing

A pilot interview can be conducted for reviewing the effectiveness of interview question and feeding back from interviewees (Chenail, 2011). I conducted two pilot interviews with my relatives who were Chinese young adults. Also, to experience the position of an interviewee, I was interviewed about general mental health issues by another PhD student. This experience helped me consider what kind of ways of talking and communicating might be helpful to my interviewees. In addition, I created a reflective document after the first five interviews and discussed issues that I was unclear about, e.g. if my questioning was leading the interviewee to give me answers that I expected, with my supervisors. The interview guide and questions were also updated based on reflection and discussion.

### 4.2.5 Data Collection

A synchronous online, semi-structured interview was conducted one-to-one (Jowett, Peel & Shaw, 2011) in both Study Group A and B via WeChat. The ways an online interview is different to face-to-face interviews, and specific software, hardware, and high-speed Internet access generally required (Gray et al., 2020). Also, another difference to face-to-face interviews is to create and maintain rapport with participants (Deakin & Wakefield, 2013). A

rapport building may be influenced by interviewers' personality and comfort level with technology (Gray et al., 2020). It has been proposed that online qualitative research is valuable, and its advantages outweigh the challenges (Ayling & Mewse, 2009). There has been found no differences in interview quality between face-to-face interviews and online interview, and participants were more open and expressive by online interviews (Deakin & Wakefield, 2013). Previous literature has identified advantages of online interview, and the ability of breaking down some barriers that the conventional face-to-face interview faces, such as the time, geographical distance, and travelling costs (James & Busher, 2009). WeChat is a secure application that is seen as the dominant Internet communication application in China and can be used to help researchers manage interactions to obtain data (Moffa & Gregorio, 2023).

Participants' demographic information was gathered before interviewing. Each interview took around 45 minutes, and was audio recorded with participants' consent via recording device. After completing the first five interviews, I realised that mental health stigma issues were sensitive for participants, and an individual interview was more suitable for Study Group B rather than a focus group planned originally. Also, participants were in different schools and had different schooling times, so it was more convenient to organise online individual interviews. Therefore, subsequent participants in both Study Group A and B attended an individual interview.

### 4.2.6 Data Preparation

The research population was Chinese young people, and the interviews were conducted using Chinese. A professional translator was introduced at this stage to ensure accuracy for data analysis, because in cross-language qualitative health research, rigorous translation is considered essential to produce valid data so as to reduce discrepancies and provide understanding of beliefs and behaviours in various cultural groups (Al-Amer et al., 2015). Given that there is no specific word referring to "stigma" in Chinese, the term I used in interviews is conventional and widely used in books and on the internet. In order to make sure that participants could understand what mental health stigma is, I took time at the start of each interview to explain this term and how it might look in practice. To understand if participants then understood mental health stigma, I asked them to state what mental health stigma meant. If they misunderstood this term, I continued to explain until they understood. During the interview, participants sometimes talked about

mental health instead of mental health stigma. When this happened, I reminded participants of the difference between mental health and mental health stigma. Also, I explained the definition of social media and how it might look in practice to participants before I asked questions about the role of social media for reducing mental health stigma. I transcribed all recordings and five of transcripts (three from Study Group A and two from Study Group B) were translated into English for data analysis check amongst my supervisors and me. This joint work provided direction to me for the rest of the analysis.

After completing an interview, a unique participation code that is only known between participants and me was generated for protecting participants' privacy. Participants' names and any identifiable details were anonymised, and all collected data were stored on the security approved University of Leeds OneDrive and on password protected documents.

### 4.2.7 Data Analysis

Framework analysis (Ritchie & Spencer, 1994) was employed to analyse the data. To choose the appropriate qualitative approach for data analysis, two key issues were considered: the research questions and the nature of data. Based on research questions of this study and qualitative data obtained, some qualitative candidates could be: Interpretative Phenomenological Analysis (Smith et al., 2009), narrative analysis (Crossley, 2000), grounded theory (Glaser, 1967), and thematic analysis (Braun & Clarke, 2006). This section briefly sets out why none of these were deemed suitable.

Interpretative phenomenological analysis aims to interpret personal lived experience of a particular phenomenon and the meaning of that experience for the participant (Parkinson et al., 2016). However, the purpose of exploring experience of mental health stigma in this study was to understand what kinds of mental health stigma participants had experienced in China, as well as their opinions on mental health stigma and suggestions for interventions, rather than only how they were making sense of the meaning of their experience. Also, participants who were in Study Group B did not have direct lived experience of being stigmatised. Hence, interpretative phenomenological analysis was deemed unsuitable.

Narrative analysis is used for analysing “the stories people create, engaging in an inquiry of asking a given question of the narrative 'texts'” (Petrakis, 2017). Narrative analysis is in accordance with the research aim that Chinese young people were telling their personal story about mental health stigma, but the study aims were not to explore how Chinese young people were representing their experiences as a type of narrative; hence, this analytic method was not used.

Grounded theory enables the generation of theory, by examining patterns in participants’ experiences (Engward, 2013). With regards to this study, grounded theory was not under a consideration because this study did not try to generate theory.

Thematic analysis, which is a method for “identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 79). Thematic analysis is employed widely in various epistemologies and research questions (Nowell et al., 2017), but it could introduce the risk of inconsistency and compromise coherence when themes are developing from the research data by researchers (Holloway & Todres, 2003).

Ritchie and Spencer (1994) outlined four types of research questions that help researchers decide if framework analysis fits their study. Contextual research questions identify the form and nature of what exists; diagnostic research questions examine the reasons for, or causes of, what exists; evaluative research questions appraise the effectiveness of what exists; and the strategic research questions identify new theories, policies, plans or actions. The above four types of research questions were used to assess six research questions that this study explored to decide if framework is suitable for this study.

This study attempted to address four questions. First, the research question “What is Chinese context affecting mental health stigma in young people” fitted the “contextual” and “diagnostic” category. This question involved participants’ perception of mental health stigma and their perceived causes of mental health stigma. These were broken down into several interview questions, for instance, “Have you ever heard of mental health stigma? (If

so, I ask - would you please tell me what mental health stigma is?") "What is your view on mental health stigma?" and "What reasons you think that cause mental health stigma exists?" The first two interview questions attempted to explore the context of mental health stigma, namely, participants' knowledge and opinions about mental health stigma. This helped to obtain general understanding of mental health stigma exists in Chinese young people and provide preliminary background for developing an anti-stigma intervention. The last interview question fitted "diagnostic" category, because it attempted to examine causes of mental health stigma exists in Chinese young people. This diagnostic question was useful to develop an anti-stigma intervention by addressing causes.

The second research question "How do Chinese young people experience mental health stigma" fitted the "contextual" category, and was addressed by an interview question "Can you tell me a little bit about what stigma, or other difficult experiences like this, you have experienced?" This was experiential question that tried to find out the nature of Chinese young people's experiences of mental health stigma. It is vital to explore experiential context in which possible components of an intervention for reducing mental health stigma could be identified according to kinds of forms of being stigmatised. Besides, this study was not only interested in experiences of mental health stigma, but also had interests in impacts of being stigmatised in Chinese young people. For instance, an interview question was "How has the experience affected you/your peers?". This interview question fitted "contextual" category, which explored forms of consequences of being stigmatised. This also highlighted the significance of developing an anti-stigma intervention in Chinese young people.

The third research question "What do Chinese young people think about mental health stigma reduction?" fitted "contextual" category. These questions tried to investigate viewpoints of mental health stigma reduction in reducing mental health stigma, which helped to understand the nature of mental health reduction exists in Chinese young people.

For the fourth research question, "What approaches do Chinese young people think could be helpful in reducing mental health stigma" fitted the "strategic" category. This question tried to obtain approaches that could be

used for reducing mental health stigma, which played an important role in developing components in an anti-stigma intervention.

In addition to this, this approach involves creating and working with categories, codes, and themes. This helps to organise data. A category is analytical related to each research question created by researchers. Under categories are codes, which are sub-levels of data related to that category. Codes are “the means through which data is interpreted and analysed, and ultimately how researchers develop research outcomes and conclusions” (Church et al., 2019, p. 3) whereas themes were more abstract level and identified through data (Morse, 2008). Themes emerge from analysis of codes, and they are defined as “recurrent and distinctive features of participants’ accounts, characterising particular perceptions and/or experiences, which the researcher sees as relevant to the research question” (King & Horrocks, 2020). Sub-themes are possible to be developed underneath the umbrella of a theme. In this study, initial categories were identified based on research questions, and data were coded under each category. Last, themes were developed based on the codes identified. For instance, one of initial category of codes was “experiences of mental health stigma”, a code within this was “nature of mental health stigma”, and a theme developed from the category was “perceived public stigma”. The categories that a set of codes are organised into can be developed by researchers jointly, involving an analysis for managing and organising data (Gale et al., 2013). Framework analysis involves “retrieval, exploration, and examination during the final mapping and interpretation stage” (Parkinson et al., 2016, p. 116), which is helpful to organise data and generate a final framework. It is also applicable and compatible to conduct framework analysis by using NVivo software, which benefits data organisation and management. Researchers argued that the framework is conducive to summarising or reducing data that supports answering the research questions because a new structure for the data has been created by the framework (Gale et al., 2013).

Moreover, framework analysis is “an analytical process which involves a number of distinct though highly interconnected stages” (Ritchie & Spencer 1994, p. 311). ‘Framework’ is “systematic” and “disciplined”, and the process follows a particular order to develop the framework. Ritchie and Spencer (1994) believed that an advantage of framework analysis is ideas can be

reconsidered and reworked precisely following the well-defined procedure, as the process of analysis has been recorded and is therefore accessible.

Therefore, to sum up, there are several considerations deciding to use framework analysis. First, the research questions in this study fitted the four types of research questions for employing framework analysis. Second, framework analysis was considered as a good approach to organise data. Last, framework analysis is flexible to reconsider and rework themes.

### 4.2.8 Conducting Framework Analysis

Based on key issues, framework analysis features a systematic process that consists of sifting, charting and sorting material. Ritchie and Spencer (1994) outlined five steps for doing framework analysis, and this study followed these five steps to conduct analysis.

#### 4.2.8.1 Familiarising

Familiarising myself with the data and then having a holistic sense of each interview was the primary aim at this initial stage of analysis. To achieve this aim and look for preliminary codes, I listened to interview audios, verbatim transcribed them, read transcripts, and did a summary for each interview. Also, I took notes on potential areas of interest and significance, as well as impressions, thoughts, and ideas I had in light on the research questions. For example, I was aware that participants mentioned their lived experiences related to their parents mostly, and particularly their dismissal of mental health issues, which I did not realise before the interviews. Also, I noticed that participants perceived more emotional than functional impacts of mental health stigma.

#### 4.2.8.2 Identifying a Thematic Framework

The aim of this stage was to organise data in a meaningful and manageable way for subsequent retrieval, exploration, and examination during the final mapping and interpretation stage (Parkinson et al., 2016). I firstly developed a preliminary codebook (see Appendix B) based on a priori concerns (research questions) as well as emergent codes arising from the earlier familiarisation step. Table 4.2 shows the initial framework that was structured according to the three analytical questions.

**Table 4.2 Initial Thematic Framework**

| | |
|---|---|
| **Categories** | **1. Understanding the experience of mental health stigma**<br>• Perception of mental health stigma |
| | **2. Experiences of mental health stigma**<br>• Types of mental health stigma<br>• Nature of mental health stigma |
| | **3. Mental health stigma reduction**<br>• Attitudes towards mental health stigma reduction<br>• Attitudes towards using social media platforms to mental health stigma reduction<br>• Approaches to reduce mental health stigma<br>i) School/teachers<br>ii) Parents<br>iii) Peers<br>iv) Social media platforms |

These three analytical categories were developed based on research questions of this study, which explored how Chinese young people viewed mental health stigma, their experiences of mental health stigma, and the attitudes and approaches participants held and proposed for mental health stigma reduction. NVivo, a software programme used for qualitative and mixed-methods research, which was involved at this stage. This preliminary codebook was uploaded in NVivo for beginning coding.

Others have pointed out that following the five steps that Ritchie and Spencer (1994) proposed to conduct framework analysis by teamwork "made more sense at some stages than at others" (Parkinson et al., 2016, p. 114). In other words, group coding is important in framework analysis, because teamwork allows more details to be attended to, and "teamwork in qualitative research can broaden understandings of concepts and allow for the meaningful development of interventions" (Milford et al., 2017, p. 2). In addition to this, researchers have argued that those codes that are not well-defined fully could be identified by multiple coders with disagreements, and greater conceptual clarity could be produced and strengthened during analysis (Keene, 2023). Therefore, my two supervisors helped me do joint coding in five professional English transcripts to increase data rigour. My two supervisors were allocated three transcripts respectively (two from Study Group A and one from Study Group B). Of these, one transcript from Study Group A was given to both supervisors. I compared their coding with mine and discussed differences in our supervision meetings and then finally came

to a mutual decision. For instance, in terms of coding that was about stigmatising attitudes and behaviours, I coded what participants' parents said to participants as stigmatising attitudes, but my supervisors coded them into stigmatising behaviours instead. Thus, we discussed these two concepts and defined them. The group coding work based on these five transcripts gave the guidance for me in rest of coding work.

#### 4.2.8.3 Indexing

The aim of this stage was to organise the coding into the framework categories. This stage involved the process of systematically annotating transcripts to recognise consistencies. I worked through each transcript text, highlighting a segment of the text and deciding on which category from the framework to assign the text. If no existing code was suitable for a text segment, a new code was devised. This process was repeated across transcripts until no new codes were required, i.e., all created codes were sufficient to capture the data.

#### 4.2.8.4 Charting

Organising the data into a more manageable format was one of aims of this stage. Another aim was to facilitate data analysis in the next stage of framework analysis. The indexed data were summarised for each category and the summaries were organised in chart tables. To chart an interview, I worked through each framework category, and all of the data that had been indexed to that category were summarised. There was a summary for each category, for each participant. Charting tables with summaries were developed.

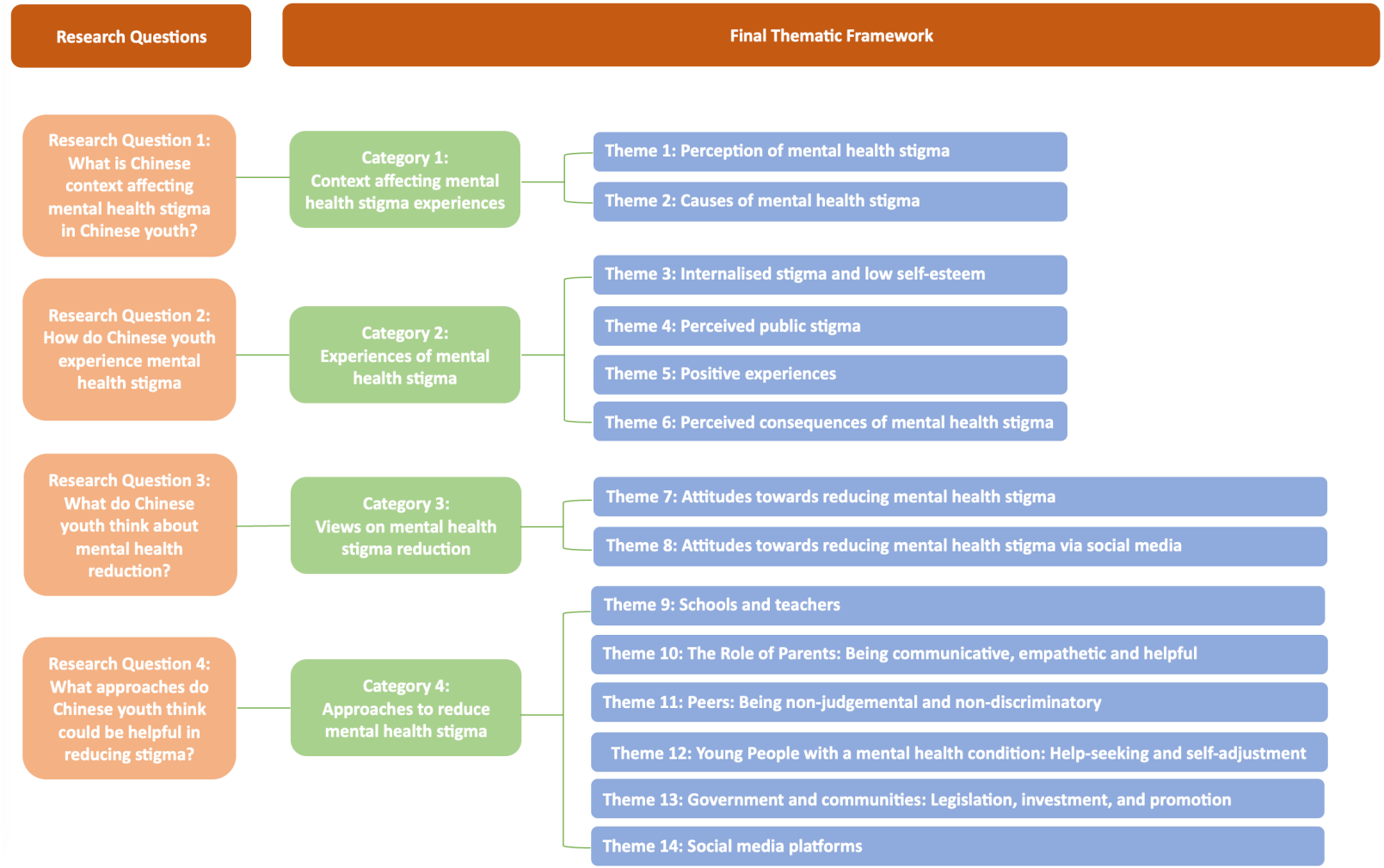
#### 4.2.8.5 Mapping and Interpretation

The aim of this stage of framework analysis was to move beyond data management toward generating themes. I pulled together key characteristics of the data to map and interpret the data set as a whole, and key aspects of this analysis involve finding themes in data coded across participants and in data from each interview. For example, I looked through the charted data and summaries in the category "mental health stigma reduction" first, and then attempted to identify key characteristics of these data. Next, I pulled together these key characteristics and tried to develop themes that can be used to answer research questions (see Appendix B).

According to Ritchie and Spencer (1994), this stage is to describe and clarify concepts that are associated with research questions, represent the range and nature of phenomena within the data, create typologies (if wished), establish relationships, and develop “bottom-up” explanations for these, as well as to propose strategies for intervention and practice.

The thematic framework was updated constantly with unexpected fields found and codes refined based on data collected. To increase inter-coder reliability (Kurasaki, 2000), my two supervisors and I conducted an early sense-check of the initial coding framework to examine if it was clear and usable, and if it captured the data well. This informed refinements and subsequent analytic steps. The final thematic framework was generated consisting of four analytical categories. Figure 4.1 shows the relationship with research questions and the final thematic framework.

**Figure 4.1 Final Thematic Framework**



## 4.3 Results

### 4.3.1 Demographic Data

A total of 32 young people participated in this qualitative study. Of these, 19 participants had experience of mental health conditions and were Group A, and the remaining were Group B (no mental health condition and no experience of stigma). Participant ages ranged from 16 to 19 years old, and the mean age was 17.8 years old. More than half participants were female. Participants were in either high school or the first year of university. Most participants were Han, which is the majority group in China, and two participants in Group B were Hui, which is an ethnic minority group. Participants were from Hefei, Feidong, Beijing, Jinan, Anqing, Huanggang, Qingdao, Columbus and Toronto. These participants who were living in Columbus and Toronto for study were considered suitable because they had completed high school education in China. Of those cities, except for Columbus and Toronto, which are based in the USA and Canada, Hefei, Jinan, and Qingdao are provincial capitals, and Beijing is a municipality directly under the Central Government. These cities are, therefore, relatively developed compared to other cities in China. Table 4.3 shows participants' demographic information.

**Table 4.3 Participants Demographic Information**

| | | Group A (With lived experience of a mental health condition) | Group B (Without lived experience of a mental health condition) |
|---|---|---|---|
| Gender | Male | 7 | 4 |
| | Female | 12 | 9 |
| Age (Mean) | | 17.6 | 18.2 |
| Ethnicity | Han | 19 | 11 |
| | Hui | 0 | 2 |
| Education level | High school | 16 | 6 |
| | Undergraduate | 3 | 7 |
| Region | Developed | 10 | 12 |
| | Developing | 9 | 1 |

### 4.3.2 Interview Data

Outcomes of the framework analysis are presented below. Reporting is structured according to categories and their constituent themes and sub-themes. In total, there are four categories and fourteen themes. Whether Group A, B or both contributed to analytical outcomes were reported.

#### 4.3.2.1 Category 1: How Does Chinese Context Affect Experiences of Mental Health Stigma?

This category demonstrates how the Chinese context affects mental health stigma experiences in young people, and two themes were created.

**Theme 1 Perception of mental health stigma**

This theme captured perceptions of mental health stigma in participants, and two sub-themes indicated participants' understanding and general beliefs of mental health stigma respectively.

***Understanding of Mental Health Stigma***

Both Group A and B, participants were unfamiliar with the concept of 'mental health stigma'. Only three participants (A: Qiao & Li; B: Keke) had recognised the term: *"I heard of this term, and I don't know much about it, but I can have a guess."* (A: Li)

***General Beliefs of Mental Health Stigma***

This sub-theme captured what general beliefs of mental health stigma Chinese young people held. After clarification of the term, participants explained that they felt mental health stigma arises from people not accepting others' experiences of mental health conditions: *"…some people don't believe that mental health conditions* exist*, of course, they cannot accept others' experience of having mental health conditions."* (A: Jing). Qiao (A) explained the public view that mental health conditions are imagined, and consequently, de-legitimised: *"From the public opinion, youth mental health problems are viewed as making a fuss about an imaginary illness."*

Participants gave examples of mental health stigma based on their understandings. Group A mentioned public stigma and self-stigma, but Group B did not differentiate those two types. In Group A, the most reported view was that mental health stigma could result in devaluation of self, low self-esteem, or low confidence, suggesting more emotional impacts of

stigma, as one participant said: *"stigma is when you're in an environment that makes you have negative emotions resulting in shame or bad impacts on your self-esteem. And then you'll have some bad thoughts and behaviours."* (A: Xiaoxiao). Yanzi (A) explained that this may include self-denial: "…*basically youth don't have a prejudice against this [mental health conditions], but probably they [with mental health conditions] have self-denial*."

Group B mostly commented on how people with mental health conditions are often discriminated against by other people and can be alienated from friends, as Wen (B) explained: *"I probably think, if we [general young people] have friends who have mental health conditions, we would have some judgements about them, including something bad, for example, we would ostracize, alienate, or scold them. I think these are all stigma."*

Keke (B) explained that things are changing, but the fundamental problem is a lack of understanding: *"but the bias happens actually by the elders, and for us, we are less likely to have this kind of bias…I think people are gradually accepting [mental health conditions], and people are not prejudiced, but simply don't understand this illness."* Yanzi (A) stated: *"…because people don't know what mental health conditions look like."* Participants perceived that *"people don't have much mental health knowledge."* (B: Tongtong)

**Theme 2 Causes of Mental Health Stigma**

This theme was created with five sub-themes to demonstrate specific contextual causes of mental health stigma in Chinese youth.

***Dismissal by Significant Adults***

One commonly reported cause was dismissal by significant adults. Participants in both groups perceived that in significant Chinese adults, mental health conditions are considered non-existent so as to deny and ignore mental health conditions that their children experienced. As Shuai (A) said: *"For parents and teachers, they think mental health conditions don't exist, and it's not a big deal at all, and this causes others, especially their children to stigmatise".* Wen (B) talked about parents' dismissal fuels children's self-stigma: "*Parents believed that they feed, drink, clothe and shelter their children normally [parents have provided all necessity], and*

*don't think their children can get mental illnesses, and this belief can cause those with mental health condition question themselves".*

***Uncertainty about Engaging People with a Mental Health Condition***

This sub-theme represented unfamiliarity or/and uncertainty in responding to those with mental health conditions, and that people often showed coldness and distance. *Participants* perceived those people might fuel mental health stigma as Yanzi (A) explained: *"People would be very careful to us, and maybe feel afraid to speak with us, which is what I felt stigmatised"*. Xiaoxiao (A) similarly conveyed that *"other people just don't know us, and they can't understand [what we experienced]."*

Some Group B participants expressed their willingness to help but they did not know how to respond to mental health conditions that peers experienced, as Keke and Dahai explained: *"I always ignore and keep away from them, because although I want to help them out but when it comes to the practical ways, I feel it's hard to find those ways and make it happen."* (B: Keke); *"They have mental health conditions, what should I do? I can't do anything, and I just don't know how to deal with them, so just leave them alone."* (B: Dahai)

***A Lack of Empathy***

A few participants in both groups mentioned lack of empathy as fuelling mental health stigma. They believed that the inability to empathise with others' experiences could bring about mental health stigma. As Juanjuan (A) said: *"I think no matter how much we do for others, we're still self-centred. We haven't experienced what others have, and we don't really understand others"*. Tongtong (B) explained that *"Perhaps we don't feel the pain of mental health conditions, and if we don't feel the pain, we would downplay it"*.

***Misleading News Reports***

Misleading news and reports that could bias people against persons living with mental health *conditions* were referred to by some Group B participants. Tian (B) said: *"The information spread on the network is not always real or accurate, some things are biased. And if people get the biased information, they may have stigmatising beliefs".* Huimin (B), a Hui participant, explained a common phenomenon where *"lots of news reported that youth with*

*depression jumped off a building and killed themselves, which makes the public afraid of depression"*.

***Spreading Stigma***

A few participants in Group B mentioned negative group behaviours among peers as intensifying mental health stigma. They believed that following those who showed discriminatory behaviours could heighten mental health stigma. As Lulu (B) mentioned a most common phenomenon in schools: *"There's a person with poor mental health, and at the beginning just one or two classmates discriminated against him, and gradually, more and more classmates followed them"*.

Ruilin (B) experienced similar situation on the Internet:

> *There're some arguments on the Internet, and youth tend to follow ideas that most people hold, even though most of them don't know what happened actually, and this often happens when blaming those with mental health conditions for an undesirable thing*.

#### 4.3.2.2 Category 2: How Did Chinese Young People Experience Mental Health Stigma?

This category represents participants' perceived experience of being stigmatised (Group A), how their peers experienced stigma or imagining how stigmatising it might feel to have a mental health condition (Group B).

**Theme 3 Internalised Stigma and Low Self-Esteem**

Close to half of participants in Group A spoke about their personal experience of self-stigma, and a few participants in Group B talked about how internalised stigma might feel to them.

There were similarities in both groups, and the most dominant beliefs that participants had as a consequence of self-stigma was low self-esteem and feeling different to others. As Zhenzhen (A) said: *"I feel that I'm different from other people"*. Tian (B) imagined that if he had a mental health condition and said: *"[I] Just feel worthless and different from other people"*.

A few participants reported a fear of their mental health conditions, and they felt *"shameful and tried to avoid answering questions from others…"* (A: Li). Juanjuan (A) felt guilty and said: *"I have a deep sense of guilt to my family,*

*just feel that I've brought too many troubles to them…"*. Lele (B) reported her classmate who *"felt particularly disgraceful and felt she looked like an animal being studied."*

Also, resistance, rejection, and denial were reported by participants to demonstrate self-stigmatising behaviours. As Yaqi (A) said: *"I have some views on myself, and it's not other people reject me but myself"*. The resistance was also manifested in taking medications. As Juanjuan (A) spoke: *"I'm very resistant to taking medications."*

**Theme 4 Perceived Public Stigma**

Compared with self-stigma, participants in both groups perceived more public stigma. Two sub-themes demonstrate the nature of public stigma participants perceived.

***Dismissal, Pretence and Judgement***

This sub-theme identified dismissal, pretence, and judgement that participants or their peers perceived. Perceived negative attitudes towards mental health conditions by others was reported. In both groups, participants experienced mental health stigma by parents, teachers, and peers, and they perceived mental health stigma most by parents. The most reported negative beliefs and attitudes towards mental health stigma were dismissal, pretence, and judgement.

Parents were reported to convey that *"mental health is all a lie"* (A: Jing) and *"depression is something wrong mentally, and it can be fixed by itself"* (A: Liangliang). Also, parents were reported to have denied professional diagnosis, as Qian said: *"My parents didn't take my situation very seriously. Even though I've been diagnosed by doctor, my parents didn't believe the diagnosis"*. (A: Qian). Meimei (A) experienced similar dismissal by a teacher: *"My teacher generally considered my situation as an unstable emotional control because I'm in adolescence."*

Participants in both groups also perceived that they were viewed as being pretending to have mental health conditions as a form of attention-seeking. Participants mentioned that peers considered having mental health conditions as a cool thing leading to pretending to have mental health conditions.

Li (A) explained:

> *Some youth believe that it's a cool thing to have mental health conditions. And when people start to imitate these cool behaviours, people with a real mental health condition may deny their mental health condition. To prove that they're cool, some young people pretend to have a mental health condition.*

For Jiani from Group B, she was sceptical of the overuse of this label, and a certain kind of bias appeared to arise from the idea that youth were using mental health as attention-seeking:

> *It seems like there's a tendency for youth to say, 'I'm depressed', and it's common, and people put labels on it, but those people who are really depressed are actually the ones who don't get attention. And people may use depression as a kind of a gimmick, or a way to get attention and make fun of it.*

Zhenzhen (A) experienced similar situation by parents: *"Inexplicably, don't know why I wanted to cry sometimes, they [my parents] all believed that I was pretending and wanted to get attention."*

Moreover, perceived judgements were raised. Parents were perceived to view mental health condition as weakness and believed their children *"can't handle the things in life properly"* (A: Juanjuan); people living with mental health conditions were believed "*kind of dark inside", "a little abnormal", "a ticking bomb"* and *"a bad influence" by general public* (A: Shuai). Also, as Jing mentioned, *"lots of people think youth depression is episodic."* (A: Jing).

***Discriminatory Behaviours***

This sub-theme represents discriminatory behaviours that participants or participants' peers experienced by parents, peers, and teachers or schools. In both groups, alienation was perceived most. As Shuai (A) said: *"They [other people] all said that don't want to be close to me."* Huimin (B) mentioned a discriminatory experience of happened to her brother: *"Many parents wrote a joint letter to headmaster asking for my brother to be transferred to another class".*

Also, one participant's parents *"yelled"* at and *"argued"* with her when she was talking about mental health (A: Zhenzhen). Enforced concealment was also reported, and as one participant said: "*my parents didn't allow me to tell anyone about my mental illness"* (A: Juanjuan).

The most reported behaviours by peers were sarcasm, teasing and rumour-spreading, including verbal attack. Xu (A) gave an example: *"When I read a book, they [classmates] sarcastically said that you just discharged from hospital and no wonder you're working so hard"*. Gege (A) said: *"I was teased by some my classmates."* (Group A: Gege). Qian mentioned a rumour: *"Someone in our class said she [my classmate] was pregnant, and someone said she was homicidal."*

Reported discriminatory behaviours by schools or teachers included refusal of a return to school. As Qiao (A) said: *"[After my classmate got treatment] School still refused him to allow him back class"*. Apart from alienation, other reported behaviours by other people were "*laughs"* (A: Liangliang) and *"criticism"* (A: Shan).

**Theme 5 Positive Experiences**

Not all participants experienced mental health stigma, and some participants shared positive experiences. This theme captured positive or supportive responses participants received or observed when others knew their or their peers' mental health conditions. Overall, in Group A, more than half of participants perceived positive responses; more positive experiences were reported in girls, and there was no difference between two groups. Some participants reported that other people understood the experience of mental health conditions. As Juanjuan (A) said: *"I have friends who understand me and support me to receive treatments".* Help, that participants or/and participants' peers were offered was also reported. Shuai (A) explained: *"I told other friends that I have depression, they were more tolerant and may try to help me, or if they can't help me, they stayed with me".* Yanzi (A) perceived comfort from others: *"Some friends comforted me and helped me get out of the bad situation".*

Participants also perceived positive experiences from teachers and parents in both groups, showing non-stigmatising attitudes and behaviours. Li (A)

reported that his parents "*can understand my situation, and they paid more attention to my mental health and was eager to get more knowledge on mental health"*.

**Theme 6 Perceived Consequences of Mental Health Stigma**

This theme with four sub-themes represents specific perceived consequences of mental health stigma.

***Unwillingness of Disclosure and Help-Seeking***

The unwillingness of disclosure was the most reported consequence of mental health stigma in Group A. As Qian (A) said: *"Later, I didn't tell my parents [my situation], as they just can't understand me anyway".* Like Group A, Group B participants imagined mental health conditions and they were reluctant to disclose their mental health status. Lele (B) explained: *"Worse, even if bad things will happen to us, we won't share them with parents".* The unwillingness of seeking help was another consequence participants perceived. As Yang (B) explained: *"If they [peers] tease me, I really want to avoid this [mental health condition] and won't want to see a therapist."*

***Isolation***

Participants in both groups perceived isolation as one consequence of mental health stigma. As Gege (A) said: *"In the most case, I was just alone".* Yanzi (A) explained: *"The denial, like this, leads us to keep away groups"*. A participant who was Hui also gave an example: *"[my brother's poor mental health] led other classmates to not make a friend with my brother, and my brother was unable to integrate into their class"* (B: Huimin).

***Worse Mental Health Stigma***

This sub-theme captured worse mental health conditions reported by participants because of mental health stigma. As Qiao (A) said: *"It can make our symptoms get worse".* Two participants in Group reported *"self-harm"* (A: Zhenzhen & Li). Additionally, participants reported emotional impacts triggered by stigma, including feeling more *"sensitive"* and *"upset"* feeling, leading to more pressures and *"pretend to be fine"* (A: Juanjuan).

Like Group A, Tian (B) said: "[Mental health stigma] could *increase the tendency of being depressed"*. Lulu (B) spoke "*more suicide thoughts in people with mental health conditions"*, and Jiani (B) said there will be a feeling of *"sad"*.

***Negative Impacts on Schooling***

Mental health stigma could also have bad impacts on study showing distraction and involuntary quitting. As Juanjuan (A) said: *"Because of this illness, and I can't focus on my study"*. Xiaoxiao (A) talked about her classmate's experience: *"He [with poor mental health] was forced to drop out, was forced, so he just* can't *go to school"*. The perceived consequence of mental health stigma was also described by one participant who had observed this as "a kind of silent school violence" in school (B: Lulu).

#### 4.3.2.3 Category 3: How Did Chinese Young People Think about Attempting to Reduce Mental Health Stigma?

This category and its two themes demonstrate Chinese young people's attitudes towards mental health reduction, and two themes were created.

**Theme 7 Attitudes towards Reducing Mental Health Stigma**

This theme captured participants' attitudes towards reducing mental health stigma. Participants' attitudes were different in Group A and B, and Group A participants had more mixed views than Group B participants. In Group A, half of the participants believed that mental health stigma can be reduced or changed, and half of the participants held the opposite views. As Kang (A) said, *"I don't think this issue can be solved"*. In Group B, most participants held positive attitudes towards the potential of stigma reduction.

The most common reason for being negative about the potential for stigma reduction in Group A was concerns about significant adults. Participants did not believe that parents could change stigmatising beliefs because the motivation to understand was missing. As Ruoxi (A) said: *"I feel like no matter what we say, parents won't listen to us."* Another common reason was a difficulty in sharing personal experience and to be understood. As Meimei (A) explained: *"I think people who have a mental health condition find difficulty in talking about their problems. People without a mental health condition find difficulty in understanding those who with conditions."* As for Group B, participants believed that poor mental health education is a barrier to stigma reduction: *"Because there is no mental health education in Chinese primary and secondary schools to some degree."* (Beilei).

**Theme 8 Attitudes towards Reducing Mental Health Stigma via Social Media**

This theme captured participants' attitudes towards the role of social media platforms in reducing mental health stigma. Overall, participants had three attitudes in both groups: social media is helpful, social media is not helpful, and it might be helpful or not. Compared to Group A, the proportion of Group B participants who believed that social media works to stigma reduction was higher in Group A.

For reasons in favour, Group A participants believed that social media platforms are very popular among young generations.

Tiantian (A) believed social media affords a particular kind of knowledge and perspective taking:

> *It [using social media] is a better way, because social media is a kind of information received by students spontaneously, and then it will be more efficient and easier for students to accept, which is much easier to accept than that taught by teachers.*

Xu (A) believed social media allows young people to speak freely with fewer discriminations: *"It can help, because everyone is a stranger on social media, so you can speak freely, you can share with others, very few people will discriminate on the Internet."*

In Group B, participants believed that social media is a good platform to popularise mental health knowledge and improve understanding.

As Jiani (B) said:

> *Through the network of social media, people may not have too deep communication, but at least it is a good phenomenon, that is, some people who are interested in mental health, they may go for a look to have a deeper understanding of others, for those who are not interested in mental health, they do have a way to have a brief understanding.*

Similar reasons for being doubtful about the potential of social media for stigma reduction were found in both groups. Participants believed that people only pay attention to those things they are interested in, which might be unhelpful for those who do not have a need on mental health-related information. Kang (A) explained: *“I think it is unlikely, because it is a matter of people's preferences of receiving information. There’s no point if people don’t want to receive the information at all.”* Also, another report was whether the video uploaders are concerned about stigma reduction decide if the useful information on this is available for the public.

As Dahai (A) said:

> *The video is decided by the video uploader. At least most of its content is out of control. It's impossible to say that certain media report, or certain video is going to reduce the stigma [because those certain media report might not relate to stigma reduction at all].*

Some participants had mixed views about the potential of social media for promoting understanding of youth mental health. Yaqi (A) said: *“It’s hard to say. Maybe because the network information is quite various, there are good and bad, it may also aggravate their symptoms via verbal attack, but people can also get some help from it.”*

Gege (A) explained:

> *Well, it depends, because in this kind of social platform can make a lot of friends on the network, there’re good people to help you warmly, and there’re mean people may attack you, and then exclude you, anyway, it has both good and bad things.*

#### 4.3.2.4 Category 4: How Can Mental Health Stigma Be Reduced for Chinese Young People?

This category with six themes demonstrates approaches for reducing mental health stigma from Chinese young people’s perspective.

**Theme 9 Schools and Teachers**

This theme with four specific approaches captured ways participants proposals for reducing mental health stigma in schools for Chinese young people.

***Improving Mental Health Education***

The most recommended approaches to reduce mental health stigma in both groups was the mental health education to increase mental health knowledge and strategies for those experiencing mental health stigma. Participants believed that schools should set up mental health-related courses regularly with small-size class, and these courses should be compulsory linking to academic grades or assignments to attach importance to mental health. As Qiao (A) said: *"The small-size class teaching is more feasible, otherwise there will not be an effect."* (Qiao);

Tianian (A) also stated:

> *From the school's view, for example, some courses about mental health should be offered regularly, and those courses should be accounted in final grades, so youth can pay attention to it. In fact, I think school can do more, because the school's publicity is kind of compulsory.*

Shuai (A) also emphasised the importance of using real cases and introducing solutions to stigma to increase understanding of mental health stigma in class. He said: *"I think they should include useful and practical approaches, telling us how to appropriately respond to those with a mental health condition, what mentally unhealthy looks like and how to solve them, which I think they're more useful."* Qiao (A) suggested less using jargons, and she said: *"the courses should include a little less professional concepts, like jargons, and the content should also be closer to our life, and more inclined to the practical."*

Apart from those similarities in both groups, Group A participants talked about *"fundamental education"* (A: Kang) on mental health, which should *"invite some professionals who are authoritative to give relevant lectures"* (A: Juanjuan). The teaching style could be *"a circle to do group work"* (A: Yaqi), *"interactive"* (A: Ruoxi), and relevant *"books"* (A: Qiao) should be available. Also, education on mental health should *"have a national education plan to offer mental health-related courses across since primary and secondary schools"* (Xu). Schools should give *"some guidance"* about responding to mental health stigma and *"more humane care should be offered to these students with a mental health condition"* (A: Qiao). Also, Lele (B) spoke: *"the*

*privacy of students should be fully considered in the mental health course design"*.

Participants believed that their parents should receive these courses as well: *"I think it's necessary to educate parents delivering mental health knowledge."* (A: Shuai)

***Mental Health-Related Group Activities***

Participants also suggested some group activities for mental health stigma reduction, and that these should be interactive based on students' ideas and communication *oriented*. As Liangliang (A) said: *"It's better to do more things like summer camps, spring outings, things like that, to consolidate and increase feelings between students and friends, and maybe have a little bit less stigmatisation."*

Participants believed that role-plays are a good way to reduce stigma, as Zhenzhen (A) explained:

> *Like role-play I think is better, because if you don't put yourself in the other person's shoes, it doesn't really help. People might understand why others have mental health problems if they play the role [of having a mental health condition].*

A showcase with performers who living with a mental health condition was proposed by participants. As Juanjuan (A) explained:

> *School can contact the student [with a mental health condition] and invite them to have a showcase… When the audience can see that those students with depression or other conditions can do such great things and be positive about life, people may reduce distance with those with depression, and know that those students just have a mental condition, like having a cold. And the problem doesn't impact their normal life, and this may be helpful to reduce stigma.*

Participants also proposed that a stigma-related speech would be helpful to reduce stigma. Xiaoxiao (A) suggested: *"I advocate that school can specially hold speech activities about mental health to call on everyone to pay attention to the students with mental health problems around us."*

***Providing Psychological Counselling Sessions***

Participants proposed that psychological counselling sessions should be available in school for students to visit freely: *"I think the psychological counselling room in our school is now free to visit, which might be good for us to seek help and reduce stigma."* (B: Yang)

***Teachers: Being Respectful, Caring and Sensitive***

This sub-theme captured what teachers could do to reduce mental health stigma for Chinese young people. Participants believed that it would be helpful if teachers could respect and care students, be sensitive to students' mental status, talk with students, and treat those with a mental health condition normally, rather than over caring. Also, a need for taking actions by teachers was reported. As Chen (A) said:

> *Teachers should be more sensitive to observe any changes in students and pay attention to those who have mental health problems, and once teachers found there are some stigmatising things happening, they should figure out what happened and take actions accordingly.*

Additionally, as Qiao (A) explained:

> *The role of teachers is very important, they must first be able to find out students who might have mental health problems in time, and then should be timely to care about or talk with these students, should also be with their parents have some timely communication. Because the role of the teacher, they can certainly help parents pay more attention to their children's mental health. Teachers should not let all students in class know about the situation of those with mental health problems, but just treat them normally, and do not let they feel that they're a very special one, I mean, do not have to deliberately special care, do not have to alienate them, just get along normally."*

Here, Qiao is advocating for a teacher response that is proportionate and does not inadvertently further stigmatise the student through over-attention.

**Theme 10 The Role of Parents: Being communicative, Empathetic and Helpful**

This theme captured an approach that young people thought parents could do to reduce mental health stigma for Chinese young people.

In both groups, participants believed that it would help stigma reduction if parents were more communicative with their children. As Ruilin (B) said: *"For parents, communication is very important."*

In Group A, parents were advised to enhance their ability for empathy, care, help and listen. Kang (A) explained: *"For parents, they should talk with their children often to understand children, and the real understanding is about the parents who are able to put themselves in someone else's shoes and give some advice to children."* Also, parents were advised to notice their children's mental status and give some advice, and bring their children for a psychological diagnosis, and attend psychological counselling sessions if necessary. As Qiao (A) said:

> *Parents they may be difficult to understand why my children have mental health problems, so I think it may help if they bring their children to have some talks to a professional counsellor, recognising that things, like poor mental health, can happen, and accepting these things."*

Additionally, participants expressed that they want to be listened more. As Juanjuan (A) said:

> *And then another one like in a psychological counselling room, and parents are on the other side to listen our talk with psychotherapist. We try to express our feelings and problems, and parents are required to listen and then talk about their thoughts after listening.*

**Theme 11 Peers: Being Non-Judgemental and Non-Discriminatory**

This theme captures what peers were suggested for reducing mental health stigma towards Chinese young people. In similarities, in both groups, peers were advised about treating those with a mental health condition like normal people. Qiao (A) explained: *"It's important for us to understand how to get along with people with mental problems normally and learn to look at those with mental health problems equally."*

In addition, Group A participants proposed that peers would be helpful if they provide company and comfort, and be inclusive, be open-minded, and

patient, rather than discriminating against those with poor mental health. As Shuai (A) said:

> *For peers, I think they can play the main role of providing company, because they can understand us more, and have the same experience with us. And sometimes when you talk to friends, you just want to get a kind of recognition and psychological comfort, it's not about changing anything, just a comfort is needed.*

Also, it would be helpful for peers to have a better understanding of mental health knowledge and pay attention to people's surroundings. Yanzi (A) said: *"Peers should have enough patience to treat the patient… Don't discriminate against anyone, and just be normal to face everyone, and welcome everyone to get involved."*

**Theme 12 Young People with A Mental Health Condition: Help-seeking And Self-Adjustment**

This theme captured approaches that those living with a mental health condition could do for stigma reduction. In Group A, participants believed it would work if they took initiatives to manage their conditions, adjust to their conditions themselves and be active, instead of judging themselves. As Xu (A) said: *"Another point is about ourselves, just be yourself, and don't care about what others say, and then don't judge yourself."*

Also, Juanjuan (A) stated:

> *I would like to see people with mental health problems like this, they take the initiative to solve the problem, rather than living negatively. Even though we have mental health problems, we still should be active to stimulate our feelings of the beautiful world.*

Additionally, seeking help from others or doctors was also reported: *"We should adjust ourselves and seek the help from people around us if necessary."* (A: Yanzi)

In Group B, Tongtong proposed that it would better to share one's mental status with others so they could have a better understanding: *"We should start from ourselves first and let everyone share the things that make us*

*unhappy, so that everyone can empathise with us and have a better understanding of what we have experienced."*

**Theme 13 Government and Communities: Legislation, Investment and Promotion**

This theme captured what government and communities could do to reduce mental health stigma for Chinese young people. In Group B, participants suggested that legislation for reducing stigma. As Dahai said: *"We could legislate that if something goes wrong with the child, the parents would be responsible, so that people may pay attention to it."*

Beilei believed that more government investment in the field of mental health would be helpful:

> *I think the government can add some investment in this aspect, and the medical insurance can be improved to cover more, and the investment in medical insurance for senior officers can be less, and more financial support can be invested in psychological aspects.*

Tian suggested the dissemination of mental health literacy by national TV channels, and he explained: *"It could be through the dissemination of television via the authority, showing the lives of people with mental health problems on TV, showing real life, so that the older generation can see this and have more understanding."* Lele believed relevant actions should be considered in a position of young people, and she said: *"Relevant departments, such as the Education Bureau, they should stand in our point of view to think about the problem and cannot always assume that there has been enough to set up a psychological counselling room in schools."*

In communities, participants believed it would be helpful to promote and publicise mental health issues and stigma. Also, bulletin boards could be used for publicity, and lectures can be delivered. As Ruoxi (A) suggested:

> *It's like a lecture in a big theatre, or a lot of publicity in the community and these bulletin boards should be able to put these things up. And it would be better to have some of the parties who have been through stigma and come up and talk to us through their own experience.*

**Theme 14 Social Media Platforms**

This theme with two specific aspects captured how social media could be used in reducing mental health stigma for Chinese young people.

***Social Media-Related Activities***

Regarding recommendations on using social media to reduce stigma, most participants talked about making and posting videos on social media. Professionals/experts could popularise mental health knowledge and stigma, strategies to respond to them, and bad consequences of being stigmatised. As Ruoxi (A) suggested: *"There are experts available to explain questions we're not sure about. Then they deliver how to prevent stigma. Experts can create official accounts on social media, and then publicize some of these things."*

Participants also talked about official accounts that schools, experts, and internet influencers/celebrities can create for publicity of mental health issues. As Xiaoxiao (A) said: *"I think the celebrity effect, it might also be a bit useful, because they have that kind of ability, they have kind of influence, if they publicise mental health, maybe mental health knowledge will be spread more quickly."*

Live streaming events on social media was also suggested. As Zhenzhen (A) said: *"School can do some online live streaming for introducing mental health, and ask parents to join in, which may be somewhat useful. Because there may be some parents that can't read, so the live streaming may be better."*

Additionally, those who have/had experience of mental health stigma were proposed by participants to share their lived experience via videos on social media. Yaqi (A) explained: *"I think we can release some people's experience of having mental health problems to increase public's understanding about them."*

Participants proposed that an anonymous forum specialised for those living with a mental health condition can be created on social media, and it would be useful to post mental health stigma-related videos, informal interviews, texts, documentaries, and cosmic on social media. As Juanjuan (A) explained:

*We can have a special social media platform targeted for those with a mental health condition, and everything is anonymous, if we click on profile pictures, we can read the person's story and leave some messages to encourage each other. Thus, we can build a connection to share useful books or strategies. You know, everyone is a stranger on the platform, but if your kind deeds warm someone, and maybe you saved that person's life.*

In Group B, there were some similarities with Group A, including sharing lived experiences, vivid examples, anonymity, authority, popularisation by youtubers, more availability of information, and content targeting different age groups. Apart from these, participants also proposed free counselling sessions, reality shows, animations, and psychological test. As Yang and Lele said:

*I would prefer to see a reality show, and psychological counsellors show some psychological counselling techniques, and such as hypnosis, and by the show, those people can put their true ideas out, and let people know that psychological counselling is a tangible, very close to our lives."* (B: Yang)

*"For example, people with similar self-test [to get a diagnosis] results can be gathered together on social media to communicate anonymously and share their own experiences. Then there are some professionals, also anonymously, who chat with us to help us understand ourselves and give some professional advice."* (B: Lele)

In Group A, participants believed that the content posted on social media should be *"formal"* (A: Juanjuan), *"official"* (A: Chen), *"professional"*, *"attractive"* (A: Tiantian), and *"non-academic"* (A: Qian). Additionally, it would be helpful if *"more life-like examples"* (A: Qiao) and "different content for different age groups" (A: Yaqi) available.

Participants also talked about various social platforms that could be used for mental health stigma reduction in different ways. *Bilibili* and *TikTok* could be used to spread short videos that have attractive titles and main body with text by experts' accounts. *QQ* could be employed to communicate, share

lived experiences, online consultations, and private posts by official accounts. *WeChat* could utilise its mini programme to do quizzes and communications. *Weibo* could use its super topics and scientific articles to share resources via experts' official accounts and its message boards could be used for communication. *Zhihu* could play a role in experts' questions and answers as well as message boards.

***Regulation and Supervision***

Participants believed that it is necessary to strengthen regulation and supervision with policies made on social media to increase the impact of stigma reduction. As Qiao (A) explained: *"Perhaps we should strengthen supervision and tighten relevant policies to crack down on fake information on mental health on social media platforms."*

Gege (A) emphasised the importance of auditing the language use, and he said:

> *We should strengthen the management of that kind of language use on social platforms, and then minimise or prevent those kinds of negative comments with aggressive language. So anyway, we have to supervise the operation of social media, so people who have mental problems can have positive help from the network.*

Xiaoxiao (A) believed that social media platforms should intentionally push more mental health-related information to users. As she suggested: *"If mental health-related content can be pinned to the front page of people's accounts, and when people open their accounts, they'll have to read these things, and I think it might be a bit useful, and people might have more understanding of it at least."*

#### 4.3.2.5 Summary

With regards to lived experience, forms and causes of mental health stigma, there were little differences between Group A and B based on the above themes. Specifically, in terms of understanding of mental health stigma, Group A participants differentiated self-stigma and public stigma, but Group B participants focused more on public stigma. Also, Group A participants perceived more positive experiences compared to Group B participants. As for perceived causes of mental health stigma, except for those causes

perceived in both groups, Group B participants reported misleading news report and spreading stigma.

In terms of the potential for mental health stigma reduction for young people, Group B participants had more positive attitudes than Group A. Also, a proportion of Group B participants had positive attitudes towards reducing mental health stigma via social media for youth compared to Group A, both groups suggested action/intervention be directed at schools and teachers, parents, youth with and without a mental health condition, and government and communities. A cross-cutting priority was the promotion of mental health knowledge, empathy for lived experience, and a focus on how to support, care for and be with a person living with a mental health condition.

## 4.4 Discussion

The study fills an evidence gap on youth mental health stigma among Chinese young people by investigating lived experience, broader youth perspectives on its forms, causes and consequences, and youth attitudes towards and suggestions for reducing mental health stigma. The perspectives of young Chinese people with (Group A) and without (Group B) a mental health condition were elicited. Ten key issues emerging from the analysis have been selected to discuss.

The first key findings were that most participants were able to talk about lived experiences of mental health stigma after clarification of the term, suggesting this experience was familiar among participants. Also, findings indicate that the cause affects mental health stigma experiences in young people via inadequate understanding of mental health and dismissal by significant adults. This resonates with other studies that report that Chinese people have low levels of mental health knowledge, including the causes, treatments and prevention of mental health conditions (Yin et al., 2020), and could explain the finding that young people in the present study had uncertainty about engaging with those living with a mental health condition.

The significant role of parents in mental health stigma was the second key finding in this study. Participants in both groups perceived that parents have contributed more to mental health stigma and had more severe stigmatising

attitudes and behaviours than peers. In terms of experiencing mental health conditions, participants and their parents had opposing perceptions. Participants perceived that they had a mental health condition, and some even had a professional diagnosis. However, they reported their parents denied or dismissed that diagnosis, suggesting that the participant was pretending to have a mental health condition. Thus, dismissal was a reported form of stigma. Dismissal could be viewed as another form of "rejection" of help-seeking and the reality of the mental health condition. Researchers argued that such rejection manifests "negative or unsupportive responses" by such as family members and friends, in the context of support seeking from a network (Williams & Mickelson, 2008). Such dismissal by parents was also found in some Australian parents in one study, and those parents believed that their child's mental health conditions would self-resolve and their children were able to manage these conditions alone (Oh & Bayer, 2015). Possibly, parents may have a fear of or panic about their child's mental health conditions, so they hope that by "ignoring" it, it will go away. Dismissal as a form of stigma in China could be for several reasons. Traditional Chinese beliefs that mental health conditions means a person and their household "losing face" (Yang et al., 2007) and bringing shame. Hence, parents are motivated to deny the existence of any mental health conditions in their family. Additionally, poor mental health literacy among parents and generational differences might also explain this finding. It was not until the 21st century that China began to pay attention to mental health and launched the first National Mental Health Plan (2002-2010; Liu et al., 2011). For the participants' generation of parents, mental health knowledge is low. In comparison, the current generation of young people in China are much better informed than any previous generation about mental health (Yu et al., 2015). An insight into the role of parents in youth mental health stigma has been raised by this finding. In global literature, parents have been considered as primary decision makers for seeking professional help for children's mental health (Ryan et al., 2015). There is evidence that American parents' personal dismissal of using mental health services is associated with children's stronger stigma of mental health services (Turner & Liew, 2010). Therefore, it is crucial to consider parents in further research on developing anti-stigma interventions for youth in China.

The third key finding was that participants perceived more emotional effects than behavioural effects from of self-stigma. Prior research with global

relevance has shown that self-stigma was negatively associated with self-esteem in young people (Moses, 2009a). Findings from Study 2 also support this, and participants reported low self-esteem as a consequence of self-stigma. Some participants reported a sense of guilt about their mental health condition, and how it reflected on them. This is consistent with literature in China about the burden of intense shame and guilt sufferers carry due to mental health stigma attached to the family (Ng, 1997). Public stigma by others might be a possible reason for such guilt and shame. The relationship between self-stigma and public stigma has been explored largely based on modified labelling theory. This theory postulates that external negative stereotypes of mental health become personally relevant when an individual is living with a mental health condition, and the individual tends to expect devaluation and rejection from other people. Evidence suggests that public stigma is negatively associated with an individual's internal sense of self (Vogel et al., 2013), i.e. self-stigma could be influenced by stigma by others. A high proportion of participants in this study reported self-stigma, and they might be influenced by massive public stigma by others, such as parents. There is evidence with global relevance that young people's self-stigma is associated with their parents' mental health stigma towards their children (Moses, 2010).

A fourth key finding from this study was that stigmatising attitudes and behaviours existed and were perpetrated by peers, parents and teachers. This finding is consistent with a study on stigma conducted among American young people, reporting that parents, teachers, and peers contributed to youth mental health stigma (Moses, 2010). Existing research has documented the rejection and social distancing of young people with mental health conditions by other people, such as peers in America (Pescosolido et al., 2007) and in Canada (Mitten et al., 2016).

Notably, some participants in the present study perceived that other peers pretended to experience a mental health condition, and this was regarded as "cool" by young people. Participants believed that this pretence is a form of attention-seeking, and that mental health conditions were also overused as an excuse for mitigation, and to bypass academic or life stress. Chinese young people are beginning to understand that mental health is important and merits attention. Researchers have explored "cool smoker" in young people arguing that the visibility of smoking seems to give youth a special

status of communicative identity (Scheffels, 2009). Possibly, similar to smoking, young people might have a sense of being valued and want to create an identity by pretending to have a mental health condition. To my knowledge, this “pretence” has not been reported before and may be a new feature in youth mental health stigma. Participants with a mental health condition reported that such pretence fuelled self-denial regarding their mental health condition among those with a mental health condition. This is line with the above discussion – participants’ self-stigma was negatively impacted by public stigma by peers.

A fifth key finding was that some participants did notice and/or experience positive and supportive experiences from others in relation to their mental health. These positive experiences included understanding, help and comfort. This suggests that some Chinese people did have awareness of how to support those living with a mental health condition. This might be a result of the Chinese government’s efforts such as *The Notice on Strengthening the Management of Students’ Mental Health* issued by the General Office of the Ministry of Education in 2021. This stated the key measures to protect and promote students’ mental health, including youth’s holistic mental health quality and early prevention and psychological counselling in students. Schools might take actions to respond to this policy; for instance, every school was required to have at least one mental health teacher who provides support for students’ mental health needs. Another possible explanation might be the spread of mental health awareness via social media (Latha et al., 2020), including in China (Liu et al., 2020). Some participants mentioned that they were interested in mental health-related knowledge and keen on searching for it to satisfy their curiosity. There were gender differences in supportive experiences in this study, and girls perceived more positive experiences than boys. This is consistent with previous studies which found that girls less stigmatise towards peers living with a mental health condition than boys (e.g. Dey et al., 2020; Yap et al., 2014; Jorm & Wright, 2008). In this study, although the sample and diversity were small, no differences of stigma experiences were found in minorities and dominant groups and in socio-economic background. To explore gender differences and ethnic diversity in youth mental health stigma in China, future research could recruit more participants who are minorities and those who have greater socio-economic disparities.

A sixth key findings from this study were the reported causes of and perceived consequences of mental health stigma in young people. Some participants believed that dismissal of youth mental health by significant adults could cause their children to stigmatise themselves or others. Researchers found similar findings on the perception of diseases. There is evidence that children's perceptions of diseases may be affected by parents' perspectives on diseases (Ge et al., 2022). A possible explanation for this finding is that, in collectivistic cultures adolescents develop autonomy later than in Western cultures, such as America (Pan et al., 2013). More parental supervision and control are often found in Chinese parents (Ying et al., 2015). Children who have less autonomy might be more likely to be influenced by parents.

Participants' reports suggest that stigma by peers was fuelled by a lack of empathy. This is consistent with the evidence that greater levels of empathy predict higher acceptance of and favourable intentions towards stigmatised groups among children and adolescents (Silke et al., 2017). In addition to this, participants believed that stigma could be shaped by negative group behaviours, such as rumours, among peers, indicating that stigmatising behaviours might be shaped by one or more individuals who impact on the behaviour within their cohort (Laursen & Faur, 2022).

Findings from Study 2 also indicate that misleading news reports could intensify stigma. This is consistent with previous literature suggesting that mental health stigma is associated with stereotypical media news (e.g. Chan & Yanos, 2018; Maiorano et al., 2017). These findings add to the current evidence base about the causes of stigma in China and can inform anti-stigma interventions for young people.

With regards to perceived consequences of mental health stigma, the findings are consistent with global findings, namely as unwillingness to (a) disclose experience of poor mental health (Kranke et al., 2010); and (b) seek help (Yap et al., 2011; Shechtmana et al., 2018). Additionally, participants reported that mental health conditions might become worse because of stigma, consistent with findings from a study that was conducted in America (Moses, 2009b). The findings from the present study about isolation and negative impacts of systematic review that schooling is consistent with

existing evidence that American young people with diagnosed mental health conditions were excluded by school staff (primarily by teachers) in school settings in a systematic review (Ferrie et al., 2020). It is noteworthy that some participants with a mental health condition in the present study reported being forced to drop out of school, which is a highly impactful form of stigma by schools.

A seventh key findings pertained to more positive attitudes towards stigma reduction obtained in Group B than Group A, and mixed views on mental health stigma reduction via social media. Overall, Group A participants were less optimistic than Group B about the ability to reduce mental health stigma for young people in China because they felt that it may be impossible for significant adults in their lives to change their views.

Group A participants believed that the difficulty of disclosing a mental health difficulty or condition and a lack of understanding of others' lived experience are barriers to stigma reduction. To avoid adverse implications of openness, people with a mental health condition might tend to secrecy. Such secrecy might contribute to worse conditions due to delayed treatment, leading to greater self-stigma. Higher empathy predicts lower stigmatising attitudes towards mental health conditions (Howell et al., 2014). As well as concerns about the poor mental health knowledge of others, Group A participants talked about the lack of empathy in significant adults which led them to have low confidence in the potential for stigma reduction. In Group B, participants believed that a lack of mental health education hinders stigma reduction. This resonates with the above finding that poor mental health knowledge was perceived to contribute to stigma in Chinese young people.

As for views on mental health stigma reduction via social media, overall, Group B participants had stronger positive attitudes towards using social media for stigma reduction than Group A participants possibly because Group A participants had lived experience of self-stigma and public stigma by social media. For reasons in favour, the popularity of social media in young people and its advantage in reaching the masses were reported. Additionally, participants believed that mental health knowledge can be spread via social media for stigma reduction. Similar views were also found in Indian young adults. A study that evaluated social media platforms for

promoting mental health awareness towards young adults was conducted in India, and it indicated that the use of social media was an effective approach to disseminate information on mental health for a short time (Latha et al., 2020). As for concerns about using social media for stigma reduction, participants believed that there is a risk that youth could be stigmatised on social media. Although previous systematic reviews suggested that social media use is associated with depression in young people (McCrae et al., 2017), and psychological distress in adolescents and young adults (Marino et al., 2018), little is known about how social media use causes mental health stigma in young people or could be effective in reducing it.

An eighth key finding was the importance of education and parents and their roles in reducing mental health stigma. Participants highlighted the importance of education in stigma reduction. Although the General Office of the Ministry of Education *The Notice on Strengthening the Management of Students' Mental Health* (2021) stated key measures to protect and promote students' mental health, it did not include mental health stigma-related issues. Additionally, participants recommended psychological counselling in schools for self-stigma reduction. This suggests a continued lack of school counselling in China, despite the regulation of the arrangement of counselling rooms in Chinese primary and secondary schools enacted in 2015 (Shi, 2018). Participants proposed other mental health-related activities that can be conducted in schools. This implies school might be an available place for young people for a mental health need. There is evidence with global relevance that schools are significant sites for youth to receive mental health and wellbeing initiatives (Moore et al., 2022). However, school-based interventions can be affected by low intervention fidelity (Friend et al., 2014), low intervention priority (Crane et al., 2021), and staff turnover (Moore et al., 2022). Therefore, a drive for successful implementation in schools is as important as anti-stigma intervention content. As findings from Study 1 indicated, effective anti-stigma interventions for young people include facilitated discussions and interactivity, and my participants also suggested this was an important way to engage with interventions. Furthermore, the role of teachers in stigma reduction was highlighted among participants, suggesting a need for teachers who are respectful, caring, and sensitive. It has been documented that the negative impacts of mental health for young people can be mitigated through building a positive relationship between teachers and young people (Price et al., 2019). Participants in this study

emphasised teachers' sensitivity about noticing youth's mental health status. Previous studies have also argued the importance of teachers in a role of being active as observers of students' mental health (Rothì et al., 2008). It would have a prevention for stigma by peers if teachers could notice the onset of a mental health condition and take actions accordingly.

Also, participants emphasised the role of parents in reducing mental health stigma, indicating a need for parents who are communicative, empathetic, and helpful for stigma reduction. Whilst substantial evidence suggests that stigma affects not only children living with a mental health condition but also their parents and family members by experiencing "courtesy stigma" (Goffman, 1963). It has been argued that children's understanding and adjustments to coping with stigma can be helped via parental support (Bradshaw et al., 2016). Existing literature documents the role of parents in help-seeking for child's a mental health need but there is paucity of research on parents' direct contribution to reducing mental health stigma for their child. For instance, a qualitative study that explored influencing factors for parents to seek help for their children's mental health concerns was conducted in the UK, and it reported that child's opportunities of being involved with mental health care was strongly affected by parents' recognition that their child has a mental health condition (Sayal et al., 2010). However, little is known about whether parents' support for help-seeking is associated with stigma reduction. In China, there is evidence that whether a child receives psychological therapy was significantly influenced by parents' attitudes towards psychological therapy, because stigma is attached to experience of a mental health condition (Cao, 2023). For future anti-stigma interventions development, it is crucial to encourage parents to seek help for their child. It is noteworthy that such parental participation in reducing mental health stigma is associated with parents' perception of mental health.

A ninth key finding was that stigma reduction could be achieved by efforts from peers and those peers living with a mental health condition. Helping peers to be non-judgemental and non-discriminatory were important suggested targets of anti-stigma efforts. Findings from a systematic review and meta-analysis suggests were inconclusive with regards to reducing self-stigma in adults via one-to-one peer support and peer-led services (Burke et al., 2019). Despite this, peer support might be effective for young people as evidence indicates that higher perceived support predicts lower anxiety in

adolescents, and adolescents' decision about help-seeking behaviour is massively impacted by their peer support (Budinger et al., 2015). The present study also found that rumours or judgements regarding mental health conditions can spread among peers. Future anti-stigma interventions could look at impact of behavioural modelling on peers for stigma reduction. As for those with a mental health condition, participants advised others to increase help-seeking and self-adjustments. This finding is in relation to "why try" effect. The "why try" effect explains a dynamic relationship between self-stigma, anticipated discrimination, and avoidance behaviour (Corrigan et al., 2009). Persons with a mental health condition firstly perceive the stereotypic beliefs by the public; those stereotypes are then agreed with and endorsed by the self, resulting in decreased self-esteem and self-efficacy. This in turn contributes to the person doubting their worth. It has been argued that if the person is aware of and agrees with those stereotypic attitudes and then applies these stereotypes to the self can determine the degree of self-stigma (Corrigan et al., 2009). Therefore, future anti-stigma interventions could focus on public stigma reduction as public stigma is often associated with self-stigma (Vogel et al., 2013). Additionally, psychoeducation is necessary for those with a mental health condition to challenge stereotypes and myths on mental health conditions and enhance personal empowerment for increased self-esteem.

Moreover, findings from this study also endorse the importance, from a youth perspective of contact-based intervention components for reducing mental health stigma. Contact with those living with a mental health condition was proposed by participants as a key way in which they could understand them and their experiences more. There is evidence that contact-based anti-stigma interventions are effective to reduce stigma in young people (Koller & Stuart, 2016; Mulfinger et al., 2018). Direct contact, namely, contact with people with a mental health condition in person has shown greater effects than indirect contact, such as video contact, for young people (Chen et al., 2016). My participants not only expressed a need for direct contact, but also suggested a showcase for those with a mental health condition to show their talent. Previous interventions for stigma reduction adopted contact via personal story sharing and contact via personal talent sharing might be potential routes to stigma reduction, by showing the person beyond the condition. Empathy development is a well-established component and outcome in anti-stigma interventions, and it is associated

with positive effects (e.g. Cunico et al., 2012; Potts et al.,2022). However, findings from Study 1 found that education had relatively more significant effects compared to contact-based interventions for young people, and the contact time might be an influencing factor for contact effects. This suggests that appropriate contact time for young people needs to be considered for intervention development with contact components. Contact time to young people might have different effects to contact time to adults given different levels of development and understanding between young people and adults.

The last key findings pertained to participants' suggestions for stigma reduction by policies support, political commitment for young people, and social media platforms. Evidence reveals that national-level policies in China are able to tackle stigmatising behaviours by others, such as employers, towards those living with a mental health condition, even though they fail to change stigmatising attitudes by legislation (Cummings et al., 2013). Also, effective strategies for reducing mental health stigma not only depend on individual level action but community level action also. In China, the second revision of *The Law on Protection of Minors* took effect on 1st June 2021, which involves many requirements about psychological counselling, mental health education and other psychological guidance to minors. According to the *Family Education Promotion Law*, guardians of minors have the responsibility to pay attention to and promote their mental health. Also, since 2004, China has implemented the "686 Programme" to build an integrated community-based mental health system for those with serious mental health conditions (Liang et al., 2018). Despite this, there is no specific policy or law targeting mental health stigma or discrimination, and a community-based mental health system has not been established for young people. Not only do researchers need to focus on stigma reduction for young people, but policymakers need to build up national-level support for Chinese youth stigma reduction.

With regards to social media platforms for stigma reduction, participants tended to obtain mental health knowledge and understand personal stories of those with mental health conditions via watching videos on social media. Such stories typically integrate education-based components and contact approach for reducing stigma. Two types of anti-stigma interventions targeting young people have been assessed: one with a seminar and the other with a short video. They obtained medium effects in both interventions

at post-intervention (Winkler et al., 2017). Despite exclusion of social media delivery, this evidence suggests short videos had promise to stigma reduction for youth. Also, social media campaigns in USA that use social media to deliver interventions have also received significant effects on stigma reduction (e.g. Thompson et al., 2021; Diouf et al., 2022). In China, professionals' and institutions' use of social media accounts to popularise mental health knowledge and correct misconceptions about mental health issues is growing. Including social media in culturally appropriate anti-stigma interventions might have promise as a mental health approach in China given the emergent role of influencers for youth wellbeing. However, further ways forward indicated by these findings include regulation and supervision of social media platforms. To optimise advantages of social media to popularise mental health and reduce stigma and reduce risks of social media to youth wellbeing, future research could consider include psychoeducation on how young people could engage more thoughtfully with social media and mental health in anti-stigma interventions.

### 4.4.1 Implications

Overall, this study provided empirical evidence on specific-country investigation in the field of youth mental health stigma. This study has explored how mental health stigma is experienced among Chinese young people. The form and experience of mental health stigma included public stigma by parents, teachers and peers, demonstrating dismissal, pretence, judgement and discrimination, and self-stigma triggering low self-esteem. Of these, the significant role of parents in youth mental health stigma, as well as dismissal of mental health and pretence of experiencing mental health conditions were novel knowledge. Participants recommended approaches for stigma reduction on multiple levels including efforts from parents, schools, peers, communities and government, and social media, instead of only targeting young people themselves. This suggests that future work might not be sufficient if only targeting an individual level. Including mental health education and other mental health-related activities was strongly proposed to be implemented in schools by participants; and the role of parents in stigma reduction was highlighted. Moreover, the approaches advised for those young people with a mental health condition included help-seeking and self-adjustments provided a perspective towards Chinese youth, using social media to deliver culturally appropriate anti-stigma interventions may have promise as a public mental health approach in China given the emergent role of influencers for youth wellbeing.

# Chapter 5
# Study 3 Developing a Prototype Anti-Stigma Intervention for Chinese Young People: A Co-Adaptation Study

## 5.1 Introduction

This chapter introduces each step of co-adapting the anti-stigma intervention and the process of developing the prototype intervention for reducing mental health stigma towards and among Chinese young people. This co-adaptation study was informed by a rapid desk review (reported in this chapter), Study 1, Study 2, and a review of social media-related anti-stigma interventions (reported in this chapter). Figure 5.1 shows the way each informed the intervention prototype. This chapter begins with initial assessment (i.e. desk review) before moving on to intervention selection and exploration. It then reports intervention model development and finishes by reporting Prototype V1 anti-stigma intervention.

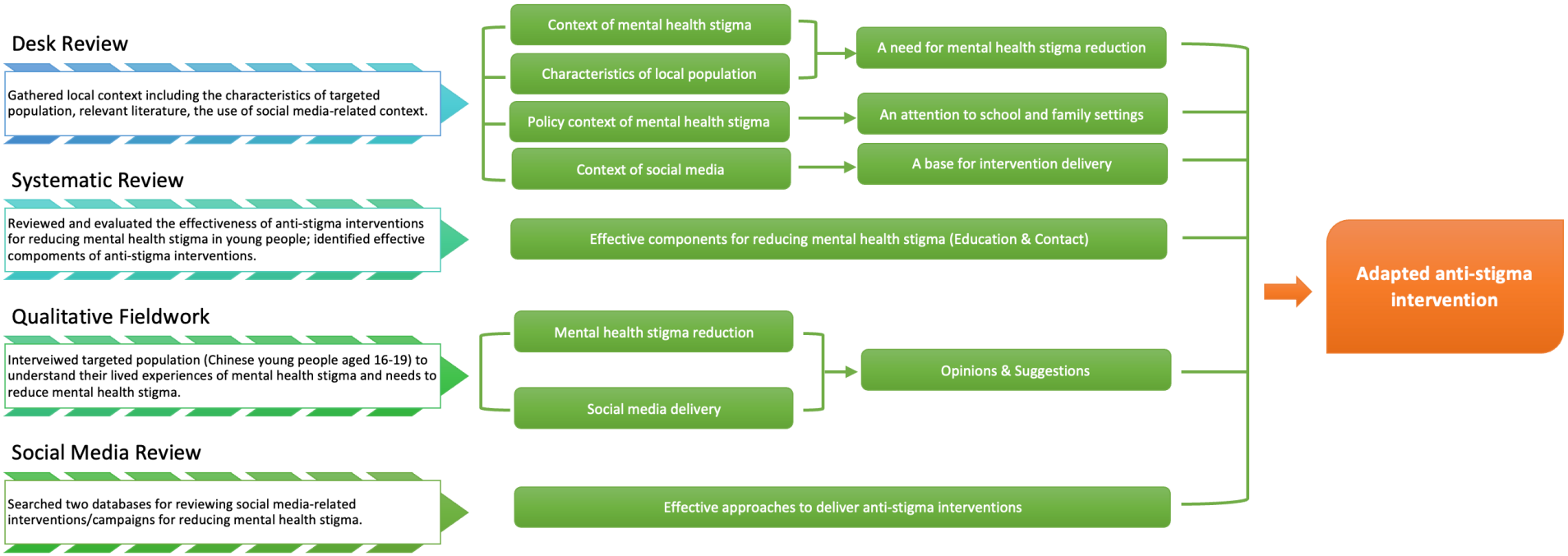
### 5.1.1 Study Rationale

Mental health stigma is a global issue, affecting help-seeking (Calear at al., 2021), treatment (Cerully et al., 2018), quality of life (Chan & Fung, 2019), and health outcomes (Sickel et al., 2014). In particular, the experience of mental health stigma during adolescence can increase social isolation (Lindow et al., 2020) and lead to significant negative life impacts (Masnari et al., 2013). Anti-stigma interventions could reduce mental health stigma and improve wellbeing in young people. Existing anti-stigma interventions were developed mainly in high income countries. There is no anti-stigma intervention for reducing mental health stigma targeting young people in China. Without intervention, mental health stigma could continue to contribute to poor mental health in Chinese young people.

### 5.1.2 Study Aim

This study aimed to develop a prototype anti-stigma intervention that is appropriate to Chinese young people living with a mental health condition for reducing mental health stigma.

**Figure 5.1 The Knowledge Integration Pathways to the Co-Adapted Intervention**



## 5.2 Methods

Two frameworks were considered as candidates to co-adapt an anti-stigma intervention in this study. One option was the cultural-adaptation framework, which was developed by Perera et al. (2020). This framework is systematic with four steps to culturally adapt low-intensity psychological interventions. Despite this, this framework was not considered suitable for this study. First, the cultural adaptation framework is more suitable to be employed in humanitarian settings (Perera et al., 2020), but the intervention that was aimed to develop in this study is more suitable in school settings. Second, this framework is appropriate when an existing intervention is available for culturally adapting (Perera et al., 2020), but it was not known if such a suitable intervention existed.

Another option was the co-adaptation framework, which was developed by Movsisyan et al. (2019). This framework is based on existing frameworks for intervention adaptation, supplementing *ADAPT* (Movsisyan et al., 2019) for adapting health interventions to a new context. This co-adaptation framework was decided to be the best framework for this study. First, *ADAPT* guidance is evidence-based, which was developed via three data sets: a systematic review of 35 sources of guidance for interventions adaptation; qualitative interviews with a variety of stakeholders, including researchers, funders, journal editors, and policy or practice stakeholders; and a three round Delphi consensus exercise (Moore et al., 2021). Second, *ADAPT* provides systematic processes for adapting health interventions to a new context, and the step-by-step guidance is specific and straightforward for researchers to follow. Third, *ADAPT* is not limited to only when there is an available intervention for adapting. In other words, *ADAPT* can be applied to adaptation when an existing suitable intervention is available or suitable multiple components that are identified from existing interventions are available.

Figure 5.2 shows the process of *ADAPT* that consists of 4 phases and 11 steps. The first seven steps were followed for co-adaptation in this thesis. The remaining steps could be employed in future research as they were beyond the scope of this project.

**Figure 5.2 Overview of Phases and Steps in The Process of ADAPT**


Source: Movsisyan et al. (2019)

## 5.3 Step 1: Initial Assessment

The initial assessment is similar to a desk review, and it aimed to identify the characteristics of local population to understand the target population's needs for adapting interventions.

A desk review has been viewed as an important first step in striking a balance between globally recommended interventions and appropriate local practices (Greene et al., 2017). It has been argued that it is necessary to have knowledge of the existing local health systems and socio-cultural context for delivering effective mental health and psychological support programmes (Greene et al., 2017). Also, undesired consequences might be caused if information on existing services and socio-cultural context is ignored, including improper evaluation methods, and ineffective implementation of interventions that a population is not willing to use (Blanchet et al., 2017). Researchers have generally agreed that it is essential to conduct secondary analyses of available data prior to primary

data collection to rapidly assessing existing information and conserve limited resources (Chiumento et al., 2016).

### 5.3.1 Rapid Desk Review Questions

Four questions drove the rapid desk review:

a. What is the prevalence of mental health conditions among Chinese young people?
b. What is known about the context of mental health stigma in China?
c. What is the policy context relevant to the mental health of Chinese young people?
d. How is social media used by policy-makers, practitioners, and influencers in relation to mental health in China?

### 5.3.2 Conducting the Rapid Desk Review

The rapid desk review followed the recommended approach in Movsisyan et al. (2019). This review aimed to collect secondary data to help understand the existing Chinese mental health system for young people and socio-cultural context for delivering anti-stigma interventions for Chinese young people. Four steps were followed to complete this rapid desk review. Step 1 was to collect relevant materials from which to extract data. To identify data sources, several Chinese academic databases were used to search peer-reviewed articles, such as CNKI and Wangfang Data; and web searching was used to identify important policy reports and grey literature, such as government portals (including the portal of Department of Education and the portal of Department of Public Health), and social media platforms (including Weibo and Red). Step 2 was to read and extract relevant information from these materials. Step 3 was to group materials by review questions. According to the above rapid desk review questions, data were grouped after being extracted. I then moved to compare and organise the extracted data, and replications were removed. Step 4 was to narratively synthesise the findings by summarising and analysing the key themes, concepts, and findings. More specifically, the data that were helpful insights into identifying the characteristics of Chinese youth population to understand their needs for adapting interventions as well as the current policy context and social media context for intervention development were synthesised. It is worth noting that the evidence of this rapid desk review is limited due to limited data sources that were available.

### 5.3.3 Findings of the Rapid Desk Review

#### 5.3.3.1 What Is the Prevalence of Mental Health Conditions among Chinese Young People

Adolescent mental health is attracting increasing attention in China. The China National Mental Health Report 2021-2022 (CNMHR 21-22) is a national survey examining mental health in Chinese people and was issued in 2022. A total of 191,347 people were recruited, including adolescents and adults, to examine (via a survey) mental health-related issues. A total of 33249 young people who were aged 10 to 16 years participated in this survey. Six psychological scales were administrated, namely The Centre for Epidemiological Studies Depression Scale, Chinese Version (He et al., 2013), UCLA Loneliness Scale (Hughes et al., 2004), Smartphone Addiction Scale – Short Version (Kwon et al., 2013), Meaning in Life Questionnaire (Steger et al., 2006), Emptiness and Boredom Questionnaire, and Perceived Pubertal Timing Item (Dubas et al., 1991).

The CNMHR 21-22 reported findings of depression, loneliness, and smartphone addiction in young people. The results showed that 14.8% of young people in the survey were at risk of different degrees of depression, among which 4.0% were at risk of severe depression and 10.8% were at risk of mild depression. Overall, girls had significantly higher levels of depression than boys. Compared to children with siblings, only children had lower levels of depression and those who are the youngest in their family had higher scores on the depression scale. Young people who were in boarding schools and left-behind children were at higher risk of depression, and the risk of depression tended to rise with age.

As for loneliness, 40% of participants reported they sometimes and often lacked company and felt left out or separated from others. Girls had significantly stronger feelings of loneliness than boys; both those young people who have siblings and were in boarding schools had higher scores on the loneliness scale; and with the increase of age, the levels of loneliness showed an overall trend of decreasing first and then increasing. For smartphone addiction, it was found that some young people may have had psychological dependence on smartphones. For example, 33.4% of young people who participated in the survey agreed with the question “I can’t stand to be without a smartphone” to varying degrees. No significant gender

differences were found in smartphone addiction; those who are the youngest in their family showed higher scores on smartphone addiction; those who were in boarding schools had higher levels of smartphone addiction than those who were living at home. The levels of smartphone addiction showed an overall increasing trend with age.

It is worth noting that even if smartphone addiction was reported and which might have impacts on youth mental health, this is not always negative, such as smartphone applications. There is evidence that smartphone applications are characterised by anonymity, portability, and easily access, which may contribute to psychoeducation, symptom monitoring, or therapy options for a person living with poor mental health (Klasnja & Pratt, 2012). A systematic review of smartphone-based interventions for reducing depressive symptoms indicated that compared to control conditions, greater depressive symptoms were reduced in the intervention condition that smartphone applications were used (Firth et al., 2017). Also, it has been argued that brain function could be increased when using smartphone to access useful information rather than using for entertainment only (GowthamiP & VenkataKrishnaKumar, 2016).

Apart from the findings of depression, loneliness, and smartphone addiction in young people, the CNMHR 21-22 also reported factors that have impacts on mental health in young people. Notably, unlike depression, loneliness and smartphone addiction were not clinical mental health conditions (American Psychiatric Association, 2013). Therefore, this desk review included clinical and sub-clinical mental health conditions. Overall, individual factors, family factors, and social environmental factors were identified. Individual factors were shown in inner state of wellbeing, sleeping, exercise, and pubertal development. The CNMHR 21-22 indicated that the better inner state of wellbeing young people had, the greater sense of meaning they perceived, who were more active in exploring the meaning of their lives, had a lower sense of emptiness, boredom, and loneliness, lower risk of depression, and were less likely to be overly addicted to smartphones. Also, the CNMHR 21-22 found that sleeping duration was closely associated with adolescent mental health, showing longer sleeping time on school days predicted lower scores on depression, loneliness, and smartphone addiction, but there were no significant differences in these three variables when sleeping time reaches 9 hours and above.

For family factors, it has been found that family socio-economic status, family structure, parenting style, and parental relationship had impacts on adolescent mental health. The finding showed that the more educated young people's parents were, the lower levels of depression, loneliness, and smartphone addiction young people had; and those young people with better family economic status associated with lowers scores on depression, loneliness, and smartphone addiction scales respectively. Also, the impacts of different family structure on adolescent mental health were significant but the effect was small. Besides, the better their parents' relationship, the lower levels of depression, loneliness, and smartphone addiction young people had. In addition to family factors, social environment factors, including living region and household registration system, were found to have impacts on adolescents.

In addition to depression, loneliness, and smartphone addiction the CNMHR 21-22 reported, suicide and self-harm as common mental health concerns in Chinese young people. It estimated that the prevalence of non-suicidal self-harm in those aged 13-18 years is 27.4% in China (Han et al., 2017). School bullying has also been found to be associated with mental health conditions in China. Between 19% to 41% of Chinese children reported to be bullied in schools (Xie et al., 2022). According to a nationwide cross-sectional study in China, a higher risk of being involved in school bullying has been found in those young people with anxiety, non-suicidal self-harm, and suicide ideation, and they were more likely to be bullied (Luo et al., 2022). Adolescent mental health in China has been closely associated with a competitive education system. China, it is implementing a 9-year compulsory education, which means that young people will have to pass high school and university entrance examinations if they want to pursue further study after compulsory education. To make full preparations for these examinations, Chinese young people face huge academic pressures and competition (Sun et al., 2012). It has been found that the high incidence of anxiety in young people is associated with Chinese competitive education system (Liu et al., 2018).

According to the above review, it can be noticed that despite The CNMHR 21-22 reported findings of adolescent mental health in terms of depression,

loneliness, and smartphone addition, it did not cover the exploration of ethnic diversity, deprivation, and other forms of inequality in China. This is a research gap - more forms of adolescent mental health inequality could be taken into consideration when developing the adapted anti-stigma intervention. In addition to this, The CNMHR 21-22 identified influencing factors on mental health in Chinese young people. Among individual factors, family factors, and social environmental factors, components of the adapted anti-stigma intervention could be developed by considering these individual factors to reduce self-stigma, and particular in inner state of wellbeing and pubertal development. For reducing public stigma, it would be helpful to take those family factors and social environmental factors into account for intervention development. For instance, family members and teachers could be included to the intervention rather than focusing on young people themselves only. The limited sources of data suggest the findings of this review should be considered critically. In particular, the CNMHR 21-22 was the only available information on youth mental health in China; it focused on loneliness and smartphone addiction as evidence of the widespread prevalence of mental health conditions. This suggests that loneliness and smartphone addiction were prevalent in Chinese young people, but further research is needed to understand how these are associated with mental health conditions and stigma as they are not considered to be mental health conditions in DMS-5 (American Psychiatric Association, 2013). Although this thesis did not explore stigma around specific mental health conditions, it is necessary to acknowledge the limitation of this finding, i.e. the strength of evidence on loneliness and smartphone addiction in terms of providing an estimate of the prevalence of mental health conditions in Chinese young people is limited. Further research is also needed on other common mental health conditions, such as eating disorders and post-traumatic stress disorder, and how they are associated with diversity among young people in terms of ethnicity and social stratifications.

#### 5.3.3.2 What Is the Context of Mental Health Stigma in China?

As discussed in Chapter 2 (see 2.3.2), mental health stigma is not only attracting considerable attention from Western countries but is also a major issue in China. Although Chinese researchers have been aware of the importance of stigma-related issues, there is a lack of research on understanding mental health stigma and developing interventions for stigma reduction (Xu et al., 2018). Also, the issues of mental health stigma in Chinese young people are poorly researched (Shen et al., 2018). This

suggests there is a research gap in understanding of mental health stigma in Chinese young people including lived experiences, forms of mental health stigma, and mental health stigma reduction.

Similar to Western countries, studies have found that mental health stigma is a barrier to help-seeking for Chinese young people. Zhu (2020) reported that the level of Chinese young people's perceived public stigma predicted low intentions to seek psychological help for their mental health. Chen et al. (2014) examined the relationships among mental health stigma, mental health conditions and help-seeking in Chinese young people. They reported that self-stigma played an important role in the association between the number of mental health conditions and attitudes towards help-seeking, mediating this association. Yamaguchi et al. (2013) conducted a comparison study to investigate secondary students' stigmatising attitudes towards people with mental health conditions in South Korea, Japan and China. The results indicated that there was more social distancing when there was no past experience of knowing someone with a mental health condition. However, this was found among South Korean and Japanese young people, not in Chinese young people. This is possibly linked to mental health system in China, in which people with mental health conditions living in the community so that social distancing is difficult (Haraguchi et al., 2009).

Mental health stigma has historical roots. It can be found that the earliest documents of psychiatric concepts in China was in the Yellow Emperor's Classic of Medicine composed around 2600 BCE (Tseng, 1973). Since then, traditional therapies were applied to manage mental health conditions, and until 19th AD an idea of using medical facilities to respond to people living with poor mental health (Xu et al., 2022). As discussed in Chapter 2, mental stigma can also be associated with Chinese traditional cultures (see 2.3.2).

Overall, mental health stigma exists in Chinese young people but there is little research. Based on existing literature, Chinese young people experience mental health stigma and are negatively impacted by mental health stigma in the area of help-seeking, social engagement, and quality of life. There is evidence that greater improvements in reducing stigmatising attitudes, social distance and increasing knowledge have been obtained after Hong Kong secondary school students received education-video

intervention condition, namely, a demythologizing lecture followed by a contact video (Chan et al., 2009). Despite positive effects of stigma reduction indicated, showing the efficacy of using components that included education and contact for reducing mental health stigma in Chinese young people, it is worth noting that this intervention was tested by a quasi-experimental design without a control condition, and importantly, no detailed information on whether the intervention developed fit with Chinese context. Therefore, it is essential to fill this research gap for developing an anti-stigma intervention that is suitable for Chinese context, and particularly Mainland China is needed.

Given that people value reputation of family in Chinese culture, correcting family members' negative beliefs and attitudes towards mental health might be an important component of anti-stigma approaches. Literature has indicated negative consequences of mental health stigma in Chinese young people, such as isolation, and lacking help-seeking. To reduce these undesired consequences, the adapted anti-stigma intervention could include components that are targeted to challenge them.

#### 5.3.3.4 How Is Social Media Used by Policy-Makers, Practitioners, and Influencers in Relation to Mental Health

China is the biggest social media market in the world; social media platforms in China are under speech censorship, but they are characterised there is a dynamic, diverse, and competitive social media landscape (Statista, 2023). The most popular social media platforms are *WeChat*, *Weibo*, *Red*, *Bilibili*, and *TikTok*. The Chinese government launched *New Media Blue Book: China New Media Development Report No. 13* in 2022. This report pointed out that short videos and live-broadcasting platforms are becoming more daily and professional; the content, such as life records, knowledge explanation, industry analysis, and mental health, has increased with updated perspectives, more interactive and better sense of participation. Also, this report attached the importance of accelerating the development of digitalisation in all walks of life. Mental health has been discussed on these platforms by professional official accounts and ordinary users.

##### *Policy-Makers on Social Media Platforms*

This section introduces that Chinese policymakers use social media platforms to promote mental health. In China, policymakers, including local government departments, hold and operate official accounts on social media

posting mental health issues. These official accounts cover a variety of mental health resources and information, including mental health knowledge, coping strategies, and mental health-related policies. For example, National Centre for Mental Health and Mental Health Prevention, which is an official account that is directly monitored by the National Health Commission approved by the Central Compilation Office targeting mental health prevention and treatment. This account posts articles popularising mental health knowledge including basic concepts and symptoms of mental health conditions, and guidance on help-seeking, and the latest mental health policies are launched as well. In addition to the Chinese government, there are some local government departments operating their accounts on social media platforms for promoting adolescent mental health. For instance, an account called Youth Mental Health Centre, which provides mental health services for young people in Kunming which is the capital of Yunnan province. Additionally, their working achievements about adolescent mental health promotion is updated regularly. Mental Health in Hefei, which is an official account combined Hefei Psychiatric Hospital with Hefei Centre for Mental Health and Mental Health Prevention. The contents of this account are grouped into three areas: mental health knowledge, love and happiness, and helpline service. The area of mental health knowledge is about popularisation and promotion mental health literacy to the public by various forms, such as articles, videos, and cartoons; the field of love and happiness is about mental health among parents and children, and self-care in mental health; and the area of helpline provides 24/7 telephone helpline mental health services including psychological counselling and crisis intervention.

***Practitioners, Professional Institutions and Social Organisations***

The following part is about how social media platforms have been used by practitioners, professional institutions, and social organisations to popularise mental health in China. There are professionals and professional institutions operating social media accounts to popularise mental health knowledge and correct misconceptions about mental health issues. The professionals are generally psychiatrists or those who are accredited mental health practitioners. They post case studies on mental health conditions and write/make mental health-related articles/videos that are easy to follow. One of the famous practitioners called Zhihong Wu, a professional counselling psychologist. He and his team operate social media accounts by posting original articles to promote mental health knowledge, offering mental health-related courses, and providing psychological counselling services.

The professional institutions are generally mental health-related companies and university-based mental health organisations. For example, an account called Know Yourself focuses on exploring the self by writing articles about psychological explanations of common behaviours in daily life. Also, it provides a platform where online psychological counselling is available. Another example is 'One' Psychology, which is professional platform providing psychological counselling services, psychological courses, and psychological tests. Averagely, it has 35k viewers to each post on WeChat. There are also some non-profit institutions, for example, the Mental Health Counselling Centre for Minors. This account is public welfare platform with authoritative information on mental health to strength mental health education, promote the mentally health of minors, and provide psychological counselling services for minors. The Suzhou Mental Health Association is a professional non-profit social organisation voluntarily formed by psychological workers, media workers, educators, social workers and other professional institutions and personnel related to mental health in Suzhou. This organisation provides kinds of services on social media platforms, including social services, teaching and training, and psychological counselling appointment. In addition to this, many universities have mental health-related accounts on social media platforms that focus on mental health issues among university students. The university-based institutions/organisations accounts target university students' mental health. For example, the Mental Health Education and Counselling Centre, East China Normal University, has an official account created by East China Normal University focusing on acceptance and growth. It provides services including self-help guidance on mental health, knowledge promotion in the field of mental health, such as parent-child relationship, and intimacy relationship, and a series of metal health-related actives.

***Influencers***

This section demonstrates the role of influencers in mental health promotion via social media platforms. Most Chinese celebrities operate accounts on social media platforms and a few of them focuses on mental health issues. One of the most representative celebrities is Sammi Cheng, who is a singer and actress. Her followers on Weibo have reached 10.6m, and she often sends posts on social media platforms to encourage those living with depression by her own experience to face up to mental health conditions. Her songs that are full of positive energy to inspire those living with poor

mental health. Another example is actress Wenli Jiang, who was the national ambassador for mental health advocacy. She used to make videos appealing the public to raise awareness of mental health. Fans usually leave comments to these influencers' posts and express encouragement and inspiration they get from influencers. Many fans re-post these influencers' posts to spread positivity widely. A positive image that those influencers build has been inspiring numerous people in visible or invisible ways.

Overall, social media platforms have been widely used in China, and mental health information and topics have been spread and discussed via social media. The large social media users in China and its dynamic feature would lay a base for delivering adapted anti-stigma intervention via social media.

#### 5.3.3.5 Key Outcomes from the Desk Review

Based on this desk review, several knowledge, action and research gaps can be identified. First, awareness needs to be raised around mental health stigma in Chinese young people, and anti-stigma interventions for reducing mental health stigma in Chinese young people are essential to improve help-seeking, social acceptance, and quality of life. Individual factors, family factors, and social environmental factors that have impacts on mental health in Chinese young people could be explored to develop intervention components for reducing self-stigma and public stigma.

Besides, for young people, schools and families are the settings where they spend most of their time. Since the Chinese government has launched a series of laws/regulations to protect young people's mental health, and many are relevant to schools and parents/guardians, it is sensible to look at school and family settings where anti-stigma intervention could be administered for reducing mental health in young people.

Last, social media platforms in China have become popular ways to spread information on mental health. The approaches to reduce stigma could be popularised via social media. Also, different social media platforms in China have various functions and features, and the anti-stigma intervention development could incorporate these functions and features into components to maximise social media use. Table 5.1 shows the summary of

the desk review findings and how these findings inform the proposed intervention prototype.

**Table 5.1 Summary of the Desk Review**

| Contents for Desk Review | Findings of Desk Review | Implication for Intervention | Sources |
|---|---|---|---|
| **Geographic information** | China | China | Not applicable |
| **Target population** | Chinese young people | Chinese young people | Not applicable |
| **Characteristics of local population** | Mental health stigma exists in Chinese young people, but it is under researched. They experience mental health stigma and are negatively impacted by mental health stigma via low help-seeking, social engagement, and quality of life. | There is a need to reduce mental health stigma in Chinese young people to promote help-seeking, social acceptance and quality of life. More research data is needed to support this from young people themselves and other key stakeholders such as parents, teachers, and mental health professionals to inform intervention. | Peer-reviewed articles and The China National Mental Health Report 2021-2022 |
| **Policy context** | The Chinese government has launched relevant laws/regulations to protect young people in terms of their mental health. | Schools and families have been mentioned in these laws/regulations, which means that school and family settings could be included in the anti-stigma intervention. | Peer-reviewed articles and government portals |
| **Social media context** | China has the largest global social media market, and policymakers, practitioners, and influencers have used social media to spread mental health knowledge and improve the public mental health. | It is culturally acceptable to talk about mental health on Chinese social media and has wide reach. The most common social media platforms could be used to deliver the adapted anti-stigma intervention based on their functions and features. | Government portals and social media platforms |

## 5.4 Step 2 & 3: Intervention Selection and Exploration

These steps involve selecting interventions that meet pre-defined criteria as candidate interventions to adapt. Intervention exploration involved screening the candidate intervention materials, core components, best-practice characteristics, underlying theory, and determining the intervention's adaptability to the target population.

The findings of the desk review indicated that there was a need to reduce mental health stigma in Chinese young people; schools and families were key settings to improve mental health in Chinese young people; and there was a solid base for using social media platforms to promote mental health in China. These suggest that the criteria for selecting candidate interventions should be: effective in reducing mental health stigma in young people, and particularly for public stigma by parents; suitable to involve schools or/and families; and delivered by social media. Study 1 searched for anti-stigma interventions with young people in a global context and identified 8 interventions with positive effects and 11 interventions with mixed effects. Those anti-stigma interventions were mainly education-based and were delivered in a school setting. However, they did not focus on social media mainly. Thus, the systematic review partly meets the criteria for candidate intervention selection.

To add social media-related interventions and understand how these interventions were delivered via social media, a rapid review of social media interventions was conducted. The PICOS framework (Amir-Behghadami & Janati, 2020) was used to identify eligibility and exclusion criteria. Population: there were no limits to research population, i.e. this rapid review included any populations. Interventions: this rapid review focused on any interventions, programmes or campaigns whose aim was to reduce mental health stigma using social media platforms/digital devices/applications and excluded anti-stigma interventions unrelated to mental health. Comparator: there were no limits to comparators. Outcomes: the rapid review focused on any interventions/programmes/campaigns whose primary outcome was the level of mental health stigma including stigmatising attitudes and social distance. Study designs: this rapid review included randomised controlled

trials or experimental designs and excluded qualitative studies and single case studies.

Two large databases were used to search for studies which evaluated the effectiveness of social media-related interventions for stigma reduction: PsycINFO (2002-present) and Web of Science (1999-present). Search terms were determined around four domains: stigma, mental health conditions, intervention, and social media including specific social media platforms such as Facebook and Twitter. Anticipating a small pool of studies, the search was not limited to young people but includes all population groups.

Eighteen interventions to reduce mental health stigma were identified. These interventions were conducted in USA, Australia, UK, Canada, Russia and Chile. Of these, thirteen interventions showed positive effects on stigma reduction, one intervention reported a mixed effect, and four interventions did not obtain positive effects. In those thirteen interventions with positive effects, five targeted college/university students, one targeted young people, and the other targeted broad populations including residents, employees, and refugees. Five studies were randomised controlled trials, four were quasi-experimental designs with control groups, and four were quasi-experimental designs with only intervention groups.

Effective interventions were delivered online or via a recorded CD. The components of these interventions were mainly psychoeducation, including an education curriculum and interactive workshops, and e-contact. Psychoeducation is about factual mental health-related knowledge that can changes mental health stereotypes; e-contact is to reduce fear of mental health conditions and develop empathy by watching recorded videos that people who have experience of living with a mental health condition. Those components were similar to components of effective anti-stigma intervention for reducing mental health in young people. Table 5.2 shows the characteristics of these social media-related interventions.

It is worth noting that one intervention with positive effects (Thompson et al., 2021) explored the efficacy of an anti-stigma intervention for young people delivered via asocial media campaign and could be a candidate for co-

adaption. However, detailed intervention information was not available. Neither the systematic review on anti-stigma interventions in young people nor the rapid review of social media interventions identified an appropriate intervention for co-adaptation. Therefore, it was decided that an intervention would be developed based on knowledge about effective components of anti-stigma interventions for young people and the rapid review knowledge about effective approaches of delivery via social media, all sensitised to the knowledge produced in the desk review.

Given that Study 2 did not explore components of effective interventions, all intervention details from studies with positive and mixed effects were summarised to help map components that might be effective (see Table 5.3). It can be observed from Table 5.3 that the introduction of mental health stigma-related knowledge and mental health conditions knowledge including definitions, symptoms, forms, causes, consequences, and strategies, and facilitated discussions were most common components in terms of education-based interventions. It is worth noting that an introduction of experience of mental health conditions and help-seeking/support were included in those interventions with positive effects only, which suggests that these might be important components to reducing mental health stigma in young people. Also, facilitated discussions mean interactivity might be helpful, feasible in Chinese schools and filmed as videos posted on social media. The fundamental mental health knowledge and particular in stigma, the introduction on experiences of having different mental health conditions, and help-seeking/support-related information could be delivered via social media as well. In terms of contact-based interventions, face-to-face contact with people living with poor mental health could be an effective approach, and an indirect contact could also be a helpful way, such as via video.

Along with the desk review, Study 1, and review of social media-related anti-stigma interventions, Study 2 also informed the co-adaptation study. Study 2 showed that participants held positive attitudes towards reducing mental health stigma in Chinese young people and they proposed suggestions for stigma reduction. Similarly, participants believed that social media could play a role in reducing mental health stigma in young people, and they also gave views on how to use social media platforms for stigma reduction. These findings were incorporated with the components in Figure 5.1.

**Table 5.2 Characteristics of Social Media-Related Interventions for Reducing Mental Health Stigma**

| Study Citation | Study Design | Population | Stigma-related measure | Components | Delivery | Results |
|---|---|---|---|---|---|---|
| Davies, Beever & Glazebrook (2018) | Randomised controlled trial (pilot) | UK Medical students (n=55)<br>Mean age intervention=20.3<br>Control=19.4 | The Depression Stigma Scale | Educational components | An eLearning course delivered through text, images, audio, videos and interactive activities, and completed at the user's own pace over approximately 6–8 h | Effect size d=0.25 |
| Finkelstein et al. (2007) | Quasi-experimental designs | Russia College students (n=91) | Bogardus Social Distance Scale (BSDS); the Community Attitudes toward the Mentally Ill questionnaire (CAMI) | Educational components | A computer-based education<br>The CO-ED system provides self-paced interactive education | BSDS: P<0.05<br>CAMI: P<0.05 |
| Rodríguez-Rivas Cangas & Fuentes-Olavarría (2021) | Quasi-experimental designs | Chile University students (n=40) | Questionnaire on Student Attitudes Toward Schizophrenia (QSAS);<br>Attribution Questionnaire (AQ-27) | Educational components and virtual contact | A multi-component online intervention incorporating E- contact and lasting 14h equally distributed across two days | QSAS: d=1.11<br>AQ-27: d=2.33 |
| Griffiths et al. (2004) | Randomised controlled trial | Australia Adults with elevated scores on a depressive symptom assessment scale (n=525) | Depression stigma scale (personal stigma and perceived stigma) | Educational components and psychotherapies | A web-based intervention (websites) – each week for five weeks | Personal stigma:<br>BluePages d=0.13<br>MoodGYM d=0.10<br>Perceived stigma:<br>BluePages d=0.02<br>MoodGYM d=-0.14 |
| Griffiths et al. (2016) | Randomised controlled trial | Australia Employees (n=507) | The Depression Stigma Scale – Personal subscale (DSS-Personal);<br>The Generalised Anxiety Stigma scale – Personal subscale (GASS-Personal) | Educational components and virtual contact | An online psychoeducation program presented in a simple multi-media, interactive format containing graphics and in-program exercises | DSS:<br>interaction effect p<0.001<br>effect size<br>d=-0.56 (post)<br>d=-0.47 (6months) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | GASS:<br>interaction effect p<0.001<br>effect size<br>d=-0.42 (post)<br>d=-0.42 (6months) |
| Thompson et al. (2021) | Quasi-experimental designs (pre-post-test) | USA 6th- to 12th-grade students (n=11478) | Mental health stigma and help-seeking, and mental health risk | No detailed information | A social media campaign<br>LA messaging was promoted through school-based (posters, art contests, counselling curricula, written communications with educators and parents/caregivers) and community efforts (social media, radio, movie theatre spots) | Pre-post-test p=0.001 |
| Brener et al. (2017) | Quasi-experimental designs (pre-post-test) | Australia n=139<br>Mean age=47 | Attitudes towards people who inject drugs; Hypothetical scenarios | Educational components and indirect contact | An eLearning module (40min) | Post-test<br>Attitudes: p<0.001<br>Scenarios: p<0.05 |
| Douglass & Moy (2019) | Quasi-experimental designs (pre-post-test) | USA Pharmacy students (n=145) | Opening Minds Stigma Scale for Health Care Providers Questionnaire | Educational components | A 90-minute interactive learning module, which used social media and fictional case scenarios | Pre-post-test p<0.001 |
| Avery et al. (2018) | Quasi-experimental designs (pre-post-test) | USA Residents (n=46) | Medical Condition Regard Scale (Attitudes toward individuals with substance use disorders) | No detailed information | An online training module | Pre-post test<br>Alcohol use: p<0.001<br>Opioid use: p<0.001 |
| Kirschner, Goetzl, & Curtin (2022) | Quasi-experimental designs | USA College students (n=85) | Attitudes toward seeking professional psychological help (ATSPPH);<br>Self-Stigma of seeking help (SSOSH);<br>Perceptions of stigmatization by others for seeking help (PSOSH) | Educational components and virtual contact | An online interactive educational intervention (30min) | Interaction effect:<br>ATSPPH p=0.01<br>SSOSH p=0.03<br>PSOSH p<0.001 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Jorm et al. (2010) | Randomised controlled trial | Australia n=262 | Personal and perceived stigma scales and a social distance scale | Educational components and virtual contact | An e-learning CD | Mental Health First Aid information received by either e-learning or printed manual had positive effects, but e-learning was better at reducing stigma. |
| Nickerson et al. (2020) | Randomised controlled trial | Australia Refugee men with PTSD (n=103) | Self-Stigma for Depression scale; Self-Stigma of Seeking Help Scale; Help-seeking intentions | Educational components | A 11-short-interactive web-based modules comprising information, short videos, and activities designed to reduce stigma and increase help-seeking | Self-stigma for seeking help: d = 0.42, p=0.008 (post-follow up) |
| Diouf et al. (2022) | Quasi-experimental designs | USA<br>Adults<br>(n=446) | Measures of knowledge, attitudes, and reported and intended behaviours | Educational components and virtual contact | A digital media campaign | The campaign showed fewer stigmatizing views, including lower desires for social distance, improved attitudes toward treatment, and significant improvements in providing support and caring for their own mental health. |
| Brown (2020) | Quasi-experimental designs | USA undergraduate students<br>(n=244)<br>Mean age=18.62 | Dangerousness scale (Perceived dangerousness); Affect scale (negative emotions); Social distance scale (social distance) | Educational components and virtual contact | A mass media intervention with video-recorded social contact and simulations | The contact intervention yielded an immediate significant decrease (large effect size) on the Dangerousness Scale, but this change dissipated across the 1-week period<br><br>A significant decrease (large effect size) on the Social Distance Scale was noted immediately following the contact intervention which primarily remained across 1 week<br><br>The contact intervention led to an immediate significant decrease on the Affect Scale which was maintained across 1 week. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Chow et al. (2023) | Quasi-experimental designs | USA College students (n=210)<br><br>Mean age=20.94 | The Self-Stigma of Depression Scale;<br><br>A modified version of the Depression Stigma Scale | Educational components | A web-based intervention with narrated 16 slides lasting 19min55s | Self-stigma: interaction effect p=0.26<br><br>Perceived stigma: interaction effect p=0.93<br><br>Personal stigma: interaction effect p=0.48 |
| Hamblen et al. (2019) | Randomised controlled trial | USA Veterans (n=60) | Stigma and attitudes about treatment seeking | Educational components | A web-based educational campaign to reduce stigma and increase help seeking | Interaction effect p=0.15 |
| Livingston et al. (2013) | Quasi-experimental designs (pre-post-test) | Canada young and young adults (n=806) | Personal stigma; social distance | Educational components and virtual contact | A brief social media intervention | Personal stigma:<br><br>p>0.05<br><br>social distance:<br><br>p>0.05 |
| Evans-Lacko et al. (2013) | Quasi-experimental designs (pre-post-test) | UK residents<br><br>mid-20s to mid-40s | Mental Health Knowledge Schedule;<br>Mental health-related attitudes;<br>Mental health-related intended behaviour | Educational components | A social marketing campaign | There was no significant longitudinal improvement in overall knowledge or intended behaviour over the entire campaign. |

Positive effects Mixed effects No effects

**Table 5.3 Components of Anti-Stigma Interventions with Positive and Mixed Effects for Reducing Mental Health Stigma in Young People**

| | Education | | | | | | | | Contact |
|---|---|---|---|---|---|---|---|---|---|
| | Mental health stigma-related knowledge (definition, forms, causes, consequences, strategies etc.) | Mental health conditions knowledge (definitions, symptoms, forms, causes, consequences, strategies etc.) | An introduction to experience of mental health conditions | Help-seeking/ Support | Role-play | Misconceptions Stereotypes/Myths | Facilitated discussion | Homework | A person with a lived experience of a mental health condition |
| Cangas et al. (2017) | | | ✅ | | | | | | |
| Perry et al. (2014) | ✅ | ✅ | | ✅ | | | | | |
| Nguyen et al. (2020) | ✅ | ✅ | ✅ | ✅ | | | | | |
| Link et al. (2020) | ✅ | ✅ | | ✅ | | | ✅ | ✅ | |
| Winkler et al. (2017) | ✅ | | | | | | | | ✅ |
| Mulfinger et al. (2018) | | | ✅ | | | | ✅ | | ✅ |
| Economou et al. (2014) | ✅ | | | | ✅ | ✅ | ✅ | | |
| Milin et al. (2016) | ✅ | ✅ | ✅ | ✅ | | | | | |
| Staniland & Byrne (2013) | ✅ | ✅ | | | | | ✅ | | ✅ |
| Vila-Badia et al. (2012) | | | | | | | ✅ | | ✅ |
| O'mara et al. (2013) | | | | | | | ✅ | | |
| Gonçalves et al. (2015) | | | | | | | ✅ | | |
| Economou et al. (2012) | ✅ | ✅ | | | ✅ | ✅ | ✅ | | |
| DeLuca (2020) | ✅ | ✅ | | | | | ✅ | | ✅ |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chisholm et al. (2016) | ✅ | ✅ | | | | | ✅ | | ✅ |
| Ahmad et al. (2020) | ✅ | ✅ | | | | | ✅ | | |
| Painter et al. (2017) | ✅ | ✅ | | ✅ | | | ✅ | ✅ | ✅ |
| Cheetham et al. (2020) | | ✅ | | ✅ | | ✅ | | | |
| Saporito et al. (2013) | | ✅ | | | | ✅ | | | ✅ |

Positive effects  Mixed effects

## 5.5 Step 4: Identification of Potential Mismatches

In *ADAPT*, Step 4 aims to identify and categorise potential mismatches among intervention goals, characteristics of target population and implementation and/or community, identify potential implementation barriers and barriers to participation, and assess fidelity/adaptation concerns for the particular implementation site. However, based on Step 2 and 3, there was no intervention that is suitable for adapting in the present study. Therefore, this step was considered omitted.

## 5.6 Step 5: Intervention Model Development

The aim of this step was to develop via co-adaptation a prototype anti-stigma intervention that reduces mental health stigma in both self-stigma and public stigma for Chinese young people. The six steps (see Table 5.4) in quality intervention development (6SQuID; Wight et al., 2016) were applied to develop the prototype anti-stigma intervention. 6SQuID is a practical guide for the necessary stages when public health practitioners and researchers develop interventions (Wight et al., 2016; Pringle et al., 2018). To realise this aim, the Step 1, 2, 3 and 4 of 6SQuID were followed because this study ended at the Step 4. Doing so can develop an evidence-based intervention ready for further modification. The following sections detail how the prototype anti-stigma intervention was developed followed the 6SQuID framework.

**Table 5.4 Six Steps in Quality Intervention Development**

| Step | Aim |
|---|---|
| **Step 1** | Define and understand the problem and its causes. |
| **Step 2** | Clarify which causal or contextual factors are malleable and have greatest scope for change. |
| **Step 3** | Identify how to bring about change: the change mechanism. |
| **Step 4** | Identify how to deliver the change mechanism. |
| **Step 5** | Test and refine on small scale. |
| **Step 6** | Collect sufficient evidence of effectiveness to justify rigorous evaluation/implementation. |

Source: Wight et al. (2016)

### 5.6.1 Step 1 of 6SuQID: Understanding the Problem of Mental Health Stigma in Chinese Young People and Its Causes

The aim of the Step 1 of 6SQuID was to define and understand the problem and causes. Mental health stigma has been found to contribute to aggravated mental health conditions and significant negative life impacts in young people in the global context (Yang et al., 2010). The prevalence of mental health issues in Chinese young people, including associated stigma, is poorly researched (Shen et al., 2018). However, Chinese traditional cultural beliefs, including Confucianism, Buddhism, and Taoism, have informed how public and people living with mental health conditions understand and interpret mental health conditions and associated stigma (Lv et al., 2013). Of these, Confucianism has had the most far-reaching significance, and it emphasises “face”, which is a vital aspect of social identity, representing power and status in the Chinese social hierarchy (Lv et al., 2013). Maintaining “face” is seen to preserve this aspect of social identity. People with mental health conditions are viewed as having a “loss of face” and shame in Chinese society (Lv et al., 2013). A “loss of face” and shame that mental health conditions bring about imply the decrease of power and status in society, further fuelling negative attitudes and behaviours towards people living with mental health conditions.

To understand the problem of mental health stigma in Chinese young people, namely, the lived experience, how they account for the existence of stigma and what action should be taken to reduce it, Study 1, Study 2, and desk research have been conducted. In Chapter 3, Study 1 evaluated the effectiveness of anti-stigma intervention for reducing mental health stigma in young people. In this Chapter, my desk research on mental health stigma in China aimed to understand the characteristics of Chinese young people, their needs around stigma reduction, and contexts of developing anti-stigma interventions in China, including policy and social media contexts. In Chapter 4, Study 2 explored Chinese young people’s lived experiences and opinions of stigma reduction. Findings from these studies showed several factors that fuel mental health stigma towards Chinese young people have been recognised. First, the government has not attached importance to mental health stigma and there has no relevant policies or regulations about mental health stigma specifically. This was found to cause public stigma. Additionally, people living with mental health conditions are viewed as losing “face” according to Chinese traditional values and beliefs, which has been

rooted in Chinese people leading to public stigma. In addition, according to the outcome of Study 2, dismissal of mental health conditions was perceived as common in significant adults, such as parents and teachers. Also, young people reported that these adults showed negative attitudes and stereotypical beliefs towards young people with mental health conditions. These negative attitudes and stereotypes were found to fuel public stigma. Other influencing factors were internalised negative attitudes and behaviours towards themselves by young people with mental health conditions, poor knowledge of mental health including uncertainty about engaging with people living with mental health conditions, a lack of empathy, misleading news reports, and negative group behaviours in peers. Of these, internalised negative attitudes were perceived to cause self-stigma while; a lack of empathy, misleading news reports, and negative group behaviours in peers were found to fuel public stigma. Poor knowledge of mental health was perceived to cause both public stigma and self-stigma. These factors created a recurring cycle with each factor reinforcing the others.

Some factors were consistent with well-evidenced determinants of stigma in the field of health. A scoping review (Bolster-Foucault et al., 2021) identified ten determinants of stigma: legal frameworks, welfare policies, economic policies, social and built environments, media and marketing, pedagogical factors, health care practices and policies, biomedical technology, diagnostic frameworks, and public health interventions). Relevant policies, media, social environment, and pedagogical factors are consistent with this study. Thus, some determinants of the problem of mental health stigma towards Chinese young people were from the above evidence sources. More specifically, determinants of public stigma for young people from China are a lack of mental health stigma-related polices; Chinese traditional beliefs about mental health conditions; negative attitudes towards mental health conditions among parents, teachers, and peers; negative stereotypes of mental health conditions in parents, teachers, and peers; poor mental health knowledge; biased news reports by media platforms; insufficient empathy among young people; and negative group behaviours towards those living with mental health conditions. A determinant of self-stigma is internalised negative beliefs and behaviours about mental health conditions. Notably, Chinese traditional beliefs about people with mental health conditions are a form of negative attitudes towards people living with mental health

conditions. Therefore, this determinant is merged into negative attitudes as discussed in the following sections.

### 5.6.2 Step 2 of 6SuQID: Clarify Which Causal or Contextual Factors Are Malleable and Have Greatest Scope for Change

Step 2 of 6SQuID is to identify which causal or contextual factors are modifiable, namely, to clarify determinants that have the greatest scope for change. According to Step 1, based on Study 2 and the desk research eight determinants that contribute to mental health stigma including public stigma and self-stigma towards Chinese young people have been identified. The following section provides a rationale for considering what is modifiable, summarised in Table 5.5.

**Table 5.5 Potentially Modifiable Factors Contributing to Mental Health Stigma**

| Factors | Objects | Modifiable | Evidence |
|---|---|---|---|
| **A lack of policies on mental health stigma** | The government | Yes (but not a focus of this study) | Policy champions can drive developments in policy inequality; it is available for policy changes when a policy window opens. |
| **Negative attitudes towards mental health conditions** | Parents/family members, teachers, and peers | Yes | Effective anti-stigma interventions can reduce negative attitudes. |
| **Stereotypes/myths/ misconceptions towards mental health conditions** | Parents/family members, teachers, and peers | Yes | Stereotypes can be corrected by effective anti-stigma interventions. |
| **Poor mental health knowledge (including unknown strategies)** | Peers, parents/family members and teachers | Yes | Knowledge of mental health can be improved by effective interventions for stigma reduction. |
| **Biased news reports** | The media platforms | Yes | Biased news reports can be reduced to spread by change negative attitudes towards mental health. |
| **A lack of empathy** | Peers | Yes | Increasing empathy can reduce stigma. |
| **Negative group behaviours** | Peers | Yes | More favourable group behaviours can be achieved by effective anti-stigma interventions. |
| **Internalised negative beliefs and behaviours about mental health conditions** | Self | Yes | Effective anti-stigma interventions can reduce self-stigma. |

#### 5.6.2.1 Policies on Mental Health Stigma

As shown in Table 5.5, a lack of mental health stigma related policies is one determinant that is modifiable. Kingdon (2011) proposed a conceptual framework that argues that when three “streams” (problem, policy, and politics) are present, a window opens for a significant policy change. The problem means that the government, experts, and a broader community understand the problem well; the policy refers to a solution that should be available and feasible; and the politics represents a political will that is forthcoming at the right time (Kingdon, 2011). There is evidence that the agenda-setting of policy champions drive the policy developments during policy windows (Mintrom & True, 2022). Evidence from Study 2 could feed into an understanding of mental health stigma in Chinese young people to policymakers; and the co-adaptation study could inform a prototype anti-stigma intervention for Chinese young people. These bases could help open a window of opportunity and then drive mental health stigma-related policies. Therefore, policies on mental health stigma were identified as modifiable. Although this study is not targeting policy change as this is not the focus of this intervention development, more work is needed to develop a feasible intervention before policy change is possible. At the validation stage, it will provide opportunity to explore current policy understanding and political will to adopt an anti-stigma intervention.

#### 5.6.2.2 Negative Attitudes

Attitudes towards mental health conditions have been one of the primary outcomes in anti-stigma interventions for young people. Study 1 has identified some previous studies in which anti-stigma interventions had a significant effect on improving attitudes towards people with mental health conditions among youth. For instance, Winkler et al. (2017) evaluated an anti-stigma intervention involving a seminar and a short video in nursing high school students in the Czech Republic. They found that participants had greater positive attitudes towards people living with mental health conditions after both interventions. Milin et al. (2016) delivered a mental health curriculum to Canadian high school students and examined the impact on mental health knowledge and attitudes towards mental health conditions. Their findings indicated significant change in attitudes demonstrating increased positive attitudes towards people with mental health conditions. Also, a study that explored the efficacy of an anti-stigma intervention for Greek adolescents via seminars with imagined contact and role-plays showed changes of participants’ beliefs and attitudes towards schizophrenia

revealing negative attitudes were reduced (Economou et al., 2014). These three studies were considered to provide the most reliable evidence on the effectiveness of anti-stigma interventions as they all employed a randomised controlled trial to evaluate their interventions. It has been argued that randomised controlled trials can reduce bias of confounding factors that impact the results (Akobeng, 2015). In terms of the change mechanisms of these anti-stigma interventions, these studies included components of psychoeducation and contact. This suggests that psychoeducation and contact can be used for reducing negative attitudes towards people living with mental health conditions. Hence, it is possible to modify public attitudes towards mental health conditions in young people.

#### 5.6.2.3 Stereotypes/Myths/Misconceptions

Challenging stereotypes/myths/misconceptions correction regarding mental health have been a component of existing anti-stigma interventions for young people. Evidence from Study 1 indicated that negative stereotypes/myths/misconceptions can be changed via anti-stigma interventions. For instance, Economou et al. (2014) conducted an anti-stigma intervention in Greek high school students and found a significant effect on stereotyping. Cheetham et al. (2020) evaluated an intervention for reducing stigma towards alcohol misuse among Australian young people. This intervention included a component correcting misconceptions held by peers concerning mental health and substance use, and the findings showed decreased stigmatising attitudes towards alcohol misuse. This suggests that misconception corrections can be changed. Saporito et al. (2011) delivered an intervention for reducing stigma towards seeking mental health treatment in American young people. This intervention included correcting a stereotype that those living with poor mental health have difficulties in normal life. A significant effect on explicit stigma reduction was found in this intervention, which suggests that a change of stereotypes could be achievable, and stereotype corrections might help stigma reduction. In addition to these studies, Cangas et al. (2017) investigated Spanish adolescents' attitudes towards schizophrenia before and after receiving an intervention for reducing stigma. The measure of attitudes was manifested by two dimensions: dangerousness and stereotypes. Significant changes on both dimensions were found, suggesting increased positive attitudes towards schizophrenia after conducting the intervention. Also, American youth were found to have fewer negative stereotypes of mental health after an anti-stigma intervention was conducted (DeLuca, 2020). In these studies, in terms of overall effects

of stigma reduction, Economou et al. (2014) and Cangas et al. (2017) obtained significant effects in their interventions, and other studies had mixed effects. This implies that correcting negative stereotypes of mental health conditions can contribute to stigma reduction. Also, both education and contact were used in these studies, and particularly, those two studies with positive effects (Economou et al.,2014; Cangas et al., 2017) employed education in their interventions. This means that education-based interventions indicated relatively more significant effects on reducing negative stereotypes towards people living with mental health conditions than contact-based interventions. Thus, when considering change mechanisms for reducing negative stereotypes, education-related components are possible. Based on the above evidence, therefore, stereotypical beliefs of mental health conditions, and people who experience them could be changed.

It has been argued that media reports might shape individuals' attitudes towards social groups (Bergold et al., 2021). Thus, biased news reports could reinforce negative attitudes and stereotypes towards mental health. However, this study did not focus on regulating news report but reducing the negative impacts of biased media reports. Findings from the desk review that China has the largest social media market, and policymakers, practitioners, and influencers have used social media to spread mental health knowledge and improve the influence of mental health in public. This suggests that the impact of negative impacts of biased media reports could be changed as these negative attitudes that are spread by news reports could be changed through social media platforms as discussed above.

#### 5.6.2.4 Poor Mental Health Knowledge

Research has provided substantial evidence that knowledge of mental health could be improved, and researchers have viewed mental health knowledge as an important component and measured outcome in anti-stigma interventions for young people. According to Study 1, Perry et al. (2014) examined Australian adolescents' mental health knowledge before and after an anti-stigma intervention. The finding indicated that significant and long effects on mental health knowledge was obtained. Nguyen et al. (2020) delivered an anti-stigma intervention for young people in Vietnam and Cambodia. They found that participants in both countries had greater mental health knowledge after the intervention conducted. Another study that was conducted in American young people by Link et al. (2020) showed improved

mental health knowledge among participants after participants received an anti-stigma intervention. Also, an autism anti-stigma intervention was conducted to look at autism-related knowledge in Australian boys (Staniland & Byrne, 2013). Participants were found to have greater knowledge of autism post-intervention. Chisholm et al. (2016) examined knowledge of mental health in youth in the UK before and after participants received an anti-stigma intervention, and improved mental health knowledge were reported post-intervention. In these studies, in terms of overall effects on stigma reduction, except for Staniland and Byrne (2013) and Chisholm et al. (2016) had mixed effects, the other studies obtained significant effects. This suggests that increased knowledge of mental health has played an important role in reducing stigma. Also, these studies designed modules/sessions that included dissemination of mental health-related knowledge in their interventions. This means that the increase of knowledge of mental health can be achieved via education. Based on the above evidence, poor knowledge about mental health is considered a modifiable factor by young people and their parents and teachers.

#### 5.6.2.5 A Lack of Empathy

Empathy is defined as a capacity and tendency to share and understand other people's internal state including their perspectives, needs, and intention (Zaki & Ochsner, 2012). Empathy has been viewed as a learnable skill and can be enhanced by education and practice (Cunico et al., 2012). Previous studies have included empathy as one outcome to evaluate effectiveness of anti-stigma interventions for reducing mental health stigma. For example, Potts et al. (2022) delivered anti-stigma training for addressing mental health stigma to medical students in ten countries. Post-training, researchers found that patient perceived empathy was increased and increased empathy had mediating effects on the stigma reduction intervention. Tippin and Maranzan (2019) conducted an anti-stigma intervention using a photovoice-based video for reducing mental health stigma in Canadian undergraduate university students. Their findings indicated that this photovoice-based video elicited significantly greater empathy compared to the control video. A scoping review investigating the effectiveness of augmented and virtual reality interventions for increasing knowledge, attitudes, and empathy and reducing stigma towards people living with mental health conditions (Tay et al., 2023) reported that seven studies examined empathy towards either people living with dementia (Campbell et al., 2021; Slater et al., 2021; Papadopoulos et al., 2021; Wijma

et al., 2018) or psychotic conditions (Formosa et al., 2018; Sri Kalyanaraman et al., 2010; Silva et al., 2017), and increased empathy was found in these seven studies following the intervention. Although these studies did not focus on young people particularly, they suggest that empathy could be changed following intervention, and empathy plays a role of mediated effects stigma reduction. Thus, a lack of empathy is identified as modifiable.

#### 5.6.2.6 Negative Behaviours

Existing literature provides substantial evidence that negative behaviours by peers towards young people living with mental health conditions can be improved. In this thesis, negative behaviours are defined as actions or conduct that are harmful, detrimental, or socially unacceptable in young people. Such behaviours are different from negative attitudes. Negative behaviours can be both intentional and unintentional (Palfreyman et al., 2013). Winkler et al. (2017) examined nursing high school students' intended behaviours towards people with mental health conditions before and after participants received an anti-stigma intervention (seminar and short video). They used the Reported and Intended Behaviour Scale to measure intended behaviours in participants. They reported that the seminar had significant and long-term effects on intended behaviours in participants, suggesting more favourable intended behaviours by participants. Another study was conducted in Italy to investigate the efficacy of an intervention based on education and social contact for reducing mental health stigma in high school students (Lanfredi et al., 2019). They employed the Willingness to Interact with someone with a Mental Illness Questionnaire to measure intended behaviours. Participants in this study demonstrated greater willingness post-intervention to interact with people living with mental health conditions. Namely, this intervention helped participants hold more favourable intended behaviours towards people with poor mental health. Wong et al. (2019) evaluated a mental health course for reducing stigma in university students in Hong Kong, and more favourable intended behaviours towards mental health conditions were obtained post-course. Koike et al. (2018) conducted an intervention via repeated filmed social contact for reducing mental health stigma in Japanese young adults. They used the Reported and Intended Behaviour Scale. Their results demonstrated that this intervention had significant effects on intended behaviours, suggesting more favourable intended behaviours towards poor mental health. These studies suggest that intended behaviours towards poor mental health could be changed via interventions and existing interventions were effective in

enhancing favourable behaviours. Also, these studies employed either education or contact components in their interventions, indicating that favourable intended behaviours can be achieved via education or contact. Hence, negative intended behaviours that peers hold towards young people living with mental health conditions are viewed as modifiable.

#### 5.6.2.7 Internalised Negative Attitudes and Behaviours

Researchers have explored interventions for reducing self-stigma in young people. According to Study 1, Mulfinger et al. (2018) delivered an anti-stigma intervention via contact for German adolescents and found self-stigma towards mental health conditions was significantly reduced after participants received the intervention. Also, significantly higher intervention effects on self-stigma towards mental health were reported in a study conducted via education among Portuguese young people by Gonçalves et al. (2015). These studies suggest that it is possible to reduce self-stigma towards mental health conditions in young people. Aside from young people, researchers have also documented the effectiveness of anti-stigma interventions for reducing self-stigma in adults. For example, Fung et al. (2011) evaluated an intervention that included psychoeducation for self-stigma reduction in Chinese people living with schizophrenia and found significant self-stigma reduction after participants received the intervention. Russinova et al. (2014) also obtained a significant reduction in self-stigma among American adults with serious mental health conditions after an intervention included psychoeducation for addressing self-stigma. The above studies have provided evidence that self-stigma can be reduced via education and contact. Also, self-stigma has been found to associate with stigma by other (Vogel et al., 2013), which means the change of public stigma might drive a change of self-stigma. Since it has been discussed above that negative attitudes and behaviours towards people living with mental health conditions can be modified, self-stigma might have changes accordingly with the change of public stigma. Hence, self-stigma is viewed as modifiable based on the above evidence.

In summary, there is strong evidence that negative attitudes, stereotypes, poor mental health knowledge, a lack of empathy, negative group behaviours, and negative internalised attitudes and behaviours, can be changed via effective interventions. Previous anti-stigma interventions targeted one or a few of these determinants. These effective interventions included components that were related to either education or contact, which

suggests that education and contact are possible change mechanisms. In this study, except for policies, all these determinants are options to include in the intervention. First, these determinants are needed and important to reduce mental health stigma towards Chinese young people as they were identified by Chinese young people as well as a desk review, demonstrating their subjective thoughts and experiences. Second, it is feasible to reduce mental health stigma based on substantial empirical evidence. Therefore, these determinants will be included in the development of prototype anti-stigma intervention suitable for Chinese young people.

### 5.6.3 Step 3 of 6SQuID: Identify How to Bring about Change: The Change Mechanism

Step 3 of 6SQuID is to decide on how to achieve change in selected modifiable factors. This section details the change mechanism for each modifiable factor. Table 5.6 demonstrates the change mechanisms of those modifiable factors.

**Table 5.6 Modifiable Factors and Change Mechanisms**

| Modifiable factors | Change mechanisms |
|---|---|
| **Policies on mental health stigma** | • Making new policies (not applicable) |
| **Negative attitudes towards mental health conditions** | • Providing specific information<br>• Intergroup contact<br>• Enhancing empathy |
| **Stereotypes towards mental health conditions** | • Providing specific information<br>• Intergroup I contact<br>• Enhancing empathy |
| **Poor mental health knowledge** | • Improving mental health-related knowledge |
| **Biased news reports** | • Providing specific information<br>• Intergroup contact<br>• Enhancing empathy |
| **A lack of empathy** | • Intergroup contact<br>• Role-taking<br>• Role-play<br>• Reflective writing |
| **Negative behaviours** | • Increasing capability, opportunity, and motivation<br>• Formulating positive social influences |
| **Internalised negative beliefs and behaviours about mental health conditions** | • Providing specific information<br>• Intergroup contact<br>• Improving mental health-related knowledge<br>• Increasing capability, opportunity, and motivation |

In Step 2 of 6SQuID, a lack of mental health stigma-related policies was identified as a modifiable factor. Although policy change was not a direct

target of this study, it is possible that policy change in the longer-term could emerge based on evidence from anti-stigma interventions.

Apart from adding mental health stigma-related policies to current mental health policies in China, other change mechanisms are informed by several psychological, social theories and empirical perspectives. The following sections detail relevant theories or models that inform change mechanisms.

#### 5.6.3.1 Elaboration Likelihood Model

The elaboration likelihood model is a theory of change about how to persuade people to change their behaviours. It has been argued that attitude change can be produced via message-based persuasion (Wood, 2000). The elaboration likelihood model proposed by Petty and Cacioppo (1981) is an example of a dual process approach to persuasion (O'Keefe, 2013). The model explains reasons for various outcomes and impacts on individuals' perceptions and behaviours as a result of a given influence process that is trying to change their attitudes. The term 'elaboration' refers to the recipient's involvement of thinking about the issues. There are two routes: the central route and the peripheral route. The central route works when the information is considered thoughtfully by the recipients, and argument quality is highlighted in this route (O'Keefe, 2013). The peripheral route works when the recipients receive some simple cues in the persuasion message, such as attractive source and source credibility (O'Keefe, 2013).

Numerous factors have been identified to influence the degree of elaboration motivation or elaboration ability. Of these, two are main factors: one influencing factor is personal relevance/involvement with the topic and the other is need for cognition (Petty et al., 2009). As the increase of personal relevance of the topic grows, the recipient's motivation to engage in elaboration increases; higher personal need for cognition increases greater elaboration motivation. Other influencing factors include distraction in a persuasive setting, relevant contextual knowledge, and time available (O'Keefe, 2013). If individuals are distracted or unknown about prior knowledge of the subject matter or are rushing, they might have difficulty in engaging in topic-relevant thinking. This suggests that it is necessary to take the degree of elaboration motivation or elaboration ability into account to achieve mental health stigma reduction.

Attitude changes are sustained and more resistant to counter-persuasive attempts and are predictive of behaviours when the message is processed via the central route. Attitude changes are short-term and more susceptible to future persuasion if processing is done via the peripheral route, and this route tends to be unpredictive of behaviours (Keltner & Oveis, 2007). According to these dual routes, the stigmatising attitude change towards poor mental health can work when young people are exposed to detailed mental health stigma-related information via the central route to process messages.

In Step 2 of 6SQuID, it has discussed that some studies used psychoeducation to change negative attitudes and stereotypes. For instance, Milin et al. (2016) delivered a mental health curriculum that pertained stigma and mental health by delivering detailed information. Also, Economou et al. (2014) provided evidence-based information on mental health conditions for students to dispel stereotypes in their intervention. These studies used psychoeducation via providing specific information on stigma and mental health to increase elaboration motivation and use the central route processing. In short, elaboration likelihood model informs attitudes change towards people with mental health conditions. The most effective change mechanisms are increased elaboration motivation for mental health stigma-related information and use of central route to process for mental health stigma-related messages.

#### 5.6.3.2 Intergroup Contact Theory

Intergroup contact theory (Allport, 1954) proposes that more positive intergroup relations and less rigid attitudes toward outgroups could be achieved via intergroup contact (Maunder & White, 2019). In terms of young people without experience of mental health conditions, they consider those who are living with mental health conditions as an outgroup. According to the intergroup contact theory, stigmatising attitudes and behaviours can be reduced via increased intergroup contact. Four optimal conditions have been identified to fulfil successful contact: equal group status within the contact situation; common goals shared by two groups; intergroup cooperation; and the support of authorities, law or custom (Gao & Ng, 2021). There is evidence that contact still has effects on prejudice reduction if these conditions have not been met (Christ & Kauff, 2019). This suggests that these optimal conditions could increase the positive effects on contact but are not essential. Substantial empirical evidence indicates that it is not only

direct (face-to-face) intergroup contact that can achieve effects but also effects have been found in indirect forms of intergroup contact, such as extended, vicarious, imagined contact (Christ & Kauff, 2019). According to intergroup contact theory, people who are from different groups need to be exposed to direct or indirect contact to reduce attitudes and prejudices towards outgroups (Lemmer & Wagner, 2015). This implies that mental health stigma can be reduced if those without experience of mental health conditions are exposed to direct or indirect contact with those with experience of mental health conditions.

Four mechanisms have been proposed to explain how contact can reduce prejudice towards outgroup. They are: learning about the outgroup, changing behaviours, generating affective ties, and reappraising ingroup (Pettigrew, 1998). More specifically, learning about the outgroup and reappraising how a person looks at their own ingroup are cognitive mechanism. Changing a person's behaviour to open to potential positive contact experiences is behavioural mechanism. Generating affective connections and friendships and diminishing adverse emotions is affective mechanism. This means that contact works through cognitive, behavioural, and affective ways. Evidence shows that affect is a particular important mediating mechanism – contact achieves prejudice reduction via reducing adverse effect, such as anxiety, and producing positive affect, such as empathy (Tausch & Hewstone, 2010). Thus, stigma could be reduced via successful contact between groups as a result of more understanding (Gao & Ng, 2021), greater empathy, as well as more favourable behaviours.

Intergroup contact has been used in the previous interventions for reducing mental health stigma. For example, Mulfinger et al. (2018) invited a young adult with experience of a mental health condition and a young mental health professional to reducing stigma towards young people in an inpatient setting and found a significant effect on stigma reduction. Saporito et al. (2011) delivered a video presentation of a youth currently suffering from a mental health condition in their intervention. The findings indicated that the intervention had effects on reducing explicit stigma in young people. These studies used direct or indirect way to build contact with people living with mental health conditions for reducing negative attitudes and behaviours towards them. In summary, intergroup contact theory informs developing anti-stigma interventions. The change mechanisms are creating optimal

conditions for contact, improving understanding the outgroup, increasing empathy, and changing behaviours.

#### 5.6.3.3 Constructivism Learning Theory

The improvement of knowledge is related to constructivism learning theory. Constructivism is a learning theory that explains how individuals might acquire knowledge and learn. It emphasises “mental construction” meaning that knowledge is learned by combining new information with existing knowledge (Bada & Olusegun, 2015). Instead of passively obtaining information, constructivism attaches an importance of an active role to building learners’ understanding via reflecting on their experiences, creating mental representations, and incorporating new knowledge into their patterns. Constructivists argue that the context where the knowledge is taught, and learners’ beliefs and attitudes have an impact on learning (Bada & Olusegun, 2015).

Constructing knowledge associates with two processes: assimilation and accommodation. The process of taking new messages and fitting it into an existing schema termed assimilation; and the process of revising and redeveloping an existing schema by employing newly acquired information termed accommodation. Gaining new knowledge is an established mechanism for decreasing mental health stigma via assimilation and accommodation. For young people who have knowledge of mental health to some degree or no existing schema, they can take new information about mental health and fit them into their existing schema to build up understanding of mental health conditions. Namely, decreasing mental health stigma works through assimilation. For those who have misconceptions or negative stereotypes towards people with mental health conditions, accommodation can be used. They can use newly acquired information about mental health conditions to revise and redevelop existing schema, namely, revising those misconceptions and stereotypes of mental health conditions. Existing anti-stigma interventions have been developed based on constructivism learning theory. Researchers designed relevant modules about stigma and mental health via delivering new knowledge and correcting negative stereotypes. For example, Nguyen et al. (2020) delivered a six-modules of knowledge in the field of mental health and stigma. Therefore, it is achievable to improve knowledge of mental health and stigma in the prototype anti-stigma intervention.

#### 5.6.3.4 Empathy-Related Theory

Empathy is regarded as a cognitive-emotional process (Cunico et al., 2012) and a multifaceted construct. There are two types of empathy: emotional empathy and cognitive empathy (Shamay-Tsoory et al., 2009). Emotional empathy refers to an ability to feel another person's emotion while cognitive empathy means a capacity to perceive and understand other's perspectives or intentions. Behavioural findings indicate that cognitive empathy is effortful (Lin et al., 2010). It has been demonstrated that emotional empathy boosts perspective taking since mid-to-late adolescence (Miklikowska, 2018). This implies that developing empathy is a process in which emotional and cognitive factors interrelated.

The role of cognitive aspects in empathic process was explained by developmental psychologist Bonino et al. (1998). He argued that various empathic responses are possible to be identified based on a continuum. The continuum is constitutive of a variety of different levels of differentiation that are collectively determined by various factors and cognitive mediations in an increasingly complex process. Bonino et al. (1998) proposed three phases explaining a developmental process of empathy. The first phase is featured by emotional contagion. When intense emotional sharing exceeds cognitive control, especially when it comes to distressing feelings, others (who might develop empathy) may avoid and/or reject the relationship with the person who needs empathy. The second phase is parallel empathy in which cognitive mediation has still not reached a sufficient level of differentiation between the person and others, possibly leading to the attribution of others' (who might develop empathy) own emotions and sentiments. The final phase is called empathy, in which a conscious awareness of using cognitive mediation and elements of emotional states shared take place (Eisenberg, 2000).

There is evidence that a greater understanding of others' experience could increase the extent of cognitive empathy (Bell, 2018). The reason is that the greater understanding can prompt thoughtful reflection and cognitive perspective-taking and the person's perspective and beliefs can be challenged. In addition to this, role-taking, which refers to the understanding of another's perception of the world via situational imagination, is considered as an effective way to strengthen empathy (Numanee et al., 2020). Also, it

has been argued that empathy can be developed via role-play activities to create contextual simulation (Bosse et al., 2012). Another approach to build empathy is reflective writing, which has been found to be effective in enhancing trainees' empathetic judgements (Ozcan et al., 2011). Previous interventions have included components to increase empathy to reduce mental health stigma towards people living with mental health conditions. For example, Economou et al. (2014) included a role-play exercise with discussion in their interventions for reducing mental health stigma towards young people and received a significant effect on stigma reduction. Thus, the change mechanism is enhancing empathy, and it can be achieved through role-taking, role-play and reflective writing.

Moreover, it has been argued that the positivity towards outgroups can be increased via empathy (Bommel et al., 2021). Emotional empathy suggests a personal cares for other people's wellbeing. This care could be generalised to members of other groups, thereby inspiring positive attitudes towards those outgroups (Stark et al., 2013). In addition to this, the perception of intergroup similarity might be enhanced as a result of the capacity to take the perspective of other people and experience same emotions, and thus a greater positivity towards the outgroup could be achievable (Bommel et al., 2021). Also, when intergroup members experience empathy for outgroup members who perceive stigma, intergroup members might raise their awareness of the stigmatisation and injustices these outgroup members have to bear. Thus, in turn, intergroup members' attitudes towards outgroup members could be improved (Nesdale et al., 2015). Moreover, stereotypes of stigmatised groups have been found to be reduced via increased empathy. The cognitive component of empathy is increased by decreasing blame or control over the target's situation or status (Batson & Ahmad, 2009), or by shortening the distance between perceived conceptions of the self and the other (Galinsky et al., 2008). Thus, as well as the change mechanisms of negative attitudes and stereotypes mentioned above, increased empathy also works.

#### 5.6.3.5 The COM-B Model of Behaviour, the PRIME Theory of Motivation, and Social Influence Theory

The COM-B model of behaviour, the PRIME theory of motivation, and social influence theory inform changes in negative group behaviours towards people with mental health conditions. The COM-B model of behaviour has been widely employed to determine change mechanisms in an intervention

for changing a behaviour to be effective (West & Michie, 2020). This model states that at any given moment, as long as the individual has the capability and opportunity to engage in it and is more motivated to commit it than any other behaviours, a particular behaviour takes places (Michie et al., 2011). Capability, opportunity, and motivation are three factors influencing any behaviour. Behaviour has been viewed as a part of a dynamic system with positive and negative feedback loops as these three factors interact with each other over time (West & Michie, 2020). Capability is seen as an attribute of an individual, whereas opportunity is considered as an attribute of environmental system (West & Michie, 2020). These two attributes work together to make a behaviour possible or facilitate it. Motivation is core part of this model, and regarded as an aggregate of mental processes that energise and directs behaviour. West and Michie (2020) stated that capability and opportunity are needed for motivation to generate behaviours. This means that the greater capability and opportunity could facilitate a behaviour to occur. Also, when people are capable of, or believe they are capable of a behaviour, and there is more favourable environment for that behaviour, they are more likely to engage in that behaviour.

To reduce mental health stigma via changing negative behaviours, the change mechanisms are increasing young people's capability of acting favourable behaviours towards people living with mental health conditions, and creating favourable environment (i.e., opportunity) in which young people act positive responses to those with mental health conditions. The increased capability requires psychoeducation to achieve, and the favourable environment is associated with school and family settings as they are main places for young people. Thus, young people are more capable of respond to people living with mental health conditions based on what they have learned via psychoeducation, and favourable environment in both schools and families is available for young people to act positively. Mental health stigma, then can be reduced via changing behaviours.

With regards to motivation, it involves the PRIME (plans, responses, impulses, motives, evaluations) theory of motivation (West & Michie, 2020). This theory explains how the human motivational system is operated. More specifically, individuals' motives that refer to what they most desire, want or need at that precise moment drive their deliberate behaviours. West and Michie (2020) pointed out that at a given time in which people act in pursuit

of what they want or need most is the fundamental principle of human behaviour. Thus, they believed that the momentary wants and needs that will be experienced at the moment when the behaviour becomes favourable is pivotal target for behaviour change via changing motivation. Also, they argued that wants and needs are also generated to some degree by evaluations. Evaluations represent beliefs that associate with judgements about “goodness” and “badness”. Besides, West and Michie (2020) highlighted the importance of identifying and modelling or imitation to generate wants and needs. They stated that thoughts and images that pertain to us constitute identity, and a sense of self is crucial for shaping plans, and what happens to persons and who they think they have strong impacts in both positively and negatively. It is also important to create modelling or imitation as evidence has shown that human beings are highly imitative and even humans unconsciously mimic others. The modelling emerges to work at all levels of behaviour and thought.

In order to decrease mental health stigma, another change mechanism is boosting motivation for responding positively to people living with mental health conditions. It is essential to introduce evaluation to young people’s wants and needs in terms of how to respond to those with mental health conditions. Also, improving understanding of young people’s identity and the relationship between their identity and mental health is important. Psychoeducation can include this evaluation to shape correct judgements to existing behaviours and introduce the relationship between young people identity and mental health. Thus, young people have more motivation to act favourably contributing to stigma reduction.

Social influence reflects how a person is affected by the actions of other people to conform to community behaviours modes in a social network (Li, 2013). The influences of social behaviour on individuals include the ways where a person’s beliefs, perceptions, attitudes, intentions, values, and behaviours are shaped by society (Lim, 2022). In terms of mental health stigma, when some people view mental health conditions as positive and produce attitudes and behaviours accordingly, a positive influence shapes leading to reducing stigma widely. Two types of social influence have been distinguished: normative and informational (Li, 2013). Normative social influences drive people to conform to group norms in order to fit in with the group and gain acceptance of group members. Informational social influence

refers to a tendency to conform to others' behaviours based on a belief that group members have appropriate and correct information, particularly in ambiguous or uncertain situations. Normative influence contributes to higher levels of social pressure to group members leading to conformity to the group behaviour patterns; while group members re-evaluate their positions when they are subjected to informational influence, namely, when high quality decisions are made based on discussion of facts, evidence, or other forms of information relevant to the decision. From the perspective of normative social influences, it is necessary to formulate a social norm ultimately, i.e. people who are living with mental health conditions should be treated equally and there is no prejudice to them, so that people's negative attitudes and behaviours can be changed. With regards to informational social influence, mental health stigma can be reduced when more and more people have appropriate and correct information about mental health conditions in the group. There is evidence that group members will possess higher levels of confidence about future attitude or behaviour formation (Spreng & Page, 2001). Social group influence is considered as a learning process in which social groups' successful experiences are observed before persons decide to accept or not (Lee et al., 2006). To reduce negative group behaviours towards young people with poor mental health, it is crucial to shape and spread positive influence in those young people without experience of mental health conditions, others who feel uncertain to the situation might conform their behaviours.

In the existing interventions, little anti-stigma interventions have included components that targeted particularly behaviours change or social influence. However, this study included these components in the prototype anti-stigma intervention for further modification via local consultations.

#### 5.6.3.6 The Social-Cognitive Model of Self-Stigma and Integrative Cognitive Model

The social-cognitive model of self-stigma was proposed to understand the determinants and consequences of self-stigma (Corrigan et al., 2008). This progressive model consists of four stages: (a) a person becomes aware of the negative stereotypes around mental health conditions by daily exposure in society; (b) the person then might agree that these negative stereotypes by the public are legitimate or true; and when the person has experience of mental health conditions, the social category of experiencing poor mental health is personally relevant; (c) the person then applies these negative

stereotypes to themselves; and (d) the person experiences harm, such as a loss of self-esteem, a decline in self-concept, and diminished expectations for their lives (Corrigan et al., 2012). Corrigan and Watson (2007) also attached the importance of identifying with the group that is stigmatised. People who do not identify with the stigmatised group might tend to be indifferent to stigma because they do not believe that the prejudice and discrimination are against them.

In addition to the social-cognitive model of self-stigma, Wood, Byrne, and Morrison (2017) proposed an integrative cognitive model to explain the development and maintenance of self-stigma in people living with psychosis. This model postulates a relationship among identification with the group, the awareness of stigma, and the triggers of stigma. It has been argued that this connection activates self-stigmatising core beliefs. Through a bidirectional way, these self-stigmatising beliefs involve emotional, physiological, cognitive, and behavioural responses contributing to the maintenance of self-stigma. In turn, these beliefs are affected by protective factors, such as kinds of support (social support network and peer support etc.) and the development of personal goals for recovery.

According to these two models, the change mechanism is reducing negative attitudes and behaviours by the public and self. It has been argued that self-stigma is impacted by public stigma (Vogel et al., 2013). Therefore, the above sections that have discussed how to reduce public stigma can be applied to reduce self-stigma. In addition to this, the concept of self and its relationship with mental health should be included in change mechanisms, such us improving mental health knowledge.

In summary, these theoretical and empirical perspectives inform how to change modifiable factors of mental health stigma. These factors are interrelated, and some theories could be applied to different determinants. For example, contact can change negative attitudes as well as increase empathy. Overall, as Table 5.6 shows, these change mechanisms are: increasing elaboration motivation and using central route to persuade against negative attitudes and stereotypes towards people living with mental health conditions; creating optimal conditions to fulfil successful contact; enhancing empathy via role-taking, role-play, and reflective writing;

improving mental health-related knowledge; and increasing capability, opportunity, and motivation of positively responding to people with mental health conditions, and formulating positive social influences. These change mechanisms can be grouped into three. First, psychoeducation, which covers increasing elaboration motivation and using central route, improving mental health-related knowledge, and increasing capability and opportunity of positively responding to people with mental health conditions. Second, contact, which involves enhancing empathy. Last, behaviour demonstration, which covers formulating positive social influences. Also, motivation of positively responding to people with mental health conditions involves both psychoeducation and behaviour demonstration.

### 5.6.4 Step 4 of 6SQuID: Identify How to Deliver the Change Mechanism

The Step 4 of 6SQuID is to decide how these mechanisms will be delivered. Several theories and empirical evidence have been discussed in the Step 3, providing a theoretical basis for how to change these modifiable factors to reduce mental health stigma towards young people.The following section details proposals for how to change these modifiable factors.

#### 5.6.4.1 Psychoeducation

Psychoeducation can include information to people and their family members concerning a certain mental health conditions (Sarkhel et al., 2020). In the prototype intervention, psychoeducation will be imparted to Chinese young people who have experience of mental health stigma and those who might stigmatise their peers living with mental health conditions. Existing literature has indicated that psychoeducation has significant effects on reducing mental health stigma in young people (e.g. Perry et al., 2014; Milin et al., 2016; Winkler et al., 2017).

***Improving Mental Health-Related Knowledge via Specific Information***

This change mechanism is to change the situation where Chinese people including young people and significant adults lack mental health-related knowledge. The relevant knowledge covers basic concepts and symptoms of kinds of mental health conditions, fundamental knowledge of mental health stigma including definition and forms, and strategies for responding to mental health conditions and support resources. Also importantly, the knowledge should include concept of self and mental health for reducing self-stigma, such as self-esteem, self-efficiency, and self-concept. Empirical

evidence suggests that mental health stigma is decreased with improved mental health knowledge in young people (e.g. Lindow et al., 2020; Nguyen et al., 2020, Link et al., 2020). This change mechanism in psychoeducation is also changed negative attitudes and stereotypes towards people with mental health conditions by providing specific information. According to Study 1, some studies used this mechanism, such as Link et al. (2020) and Nguyen et al. (2020).

The approaches to delivery of psychoeducation are:

a. School delivers relevant knowledge of mental health and stigma to young people: the phenomena of mental health and stigma among young people and the negative consequences of mental health stigma.
b. School introduces how to use social media platforms to obtain mental health-related knowledge that young people are interested.
c. School provides mental health knowledge for parents and teachers via class and/or social media.
d. The above information should be provided in detail and delivered regularly via class and/or social media.

***Increasing Capability to Positively Responding to People with Mental Health Conditions***

This change mechanism is to enhance young people's ability and their perceived ability to positively respond to people with mental health conditions. At this point, this capacity represents psychological capability, which involves a person's cognitive function, such as understanding and memory. The increased capacity can be fulfilled via greater knowledge of mental health and stigma. Therefore, the delivery approach overlaps with the change mechanism for increasing mental health-related knowledge. Moreover, to respond positively, a young person may need to know specific things that are helpful. Hence, this is covered under psychoeducation.

***Increasing Opportunity to Positively Responding to People with Mental Health Conditions***

This change mechanism is to create more opportunities for young people to positively respond to people with mental health conditions. At this point, this opportunity refers to physical opportunity, which involves inanimate parts of environmental system and time, such as financial and material resources. According to Study 1, some studies have included components that create

opportunity opportunities for young people to positively respond to people with mental health conditions. For example, a school club was established in Ahmad et al.'s intervention (2020), and young people can design and engage discussion and activities in this club to improve empathy.

The approaches to delivery are:

a. School provides mental health stigma-related resources available for young people, such as mental health guidance and support services, and particularly for those with self-stigma.
b. School invests more time to young people for promoting the importance of mental health stigma and conducting relevant anti-stigma activities.

***Increasing Motivation to Positively Respond to People with Mental Health Conditions***

This change mechanism is to boost young people's motivation to positively respond to people living with mental health conditions, and it focuses on evaluating existing behaviours towards those living with a mental health condition among young people. In Study 1, Mulfinger et al. (2018) included a session in their intervention evaluating the behaviour that discloses mental health so as to boost young people's motivation to increase help-seeking.

The approach to delivery is:

a. School provides activities for young people to reflect on how they currently respond and ways to respond better.

#### 5.6.4.2 Contact

To reduce mental health stigma in young people in this study, contact-based components will be incorporated into the prototype anti-stigma intervention for reducing negative attitudes, stereotypes and behaviours towards young people living with mental health conditions via direct and indirect contact. Evidence suggests that contact is effective for mental health stigma reduction towards young people (e.g. Vila-Badia et al., 2016; Mulfinger et al., 2018).

***Enhancing Empathy***

One change mechanism in contact is increasing young people's empathy for those with mental health conditions. Increased empathy was found in previous interventions with effects on stigma reduction towards young people (e.g. Economou et al., 2012; Economou et al., 2014).

The approaches to delivery are:

a. Setting a shared goal that reduces young people's mental health stigma between peers and significant adults to create an optimal condition for contact ready for increasing empathy.
b. School designs and implements activities about mental health stigma reduction and requires young people and parents to co-work to improve cognitive empathy.
c. School provides an opportunity for contact, i.e. school invites young people who have experience of mental health conditions to share their lived experiences with young people and significant adults to strengthen empathy.
d. School delivers mental health stigma-related knowledge in young people to increase their understanding of mental health stigma, so as to improve empathy.
e. School implements role-playing activities among young people to strengthen empathy.
f. School assigns reflecting writing task on above activities to young people to improve empathy.

#### 5.6.4.3 Behaviour Demonstration

Behaviour demonstration refers to behavioural modelling, namely, demonstrating favourable behaviours (i.e. responding by referring to support and not excluding or stigmatising) towards young people living with a mental health condition. This behaviour demonstration covers increasing motivation to positively responding to young people with mental health conditions and then formulating positive social influences. Modelling means young people can mimic others who act positively towards those with mental health conditions. There is evidence that behavioural mimicry plays an important role in building affiliations towards both individuals and social groups, and the process of this is conducive to the formation and maintenance of group cohesion (Hauschild et al., 2018). In this study, positive social influences refer to favourable group influence towards young people living with a mental health condition, which could be generated by informational social

influence. At this point, the informational social influence can be achieved based on demonstrated modelling. In other words, behaviour demonstration provides young people with information on how to act positively and can build up such positive social influences among young people.

Thus, the approaches to deliver this change mechanism are:

a. By a public demonstrative role-play activity, young people are asked to practise how to appropriately respond to peers with a mental health stigma via role-play activity.

#### 5.6.4.4 Additional Considerations

Figure 5.1 shows the knowledge integration pathways to the co-adapted intervention, i.e. the co-adapted intervention was informed by the systematic review (Study 1), the desk review, the rapid review (social media-related interventions review), and the qualitative study (Study 2). More specifically, the systematic review evaluated the effectiveness of anti-stigma interventions for young people and identified components that might be effective for reducing mental health stigma for young people. However, due to the paucity of research on mental health stigma in Chinese young people, there was very little known about whether findings from the systematic review could be applied to Chinese young people. Similar to the systematic review, the rapid review of social media-related interventions provided empirical evidence that social media platforms have the potential to deliver anti-stigma interventions for young people, but whether such evidence can be generalised to Chinese young people was still unknown. Therefore, it was necessary to conduct a desk review to look at the existing context in the field of youth mental health stigma in China. The desk review informed intervention development by reviewing the characteristics of Chinese young people, policy context and social media context. The findings of the desk review contributed to understanding which components of anti-stigma interventions - identified from the systematic review - could be applied to Chinese young people, and how to use social media platforms to deliver anti-stigma interventions for Chinese young people.

According to Study 1, 22 studies were included in the systematic review for evaluating the effectiveness of anti-stigma interventions in young people. Eight studies reported positive effects, 11 studies found mixed effects and 3 studies reported no effect on indicators of mental health stigma among

youth. Several factors that might negatively impact the effectiveness of the anti-stigma interventions have been identified and need to be considered. One inhibiting factor was intervention delivery by teachers without training; another cause was a lack of facilitated discussion to improve interactivity; and last, was insufficient contact time. Also, findings of the desk review indicated that school and family settings should be involved in reducing mental health stigma. However, family was rarely considered in past interventions. In addition to this, it is also vital to consider young people's suggestions for mental health stigma reduction when developing an intervention. In Study 2, participants proposed: education-related advice, the role of parents and teachers, advice on those living with a mental health condition, and using social media to reduce mental health stigma.

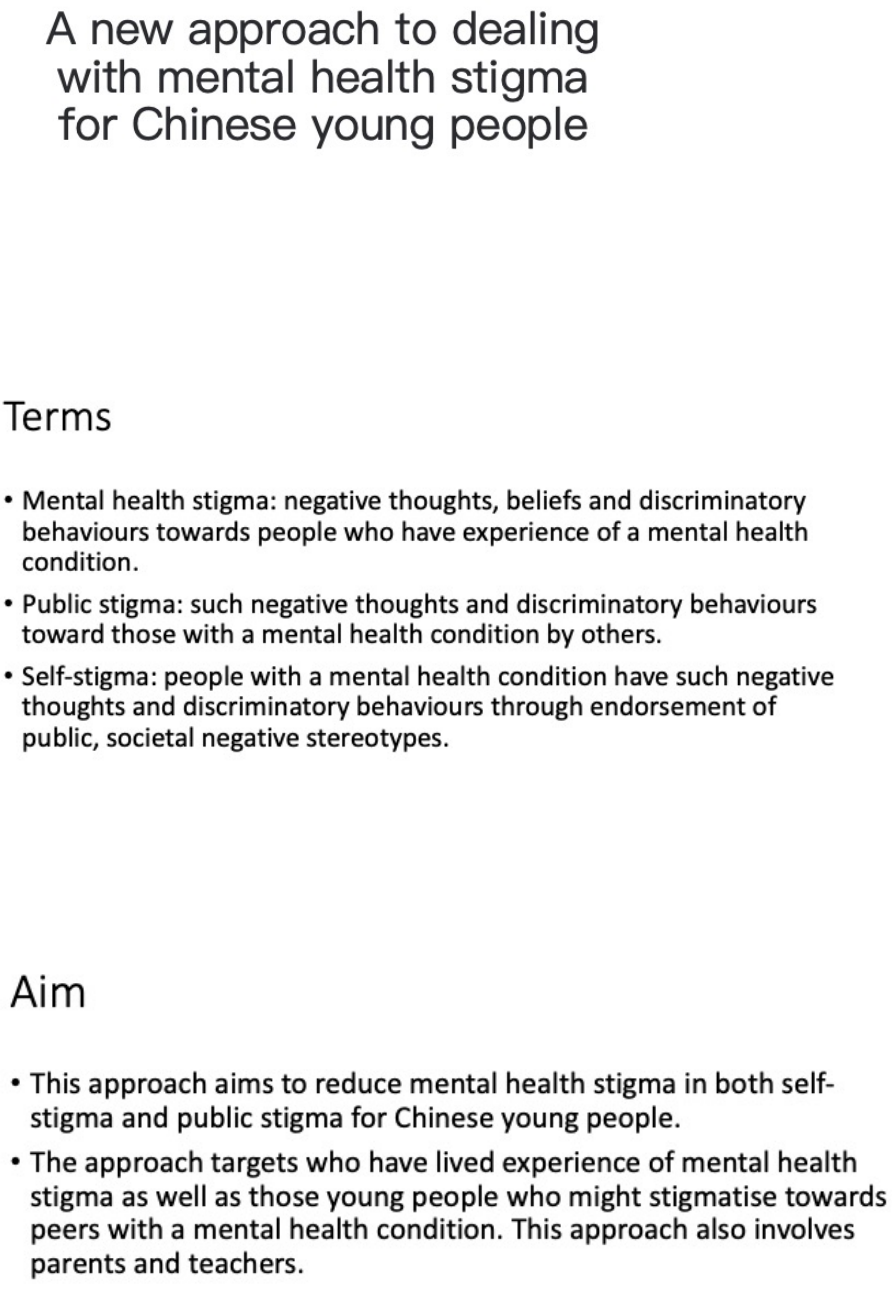
Also, according to Study 1, in terms of those studies that had significant effects on stigma reduction, their intervention were 12 session x 60 minutes (Cangas et al., 2017); 10 hours (Perry et al., 2014); 3 sessions x 2 hours (Mulfinger et al., 2018); and 1 session x 120 minutes (Economou et al.,2014). These sessions ranged from 2 hours to 12 hours. Also, given that it usually takes 45 minutes for a class in China, 45 minutes for one session for this anti-stigma intervention was a question to be put to young people in Study 4. In addition to this, those studies with significant effects on stigma reduction had professionals and trained teachers to deliver their interventions in Study 1. The best delivery agent was an important point to take for consultation with young people in Study 4.

Therefore, a Prototype V1 intervention was developed ready for refinements via local consultations. The following sections sets out Prototype V1.

### 5.6.5 Prototype V1 Anti-Stigma Intervention

Prototype V1 anti-stigma intervention is demonstrated via PowerPoint slides (see Figure 5.3) below. These slides were provided for participants when consulting their views about how to refine Prototype V1 in Study 4.

**Figure 5.1 Prototype V1**



## Session 1 Mental health and young people

- Aims:
  - To understand mental health and common mental health conditions in young people;
  - To understand how mental health associates with adolescence.
- Hoped-for learning outcomes:
  - Have knowledge of mental health including mental health conditions;
  - Have an awareness and understanding that mental health is important in young people.

## Session 1 Mental health and young people

- Youth mental health professionals deliver the below content
  - What is mental health?
  - How is adolescence associated with changes in mental health?
  - Why is mental health important to young people?
  - What are common mental health conditions in young people?
- Youth mental health professionals facilitate discussions for each question above
  - What knowledge I have learnt?
  - What change will I make about youth mental health?
- Q&A

## Session 2 Evaluation of responses to mental health conditions and mental health stigma

- Aims:
  - To evaluate responses to people with mental health conditions;
  - To understand the concept of mental health stigma and relevant knowledge.
- Hoped-for learning outcomes:
  - Can recognise what are appropriate and inappropriate responses to people with mental health conditions;
  - Gain knowledge of mental health stigma.

## Session 2 Evaluation of responses to mental health conditions and mental health stigma

- Youth mental health professionals give vignettes that have different responses to young people with mental health conditions to young people
- Youth mental health professionals facilitate discussions on these vignettes
  - What are common responses to people with mental health conditions?
  - Are these responses good or bad? Why?
- Youth mental health professionals introduce mental health stigma
  - What are types of mental health stigma?
  - What are causes of mental health stigma?
  - What are common forms of mental health stigma in young people?
  - What are consequences of mental health stigma in young people?
- Q&A

## Session 3 Social media and mental health

- Aims:
  - To understand how could we engage more thoughtfully with social media and mental health
- Hoped-for learning outcomes:
  - Can critically think about youth mental health and a use of social media;
  - Can understand approaches to obtain useful information on mental health from social media.

## Session 3 Social media and mental health

- Youth mental health professionals facilitate discussion on the questions below
  - Is using social media good for youth mental health?
  - Does social media fuel mental health stigma?
- Youth mental health professionals gather information and deliver how to thoughtfully engage social media and mental health
  - Examples: existing official accounts on youth mental health, experts/professionals/internet influencers' accounts, online counselling
- Q&A

# Session 4 Contact activities

- Aims:
  - To increase empathy with those living with mental health conditions;
  - To bust a list of myths about people living with mental health conditions;
  - To build a list of what helps from other people and what does not help;
  - To set a modelling of positive responses to people with mental health conditions.
- Hoped-for learning outcomes:
  - Have experience of contacting with people living with mental health conditions;
  - Can enhance empathy with those with mental health conditions;
  - Understand what helps needed to those with mental health conditions;
  - Understand positive expressions that can be used to be non-stigmatising;
  - Have experience of practising positively respond to those with mental health conditions.

# Session 4 Contact activities 1

- Youth contact with two young people who have experience of a mental health condition in school;
- Two young people share their lived experience, coping strategies, and impact of the condition on social relationships and functioning at school
- Parents and teachers watch their presentations via livestreaming that is run by school official WeChat account
- Youth mental health professionals facilitate discussion
  - What were your myths about people with mental health conditions?
  - What change will you make to response to those with mental health conditions?
- Young people and parents are required to complete a piece of reflective writing about the presentations they listened
  - Feelings and thoughts about myths and future change etc.

## Session 4 Contact activities 2

- Youth mental health professionals provide a scenario for role-play activity
  - The scenario describes Rose backs to school after a one-month break due to depression; and one student acts Rose and one student acts Rose's classmate. They meet in class and have a conversation about Rose's absence.
- Youth mental health professionals freeze at a key point and ask the rest of the class
  - What would be 'best' response here to be non-stigmatising.
- Youth mental health professionals elaborate on the positive expressions people use to describe a person with mental health conditions and facilitate role-play activities among young people to practise

## Additional information

- This approach consists of 4 sessions with 5 contact and lasts 45 minutes for each contact.
- Young people are provided printed booklet about sessions they received (Painter et al., 2017).
- The printed booklet are about "the facts" of mental health and resources for support, and development mechanisms of this approach
- Those printed booklet is also available from school official WeChat account
- School official WeChat account created for young people, parents and teachers that they need to subscribe for receiving information
- Youth mental health professionals are trained before running the sessions

# Chapter 6
# Study 4 Refining the Prototype of an Anti-stigma Intervention for Chinese Young People: A Consultation Study

## 6.1 Introduction

This chapter reports a consultation study with Chinese young people to refine the Prototype V1 anti-stigma intervention reported in Chapter 5. This study followed Steps 6 & 7 of *ADAPT* (Movsisyan et al., 2019).

### 6.1.1 Study Rationale

There is evidence that including a variety of stakeholders in intervention adaptation) can improve intervention feasibility and acceptability (Movsisyan et al., 2019; Pottie et al., 2021). It is important to include stakeholders in the design, evaluation and implementation of complex interventions because stakeholders provide ideas about "what works and why" contributing to intervention efficacy (Pottie et al., 2021). The inclusion of end-users in intervention development can boost the chances that the intervention will meet their needs and be acceptable to them (Faulkner et al., 2016). Consultation with young people in China, with regards to intervention development, is rare. Doing so in the present study provided Chinese young people opportunities to be heard and for their views to contributed to the prototype refinements.

### 6.1.2 Study Aims and Research Questions

This study consulted with Chinese young people to investigate their views on the Prototype V1.

This study addressed two research questions: what do Chinese young people think of the prototype, and do they have recommendations for refinements?

## 6.2 Methods

This was a qualitative study, involving an exploratory, semi-structured one-to-one online interview.

### 6.2.1 Ethics

The study acquired ethical approval from the University of Leeds, Faculty of Medicine and Health Research Ethics Committee (School of Psychology) (reference: PSCETHS-685 on 22nd August 2023).

### 6.2.2 Participant Eligibility and Recruitment

Given that Study 2 substantially informed the development of the prototype, Study 2 participants were re-contacted via email and invited to participate in this study (approved by the Research Ethics Committee in a way that was not coercive, as I did not originally collect consent for further contact for Study 4 in Study 2; see Appendix C). To gain data from young people who were with and without lived experience of mental health conditions, referred to as Group A and Group B in Study 2, five participants from each of Group A and Group B were randomly selected for re-contact by a random sequence generated via Excel. A small sample in qualitative research is suitable for an in-depth case-oriented analysis (Vasileiou et al., 2018). The study poster and information letter were sent to the randomly selected participants. They were invited to ask questions via email and proceeded to informed consent if they wished to participate.

### 6.2.3 Interview Schedule

Participants were provided with PowerPoint slides of the Prototype V1 before their interview and asked to orient themselves to the intervention content a little. Given that young people might not be familiar with professional language, the Prototype V1 was improved in terms of accessible language by changing all of the academic language in the slides, and then translating it into Chinese. Thus, the slides called “A new approach to dealing with mental health stigma for Chinese young people” were provided (See 5.6.5).

To foster effective interviews, an interview guide and interview questions were developed. The Interviews consulted with Chinese young people about their views and recommendations on refining the Prototype V1. Interview questions focused on the overall appraisal of the Prototype V1, where they saw difficulties or barriers to success and/or implementation and where to improve (see Table 6.1). Neither the questions, nor their order, were strictly fixed. Follow up questions were raised to further investigate the suggestions for the refinements.

Similar to Study 2, there were six steps proceeding interviews. I first collected participants' demographic information and confirmed an agreed interview time. Second, I thanked participants for their participation as an opening in the interview. Third, I gave a brief introduction to the interview. Fourth, I confirmed whether participants fully understood the format of the interview and if they had any questions. Fifth, I stated that the participant's written consent form had been received and stored safely. Last, I conducted the interview by asking interview questions to collect data. This study involved language translation, and the Prototype V1 was presented in Chinese for participants. Table 6.1 shows interview questions.

**Table 6.1 Interview Questions**

| | |
|---|---|
| 1. | **Have you had a chance to look at the approach for reducing mental health stigma in Chinese young people?** |
| 2. | **What's your initial thoughts on this approach?** |
| 3. | **Is there anything in this approach that you found difficult to understand?** |
| 4. | **What do you think of the aims of this approach? Do they fit with China's culture? And particularly for reducing mental health stigma in young people?** |
| 5. | **Which parts of the approach do you think are important to reduce mental health stigma in Chinese young people?** |
| 6. | **Which parts of the approach do you think would be difficult to conduct in China? If so, what would you like to improve?** |
| 7. | **What do you think about the delivery time? Would 45 minutes be suitable?** |
| 8. | **Would youth mental health professionals be helpful if they deliver this approach? If not, who would be suitable for the delivery?** |
| 9. | **What do you think about the participation of parents and teachers in this approach?** |
| 10. | **What do you think about the scenario used for the imagined contact session?** |
| 11. | **What do you think about the use of social media in this approach?** |
| 12. | **What do you think about the booklet to supplement of the approach? What kind of supplementary materials would be helpful?** |
| 13. | **Would you like to add something to this approach?** |

### 6.2.3 Data Collection

A synchronous online, semi-structured interview was conducted one-to-one (Jowett et al., 2011) via WeChat. WeChat is a secure application that is seen as the dominant Internet communication application in China and can be used to help researchers manage interactions to obtain data (Moffa &

Gregorio, 2023). Although participants were re-contacted, I still collected their demographic information before the interview, because Study 2 was conducted two years previously. I gathered age, gender, education level and region of study. Given that these participants were re-contacted, I also reported the study process of Study 2 to them. To improve participants' understanding of the Prototype V1 and obtain data effectively, I presented each slide to participants before asking interview questions. Each interview lasted around 30 minutes, and was audio recorded with participants' consent via recording device. The interview was conducted in Chinese. The same unique ID from Study 2 was applied in this study for the relevant participants. Participants' names and any identifiable details were anonymised, and all collected data was stored on the security approved University of Leeds OneDrive and in password protected documents.

### 6.2.4 Data Analysis

Content analysis was adopted to analyse data (Krippendorff, 2013). It has been argued that content analysis is used to identify and apprehend participants' perspectives on a specific topic, experience, or phenomenon (White & Marsh, 2006). Content analysis can be used in a deductive or inductive way (Elo & Kyngas, 2008). This study aimed to consult suggestions from Chinese young people on Prototype V1 for refinement. An inductive approach was considered appropriate.

According to Bengtsson (2016), a process of conducting content analysis consists of four steps: decontextualisation, recontextualisation, categorisation, and compilation. (a) Deconceptualisation is a stage to become familiar with the data and identify meaning units. A meaning unit refers to the smallest unit of meaning that the researcher can identify (Bengtsson, 2016). I immersed myself in the data by reading interview transcripts and identified meaning units, such as a specific suggestion for refinement of Prototype V1. I labelled those meaning units with a code to complete the "open coding process" (Bengtsson, 2016). (b) Recontextualisation refers to a comparison between those identified meaning units and the unmarked text to exclude "dross" by re-reading original interview transcripts. Namely, I re-read transcripts and compared where I coded to areas I did not code. Next, I linked to my research question to exclude those that did not correspond to the aim of this study. (c) Categorisation refers to a process of identifying homogenous groups and creating categories. I tried to bring subjects that had similarities together and

created categories accordingly. For instance, I grouped the data that were about increasing parental involvement into one category. (d) Compilation refers to drawing realistic conclusions. Given that the data collected were about "what has been said about suggestions on Prototype V1", namely, surface structure, I used participants' words and tried to stay closer to the original meanings and context when writing up this manifest analysis.

## 6.3 Results

### 6.3.1 Demographic Data

Six participants participated in this study. Of these, four participants were from Group A and two participants were from Group B, with an equal gender split. Participant ranged from 18-to-20-years, and the mean age was 18.7 years. Participants were in either high school or the first/second year of university. Most participants were Han, and one participant in Group B was Hui (a minority group). Participants were from Hefei and Toronto. Table 6.2 shows participants' demographic information.

**Table 6.2 Participants Demographic Information**

| | | Group A (With lived experience of a mental health condition) | Group B (Without lived experience of a mental health condition) |
|---|---|---|---|
| Gender | Male | 1 | 2 |
| | Female | 3 | 0 |
| Age (Mean) | | 18.5 | 19 |
| Ethnicity | Han | 4 | 1 |
| | Hui | 0 | 1 |
| Education level | High school | 2 | 0 |
| | Undergraduate | 2 | 2 |
| Region | Developed | 4 | 2 |
| | Developing | 0 | 0 |

### 6.3.2 Findings

Outcomes of the content analysis are presented below. Extracts were translated from Chinese to English at this reporting stage. Reporting is structured according to categories and sub-categories that were generated. Whether Group A, B or both contributed to analytical outcomes is reported.

#### 6.3.2.1 Category 1: Overall Attitudes towards Prototype V1

This category demonstrates the overall attitudes towards Prototype V1, and three sub-categories were created.

**Sub-Category 1: Initial Thoughts**

This sub-category indicates participants' initial thoughts on Prototype V1. All six had positive responses to this prototype and believed that the prototype is meaningful and could increase empathy towards people living with a mental health condition. As Yanzi (A) said: *I think this* approach *is novel and perhaps it can be helpful"*. However, one participant expressed his concern that this prototype was lacking parental involvement, and as he explained: *"it might be not enough if parents only participate in the contact session."* (B: Dahai)

**Sub-category 2: Viewpoints on the Aim of Prototype V1**

This sub-category demonstrates participants' views about whether Prototype V1 is suitable to reduce mental health stigma for young people in China. All participants believed that this prototype is suitable, but two participants proposed their concerns about schools' cooperation. As Yanzi (A) said: *"but just a concern, I don't know if a school will allow this to be conducted because you know academic outcomes always come first in Chinese students"*. Shan (A) said: "*The aim is suitable I think, but as long as schools allow this approach to be conducted".*

**Sub-category 3: Viewpoints on the Most Important Part of Prototype V1**

Across two groups, three participants believed that Session 4 (contact activities) was most important. In Group A, one participant believed that Session 2 (evaluation responses) was most important because *"it can let us understand what stigma is"* (A: Shan). Additionally, one participant (A: Juanjuan) believed that all sessions were important. In Group B, one participant (Dahai) believed that parental involvement is the most important.

#### 6.3.2.2 Category 2: Specific Suggestions on Refining Prototype V1

This category demonstrates participants' suggestions on improving the prototype anti-stigma intervention. Six sub-categories were created to show the specific suggestions.

**Sub-Category 4: Participation of Parents and Teachers**

This sub-category indicates the most reported improvement for Prototype V1. All participants suggested increasing the involvement of parents and

teachers. Most participants believed that it would be helpful if parents and teachers attend all sessions because *"they need to be educated to break biases as well"* (A: Tiantian). Also, most participants suggested that the participation of parents and teachers could be separate from youth participation, because *"youth will be more comfortable without parents and teachers, and they can feel free to ask any* questions" (A: Yanzi).

For the improvement of content regarding participation of parents and teachers, participants believed that it would be helpful if Session 2 (evaluation responses) could be extended with specific approaches and actions for parents and teachers to spot early signs of deteriorating mental health in their young person/students and provide guidance on how to appropriately respond to their experience of stigma.

As Dahai (B) suggested:

> *And parents should be delivered content about being sensitive to perceiving children's psychological status quickly. Teachers, they should notice the same thing in class. And specific actions should be delivered to parents and teachers. For instance, if they find their children have been stigmatised, how* do they respond to this situation etc.

In addition to this, it was suggested that the use of vignettes in Session 2 (evaluation responses) should be extended to include parental responses to their children's experience of mental health conditions for evaluation. Juanjuan (A) advised: *"Session 2 can provide vignettes that are different parental responses to a child's mental health conditions, and then those professionals can teach parents the appropriate responses."*

For Session 4, one participant suggested adding one activity for parental participation: *"We invite parents whose children experience mental health conditions to share parental experience of dealing with their child's experience, and other parents are invited to listen to their shared experience."* (A: Juanjuan)

**Sub-Category 5: Components of Sessions' Content**

This sub-category shows participants' specific suggestions on components of four Sessions in Prototype V1.

One participant perceived that facilitated discussion might be difficult to conduct because Chinese youth do not have a high initiative to discussion. He suggested: *"But discussion is a very essential part, and perhaps it would work if you just had a small-size class for discussion"* (A: Tiantian).

In terms of Session 2 (evaluation responses), one participant suggested: *"it would be helpful to use more vivid examples"* when explaining relevant concepts (B: Dahai). One participant advised that vignettes for evaluating responses to those with a mental health condition could *"be close to youth life and more concise"* (A: Juanjuan).

With regards to Session 3 (social media), participants overall believed that this session was helpful for young people to thoughtfully use social media for their wellbeing. Due to difficulty in making an online appointment to receive counselling, one participant suggested: *"schools could provide online counselling on their account, and establish a team for an online counselling service, so that it's available for youth to have appointments"* (A: Juanjuan).

For Session 4 (contact activities), participants focused on the recruitment of those who have/had experience of mental health condition, and they suggested that their participation should be voluntary instead of compulsory and sharing should be based on real cases. As Ruilin (B) advised: *"if we invite them [those youth with experience of a mental health condition], they should be voluntary, and the effects might be greater if they're very keen on sharing"*.

In addition to sharing lived experience of a mental health condition, participants suggested that those with experience of a mental health condition could also share lived experience of stigma. As Dahai (B) suggested: *"Youth can not only share their lived experience but also how they respond to those stigmatising behaviours"*.

Also, instead of a piece of reflective writing, one participant suggested that multiple choice questions with reflective questions could engage parents more. As Ruilin (B) said: *"maybe feedback with multiple-choices questions would be useful. And these questions are reflective"*.

**Sub-Category 6: Duration and Intensity**

This sub-category shows the views of participants on the intervention duration and intensity. Participants had mixed views on this. Half of the participants believed that a 45 minute-session was suitable, while the other half of participants suggested a flexible time for each session depending on the content of each session. With regards to flexible time, participants believed that making sure the completion of each session is still key. As Dahai (B) explained: *"I think we don't have to have a fixed time, maybe from 45 to 60 minutes depending on each session content".*

Most participants believed that running each session every other day would be helpful, so that youth could *"have time to reflect on content received"* (A: Juanjuan). However, two participants had different views: one preferred to receive one session per day, as *"this will be consistent and may be good for effects"* (B: Dahai); and one preferred to have one session per week, as *"youth take time to digest the content received"* (B: Ruilin).

**Sub-Category 7: Delivery Agents**

This sub-category indicates youth' perspectives on delivery agents who will deliver the anti-stigma intervention for Chinese young people. Participants had mixed views on who would be suitable for delivery and expressed their concerns about trust and understanding of young people. The majority of participants believed that youth mental health professionals would be suitable, and that they should take the main responsibility, and "mental health teachers" (who are teachers of mental health subjects and/or take responsibility for counselling; A: Yanzi) or those *"youth with a mental health condition"* could assist those professionals. Two participants believed that school mental health teachers would be acceptable, and as Shan (A) explained: *"they [mental health teachers] are close to young people and have better understanding about this population"*. Additionally, Tiantian (A) believed that an introduction of those facilitators prior to the delivery would be helpful, because *"it might be easier for students to trust them and it might help the effects"*.

With regards to training for delivering the intervention, the most reported suggestion was to be familiar with the session content. In addition to this, participants highlighted the language use and communication between youth and parents. As Yanzi (A) and Dahai (B) said: *"they should know the acceptable language for youth and parents"* (Yanzi); *"First it should include how to communicate with youth. If parents and teachers will receive these sessions, training should also involve how to communicate with them"* (Dahai). Tiantian (A) also added that an understanding of *"the basic scenario on which the intervention will take place"* would be helpful.

**Sub-Category 8: Component of Resources: Booklet**

This sub-category shows participants' suggestions on improving the use of the booklet, which is supplemental. The most reported suggestion was to include specific examples of help and true-to-life cases to convey what it is like to live with a mental health condition. As Tiantian (A) suggested: *"it would be better to give more specific examples so that we can be clear about how to put them into practice"*. Also, participants advised that a booklet could be available online on the *"school's account"* (official social media accounts that created by schools; B: Dahai) and *"in line with sessions content"* (A: Tiantian); and cover *"emergency contact"* (B: Ruilin), and *"evidence-based statistics"* (A: Juanjuan) on youth mental health. In addition to this, participants suggested that the booklet could be shared with *"parents"* (A: Tiantian) and cover the content that teaches parents to be *"active observers"* (B: Dahai) to children's mental health.

In summary, overall participants held positive attitudes towards Prototype V1. Suggestions for improvements focused on greater involvement of parents and teachers, components of content of the four sessions, duration and intensity, delivery agents, and the booklet.

## 6.4 Discussion

This study provides direction to modify Prototype V1. Six key issues emerged from the analysis which have been selected to discuss.

The first key finding was that the aim of Prototype V1 was considered appropriate by all participants, and overall participants held positive attitudes towards it. However, one concern was raised, namely that schools might not

be willing to implement this intervention due to the priority of academic outcomes. Forman et al. (2009) examined what influencing factors are important to successful implementation of interventions in school settings and reported that an emphasis on mental health and prevention was associated with successful implementation of interventions. Young people in Asian countries, especially in China, have to withstand huge academic pressure within the education system (Sun et al., 2012). This finding suggests that the priority of academic outcomes might be a barrier to the implementation of an anti-stigma intervention in schools.

The second key finding pertained to an emphasis from participants on contact-based components in the intervention. The majority of participants believed that the contact-based session was the most important part of Prototype V1 and might be more effective for stigma reduction. Prior literature indicates that contact-based components have been incorporated in education-based interventions (e.g. Deluca, 2020; Painter et al., 2017), and these two types of anti-stigma approaches have been discussed in Study 1. Why participants believed that the contact-based session was the most important section could be based on an explanation identified in Study 2. Study 2 indicated that the perceived causes of mental health stigma in Chinese young people included uncertainty about engaging with people who experience mental health conditions and a lack of empathy for them. Participants in Study 4 confirmed the importance of a contact-based session. Namely, there is a need for young people to enhance understanding of and empathy towards those with mental health conditions. Study 1 showed that some contacted-based anti-stigma interventions for young people were effective. However, educational interventions are predominant in existing anti-stigma interventions for Chinese people (Xu et al., 2017), and little is known about the effectiveness of contact-based anti-stigma interventions for Chinese people, especially young people. Study 2 and Study 4 suggest that although young people rarely have contact with people living with a mental health condition, they are open to opportunities for this, in efforts to reduce mental health stigma in China.

The third key finding was that young people wanted to see participation of parents and teachers, and that they could attend/engage in all sessions of the intervention. Thus, participants' parents and teachers are seen as playing key roles in stigma reduction towards young people living with a

mental health condition. There is some evidence that some parents and teachers are interested in learning about stigma. For instance, Lodder, Papadopoulos and Randhawa (2020) have developed a psychological stigma protection intervention for parents of children with autism, and good feasibility and acceptability were found. Carr et al. (2018) evaluated a programme to increase mental health knowledge, reducing stigma and enhancing help-seeking efficacy in Canadian preservice teachers, and secured significant effects on these three outcomes. However, to my knowledge, existing interventions including those reviewed in Study 1 did not include parents/caregivers and/or teachers in their interventions, and they only targeted young people.

One of the possible reasons for this finding in Study 4 in China is the cultural effects of stigma in China. It has been argued that Chinese culture is collectivist as it values collective interests over the personal goals (Wang & Liu, 2010), and “self” and “other” is considered as interdependent in a collectivist culture (Wang & Chen, 2010). Researchers have argued that individuals in collective cultures tend to be more compliant and other-oriented, and that submissive styles are demonstrated by young people in response to conflicts with parents and teachers (Kapadia & Miller, 2005). Thus, even though Chinese young people might be aware that their parents or teachers have misconceptions or negative beliefs about mental health conditions, they might be submissive to and influenced by their parents’ or teachers’ views. Given this, it might be difficult for young people to correct their parents’ misconceptions by their own efforts, meaning that external intervention (like Prototype V1) may be a necessary option. Additionally, young people with lower mental health literacy might form the same misconceptions about mental health conditions as their parents/teachers and even dismiss the importance of mental health. This point can also be linked to a finding from Study 2, which is that dismissal of mental health conditions by significant adults was a form as well as a cause of mental health stigma among young people in China. As discussed in Chapter 4, dismissal by significant adults could influence others to stigmatise people living with a mental health condition. From participants’ perspective, this prototype can provide an opportunity for parents and teachers to improve their understanding of youth mental health and stigma. In turn, that improvement of dismissal by significant adults could positively influence young people’s response to mental health conditions within China. Although, it is a universal

experience that parents and teachers have huge influences on young people, more specific context investigations on anti-stigma intervention are needed to look at the role that these significant adults play/could play in reducing mental health stigma in young people.

The fourth key finding suggested a flexible time for the implementation of the intervention. Study 1 indicated that the duration of those interventions with positive effects ranged from 60 minutes to 120 minutes. Another systematic review on stigma reduction for young people in educational institutions indicated that interventions varied from 20 minutes to 120 minutes for one session (Waqas et al., 2020). For intensity, the majority of participants advised delivery on alternate days to digest the session. In current research, one interest in mental health-related interventions for young people is single-session interventions. A systematic review and meta-analysis reported that single-session interventions for young people with mental health conditions showed significant but short-term effects (Schleider & Weisz, 2017). Thus, intervention duration and intensity are still being explored, and further research is needed to understand optimal intervention duration and intensity.

The fifth key finding indicated that participants had mixed views on delivery agents. The majority of participants believed that youth mental health professionals would be suitable, and mental health teachers and youth with experience of a mental health condition were also recommended. In Study 1, the reviewed interventions were delivered by: teachers, mental health professionals, and youth with lived experience of a mental health condition. When delivery agents were trained, there were positive or mixed effects on stigma reduction. The importance of good delivery agents for school-based interventions is highlighted in existing literature. A systematic review of the effectiveness of school-based interventions for socio-emotional learning compared the effectiveness of interventions delivered by teachers with those delivered by interventionists. Interventions delivered by teachers were as effective as those delivered by external providers (Durlak et al., 2011). A qualitative study found that a co-facilitation model by clinicians and youth peer workers contributed to engagement and recovery outcomes for young people with mental health conditions in Australia (King & Simmons, 2023). These findings suggest that teachers and young people who have experience of a mental health condition could be suitable for delivering interventions for young people. However, there is very little known about

how much professional training is required. A credible person that the youth will believe is legitimate and empathic is needed to deliver school-based interventions for young people (Franklin et al., 2017). More research is needed to focus on the nature of professional training required to develop suitable delivery agents for school-based interventions.

The sixth key finding pertained to some components that could be improved in Prototype V1. One suggestion was that a small-size class could be helpful for implementing facilitated discussions. It has been argued that classroom discussion promotes the understanding of others, and it might be helpful to decrease prejudice in an indirect way (Carrasco &Torres Irribarra, 2018). Also, participants suggested that specific examples, explanations, and solutions could be provided in each session and booklet. This demonstrates a need for comprehensive and concrete intervention content. Prior interventions included solutions about how to cope with mental health stigma (e.g. Painter et al., 2017), but it is unknown what examples they used. Besides, participants raised a concern on inviting those young people with experience of a mental health condition to share their personal stories and suggested that the invitation should be voluntary. This suggestion could apply to the future intervention implementation and take relevant ethical issues into consideration when recruiting. There might be risks of a peer sharing lived experience in schools being identified and cause more stigma. Given this, it would be safer for a visitor to come to school to share their lived experience.

In addition to the above six points of discussion, there are two further points worth discussing. One point is how to resolve any tension between expert opinion and young people's experience. In this study, the suggestions made by young people were not problematic, i.e. the changes they suggested did not undermine the proposed active components of the intervention and were not contrary to theoretical propositions. Despite this, some guidance on how to resolve this tension, if it is an issue, is needed. One possible option is to be open to those changes made by youth participants and include those that are most commonly reported in the intervention for further testing on acceptability and feasibility in the planned study. Also, the changes made by youth participants would need to be considered against existing theories.

Another point pertains to intervention scalability and sustainability. In terms of this prototype, this is considered scalable. According to the World Health Organisation (2017), psychological interventions could be more scalable if the intervention is delivered by non-specialists or other platforms (e.g. self-help books and digital devices). In this prototype, social media and a booklet were included so that more young people are able to access the intervention easily, which can increase its scalability. Intervention sustainability is complex, and many factors contribute to its complexity. For example, fidelity has been regarded as a challenge in sustaining the efficacy of the intervention (Shelton et al., 2018). This anti-stigma intervention is at an early stage where the prototype is ready for further feasibility testing, which makes it difficult to evaluate its sustainability at this point. Intervention sustainability could be considered after conducting a feasibility study and a pilot study.

## 6.5 Prototype V2 Anti-Stigma Intervention

A prototype V2 anti-stigma intervention was developed based on Study 4 consultation. The reporting of this prototype follows the Template for Intervention Description and Replication (TIDieR; Hoffmann et al., 2014). TIDieR provides a checklist and guide for researchers to improve reporting integrity, and ultimately, the reproducibility of interventions. This section sets out the second iteration of the prototype and Figure 6.1 shows an overall picture of it.

**Figure 6.1 The Overview of Prototype V2**

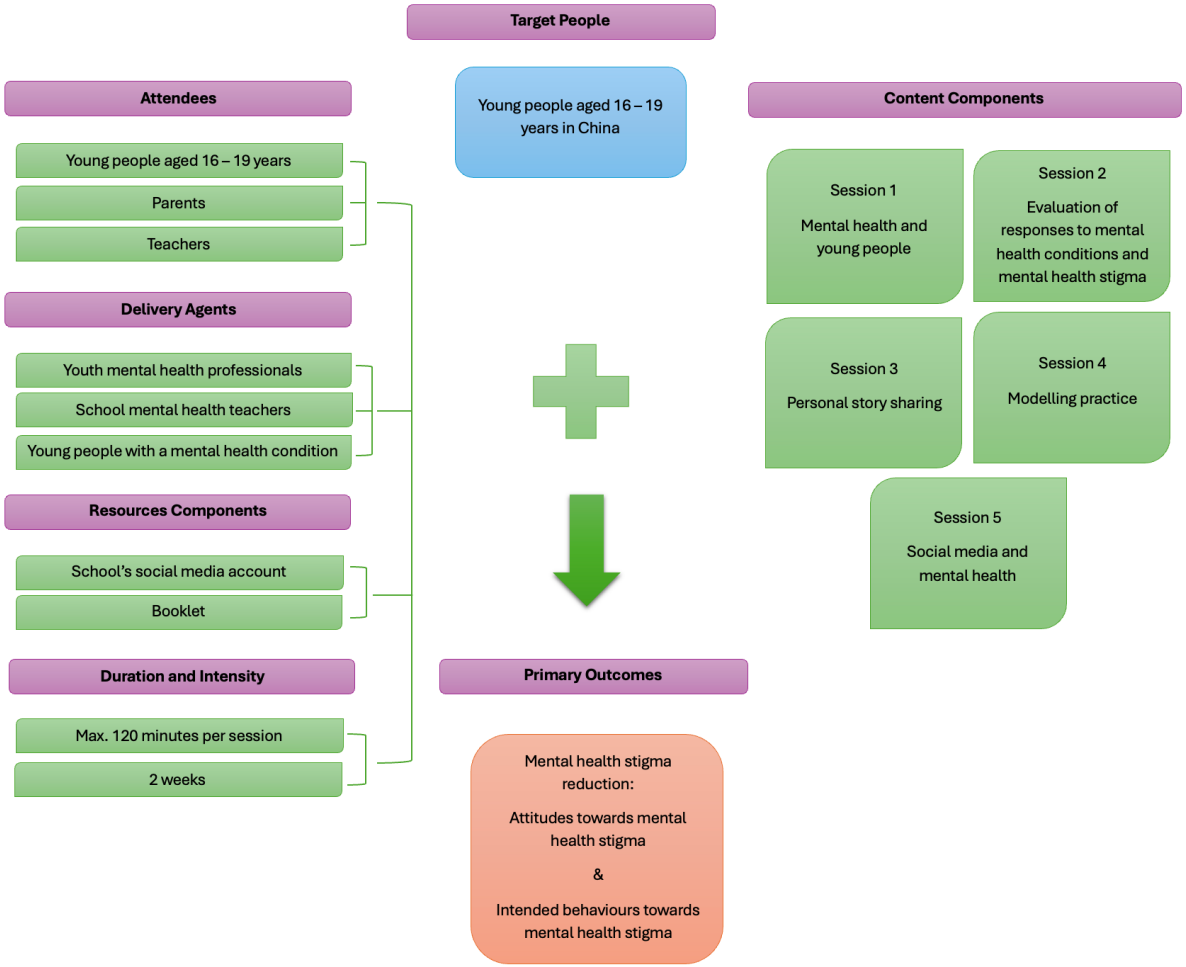
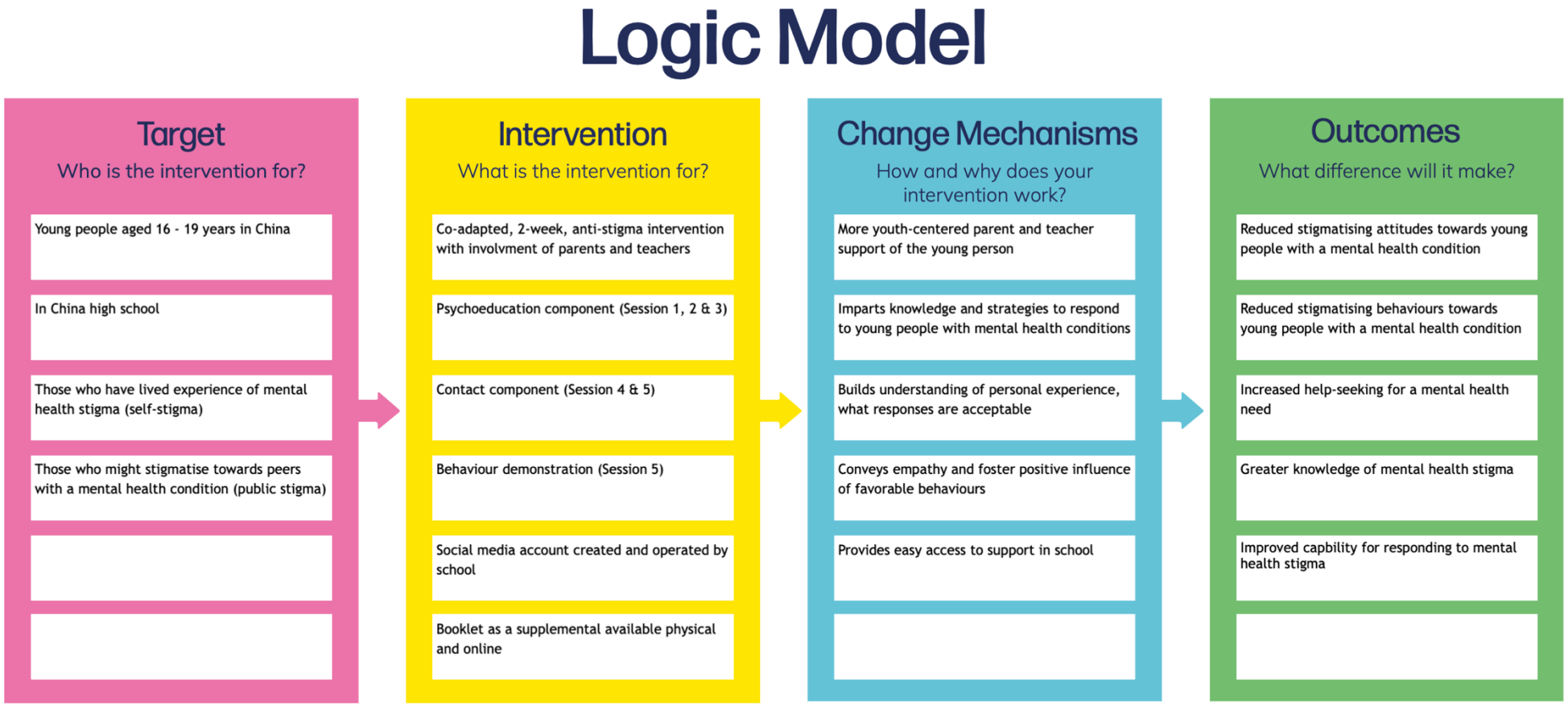


**Figure 6.2 The Logic Model of Prototype V2**



### 6.5.1 Logic Model

To conceptually clarify the logic underpinning complex interventions for children and adolescent mental health, the Evidence Based Practice Unit Logic Model developed by Wolpert et al. (2016) was used for clarity of logic of Prototype V2. This logic model consists of four sections: target, intervention, change mechanisms and outcomes. The following sections set out the Logic Model of Prototype V2, and the reporting of Prototype V2 is presented later. Figure 6.2 shows the Logic Model of Prototype V2.

The following sections provide an overview of Prototype V2 based on the Logic Model, and reporting Prototype V2 is presented later. The primary outcome of this prototype is reduced mental health stigma in both stigmatising attitudes and behaviours towards young people with a mental health condition. The secondary outcomes include increased help-seeking for a mental health need, greater knowledge of mental health stigma and improved capability for responding to mental health stigma.

The primary aim of this prototype intervention is to reduce the frequency of mental health self-stigma and public stigma. In this Logic Model, the intervention target population, which is young people aged 16-19 years in Chinese high school who have lived experience of mental health stigma as well as those young people who might stigmatise towards peers with a mental health condition.

A key consideration contributed to the decision to target this age range. Study 2 recruited young people aged 16-19 years in China because the group of 16 to 19 are generally in high school in China and they were at the same education level so that they had the same level of understanding of the interview questions. The participants of Study 4 were re-contacted based on the recruitment in Study 2. Also, given the context that Chinese people have a low ability to recognise mental health conditions (Huang et al., 2019), and stigma, as a complex concept, the best impact could be the group of 16 to 19. The reason for this is that it has been argued that the maturation of cognition is viewed complete from around 16 years old (Sawyer et al., 2018), which might mean that the group of 16 to 19 is a good developmental phase in which to promote knowledge and empathy. Moreover, in terms of Study 1, although it was high quality evidence, it was

unknown how much intervention data was from under 16 years old. Therefore, the group of 16 to 19 years old was considered suitable as a target of this prototype.

One consideration for the prototype that reduces both self-stigma and public stigma is based on “do not harm”. It would not be safe to ask young people to talk about their mental health, because it might have a risk of being identified. As discussed in Chapter 2, due to Chinese traditions and cultures, people tend to hide their mental health conditions to maintain their “face”. Thus, if a young person with a mental health condition is identified, it would be very risky to expose this young person to more stigma in school. Therefore, it could be more appropriate to not distinguish between those young people who have lived experience of mental health stigma (self-stigma) and those young people who might stigmatise towards peers with a mental health condition (public stigma) in the prototype, especially in China where we are at early stage of developing anti-stigma interventions for young people.

This prototype consists of five sessions involving psychoeducation, contact and behaviour demonstration. Psychoeducation, which involves sharing knowledge about mental health and stigma, is delivered across Sessions 1, 2 and 5. Psychoeducation appears to work in changing negative attitudes and stereotypes towards people with a mental health condition based on the elaboration likelihood model (Petty & Cacioppo, 1981), the social-cognitive model of self-stigma (Corrigan et al., 2008) and the integrative cognitive model (Wood et al., 2017). The delivery of knowledge and approaches to respond to young people with a mental health condition can break negative beliefs and stereotypes about mental health conditions based on constructivism learning theory (Bada & Olusegun, 2015).

Contact components involve Session 3 and 4 and work by building understanding of personal experience and promoting empathy. Intergroup contact theory (Allport, 1954) and empathy-related theory (Cunico et al., 2012) underpin these change mechanisms. Behaviour demonstration is in Session 4 and works by demonstrating favourable behaviours and fostering positive influence of those favourable behaviours, i.e. non-stigmatising behaviours by peers. This change mechanism is based on the COM-B

model of behaviour (West & Michie, 2020), the PRIME theory of motivation (West & Michie, 2020), and social influence theory (Li, 2013).

This prototype includes participation of parents and teachers, increasing more youth-centred parent and teacher support of the young people. A booklet is also included in the prototype as a supplemental material available both physically and online via a social media account that is created and operated by schools. These resource components can provide easy access to support in school. This prototype lasts two weeks in the way that sessions are run on alternate days to give young people time for digesting. There is no fixed time for running each session to ensure the completion of each session, but the maximum time is 120 minutes based on previous empirical evidence.

### 6.5.2 Reporting Prototype V2

#### 6.5.2.1 Brief Name

SMILE: Stigma Mitigation Initiative for Chinese Youth's Mental Health

#### 6.5.2.2 Rationale

Mental health stigma is defined as 'negative thoughts, beliefs and discriminatory behaviours towards individuals with mental illness or those receiving mental health services' (Pederson et al., 2020, p. 2). Public stigma refers to negative attitudes and beliefs that drive people to discriminate against those with mental health conditions; self-stigma is defined as internalised devaluation through endorsement of public, societal negative stereotypes (Corrigan et al., 2012). Globally, it has been argued that mental health stigma fuels mental health conditions and negatively affects young people's life (Yang et al., 2010). In China, there is evidence that mental health stigma is moderate to high (Xu et al., 2018) and is argued to have emerged in part from historic Chinese traditional cultures and is deeply rooted in Confucianism, Buddhism and Taoism. These value social hierarchies, emotional suppression and the avoidance of things that bring disgrace to the self or one's family (Uba, 1994). Previous studies have indicated that both self and public stigma is an obstacle to help-seeking for Chinese young people (Chen et al., 2014; Zhu, 2020). There is evidence that stigma adversely impact quality of life in people living with mental health conditions in China (Hong et al., 2015; Guo et al., 2018; Chan & Fung, 2019). According to Study 2, it has been found that stigmatising beliefs and behaviours around mental health exist among Chinese young people, and

their parents and teachers. Young people perceived that mental health stigma has brought about negative consequences to their life, including worsening mental health conditions, unwillingness to disclose their experience, isolation, and negative impacts on schooling. Furthermore, although the effectiveness of anti-stigma interventions for young people has been evaluated by Study 1, most interventions adopted a Western perspective which may not always align with the way mental health is understood in China. Using social media to deliver culturally appropriate anti-stigma interventions has promise as a public mental health approach in China given the emergent role of influencers for youth wellbeing. Young people also encourage school-based intervention with education and contact components.

The development of this Prototype V2 anti-stigma intervention is informed by Study 1 and 2 and desk review, empirical evidence as well as relevant psychological and sociological theories including intergroup contact theory, elaboration likelihood theory, and constructivism learning theory. The goal of this intervention is to reduce mental health stigma in both self-stigma and public stigma for Chinese young people. The approach targets those who have lived experience of mental health stigma as well as those young people who might stigmatise towards peers with a mental health condition. This approach also involves parents and teachers.

#### 6.5.2.3 Materials

Three materials are provided for this prototype. One is the following session content, and the other two are booklets used as a supplemental material to the content of sessions and is a training outline for delivery agents (see Appendix C).

#### 6.5.2.4 Procedures

***Session 1 Mental Health and Young People***

This session aims to understand mental health and common mental health conditions in young people and why mental health may be vulnerable during adolescence. The hoped-for session learning outcomes are having knowledge of youth mental health including mental health conditions and an awareness and understanding that mental health is important in young people.

This session consists of three sections, which are content, facilitation, and Q&A. The first section is delivered via a delivery agent focusing on mental health and young people. The second section is facilitated discussion based on the previous section. The last section is Q&A. This session requires youth, parents and teachers to attend separately. Therefore, the first section is slightly different for different groups. Table 6.2 shows the procedures of Session 1.

**Table 6.2 Session 1 Mental Health and Young People**

| Attendees | Section 1: Content | Section 2: Facilitated discussion | Section 3: Q&A |
|---|---|---|---|
| **Young people** | • What is mental health?<br>• How is adolescence associated with changes in mental health?<br>• Why is mental health important to young people?<br>• What are common mental health conditions in young people?<br>• Where do you find more support if you are worried about youth mental health? | • What knowledge have I learned?<br>• What difference does this new knowledge make to me? | Attendees have an open platform to ask questions, offer views and make suggestions. |
| **Parents** | • What is mental health?<br>• How is adolescence associated with changes in mental health?<br>• Why is mental health important to young people?<br>• What are common mental health conditions in young people?<br>• How do parents influence youth mental health?<br>• What might show you that a young person is experiencing poor mental health?<br>• Where do you find more support if you are worried about youth mental health? | • What knowledge I have learnt?<br>• What change will I make about youth mental health? | Attendees have an open platform to ask questions, offer views and make suggestions. |
| **Teachers** | • What is mental health?<br>• How is adolescence associated with changes in mental health?<br>• Why is mental health important to young people?<br>• What are common mental health conditions in young people?<br>• How does school environment have influences on youth mental health?<br>• What might show you that a young person is experiencing poor mental health?<br>• Where do you find more support if you are worried about youth mental health? | • What knowledge I have learnt?<br>• What change will I make about youth mental health? | Attendees have an open platform to ask questions, offer views and make suggestions. |

***Session 2 Evaluation of Responses to Mental Health Conditions and Mental Health Stigma***

This session aims to explore responses to young people with mental health conditions and examine the concept of mental health stigma and relevant knowledge. The hoped-for session outcomes are: be able to recognise what are appropriate (i.e. responding by referring to support and not excluding or stigmatising) and inappropriate responses to young people with mental health conditions; and be able to understand the causes for and impacts of mental health stigma on young people.

This session consists of three sections, which are facilitated discussion about vignettes, introduction of mental health stigma, and Q&A. In the first section, vignettes of different responses to young people with a mental health condition by youth, parents and teachers are provided to young people, parents and teachers accordingly, and delivery agents facilitate discussion. The second section is an introduction of mental health stigma covering its definition, types, forms, causes, and consequences. Additionally, appropriate responses to youth with a mental health condition are included. The last section is Q&A. This session requires young people, parents and teachers to attend separately. Table 6.3 shows the procedures of Session 2.

**Table 6.3 Session 2 Evaluation of Responses to Mental Health Conditions and Mental Health Stigma**

| Attendees | Section 1: Facilitated discussion about vignettes | Section 2: Introduction of mental health stigma | Section 3: Q&A |
|---|---|---|---|
| **Young people** | The vignettes that youth have different responses to young people with mental health conditions are provided, and the below questions are discussed afterwards:<br>• What are common responses to people with mental health conditions?<br>• Are these responses good or bad? Why? | • What are types of mental health stigma?<br>• What are causes of mental health stigma?<br>• What are common forms of mental health stigma in young people?<br>• What are consequences of mental health stigma in young people?<br>• What are appropriate responses to youth with a mental health condition? | Attendees have an open platform to ask questions, offer views and make suggestions. |
| **Parents** | The vignettes that parents/carers have different responses to young people with mental health conditions are provided, and the below questions are discussed afterwards:<br>• What are common responses to people with mental health conditions?<br>• Are these responses good or bad? Why? | • What is youth mental health stigma?<br>• What are causes of youth mental health stigma?<br>• Do parents cause and fuel mental health stigma on young people? Why?<br>• What are consequences of mental health stigma in young people?<br>• What are acceptable responses to child's mental health conditions by parents? | Attendees have an open platform to ask questions, offer views and make suggestions. |
| **Teachers** | The vignettes that teachers have different responses to young people with mental health conditions are provided, and the below questions are discussed afterwards:<br>• What are common responses to people with mental health conditions?<br>• Are these responses good or bad? Why? | • What is youth mental health stigma?<br>• What are causes of youth mental health stigma?<br>• Do teachers cause and fuel mental health stigma on young people? Why?<br>• What are consequences of mental health stigma in young people?<br>• What are acceptable responses to child's mental health conditions by teachers? | Attendees have an open platform to ask questions, offer views and make suggestions. |

**Table 6.4 Session 3 Personal Story Sharing**

| Attendees | Section 1: Personal story sharing | Section 2: Facilitated discussion | Section 3: Reflection |
|---|---|---|---|
| **Youth** | Inviting two youth who had/have experience of mental health condition to share their lived experience of stigma, coping strategies, and impact of the condition on social relationships and functioning at school. | • What were your myths about young people with mental health conditions?<br>• What change will you make to response to those with mental health conditions? | Feedback with open-ended reflective questions is provided to complete. |
| **Parents plus teachers** | Parents/carers and teachers watch the sharing via school's social media account. | Discussion takes place via chat box on social media. | Feedback with open-ended reflective questions is provided to complete. |
| **Parents/carers** | Inviting two parents whose children had/have experience of mental health condition to share their experience of responding to, caring, and coping strategies to their children living with a mental health condition with other parents. | • What were your myths about young people with mental health conditions?<br>• What change will you make to response to those with mental health conditions? | Feedback with open-ended reflective questions is provided to complete. |

***Session 3 Personal Story Sharing***

This session aims to increase empathy with those youth living with mental health conditions; to bust myths about people living with mental health conditions; and to build a list of what helps from other people and what does not help. The hoped-for session learning outcomes are: be more willing to have more contact with people living with a mental health condition; enhanced empathy for young people living with a mental health condition; and be able to understand how parents and teachers could respond more helpfully.

This session consists of three sections, which are personal story sharing, facilitated discussion, and reflection. In the first section, two young people visitors with their consent, who had/have experience of mental health condition are invited to share their lived experience of stigma, coping strategies, and impact of the condition on social relationships and functioning at school. In the second section, facilitated discussion is conducted based on the personal story sharing. The last section is reflection, and feedback with open-ended reflective questions. For this session, parents and teachers attend the personal story sharing by young people on social media and participate discussion via chat box. In addition to this, another personal story sharing is provided to parents with their consent, namely, two parents whose children had/have experience of mental health condition will share their experience of caring for their children living with a mental health condition are invited. A facilitated discussion is conducted based on the personal story sharing by parents/caregivers, and feedback with open-ended reflective questions is provided to complete. Table 6.4 shows the procedures of Session 3.

***Session 4 Modelling Practice***

This session aims to set a modelling of positive responses to young people with mental health conditions to reduce stigmatising behaviour. The hoped-for session learning outcomes are: to understand positive expressions that can be used to be non-stigmatising; and be able to positively respond to young people with a mental health condition.

This session consists of four sections, which are role-play activity, facilitated discussion, scenarios that are suggested by young people to reflect their real-life situations, and modelling practice. In the first section, a scenario for

a role-play activity is provided. The scenario describes a young person called Rose who is returning to school after a one-month break due to depression, and she meets one of her classmates having a conversation about Rose’s absence in the classroom. To do a role-play of this scenario, inviting one young person plays Rose and one plays Rose’s classmate. Rose’s classmate asks Rose why she had been absent, and Rose gives a reason saying that she experiences depression. At this point, the delivery agent freezes and asks the rest of the class: What would be 'best' response here to be non-stigmatising? The second section is to discuss this question. In third section, scenarios that young people come up with to reflect their real-life situations about mental health stigma are collected in advance, and a delivery agent facilitates young people to discuss them. The last section is modelling practice, namely, delivery agents introduce positive expressions that people use to describe youth with mental health conditions are delivered, and role-play activities among youth are asked to conduct to practice those positive expressions. Table 6.5 shows the procedures of Session 4.

**Table 6.5 Session 4 Modelling Practice**

| Attendees | Section 1: Role-play activity | Section 2: Facilitated discussion | Section 3: Real life situation scenarios | Section 4: Modelling practice |
|---|---|---|---|---|
| **Youth** | Providing a scenario for a role-play activity. The scenario describes Rose backs to school after a one-month break due to depression, and she meets one of her classmates having a conversation about Rose's absence.<br><br>Inviting one young person plays Rose and one plays Rose's classmate. Rose's classmate asks Rose why she had been absent, and Rose gives a reason saying that she experiences depression. At this point, facilitator freezes and asks the rest of the class: What would be 'best' response here to be non-stigmatising? | • What would be 'best' response here to be non-stigmatising? Why? | Providing real life situations scenarios that are suggested by young people and collected in advance.<br><br>Facilitating young people to discuss these scenarios: what do you think about these scenarios? If you were in this scenario, what would you do? | Positive expressions that people use to describe youth with mental health conditions are delivered, and role-play activities among youth are asked to conduct to practice those positive expressions. |

***Session 5 Social Media and Mental Health***

This session aims to help groups understand how young people could engage more thoughtfully with social media and mental health. The hoped-for learning session outcomes are: be able to critically think about youth mental health and use of social media; and be able to understand approaches to obtain useful information on mental health from social media.

This session consists of three sections, which are facilitated discussion, information and resources, and Q&A. In the first section, delivery agents propose questions on social media and youth mental health to discuss. The second section focuses on delivering information and resources from social media that are helpful for youth mental health. The last section is Q&A. This session requires youth, parents/caregivers, and teachers to participate, and parents and teachers attend together but they separate from youth. Table 6.6 shows the procedures of Session 5.

**Table 6.6 Session 5 Social Media and Mental Health**

| Attendees | Section 1: Facilitated discussion | Section 2: Information and resources | Section 3: Q&A |
|---|---|---|---|
| **Youth** | • Is using social media good for youth mental health?<br>• Does social media fuel mental health stigma? | • How to search for relevant information on social media.<br>• Useful accounts about youth mental health.<br>• How to use online counselling via social media. | Attendees have an open platform to ask questions, offer views and make suggestions. |
| **Parents plus teachers** | • Is using social media good for youth mental health?<br>• Does social media fuel mental health stigma? | • How to search for relevant information on social media.<br>• Useful accounts about youth mental health.<br>• How to use online counselling via social media. | Attendees have an open platform to ask questions, offer views and make suggestions. |

#### 6.5.2.5 Delivery Agents

Youth mental health professionals provide the intervention with support from school mental health teachers and young people who have experience of a mental health condition. Youth mental health professionals refer to those are working in the field of youth mental health. They could be either counsellors for youth mental health or academics in the field of youth mental health. School mental health teachers refer to those are working as teachers of mental health subject in high schools. Youth mental health professionals and school mental health teachers are given one-day-training (see Appendix C).

#### 6.5.2.6 Delivery Modes

All sessions for youth are face-to-face. For parents and teachers, there are options to attend in person or online via school social media accounts. There is evidence that parents perceive it to be easier to and had higher acceptability to attend online sessions than face-to-face sessions for attending a psychological stigma protection intervention in the UK (Lodder et al., 2020). Therefore, parents and teachers could either attend face-to-face sessions or online sessions in this prototype. As a supplement to the prototype, relevant content of all sessions is provided in hard copy, and it is also available from schools' social media accounts.

#### 6.5.2.7 Delivery Place

The prototype anti-stigma intervention occurs in Chinese high school.

#### 6.5.2.8 Duration and Intensity

The prototype anti-stigma intervention consists of five sessions, each session lasts a maximum 120 minutes. These sessions are run on alternate days over two weeks.

#### 6.5.2.9 Tailoring

This prototype anti-stigma intervention was tailored to the Chinese context based on the data generated in this doctoral work. Specifically, it was tailored to involvement of parents and teachers, components of sessions, delivery agents, and duration and intensity.

#### 6.5.2.10 Modification

This section followed Step 7 of *ADAPT* (Movsisyan et al., 2019), which is undertaking modifications. The modifications were based on Study 5 and this section sets out modifications to the prototype anti-stigma intervention for Chinese young people.

***The Number and Sequence of Sessions***

The total number of sessions was modified. Instead of four sessions in the Prototype V1, the Prototype V2 consists of five sessions. The modification is breaking two contact activities of Session 4 in Prototype V1 into Session 3 and Session 4 respectively in Prototype V2.

The sequence of sessions was modified. The modification is moving Session 3 Social Media And Mental Health in Prototype V1 to the last session, i.e. Session 5, in Prototype V2.

***Involvement of Parents and Teachers***

This modification focuses on involvement of parents and teachers to Prototype V2 anti-stigma intervention. According to Study 5, participants highlighted a need to involve parents and teachers as targets/recipients of the intervention. Little is known about anti-stigma interventions towards youth including participation of parents and teachers in these ways and this study did not focus on parents and teachers in stigma reduction. Hence, based on the findings of Study 5, this modification is reported as an option for future anti-stigma interventions.

In Session 1 (Mental Health And Young People), a modification was adding two content components to the parent session (“How do parents have influences on youth mental health?” and “What kind of behaviours of youth might be related to mental health needs?”) and two content components to the teacher session (“How does school environment have influences on youth mental health?” and “What might show you that a young person is experiencing poor mental health?”)

In Session 2 (Evaluation of Responses to Mental Health Conditions and Mental Health Stigma), a modification was adding two content components to the parent session: the vignettes that parents have different responses to young people with mental health conditions are added for parents; and the vignettes that teachers have different responses to young people with mental health conditions are added for teachers. Based on these modified vignettes, a delivery agent delivers how to evaluate responses to youth with a mental health from perspectives of parents and teachers respectively via

facilitated discussion and introduce the concept of youth mental health stigma to them.

In Session 3 (Personal Story Sharing), the modification is adding one contact activity for parents: a delivery agent invites two parents whose children have/had experience of a mental health condition to share their experience of caring for their children living with a mental health condition with other parents; afterwards delivery agents facilitate discussion about the shared experience.

In Session 5 (Social Media And Mental Health), the modification is that parents and teachers attend this session together but separately from young people. The session content is the same as the content that is provided for young people in Prototype V1.

***Open-Ended Reflective Questions***

This modification pertains to Session 3 (Personal Story Sharing), and instead of completing a piece of reflective writing for youth and their parents, using open-ended reflective questions for young people and parents to increase parents' engagement, such as "what is your myth about mental health conditions?" and "what could be a helpful way to respond to your children if they have a mental health need?" In Prototype V1, the aim of the completion of a piece of reflective writing was to enhance empathy via reflection. Although participants recommended using multiple-choices reflective questions instead of a piece of reflective writing, it might be difficult for parents to choose an answer because these questions are personal and may vary from parents to parents. Therefore, open-ended reflective questions replace the original a piece of reflective writing.

***Duration and Intensity***

This modification focuses on duration and intensity of the intervention. Study 5 indicated that participants preferred a flexible time for receiving each session and alternate days for the intensity. Therefore, a maximum time is 120 minutes per session, and sessions are run on alternate days.

***Delivery Agents***

This modification pertains to whom deliver the anti-stigma intervention. Existing interventions varies in terms of delivery agents. Based on participants' advice, instead of youth mental health professionals solely,

delivery agents are mainly trained youth mental health professionals assisted by trained school mental health teachers and young people who have experience of a mental health condition.

# Chapter 7
# Final Discussion and Conclusion

## 7.1 Introduction

The primary aim of this doctoral work was to understand the nature of mental health stigma in Chinese young people and for this to inform, along with evidence, a prototype of an anti-stigma intervention for reducing mental health stigma for young people with experience of stigma as well as those who might stigmatise peers. Four studies were completed to realise this aim. This chapter consists of four sections to consider the integrated learning from these four studies. First, this chapter locates the key findings from these four studies in the existing evidence and highlights the original contribution to knowledge in the field of mental health stigma in young people. Second, the quality of this doctoral work involving strengths and limitations is evaluated. Third, recommendations for future research are presented. Fourth, the impact of Covid-19 on the thesis is reported.

## 7.2 Key Findings and Contributions

Overall, this thesis addressed six research questions and three objectives (see p. 3). First, a systematic review and meta-analysis was conducted, and it found that anti-stigma interventions for young people can secure small, short-term positive effects. Education-based interventions showed more significant effects than other types of interventions. Second, a qualitative study was conducted, which found that: dismissal of mental health conditions as real was the most reported form and cause of stigma; participants with mental health conditions perceived that some peers pretended to experience mental health conditions as attention-seeking, fuelling their own self-stigma further; the most reported intervention suggestions targeted schools; and advice was proposed to thoughtfully use social media platforms for stigma reduction. Third, a prototype anti-stigma intervention for reducing mental health stigma for Chinese young people was developed, and the prototype anti-stigma intervention was refined based on a consultation study.

The following sections summarises key findings and contributions from the four studies.

### 7.2.1 Study 1

Study 1 evaluated the effectiveness of anti-stigma interventions for reducing mental health stigma in young people, and reported they can secure small, short-term positive effects for young people. Education-based interventions showed significant effects more frequently than other types of interventions. The most important components of education-based and contact-based interventions for reducing mental health stigma were: mental health and stigma-related knowledge, interactive discussions, resources for help-seeking/support, role-play activities, and contact with people living with a mental health condition.

Reviewing international evidence on the effectiveness of anti-stigma mental health interventions delivered in schools is important because it can inform stigma reduction approaches for young people. However, there is a paucity of evidenced interventions for reducing stigma (Bos et al., 2013), especially in children and adolescents (Hartoga et al., 2020). As discussed in Chapter 5, in terms of youth mental health stigma and stigma reduction for young people in China, there is a lack of research, education and policy making. Given this, the evidence base for school-based mental health stigma reduction efforts needs to be widely communicated to researchers, education, healthcare providers and policy makers. Developing evidence in this field about “what works” can support the commissioning of intervention, programmes and other actions, as well as informing governmental policies to ensure anti-stigma interventions reach young people. Successful anti-stigma interventions for young people have the potential to significantly improve the quality of life of people living with a mental health condition as well as their education, employment and help-seeking trajectories (Hong et al., 2015; Xu et al., 2018).

Study 1 identified the effective components of published anti-stigma interventions among young people aged 10-19 years, incorporated evidence from low-and middle-income countries and addressed the need for a meta-analysis. To the best of my knowledge, this is the first review to produce an effect size for anti-stigma interventions which target young people. This review supports the use of education interventions in schools for reducing mental health stigma in young people and recommends components that would improve the quality of future interventions and trials, such as mental

health and stigma-related knowledge, interactive discussions, resources for help-seeking/support, role-play activities, and contact with people living with a mental health condition. As such, Study 1 is likely to influence thinking about the adoption of the most appropriate strategies for reducing mental health stigma in young people.

### 7.2.2 Study 2

Study 2 investigated experiences of and views about mental health stigma among Chinese young people to understand where and how Chinese young people anti-stigma interventions should be targeted. Study 2 found that mental health stigma does exist among Chinese young people and reported the following key findings:

- Dismissing the reality of mental health conditions was the most reported cause and form of stigma.
- Parents were perceived to be the most dominant cause of stigma.
- Self-stigma was perceived by participants, causing low self-esteem and self-denial behaviours.
- Some peers were perceived to pretend to experience a mental health condition as attention-seeking, fuelling self-stigma in those participants with a mental health condition.
- The most reported consequences of being stigmatised were unwillingness to disclose need and seek help.
- Some positive, non-stigmatising experiences in relation to their mental health were perceived in both groups as well.
- The most reported suggestions for reducing mental health stigma were targeting schools, followed by parents, teachers, peers, young people living with mental health conditions, and governments and communities.
- Recommendations were given to sensitively use social media for reducing mental health stigma in the area of forms and varieties, such as posting short videos about mental health and stigma by professionals, and regulation and supervision, such as supervising language use.
- It was suggested to post content via videos to promote mental health knowledge and share lived experience of those with mental health conditions.

This work makes a novel contribution to the field by hearing directly from young people to understand mental health stigma in China. To date, their perspectives have been largely absent from the evidence base. Chinese young people's subjective perspectives allow researchers to understand the forms and nature of mental health stigma they experience or observe, the meanings they give these and how they attribute causes or reasons to stigma. Existing evidence on mental health stigma among young people predominantly emerges from high-income countries (Kaushik et al., 2016); this study broadens the evidence in this field with findings from an upper-middle-income country. This study confirms some previous findings of mental health stigma among young people, such as discriminatory behaviours being a form of public stigma, and one of the consequences of stigma being unwillingness to seek help (e.g. Shechtmana et al., 2018). It also importantly obtained culture-specific findings, such as the role of parents in mental health stigma among Chinese young people. Little is known about the role of parents in mental health stigma in young people according to existing global literature.

A context-specific investigation of mental health stigma among young people is important to inform cultural-and age-sensitive anti-stigma interventions. Although many anti-stigma interventions targeting young people have been developed (as Study 1 reviewed), there has been little research investigating young people's views on intervention design, especially in China. This study generates helpful insights into what Chinese young people need and hope for in terms of stigma reduction. Such insights could also support policy and practice dialogue about the potential reach and impact of anti-stigma work to benefit young people.

### 7.2.3 Study 3 & Study 4

Study 3 co-adapted a prototype anti-stigma intervention for reducing mental health stigma for Chinese young people, and Prototype V1 anti-stigma intervention was developed. Several data sets (Study 1, Study 2, a desk review and a social media review) were integrated to inform this co-adapted prototype intervention. Study 4 refined Prototype V1 by consulting Chinese young people and produced Prototype V2. Study 4 found that Prototype V1 was perceived as meaningful to Chinese young people. The major suggestions focused on the involvement of parents and teachers; and other suggestions pertained to some components: delivery agent, intervention intensity and duration, booklet, and some specific content from each

session. Prototype V2 was developed consisting of five sessions with involvement of multiple parties (young people, parents and teachers).

The *ADAPT* framework that was followed to develop the prototype anti-stigma intervention in Study 3 was proposed by Movsisyan et al. (2019) in 2019 but has not been widely applied to mental health research. This framework involved several categories of approach that O'Cathain et al. (2019) identified in their systematic review on developing health interventions. They identified eight categories of approach for developing health-related interventions: partnership, target population-centered, evidence and theory-based, implementation-based, efficiency-based, stepped or phased, intervention-specific, and combination of existing approaches to intervention development. The development of Prototype V2 involved several categories of approach that O'Cathain et al. (2019) identified: target population-based, evidence and theory-based, implementation-based, stepped or phased, intervention-specific and combination. In China, co-adaptation is a novel approach; very little is published about it in the field of health, especially mental health. These two studies provide more general evidence about the feasibility of using a co-adaptation approach for developing health interventions for young people in China.

These two studies contribute knowledge to designing anti-stigma interventions for Chinese young people and provide a novel approach to health intervention development in China. To the best of my knowledge, this is the first prototype anti-stigma intervention for young people in China. This prototype anti-stigma intervention is at the stage of readiness for future work on feasibility and acceptability and the evidence on which it draws provides a strong basis for further developing specific anti-stigma interventions for Chinese young people. For instance, future feasibility studies could evaluate recruitment capability to look at whether appropriate participants are recruited and examine the sample characteristics to determine whether this prototype anti-stigma intervention is relevant to the study participants. Additionally, apart from young people, it is also important to include parents and teachers in the feasibility studies to look at acceptability and suitability of this prototype anti-stigma intervention and study procedures. As service end-users, Chinese young people were included at the stage of refinement, and their suggestions directly informed the modifications of Prototype V1.

Intended beneficiaries have rarely been involved in designing anti-stigma interventions for them. Despite it, as discussed in Chapter 6, the chances that the intervention will meet service end-users' needs and be acceptable to them can be boosted when including service end-users in intervention development (Faulkner et al., 2016).

### 7.2.5 Overall Contributions

This doctoral work broadens knowledge of mental health stigma in young people, including culture-specific knowledge in (i) the nature of mental health stigma in young people (including the role of parents in stigma reduction for young people) and (ii) the extension of stigma theory.

First, a key contribution to knowledge pertains to the nature of mental health stigma among Chinese young people. It has been argued that the existence of mental health stigma is universal, but different contexts present different manifestations and responses (Koschorke et al., 2017). The prevalence of mental health stigma across all population groups is moderate to high in China (Xu et al., 2018). This doctoral work provided further evidence that mental health stigma exists among Chinese young people and that they are familiar with this phenomenon. Despite this, it is worth noting that participants were not familiar with the vocabulary/term "mental health stigma". There are translation challenges when explaining the term "stigma", because there is no such word in Chinese. The term I used in Chinese interviews is conventional and widely used in books and on the internet in China. After explanation of the term, participants were able to give specific examples to describe this phenomenon, and these reflected culture-specific forms of mental health stigma and the key perpetrators of stigma among young people in China. This "on the ground" knowledge can contribute to remedial action. For future research in China, the interpretation and use of the word "stigma" needs to be explored and defined more, to ensure all of its culturally specific dimensions are understood.

A key finding in this doctoral work was that young people reported that dismissal of mental health conditions by significant adults was perceived as both a form and cause of mental health stigma in Chinese young people. Global literature reports that some parents hold misconceptions or negative stereotypes about their children's mental health conditions. For example, it has been reported that some Australian parents believed that their children

have the ability to manage mental health conditions independently, and that those conditions will self-resolve (Oh & Bayer, 2015). In this doctoral work, the dismissal of mental health conditions was perceived by participants as an experience of mental health stigma, and that parents did not validate their mental health concerns, i.e. did not seem them as legitimate, real or as impactful as they were for the young person. Past research has reported on children's experience of stigma on their parents (e.g. Corrigan & Miller, 2014; Eaton et al., 2016), including perceived courtesy stigma experienced by parents (Heflinger & Hinshaw, 2010). However, there is very little known about whether parents contribute to stigma among young people and what forms such stigma might take. Such exploration of the nature of mental health stigma among Chinese young people could help further conceptualise mental health stigma in China and inform public health action. There are, of course, significant challenges in doing this, given cultural histories, values and stake in "saving face".

Also, the involvement of parents was perceived as important in terms of mental health stigma reduction among Chinese young people. There are interventions that include parental support for reducing stigma around disabilities in children (Smythe et al., 2020). For instance, one intervention for reducing stigma among children with epilepsy in Brazil combined parental support groups with a component of education (Fernandes & Souza, 2001). However, there is a paucity of research on mental health stigma reduction with parental involvement. Existing anti-stigma interventions in Western contexts largely focus on efforts on peers and schools. For instance, systematic reviews of anti-stigma interventions for young people, and Study 1 of this doctoral work, indicated that most anti-stigma interventions were conducted in a school setting via education-related or contact-related components without the participation of parents (e.g. Mellor, 2014; Ma et al., 2023). As discussed in Chapter 3 and Chapter 4, the complexity of school settings might affect the effectiveness of anti-stigma interventions for young people, because of higher priority tasks and intervention fidelity, among other barriers. Schools are not the only setting in which young people spend most of their time, and the family environment, including parental support, is important for young people in terms of their mental health (Hunter, Barber, & Stolz, 2015). According to young people's needs for and suggestions for reducing mental health stigma, new evidence on interventions for young people is raised from this doctoral work. Namely, it is important to involve

multiple parties, including parents in anti-stigma interventions for young people.

The second novel contribution to knowledge was an extension of stigma theory. One culture-specific finding was the form of mental health stigma among young people. Specifically, one form was pretence. This describes how some young people without a mental health condition pretend to experience one. Participants believed that other young people think this is “cool”. Also, those youth peers were perceived to overuse claims of a mental health condition as an excuse for mitigation to bypass academic or life stress. This phenomenon of pretence was perceived as seeking attention and fuelled self-stigma in genuine cases. Existing evidence suggests that the most common forms of mental health stigma among young people involve negative judgements, such as being “less popular”, “aggressive”, and discriminatory behaviours, such as “more socially rejected” (Moses, 2010, p. 968). Pretence is a novel form of mental health stigma among young people and elicits new thinking about a theory of stigma. As discussed in Chapter 2, Link and Phelan (2001) posited that stigma exists in conditions where four interrelated elements (labelling, stereotyping, separating, status loss and discrimination) co-occur in a power situation that affords these four processes to open up. However, the finding of pretence from this doctoral work was not in line with the explanation of “status loss” and “discrimination”. Pretending to experience a mental health condition is not a form of status loss or discrimination, but on the contrary, this suggests a kind of “endorsement” or “non-discrimination”. It is worth noting that such endorsement or non-discrimination does not mean that young people do not really discriminate against those living with a mental health condition. They capture the potential “privilege” that vulnerable people (those living with a mental health condition) have in being cared for. However, those young people in this study really living with a mental health condition perceived pretence as a form of public stigma, furthering self-stigma among those really living with a mental health condition. Hence, tangible discrimination or observable judgements against people with a mental health condition might not be the only way to show the existence of stigma.

Overall, this doctoral work is important to address mental health stigma for young people in China. In China, due to national conditions, there are barriers to successfully implementing anti-stigma interventions, such as it

being of low political priority and having inadequate financial support (Li et al., 2012). Despite this, as part of global efforts to tackle the societal challenges linked to mental health, there is a need to understand the forms of mental health stigma experienced by Chinese young people, how they account for the existence of stigma and their views on what action is needed to reduce it. This can generate insights into developing anti-stigma interventions for young people. Successful anti-stigma interventions can achieve long-term outcomes for young people's wellbeing, including increasing help-seeking (Xu et al., 2018), reducing self-stigma (Yanos et al., 2015) and suicide (Rogers et al., 2018), improving social acceptance and engagement (Liamputtong & Rice, 2021), and overall reducing negative impacts on quality of life (Guo et al., 2018).

## 7.3 Evaluation of the Thesis Studies

This section discusses the quality of this doctoral work. Strengths and limitations are reported.

### 7.3.1 Strengths

Study 1 was a systematic review and meta-analysis to evaluate the effectiveness of anti-stigma interventions in young people with global relevance. This systematic review followed Cochrane and PRISMA guidelines (Page et al., 2021) and used the PICOS framework (Amir-Behghadami & Janat, 2020) to identify eligible studies for a review. In accordance with these guidelines, Study 1 reported clear research questions including the population studied, the intervention given, and the outcome considered. Randomised controlled trials including cluster-randomised trials, and those quasi-experimental designs with randomisation were considered eligible for inclusion in the review. Thus, the right types of papers were identified. Eight databases were used to search for eligible studies and a Chinese database was included as well. This helped maximise available data and consider all relevant literature on interventions for reducing mental health stigma in young people. Reference lists were also used to follow up any eligible studies and authors of studies that did not have full-text access were contacted to seek full-text access permission. Thus, important and relevant studies were included in this study. Risk assessment was conducted via Risk of Bias 2 and Risk of Bias 2 Cluster-Randomised Trials; and the second assessor was introduced to evaluate the quality of the included studies. Thus, the rigour of the included studies has been considered.

The results of all reviewed studies were clearly described; the studies with similar results were grouped into positive effects, mixed effects and no effect; and the reasons for variations in results were discussed as well. It was helpful to combine the results of Study 1 in this way because interventions with positive effects and their components could be easily identified (see Table 3.2 and Table 3.3). Secondly, the overall results of Study 1 were reported clearly with narrative synthesis as well as effect sizes; and the results of a meta-analysis were reported clearly with figures that indicated the confidence intervals. Thirdly, the results of Study 1 were considered as helpful in understanding anti-stigma interventions for young people in Western countries and research gaps as only one study was conducted in Asia.

Study 2 used a qualitative method to understand lived experience of and views about mental health stigma in Chinese young people, and their viewpoints of and needs for stigma reduction. Study 4 consulted with Chinese young people's perspectives on Prototype V1 via qualitative interviews. The way these two qualitative studies relate to the other two studies is a strength of the approach of this doctoral work. The findings of Study 2, on the nature of mental health stigma and viewpoints of stigma reduction in Chinese young people, plus findings of Study 1, on components of education-based and contact-based interventions, informed Study 3 to co-adapt an anti-stigma intervention for Chinese young people. Also, the findings of Study 4 on the suggestions for Prototype V1 that was produced in Study 3 refined this prototype and informed the production of Prototype V2. Thus, the doctoral work with four linked studies is systematic, consistent and integrated.

Also, to increase the rigour of Study 2 and Study 4, several considerations were made. First, in terms of formulating research questions, it has been argued that a clear background and basis for the question and study design is established by thoroughly, systematically and iteratively reviewing literature (Johnson et al., 2020). On the basis of the literature review in Chapter 2, Study 2 sought to increase the understanding of mental health stigma in Chinese young people and provide knowledge to inform Study 3. Therefore, apart from the investigation of the nature of mental health stigma,

an exploration of Chinese youth's perspectives and needs in relation to reducing mental health stigma was also considered within the research questions.

Second, ensuring high quality in qualitative research. Guba and Lincoln (1994) outlined four criteria to establish overall trustworthiness for high quality in qualitative research. (a) Credibility: this aspect examines whether data collected is interpreted with a high degree of plausibility and representative of the phenomenon under study. To establish credibility, I have conducted analyst triangulation, involving my two supervisors in joint coding (see p. 62). This process helped in illuminating blind spots in the analysis process. Another important measure I took to establish credibility was the use of participants' actual words as evidence when reporting findings, instead of only using my own words. This facilitated the explanation of processes and improved the understanding of participants' perspective (Eldh et al., 2020). (b) Transferability: this aspect refers to the extent to which the findings are transferable to other contexts, circumstances, or settings. To promote this, I used "thick description" (Younas et al., 2023). In Study 2 and Study 4, I provided adequate details on the sites from where participants were recruited and the study was conducted, and participants information on recruitment eligibility and demographic background as resources for other researchers to make sensible judgement about the extent to which the results are transferable. (c) Dependability: this aspect is an in-depth description of the study procedures and analysis to allow the study to be replicated. To ensure dependability, I rigorously documented data collection techniques, procedures, and analysis in Study 2 and Study 4. (d) Confirmability: this aspect requires researchers to take steps in order to ensure that data and findings are not due to the participant and/or researcher bias. To ensure confirmability, I documented a clear schema for the development of thematic frameworks in Study 2. Use of framework analysis helped reduced bias by updating a thematic framework alongside data analysis. Additionally, a figure that linked to research questions was used to demonstrate the final thematic framework to ensure confirmability. Importantly, reflexivity was also used to reduce researcher biases. I used a reflexive journal to that record my personal feelings and thoughts through the whole process of Study 2 and Study 4 (see Appendix B.5). Those reflections were helpful to me to acknowledge my role in the research, and

identify how my prior experiences, assumptions and beliefs will impact the research process.

Study 3 was a co-adaptation study to develop a prototype anti-stigma intervention for Chinese young people. This study involved two frameworks: *ADAPT* (Movsisyan et al., 2019) and 6SQuID (Wight et al., 2016). These two frameworks provided step-by-step guidance contributing to a well-structured Study 3, and key components of the prototype anti-stigma intervention were also systematically addressed. Also, Study 3 was evidence-informed by integrating evidence-based practices and theories into the intervention development. This not only ensures that the prototype anti-stigma intervention was grounded in empirical evidence and best practices but that is also responds to the needs and contexts of Chinese young people.

Overall, these approaches ensured that appropriate methods were used to conduct each study and to increase the rigour of the doctoral work.

### 7.3.2 Limitations

In terms of Study 1, the grey literature was not searched, and aside from English and Chinese publications, studies written in other foreign languages were excluded for the review due to resource limitations. This could have led to publication bias in terms of studies with null or negative results. The quality assessment was conducted by two assessors but may have been limited by only me being subsequently involved in data extraction. Study 1 did not differentiate between types of stigma, and further research could usefully investigate the effectiveness of anti-stigma interventions for different types of stigma. Moreover, the high heterogeneity of study designs means estimates of the pooled effect sizes from our models are less reliable than if study designs had been more similar. Finally, the overall poor quality of the included studies may mean that conclusions from the review are not generalisable and definitive recommendations on the effectiveness of anti-stigma interventions for young people require additional research.

In Study 3, diverse stakeholders were absent. A rapid desk review was conducted to understand the characteristics of Chinese young people, policy context, and social media context relating to mental health stigma in Study 3, but the findings of the desk review were limited due to limited sources.

Except for Chinese young people who were end-users, other stakeholders were not included in Study 3, such as parents, teachers, and educators.

With regards to Study 2 and Study 4, the findings of this study could be considered in light of a number of limitations. First, since participants were drawing on personal experience, these may be context/school specific. Second, this study did not explore stigma in relation to specific mental health conditions. Specific forms of mental health conditions demonstrate distinct stigma profiles (Martinez & Hinshaw, 2016). Additionally, it was not always known what mental health conditions/experiences a Group A participant had. Third, age and gender differences were lacking in the analysis. Fourth, the diversity of the sample was limited. Participants were predominantly from east-middle China and from the dominant ethnic group, which might limit generalisability to other regions or ethnicities. With this lack of diversity, certain viewpoints may be overlooked, resulting in a limited understanding of mental health stigma in Chinese young people. Fifth, the consultations did not include parents, teachers and youth mental health professionals. Last, although I explained the definitions of mental health conditions, mental health stigma, and social media to participants, participants might still have different understandings of the operationalisation of these definitions. This might lead to misunderstandings and influence the quality of data. In relation to social media, there are some specific platforms or features that might not fit neatly within this definition, but participants might not be aware of them. Therefore, it is essential to consider any potential differences in how participants perceive and use social media, as this could impact their responses and interpretations of the research.

Overall, the major limitation of this doctoral work is the lack of involvement of stakeholders, including parents and teachers, as only young people were involved. Also, this work is context-specific, and it might not be generalisable to other contexts. Future research is needed in relation to the intervention prototype developed.

## 7.4 Recommendations for Future Research

This doctoral work is a context-specific investigation on mental health stigma and stigma reduction among young people in China. There are several recommendations for future research. First, existing theories of stigma are

based on adults and there is little known about theoretical models for youth mental health stigma. Stigma is multi-faceted, and stigma may take different forms among young people as the process of social engagements in young people might be different from adults. This requires researchers to build up stigma-related theories for young people to understand the nature of youth mental health stigma and then develop effective and targeted approaches to address stigma.

Second, in terms of youth mental health stigma, it is worth noting that there is a need for sensitivity to age and development stage. This doctoral work produced a prototype anti-stigma intervention for young people aged 16-19 years old. Young people in this age range might manifest different forms of stigma from the age group of 10-15 (Bellanca & Pote, 2013). As discussed in Chapter 6, it might be difficult for younger persons to be aware of and understand mental health stigma to the same extent as older young people. The methods for research in this group would need specific attention. For example, using films of unknown young people explaining their lived experiences of mental health stigma, and using these as a resource for discussion; bringing in older young people who have left the school to share their lived experiences of mental health stigma. The qualitative methods to explore subjective perspectives of mental health stigma among this group people require more attention.

Third, mental health stigma is complex and embedded in society. This type of research requires more context-specific investigations on youth mental health stigma, especially in under-researched low-and middle-income countries, to provide culture-specific evidence. Fourth, addressing mental health stigma in young people needs inputs from multiple parties. In current anti-stigma interventions, school plays a key role, and the focus is more on a single stakeholder group, namely, young people. The findings from this doctoral work recommend future research looks at the role of multiple-parties, and particularly significant adults, in youth mental health stigma and stigma reduction.

Last, to evaluate this prototype anti-stigma intervention for Chinese young people, both quantitative and qualitative evaluation could be conducted. Namely, the efficacy of this prototype could be tested by a randomised

controlled trial and qualitative process evaluation. There is a need for a feasibility study to inform a randomised controlled trial by assessing the practicality, testing the procedures, implementation and evaluating the acceptability.

## 7.5 The Impact of Covid-19 on the Thesis

Data collection in Study 2 was impacted due to the Covid-19 pandemic and the planned qualitative interviews were conducted online. As I discussed in Chapter 4, online interview data is of comparable quality to data that are collected by face-to-face interviews. Therefore, in terms of the quality of data collection, Covid-19 did not impact the work. However, it has to be acknowledged that face-to-face interviews might help researchers capture more non-verbal information, such as participants' gestures, and this might impact on data collected by observation. Also, Study 3 and Study 4 were conducted during the post-Covid period, and it is worth considering whether the life changes due to the Covid-19 might have impacted Chinese young people to influence their views on the intervention. In China, Covid-19 now does not have huge impacts on people' daily life, particularly schooling (Guidance on Returning to School, 2023). Thus, the Covid-19 pandemic did not appear to greatly impact data for intervention development, i.e. Covid-19 was not an important influencing factor when considering the components and developing the intervention.

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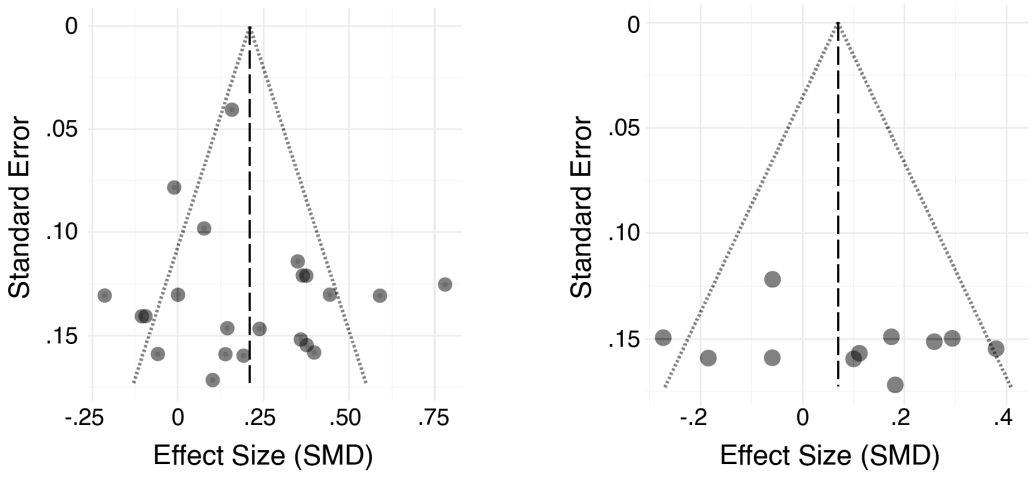
# Appendix A

This Appendix shows supplementary materials of Study 1.

## A.1 Diagnostic Plots of Multivariate Meta-Analysis Models




Funnel plots of the *Post-Intervention* (left) and *Follow Up* (right) multivariate meta-analysis models. Each dot represents a single study with the central dashed line representing the pooled effect size. Stippled lines show the 95% confidence interval.

## A.2 Risk Assessment

### A.2.1 Risk of Bias 2 for Randomised Controlled Trials

| | Domain 1<br><br>Randomisation Process | Domain 2<br><br>Deviations from the intended interventions | Domain 3<br><br>Missing outcome data | Domain 4<br><br>Measurement of the outcome | Domain 5<br><br>Selection of the reported result | Overall |
|---|---|---|---|---|---|---|
| **Vila-Badia et al. (2012)** | Some concerns | Some concerns | Low | Some concerns | Some concerns | High |
| **Townsend et al. (2019)** | Some concerns | Some concerns | Low | Some concerns | Some concerns | High |
| **O'Mara et al. (2013)** | Some concerns | Some concerns | Some concerns | Some concerns | Some concerns | High |
| **Nguyen et al. (2020)** | Some concerns | Some concerns | Some concerns | Some concerns | Some concerns | High |
| **Gonçalves et al. (2015)** | Some concerns | Some concerns | Some concerns | Some concerns | Some concerns | High |
| **Winkler et al. (2017)** | Some concerns | Some concerns | Some concerns | Some concerns | Some concerns | High |
| **Economou et al. (2011)** | Some concerns | Some concerns | Some concerns | Some concerns | Some concerns | High |
| **Mulfinger et al. (2018)** | Low | Some concerns | Low | Some concerns | Some concerns | Some concerns |
| **Cheetham et al. (2020)** | Some concerns | Some concerns | Low | Some concerns | Some concerns | High |
| **Economou et al. (2014)** | Some concerns | Some concerns | Low | Some concerns | Some concerns | High |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Milin et al. (2018)** | Low | Some concerns low | Some concerns | Some concerns | Some concerns | High |
| **Howard et al. (2018)** | Low | Some concerns | Low | Some concerns | Some concerns | Some concerns |
| **Staniland & Byrne (2013)** | High | Some concerns low | Low | Some concerns | Some concerns | High |
| **Cangas et al. (2017)** | Some concerns | Some concerns | Low | Some concerns | Some concerns | High |
| **Painter et al. (2017)** | Some concerns | Some concerns | Some concerns | Some concerns | Some concerns | High |
| **Saporito et al. (2013)** | Some concerns | Some concerns | Low | Some concerns | Some concerns | High |

## A.2.2 Risk of Bias 2 for Cluster-Randomised Trials

| | **Domain 1** | | **Domain 2** | **Domain 3** | **Domain 4** | **Domain 5** | **Overall** |
|---|---|---|---|---|---|---|---|
| | **Randomisation Process** | **Timing of identification or recruitment of participants in a cluster-randomized trial** | **Deviations from the intended interventions** | **Missing outcome data** | **Measurement of the outcome** | **Selection of the reported result** | |
| **Pinto-Foltz et al. (2011)** | Some concerns | Low | Low | Low | Low | Low | Some concerns |
| **Perry et al. (2014)** | Low | Low | Some concerns | Some concerns | Low | Some concerns | Some concerns |
| **Link et al. (2020)** | Low | Low | Some concerns | Some concerns | Low | Some concerns | High |
| **DeLuca (2020)** | Low | Low | Some concerns | Low | Low | Low | Some concerns |
| **Chisholm et al. (2016)** | Low | Low | Some concerns | High | Low | Some concerns | High |
| **Ahmad et al. (2020)** | Some concerns | Low | Some concerns | High | Low | Some concerns | High |

# Appendix B

This Appendix shows supplementary materials of Study 2.

## B.1 Participant Information Sheet

### Study title: Mental health stigma in Chinese young people (Group A)

#### Invitation

Hi! I, Ning Song, am a PhD researcher at the University of Leeds (School of Medicine and School of Psychology) in the UK. My research is exploring wellbeing among Chinese young people, and mainly focusing on how they experience, think about and respond to varying mental health in themselves and their peers.

You are being invited to take part in this research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

#### What is the purpose of the project?

Young people increasingly report living with poor mental health and wellbeing, which has significantly impacted life and study in youth. Those who live with poor mental health can be often misunderstood, viewed or treated badly by those who live with wellbeing. Mental health stigma (a negative believe/attitude/behaviour to others or self because of mental health-related conditions) is believed as a major hindrance to wellbeing and can lead to delayed help-seeking and poor interpersonal relationship etc. It is essential to understand mental health stigma and take actions to reduce it. However, there is a lack of research on the ways young people with poor wellbeing in China might be misunderstood or treated differently, and particularly there is little known about how youth who lives with poor mental health think about misunderstanding or different treat from others. The aim of this research project is to investigate experience and views on mental health stigma among Chinese young people and what they think is needed in an intervention for reducing mental health stigma.

#### Why have I been chosen?

This research project targets Chinese young people, which means that if you are in the age range of 16 to 19 with Chinese identity you are eligible to take part in this research. We want to hear your voices about your feelings/thoughts and experience in a status of low moods/anxiety. Also, you are welcome to speak about your expectations/suggestions on improving wellbeing in youth. For this group (Group A), this project plans to recruit 18 participants.

#### Do I have to take part?

It is up to you to decide whether or not to take part in this research. The participation is entirely voluntary, and you can refuse it. If you do decide to participate in the research, you will be given this information sheet to keep, and be asked to sign a consent form. You can still withdraw at any time. You do not have to give a reason.

**What do I have to do? What will happen to me if I take part?**

If you have had mental health-related experience, such as strong and persistent feelings of anxiety or low mood that affects your life, you will be invited to take part in a one-to-one interview. Due to the restrictions on COVID-19 in the UK, the one-to-one interview will be conducted online via WeChat application, and you will need a stable internet access, preferably in your home. The interview time and date will be agreed with you in advance. Each interview will take around 60 minutes.

You will be asked open questions on mental health stigma, including your experience and viewpoints on reducing stigma. You are welcome to discuss this topic in depth, and you can also refuse to answer questions without any reasons.

All your personal information will be kept confidential. Please be aware that the interview will be recorded. Your anonymised quotes may be used in publications about the research. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

**What are the possible disadvantages and risks of taking part?**

You may recall unpleasant memories during the interview. If you feel uncomfortable, we can take a break. You can stop at any time and withdraw your research data within two weeks after the interview.

**What are the possible benefits of taking part?**

It is hoped that this work will provide an opportunity to let your voice be heard in terms of mental health stigma issues, so that awareness of anti-stigma is raised and helps to improve wellbeing.

**Use, dissemination and storage of research data**

Research data will be collected, stored and anonymised by the lead researcher. The lead researcher will also be responsible for translation. All data will be stored on the security approved University of Leeds OneDrive and on password protected documents. With the exception of audio consent, recordings will be erased within a three-year period of the interview taking place. The research data will be for research purpose only, such as publications and conferences. The use of data will be kept anonymous.

**What will happen to my personal information?**

Your personal information will keep strictly confidential. Your name and any identifiable details will be anonymised, and a unique participation code that is only known between you and researcher will be generated. It is significant to protect your privacy. This study has been approved by the University of Leeds (Faculty of Medicine and Health, School of Psychology) Research Ethics Committee (Reference no.__ PSYC-270__; Date of Approval: _13 July 2021___).

**What will happen to the results of the research project?**

All the contact information that we collect about you during the course of the research will be kept strictly confidential and will be stored separately from the research data. The researcher will take steps wherever possible to anonymise the research data so that you will not be identified in any reports or publications. The results of the research are likely to be published after around two years. Once published, the researcher will inform participants. If participants would like to take a look, the researcher will give them a copy of the published results. If you agree, the data collected during the course of the project might be used for additional or subsequent research, and all data will be still kept anonymous.

The confidentiality will be maintained all the time but there are exceptions breaking confidentiality. For example, if the participant discloses an intention to harm themselves or others, the researcher will report to her supervisors to discuss what actions should be taken to ensure safety.

**What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?**

Your demographic information will be collected, including gender, age, ethnicity and the year of school. The demographic information contributes to further analysis. You will also be asked to talk about your opinions and experience in terms of mental health stigma and anti-stigma interventions.

**Contact for further information**

If you have any questions, please feel free to contact the research team.
The researcher:
Ning Song (Email: umnso@leeds.ac.uk)

The supervisors:
Dr Ghazala Mir (Email: g.mir@leeds.ac.uk; Tel: +44 113-34-34832)
Dr Siobhan Hugh-Jones (Email: s.hugh-jones@leeds.ac.uk; Tel: +44 113 343 5744)

**What will happen next?**

Thank you for your time to reading this information sheet. If you have some interests or would like to take part in this research, please contact Ning Song (Email: umnso@leeds.ac.uk; WeChat: SNing_1103) to ask questions or attend. Your participation is greatly appreciated!

| *Project title* | *Document type* | *Version #* | *Date* |
|---|---|---|---|
| Mental health stigma in Chinese young people | Information sheet for participants | 1 | 02/07/2021 |

## Study title: Mental health stigma in Chinese young people (Group B)

### Invitation

Hi! I, Ning Song, am a PhD researcher at the University of Leeds (School of Medicine and School of Psychology) in the UK. My research is exploring wellbeing among Chinese young people, and mainly focusing on how they experience, think about and respond to varying mental health in themselves and their peers.

You are being invited to take part in this research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

### What is the purpose of the project?

Young people increasingly report living with poor mental health and wellbeing, which has significantly impacted life and study in youth. Those who live with poor mental health can be often misunderstood, viewed or treated badly by those who live with wellbeing. Mental health stigma (a negative believe/attitude/behaviour to others or self because of mental health-related conditions) is believed as a major hindrance to wellbeing and can lead to delayed help-seeking and poor interpersonal relationship etc. It is essential to understand mental health stigma and take actions to reduce it. However, there is a lack of research on the ways general young people in China how to think about and treat their peers with poor mental health, and there is also little known about their ideas on reducing stigma and improving wellbeing. The aim of this research project is to investigate experience and views on mental health stigma among Chinese young people and what they think is needed in an intervention for reducing mental health stigma.

### Why have I been chosen?

This research project targets Chinese young people, which means that if you are in the age range of 16 to 19 with Chinese identity you are eligible to take part in this research. We want to hear your voices about your feelings/thoughts on your peers who live with poor wellbeing. Also, you are welcome to speak about your expectations/suggestions on improving wellbeing in youth. For this group (Group B), this project plans to recruit 12 participants.

### Do I have to take part?

It is up to you to decide whether or not to take part in this research. The participation is entirely voluntary, and you can refuse it. If you do decide to participate in the research, you will be given this information sheet to keep, and be asked to sign a consent form. You can still withdraw at any time. You do not have to give a reason.

### What do I have to do?/ What will happen to me if I take part?

If you are interested in wellbeing and would like to share your thoughts, you will be invited to take part in a focus group. Including you, there will be three other young people in the focus group. You will be invited to discuss the mental health stigma issue together. Due to the restrictions on COVID-19 in the UK, the focus group will be conducted online via WeChat application and will take around 60 minutes. You

will need a stable internet access, preferably in your home. The time and date will be agreed with you in advance.

You will be asked open questions on mental health stigma, including your experience and viewpoints on reducing stigma. You are welcome to discuss this topic in depth, and you can also refuse to answer questions without any reasons.

All your personal information will be kept confidential. Please be aware that the interview will be recorded. Your anonymised quotes may be used in publications about the research. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

**What are the possible disadvantages and risks of taking part?**

You may recall unpleasant memories during the study. If you feel uncomfortable, we can take a break. You can stop at any time and withdraw your research data within two weeks after the interview.

**What are the possible benefits of taking part?**

It is hoped that this work will provide an opportunity to let your voice be heard in terms of mental health stigma issues, so that awareness of anti-stigma is raised and helps to improve wellbeing.

**Use, dissemination and storage of research data**

Research data will be collected, stored and anonymised by the lead researcher. The lead researcher will also be responsible for translation. All data will be stored on the security approved University of Leeds OneDrive and on password protected documents. With the exception of audio consent, recordings will be erased within a three-year period of the interview taking place. The research data will be for research purpose only, such as publications and conferences. The use of data will be kept anonymous.

**What will happen to my personal information?**

Your personal information will keep strictly confidential. Your name and any identifiable details will be anonymised, and a unique participation code that is only known between you and researcher will be generated. It is significant to protect your privacy. This study has been approved by the University of Leeds (Faculty of Medicine and Health, School of Psychology) Research Ethics Committee (Reference no._ PSYC-270___; Date of Approval: _13 July 2021___).

**What will happen to the results of the research project?**

All the contact information that we collect about you during the course of the research will be kept strictly confidential and will stored separately from the research data. The researcher will take steps wherever possible to anonymise the research data so that you will not be identified in any reports or publications. The results of the research

are likely to be published after around two years. Once published, the researcher will inform participants. If participants would like to take a look, the researcher will give them a copy of the published results. If you agree, the data collected during the course of the project might be used for additional or subsequent research, and all data will be still kept anonymous.

The confidentiality will be maintained all the time but there are exceptions breaking confidentiality. For example, if the participant discloses an intention to harm themselves or others, the researcher will report to her supervisors to discuss what actions should be taken to ensure safety.

Please be aware that full anonymity cannot be guaranteed on behalf of the other focus group participants, but the researcher will ask everyone to keep the details of the group and discussion confidential at the start of the focus group.

**What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?**

Your demographic information will be collected, including gender, age, ethnicity and the year of school. The demographic information contributes to further analysis. You will also be asked to talk about your opinions and experience in terms of mental health stigma and anti-stigma interventions.

**Contact for further information**

If you have any questions, please feel free to contact the research team.
The researcher:
Ning Song (Email: umnso@leeds.ac.uk)

The supervisors:
Dr Ghazala Mir (Email: g.mir@leeds.ac.uk; Tel: +44 113-34-34832)
Dr Siobhan Hugh-Jones (Email: s.hugh-jones@leeds.ac.uk; Tel: +44 113 343 5744)

**What will happen next?**

Thank you for your time to reading this information sheet. If you have some interests or would like to take part in this research, please contact Ning Song (Email: umnso@leeds.ac.uk; WeChat: SNing_1103) to ask questions or attend. Your participation is greatly appreciated!

| *Project title* | *Document type* | *Version #* | *Date* |
|---|---|---|---|
| Mental health stigma in Chinese young people | Information sheet for participants | 1 | 02/07/2021 |

## B.2 Participant Consent Form

| **Consent to take part in**<br>***Mental Health Stigma in Chinese Young People* (Group A)** | Add your initials next to the statement if you agree |
|---|---|
| I confirm that I have read and understand the information sheet/letter dated [insert date] explaining the above research project and I have had the opportunity to ask questions about the project. | |
| I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. | |
| I understand that members of the research team may have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.<br>I understand that my responses will be kept strictly confidential. | |
| I understand that the data collected from me may be stored and used in relevant future research publications in an anonymised form. | |
| I understand that relevant sections of the data collected during the study may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. | |
| I understand that I will attend a one-to-one online interview. | |
| I agree that the interview will be recorded. | |
| I agree to take part in the above research project and will inform the lead researcher should my contact details change. | |

| | |
|---|---|
| Name of participant | |
| Participant's signature | |
| Date | |
| Name of lead researcher | |
| Signature | |
| Date* | |

| **Consent to take part in**<br>***Mental Health Stigma in Chinese Young People* (Group B)** | Add your initials next to the statement if you agree |
|---|---|
| I confirm that I have read and understand the information sheet/letter dated [insert date] explaining the above research project and I have had the opportunity to ask questions about the project. | |
| I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. | |
| I understand that members of the research team may have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.<br>I understand that my responses will be kept strictly confidential. | |
| I understand that the data collected from me may be stored and used in relevant future research publications in an anonymised form. | |
| I understand that relevant sections of the data collected during the study may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. | |
| I understand that I will attend an online focus group where consists of four participants. | |
| I understand that full anonymity cannot be guaranteed on behalf of the other focus group participants. | |
| I agree that the focus group will be recorded. | |
| I agree to take part in the above research project and will inform the lead researcher should my contact details change. | |

| | |
|---|---|
| Name of participant | |
| Participant's signature | |
| Date | |
| Name of lead researcher | |
| Signature | |
| Date* | |

## B.3 Participant Recruitment Poster

**Recruitment Poster (Group A)**


We want to learn more about WELLBEING, and we are hoping you can help!!

*Are you interested in wellbeing?*
*Anything want to share about mental health?*
*Any ideas on improving our wellbeing?*

*We need you!!*

Researchers at University of Leeds want to find ways to wellbeing in Chinese young people.

### Would the study be a good fit for me?

This study might be a good fit for you if:

- You are 16 to 19 years old
- You would like to share your mental health-related experience, such as low moods and anxiety
- You have some views on how other people respond to your experience.

### What would happen if I took part in the study?

If you decide to take part in the search study, you would:

- Be invited to attend a one-to-one one-hour online interview
- Be kept confidential on personal data.


Scan the QR code to add me on WeChat

**To take part in the research study or for more information, please contact the principal researcher:**

**Ning Song**
Email: umnso@leeds.ac.uk; or
WeChat account: SNing_1103 (or just scan the code).

This research will be running from 15 July 2021 to 31 June 2022, please get in touch with the researcher during this time.

Research is completely voluntary!! The research will have no impacts on your education and healthcare at all.

**Recruitment Poster (Group B)**


# We want to learn more about WELLBEING, and we are hoping you can help!!

*Are you interested in wellbeing?*
*Anything want to share about mental health?*
*Any ideas on improving our wellbeing?*

*We need you!!*

Researchers at University of Leeds want to find ways to wellbeing in Chinese young people.

## Would the study be a good fit for me?

This study might be a good fit for you if:

- You are 16 to 19 years old
- Could help us understand how young people in your age think about/respond mental health.

## What would happen if I took part in the study?

If you decide to take part in the search study, you would:

- Be invited to attend a one-hour online focus group
- Be kept confidential on personal data.


Scan the QR code to add me on WeChat

## To take part in the research study or for more information, please contact the principal researcher:

**Ning Song**
Email: umnso@leeds.ac.uk; or
WeChat account: SNing_1103 (or just scan the code).

This research will be running from 15 July 2021 to 31 June 2022, please get in touch with the researcher during this time.

Research is completely voluntary!! The research will have no impacts on your education and healthcare at all.

## B.4 Interview Guide

**Pre-interview**

- Demographic information

  Participates will be provided a form related to demographic information to fill out, questions like sex, age, ethnicity, hometown…
- Interview time

  Participants will be contacted in advance to get an agreed interview time.

1. **Welcome & Greetings**

- Show the welcome to participants and thank them for taking part in this research.
- Simple greetings for ice-breaker.
- e.g. Good morning/afternoon, welcome to attend the interview! How are you doing today? Where are you now? How is the weather in China these days? How is your school life? How are you feeling about participating this study? (If participants feel nervous or anxious about the interview, I may ask them what concerns or questions they have and reassure them)

2. **Introduction**

- Introduce myself and the research.
- Introduce what the interview is and how it will be running.
- Quick reminder:
  - You do not need to answer any questions if you do not wish.
  - You can stop at any points.
  - The interview will take around 60 minutes.
  - The interview will be being recorded and explain the reasons.
  - Due to the online interview, if you encounter technical issues or are hard to hear me, please let me know.

3. **Clarification**

- Ask participants whether they fully understand the interview and have any questions.
- Answer, clarify and explain questions/concerns that participants proposed.
- Emphasise confidentiality.

4. **Consent**

- State that participants' written consent forms have been received and stored safely. Confirm again that participants are willing to take part in the research and they are happy that the interview is to be recorded.

5. **Interview session**

Inform participants that they will be invited to answer three sections questions on mental health stigma. The first part is about personal experience and opinions about mental health stigma.

- Experience and viewpoints about mental health stigma
    - Could you briefly help me understand why you interested in taking part this study?
    - The question could be as a transition to let participants have a preparation in mentally and feel that the interview is beginning, instead of a question that ask directly about their mental health/wellbeing making them feel abrupt.
    - This study is focusing on mental health stigma, which refers to a negative believe/attitude/behaviour to others or self because of mental health-related difficulties. Can you tell me a little bit about what stigma, or other difficult experiences like this, you have experienced?
    - The questions are for understanding what settings/situations/forms/natures about stigma Chinese youth experienced.
    - How has the experience affected you?
    - This question aims to investigate how stigma impacts on Chinese youth.
        - Have you shared your experience with other people, such as peers, parents and teachers? Why? Disclosure
        - Have you sought help for your difficulties? Why? Help-seeking
        - Have you noticed any differences that other people treat with you after others are aware of your difficulties? How did they treat with you? Social distancing/interpersonal relationship
    - Questions like the above help identify specific impacts/consequences stigma caused among youth.
    - What is your view on stigma?
    - The questions help understand attitudes/viewpoints on stigma in Chinese young people.
    - What reasons you think that cause stigma exists? (Questions about social moral/norm, cultural beliefs/values, parental pressures etc. could follow to break down for getting more information)
    - The question is to obtain mechanism of stigma produced under Chinese context, which is a basis for navigating stigma reduction.
- Needs for interventions for mental health stigma reduction
    - In terms of the causes of stigma produced that you talked about, any of them could be changed in order to lower stigma? How?
    - This question is for getting thoughts/options on stigma reduction in Chinese young people.
    - What do you think is the most important thing to focus on stigma reduction?
    - The question aims to generate content of intervention.
    - If you were in charge of project to reduce stigma, what approaches/components you want to include and exclude?
        - Developing anti-stigma handbook.
        - Carrying out mental health stigma-related school play.
        - Playing video game around anti-stigma components.
        - Delivering interactive workshop about anti-stigma.
        - etc.
    - These questions help to explore acceptability of anti-stigma approaches and components.
    - What do you think parents/families, teachers and peers could contribute to anti-stigma programme?

    - This question is for understanding Chinese youth's needs for the role that parents/families, teachers and peers play in reducing stigma, which also helps to generate content of intervention.
- Opinions on social media related interventions for reducing mental health stigma
    - What social media do you use most? Do you think it could be used to be a platform for reducing stigma? How?
    - These questions aim to know Chinese youth's viewpoints on including social media platform in anti-stigma intervention.
    - If you think some weaknesses existed when using social media to reduce stigma, how do you think to improve its usage? How to maximum its function for reducing stigma?
    - These questions are for identifying acceptable and potentially effective components of social media-related anti-stigma intervention.
    - If you have a chance to establish contents on anti-stigma by social media, what will you do? Why? Would it be helpful to:
        - Creating a public account in social media for delivering knowledge about mental health stigma and strategies for reducing stigma.
        - Having an account in social media for posting videos to share experiences that people living with mental health.
        - Designing online quiz about mental health literacy and tips on wellbeing.
    - The questions help generate content of social media-related intervention.

6. **Interview ending**

To end the interview and make participants feel comfortable about termination, I will ask some questions like:

- Are there anything you would like to add?
- How was the interview process for you?
- How are you feeling now? (If they feel bad, I may ask what caused it, and offer organisations that could help the youth. e.g., Hefei teenagers' mental health centre)

Next, I will let participants know how we will deal with data they provided. In what circumstances, I may contact them again. If they would like to know the findings of the study, I will give them a copy. Finally, I will thank them for their time, express gratitude for willingness to share personal experiences, and appreciate their contributions for the study.

**Things to consider:**

- Interview questions

Scope: The questions should be relevant to research aims and objectives. The questions that are beyond the scope of research should be avoided.

Questions need to be clearly delivered with understandable language for youth (using layman's term to introduce/explain the research/questions).

Sequence: Be clear about the purpose of each question and questions are asked in a particular sequence. Start with 'easy' question to help participants feel comfortable.

Follow-up: Closed-ended questions should be avoided. Follow-up questions should be prepared according to participants responses.

- Details
  - Talk less and listen more (a good balance between talking and listening – if it is necessary to interrupt participants and why)
  - Give positive responses to flow the interactions with participants
  - Rephrase questions if participants misunderstand/miss questions
  - Be related to participants' circumstances, experiences…
  - Be sensitive to the participants, to their needs and rights
  - Keep proper manner and demeanour
  - Keep half an eye on the equipment to ensure that audio is recording
  - Observe and pick up verbal and non-verbal cues to be able to recognise when participants become bored, tired, uncomfortable, embarrassed…
- Unanticipated emotions

  If the interview evokes uneasy emotions, I will advise to pause or stop the interview, and guide them to obtain appropriate assistance.

## B.5 Reflections on Interviews

**Reflection on Interviews (that Have Done – first bunch of interviews)**

**Interview Questions**

I will do reflections on interview questions as I found some questions that were not understandable or helpful when interviewing with participants.

**Q: Can you tell me a little bit about what stigma, or other difficult experiences like this, you have experienced?**

This is the original question, and after the first interview, I found that it is necessary to add one question before asking it as participants were not known about stigma. Therefore, I asked them “Have you heard of mental health stigma” and gave them an explanation on it. I gave some examples to describe public stigma and self-stigma and asked them “Would you like to explain what mental health stigma in your words is”. Here raised a question, it seemed to be hard for some participants to extend the definition of stigma – when I asked them stigma-related experience, what they thought of were only the examples that I gave, and if they did not experience as the examples described, they immediately said that they did not have such experience. However, they may have experience manifesting in other forms instead of what examples suggested. Those experiences could be shared in the following conversation or not, which could affect the data. I tried to add more examples into explanation, and some worked but still want to make participants understand stigma correctly. I am thinking about the reasons – maybe my language was not youth-friendly; maybe Chinese students are used to learning in passive way that they fully receive what they are given; they are also reluctant to raise doubts that although they may think something could be relate to stigma, they would not propose it as I did not mention it when explaining. According to your comments, the questions could be asked after my explanation on mental health stigma – “Do you agree mental health stigma happens?” “Would you define it differently?” Also, I could give more time to talk about stigma to improve their understanding of it. Also, I think it is necessary to double check Chinese definition of mental health stigma and try to use plain Chinese for explaining.

**Q: How has the experience affected you?**

This question was intended to understand how did those youth who has/had experience of stigma feel about their stigma experience and whether negative consequences that stigma brought about. For those participants who reported their stigma experience, it was helpful to obtain information, but for those who did not experience stigma, this question was of no effect. I found that I had an assumption

that participants who suffered from mental health conditions had experience of stigma. Several participants were not so, reporting they received supports from others instead of stigmatising behaviours. Therefore, in this case, I am thinking that the question could be revised focusing on non-stigmatising environment – what positive environment they were in and how this environment was created. This could be used to make a comparison with stigmatising environment for developing anti-stigma intervention. The interview questions could be: “What do you think about your positive experience?” “Could you please describe to the environment you where you live?” “What do you think contributed to your positive experience?” “If you had the experience that you were stigmatised, what would you do?”

**Q: What is your view on stigma?**

This question was used for getting viewpoints on mental health stigma in young people. During the interview, I felt that this question is a little bit broad for some participants whose Reponses showed that they did not seem to know quite how to answer the question. I am thinking whether this question could be broken down – “Do you agree stigma is prevalent in your generation?” “Is that bad for your generation to being stigmatised? Why?” “What do you look at stigma?”

**Q: What reasons you think that cause stigma exists?**

For this question, I found that many participants talked about “parents/others don’t understand them”. I used ‘understand/understanding’ in English transcripts (which is literal translation), and now I feel that I missed another meaning. Based on the context, “parents/others don’t understand them” this sentence has two meanings. One could be used ‘understand’ to show other people do not know and realise how and why mental health conditions happen. Another could be used ‘empathise’ to indicate others are hard to sense their feelings and emotions that mental health conditions cause. Besides, I noticed that when participants tried to seek the reasons, they talked about more about reasons why they got mental health conditions. I felt a little bit difficult to cope with it. I tried to rephrase the question and gave prompts, and what they said was similar with my prompts. This made me feel whether I led them to answer this question to get the information I preconceived.

In terms of questions on lived experience surrounding stigma, I felt difficult and had a feeling of ‘the spirit is willing, but the flesh is weak’. I wanted to understand what natures/types about mental health stigma are in Chinese young people but felt frustrated when I did not get what I want. Particularly in the following situations: when participants always talked about their experience of mental health conditions instead of stigma; when they said they had nothing to say about stigma. I recalled

my reaction to these cases – I tried to rephrase the questions again but when they still did not catch the question, I seemed a little bit disappointed and did not give them a good response to show what they said is okay. Also, I noticed that I sometimes persevered in asking them to tell me relevant experience, even if they said no before. Some participants gradually shared experience about themselves or their friends after my perseverance, which is good for data collection. However, I do not think it is a good manner in interviews, and maybe it deviated voluntary principle? I think that my perseverance perhaps came from my worries about data – what if these data are not useful and how does it affect my research. Interestingly, some participants refused to share at the beginning, but they did after I persevered in asking again. I am thinking it is maybe related to Chinese traits that we are very reserved in the beginning. Another interesting point is that participants shared their friend's experience with me instead of themselves. I am not sure whether they truly did not experience, or they were unwilling to disclose themselves and used their friends for covering.

There is a point I missed out – what beliefs and attitudes are driving stigma among general young people. For the latest interview I finished yesterday, I asked this question, and the participants said that once a rumour starts, everyone then follows. I think this is useful point to show features of young people. More data are to be explored in the following interviews.

As for questions related to stigma reduction and social media platforms, I felt those were straighthood to participants and I got useful data.

**Interview techniques**

This section is about something reflective on interview techniques.

Interruption

I found that when participants were in thinking state, I often rephrased the question or gave prompts after a silence to help them think. But when I was about to start speaking, they often also were about to speak, resulting in that we were speaking at the same time. Although I stopped immediately and asked them to continue to speak, I think my behaviour could interrupt their thinking. I maybe need to be more patient rather than being rushed to break the silence.

Empathy

This is important but I did not do it well to reflect what they said. It is necessary to give them response first and then follow up on a few things. I sometimes forgot to show empathy because I felt rush to follow up a point to avoid forgetting the point I wanted to follow. I am thinking that taking some notes when interviewing maybe helpful to memorise points so that I could show more empathy to participants.

**Language and translation issues in interview**

**Mental health**

This word could be literally translated into Chinese and sounds neutral.

**Mental health conditions/difficulties**

To introduce stigma, we are using mental health conditions/difficulties instead of mental health illnesses/disorders/problems in English.

In Chinese, mental health-related issues are generally literally translated as mental health problems/illnesses, which can drive stigma too. The literal translation of mental health conditions/difficulties is not an expression we often use. To avoid stigma, I decide to use another Chinese word whose literal translation in English is like ‘trouble’.

**Stigma**

The literal translation of stigma in China is similar like ‘disgrace’, and I think it is also stigmatising in Chinese. When it comes to this word, people can feel its negativity immediately, and particularly when it relates to mental health. Therefore, I want to use another word that is not very common but looks not too negative in the literal. At present, Chinese literature often uses a phrase that is less negative to describe stigma. Hence, I will use this phrase.

**Why**

Similar to English, asking ‘why’ sounds aggressive. Hence, if I need to ask some reasons, I will use sentences, such as, what caused you think/did in this way? How come to think in this way?

**Impact/influence/affect**

These words sound non-oral, and a little bit ‘big’ for young people. If using the literal translation in Chinese, they may feel that they need to answer a comprehensive

question. Hence, I would use another way to rephrase it, using ‘change’- how did it change you? What do you feel different in life/study?

**View**

This word is also ‘big’ and ‘formal’ for young people if using the literal translation. More naturally, it would be better to say ‘think’ instead.

## B.6 Framework Analysis Codebook

| Name | Description | Files | References |
|---|---|---|---|
| 1. Understanding of experience of mental health stigma | Participants described their (or their peers) experiences of being stigmatised. | 2 | 54 |
| 1.1 Perception of mental health stigma | Participants' knowledge and understanding on mental health stigma, and how they looked at it. | 3 | 30 |
| 1.1.1 Understanding of mental health stigma | Participants' awareness about mental health stigma. | 3 | 5 |
| 1.1.2. General beliefs of mental health stigma | Participants' general beliefs about mental health stigma. | 3 | 18 |
| 1.2 Nature of mental health stigma | What kinds of natures of stigma participants experienced. | 3 | 45 |
| 1.2.1 Negative emotions & feelings | Participants reported negative emotions or feelings that other people' s response to young people with mental health conditions. | 1 | 4 |
| 1.2.2 Negative beliefs & attitudes | Participants reported negative beliefs or attitudes that other people' s response to young people with mental health conditions. | 3 | 22 |
| 1.2.3 Negative behaviours | Participants reported negative behaviours that other people' s response to young people with mental health conditions. | 2 | 8 |
| 1.2.4 Self-stigma | Participants reported their internalised stigma. | 1 | 10 |
| 1.3 Reasons for being stigmatised | Participants talked about why young people are stigmatised. | 3 | 15 |
| 1.3.1 A lack of understanding of mental health | People are little known about mental health issues. | 2 | 3 |
| 1.3.2 Academic pressure | Chinese youth have to undertake big academic pressures (unique Chinese education context). | 1 | 2 |
| 1.3.3 Generation gap | Generation gap between parents' generation and the youth generation. | 2 | 8 |
| 1.3.4 Not familiar with the person living mental health conditions | People don't know much about those people with poor mental health (they got few opportunities to know them, partly because of stigma - concealment). | 1 | 1 |
| 1.4 Impacts of being stigmatised | Participants talked about what impacts and consequences they had after being stigmatised. | 2 | 20 |
| 1.5 Non-stigmatising | Some participants didn't experience of being stigmatised and they talked about non-stigmatising experience instead. | 2 | 4 |
| 1.6 Help-seeking | Participants talked about if they went for help-seeking and reasons for it. | 2 | 12 |
| 1.7 Sharing | Participants talked about if they'd like to share their experience including being stigmatised and mental health conditions with others, and explained reasons. | 1 | 8 |

| Name | Description | Files | References |
|---|---|---|---|
| 2. Mental health stigma reduction | Participants' viewpoints and suggestions on stigma reduction. | 1 | 12 |
| 2.1 Attitudes towards mental health stigma reduction | What participants thought about stigma reduction? Is it worked or not? | 3 | 12 |
| 2.2 Reasons for holding the attitudes | Participants explained reasons why they think stigma could be reduced or not. | 2 | 3 |
| 2.3 Approaches to reduce mental health stigma | Participants proposed approaches to stigma reduction. | 3 | 20 |
| 2.4 Mental health lessons | Participants' opinions on mental health lessons including reasons for what they thought good ways and bad ways. | 1 | 11 |
| 3. The role of social media in reducing mental health stigma | Participants talked about what social media play the role in stigma reduction. | 1 | 6 |
| 3.1 Types of social media platform | Participants talked about what social media platforms they are using most. | 3 | 3 |
| 3.2 Attitudes towards the role of social media | What participants looked at social media that is used for stigma reduction - good or bad way? | 3 | 16 |
| 3.3 Approaches to reduce mental health stigma | Participants proposed approaches to stigma reduction. | 2 | 11 |

## B.7 An Example of Table for ‘Mapping And Interpretation’

| Participants | 1.1.1 Understanding of mental health stigma | 1.1.2 General beliefs of mental health stigma |
|---|---|---|
| Kang-A | No. | In my opinion, put it simply, it’s called understanding bias, or in plain English, you don't put yourself in the person's shoes. |
| Juanjuan-A | It’s the first time to hear about it. | I think mental health stigma, at least in China, is quite common. First of all, we don't know enough about this kind of mental illness, and we still stay at a very shallow level of the understanding – (people with mental health conditions) are sensitive to anything and pretentious…If we have some mental health issues, which is a basic fact, and we're bound to have some stigma. |
| Shuai-A | No. | |
| Chen-A | No, I haven’t heard of this, and I only heard of mental health. | |
| Yaqi-A | I have known mental health but it’s the first time to heard of mental health stigma. | |
| Qiao-A | I can probably understand what stigma means, that is, from the public opinion, youth mental health problems are viewed as making a fuss about imaginary illness. | As friends, it may be difficult for us to understand them, and it is impossible for us to treat a student with mental health problems normally as ordinary students, so it is very difficult…People do not have a clear understanding of these mental health problems, and then lots of people are very scary about it, and then they will look at it with bias. |
| Zhenzhen-A | No…So one is about the public, your parents, friends, and teachers treat you differently. Another one is that people think there’s something wrong with themselves and they’re not willing to communicate with others. | |
| Xu-A | No…One is the devaluation of the self, and another one is the devaluation of the self by other people…That’s when other people know you have depression, they’re scared of you. | It's a normal behaviour. It's normal…Yes, it’s universal. There’s everyone who is surrounded by normal people, but you’re not normal, so in other people’s system of judgment, you’re the kind of misfit, others will certainly hostile to you. |
| Jing-A | No, stigma is kind of a rejection of the idea of having mental health conditions, right? And then, and there’re some bad views, it’s called stigma…It’s about other people view mental health conditions as a bad thing, of course, not many people can accept it. | A lot of people don’t pay attention to mental health, including our parents. Our parents also basically maintain a prejudice against mental health, do not pay much attention to it. |

| | | |
|---|---|---|
| Yanzi-A | No…It's caused by other people's opinions or influence resulting in their own inner lack of confidence. | I think it's one that needs to self-adjust, but if it can't self-adjust, then you have to go to the doctor and get some help from outside…So a lot of people in society today, except for the elderly who may not understand why they get symptoms, basically young people don't have a prejudice against this for a care, but probably they (with mental health conditions) have self-denial. |
| Liangliang-A | I haven't heard of it…Stigma is kind of things like a cold violence against a friend. | |
| Ruoxi-A | No. | Maybe it's just normal, I think every teenager like us probably has (stigma) more or less, and it's a normal thing. Don't be afraid of it and the best way to face fear is to overcome it. |
| Shan-A | No, this's the first time (I heard of it). | If they're my close friends, they definitely won't stigmatise but protect us. |
| Meimei-A | No. That's if I have mental health problems, other classmates may think I'll bring them bad influence, and they won't make friends with me. If it gets worse, such as self-harm, they would think I'm psycho. | |
| Xiaoxiao-A | No…Stigma is when you're in an environment that makes you have negative emotions resulting in shame or bad impacts on your self-esteem. And then you'll have some bad thoughts and behaviours. | I think it's definitely a bad phenomenon. |
| Li-A | I heard of this term, but haven't had any further exploration, and I can have a guess. Mental health stigma, that's about we view mental health as a difficult thing to speak out. It's because we don't think mental health is as import as physical health, and people tend to blame the person for having a mental health illness, rather than thinking of it as an objective illness. | I'm sure, such stigma is prevalent and very widespread in the society. |
| Tiantian-A | No…It's actually about some mental health problems, and we haven't viewed it from a scientific perspective but from Chinese traditional beliefs perspective that are relatively biased. | I can say that I don't think I've found anyone who intentionally stigmatises, and I think in most cases it's unintentional, or it's based on a lack of knowledge. Of course it may be subjectively unintentional, but it does cause a lot of trouble for those students (who are living with poor mental health), especially in this context where mental health is not so popular. |
| Gege-A | No…That happens to those with mental illness, right? And it'll have bad impacts on those with mental illness, right? Probably, that's it. | |
| Qian-A | I haven't heard of stigma…So people have not good behaviours because of mental health problems. | It's quite prevalent. |

| | | |
|---|---|---|
| Dahai-B | No…It can be similar with discrimination the disabled received, right? So, since bad impacts had because of physical problems, for problems in mentally, it exists the same situation as well. | |
| Beilei-B | I haven't heard of it before, but I probably know what it means. For instance, my parents believe those who committed suicide are very pretentious, or very selfish. I think this is stigma. | |
| Tian-B | I haven't heard of it before. | |
| Keke-B | I think what I feel regarding stigma is not quite same with what research does…I think someone with mental health problems, for example, they did self-harm, which is not like you've been hurt but it's like you're trying to get some kind of attention. | But the bias happens actually to the elders, and for us, we are less likely to have this kind of bias…I think people are gradually accepting (mental health conditions), and people are not prejudiced, but simply don't understand this illness. |
| Yang-B | I haven't heard of it before, but I think it refers to someone falsely accuses or gossips me. | |
| Lulu-B | I haven't heard of it before. | |
| Wen-B | This's the first time to hear about it…I probably think, if we have a friend who has some mental health problems, and we have some judgements to him, including something bad, for example, we ostracize, alienate or scold him. I think these are all stigma. | |
| Tongtong-B | I haven't heard of it before. | |
| Lele-B | No no, this is the first time to hear about it. | |
| Xiaojun-B | I don't know, don't know…That's, someone has a mental illness, and other people alienate, keep away from that person. | I don't feel like that's happening around me. In our psychology lessons, the teacher also gave us some tests to see if we were depressed or something like that. Then, most of the students in my class reported moderate or severe depression, so we all did, so we didn't care much…And since most of us are moderately to severely depressed, it feels like we're all in the same situation, so we don't really care about it. |
| Ruilin-B | I haven't heard of it before. | |
| Huimin-B | I haven't heard of it before, and it's the first time I know it…That's about a bad view to something, for example, someone has depression and other people discriminate that person. | When I was little known about depression, autism and other mental illness, I may have some bad comments and misunderstandings about them. The environment can lead to bad views on mental health illness, resulting in a lot of people don't accept mental health problems. |

| | | |
|---|---|---|
| Jiani-B | I haven't heard of such professional concept before, but, for example, if people say I'm not good today, other people will think it's because you have some mental health problems. | I think it should be quite common, maybe no one takes it seriously, and not many people think it is a particularly serious thing…It seems like there's a tendency for people to say I'm depressed, and it's like it's a generalization, and people put labels on it, but those people who are really depressed are actually the ones who don't get attention. And people may use depression as a kind of a gimmick, or a way to get attention and make fun of it. |

**Interpretation**

In this category, participants talked about their perception of mental health stigma. Two parts consists of this category: understanding of mental health stigma and general beliefs of mental health stigma. The understanding of mental health stigma was identified to know if participants have heard of the term – mental health stigma, and participants' understanding of mental health stigma after I explained to them. The general beliefs of mental health stigma were captured to understand what opinions of mental health stigma in Chinese young people.

### 1.1.1 Understanding of mental health stigma

In Group A and Group B, the most of participants had not heard of the term – mental health stigma before interviewing. Only two participants - Qiao and Li in Group A and one person - Keke in Group B had been known a little bit about mental health stigma. Overall, both of Group A and B mentioned that mental health stigma is associated with bad views on mental health, and they talked about different nature of being stigmatised. They mentioned that mental health stigma arises from views that poor mental health is imagined, and it is de-legitimised. Participants who were in Group A talked about two types of mental health stigma – public stigma and self-stigma, but those who were in Group B did not differentiate those two types of mental health stigma. This means that those participants who have poor mental health can stigmatise themselves. When they talked about mental health stigma, it might remind of their personal experience of being internalised stigma and engender empathy. In Group A, the most reported was that mental health stigma could result in devaluation of self/low self-esteem/low confidence, which shows more emotional impacts participants had rather than functional impacts. In Group B, the most reported nature of mental health stigma in their understanding was that people with poor mental health are discriminated from other people and are alienated from friends. In sum, Chinese young people are little known about mental health stigma. They can understand some nature of being stigmatised and identify bad consequences of being stigmatised after I gave an explanation.

### 1.1.2 General beliefs of mental health stigma

Overall, both of Group A and B reported that mental health stigma is common and prevalent in China. The dominant information was that they mentioned that Chinese people lack knowledge of mental health, and they dismiss the importance of mental health. It is worth noting that participants in both of groups mentioned that biased views on poor mental health happened by the old people but young people, they do

not have much prejudice against people living with mental health conditions. However, in Group B, one participant (Xiaojun) believed that mental health stigma did not happen around him, and his peers did not care about mental health issues even if they got moderate/several depression results by self-test. This suggests that a general lack of dismissal of mental health might result in unconsciousness of the concept of mental health stigma. Additionally, Jiani mentioned overuse of the term depression. In sum, mental health stigma is perceived by participants to be prevalent in China, and particularly, compared to old people, young people have relatively fewer stigmatising attitudes towards people living with poor mental health stigma. There was one participant who did believe that mental health stigma is prevalent. A lack of knowledge of mental health and a dismissal of the importance of mental health were most reported beliefs of mental health stigma that participants showed. In addition, the overuse of the term depression was also mentioned.

# Appendix C

This Appendix shows supplementary materials of Study 4.

## C.1 Participant Re-Contact E-Mail

Dear participant,

I hope you are doing well.

Thank you for attending previous interview study on mental health stigma in Chinese young people.

I am re-contacting you to invite to take part in a new study ***Study title: How Can Mental Health Stigma Be Reduced in China? Progress Towards Public Health Approaches with Young People.*** This study aims to develop an anti-stigma intervention that is appropriate to Chinese young people delivered via social media. We need to consult ideas and suggestions from you so that refining the proposed intervention for reducing mental health stigma. An online 60min-interview with you will take place to complete the consultation. To let you have a better understanding on this study, I am attaching the full information on this study, and please feel free to contact me if you have any questions.

This study has acquired approval by the University of Leeds (Faculty of Medicine and Health, School of Psychology) Research Ethics Committee (Reference no._; Date of Approval: _). This study is supervised by Prof Ghazala Mir (Email: g.mir@leeds.ac.uk; Tel: +44 113-34-34832) and Dr Siobhan Hugh-Jones (Email: s.hugh-jones@leeds.ac.uk; Tel: +44 113 343 5744).

**Please note that the participation is completely voluntary! If you are interested in this study, please contact me!**

Many thanks,

Ning

## C.2 Participant Information Sheet (New Recruitment)

**Study title: How Can Mental Health Stigma Be Reduced in China? Progress Towards Public Health Approaches with Young People**

### Invitation

Hi! I, Ning Song, am a PhD researcher at the University of Leeds (School of Medicine and School of Psychology) in the UK. My research is exploring wellbeing among Chinese young people, and mainly focusing on how they experience, think about and respond to varying mental health in themselves and their peers.

Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

### What is the purpose of the project?

In the previous interview study, we have explored the lived experiences of mental health stigma in Chinese young people, and based on this, the aim of this research project is to culturally adapt an anti-stigma intervention suitable for delivery via social media to Chinese young people who have a mental health condition and peers who may stigmatise. This research project includes consultation that needs to consult ideas and suggestions from Chinese young people and mental health workers so that refining the proposed intervention for reducing mental health stigma delivered by social media.

### Why have I been chosen?

I am contacting participants who are working in the field of mental health. We want to hear your thoughts on the prototype intervention for reducing mental health stigma in Chinese young people. This study plans to recruit 2 participants.

### Do I have to take part?

It is up to you to decide whether or not to take part in this research. The participation is entirely voluntary, and you can refuse it. If you do decide to participate in the research, you will be given this information sheet to keep, and be asked to sign a consent form. You can still withdraw at any time. You do not have to give a reason.

### What do I have to do? What will happen to me if I take part?

You will be sent an example intervention for reducing mental health stigma targeted Chinese young people, and then invited to take part in a one-to-one online interview via WeChat application. You will need a stable internet access, preferably in your home. The interview time and date will be agreed with you in advance. Each interview will take around 60 minutes.

You will be asked your opinions on the example intervention. We need your help to make it relevant and effective to people your age in China. You are welcome to discuss this topic in depth, and you can also refuse to answer questions without any reasons.

All your personal information will be kept confidential. Please be aware that the interview will be recorded. Your anonymised quotes may be used in publications about the research. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

**What are the possible disadvantages and risks of taking part?**

Even though the interview does not ask about your personal experiences, there is a small chance that you may recall unpleasant memories. If you feel uncomfortable, we can talk about that, move on or take a break. You can stop at any time and withdraw your research data within two weeks after the interview.

**What are the possible benefits of taking part?**

This work will provide an opportunity for your voice to be heard in terms of mental health stigma reduction.

**Use, dissemination and storage of research data**

Interview data will be collected, stored and anonymised by the lead researcher. The lead researcher will also be responsible for translation from Chinese to English. All data will be stored on the security approved University of Leeds OneDrive and on password protected documents. With the exception of audio consent, recordings will be erased within a three-year period of the interview taking place. The research data will be for research purpose only, such as publications and conferences. Data will be anonymised.

**What will happen to my personal information?**

Your personal information will be kept strictly confidential. Your name and any identifiable details will be anonymised, and a unique participation code that is only known between you and researcher will be generated. It is significant to protect your privacy. This study has been approved by the University of Leeds (Faculty of Medicine and Health, School of Psychology) Research Ethics Committee (Reference no.____; Date of Approval: ____).

**What will happen to the results of the research project?**

All the contact information that we collect about you during the course of the research will be kept strictly confidential and will stored separately from the research data. The researcher will anonymise the data so that you will not be identified in any reports or publications. The results of the research are likely to be published after around two years. Once published, the researcher will inform participants. If participants would like to take a look, the researcher will give them a copy of the published results. If you agree, the data collected during the course of the project might be used for additional or subsequent research, and all data will be still kept anonymous.

The confidentiality will be maintained all the time but there are exceptions breaking confidentiality. For example, if the participant discloses an intention to harm

themselves or others, the researcher will report to her supervisors to discuss what actions should be taken to ensure safety.

**What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?**

Your demographic information will be collected, including gender, age, ethnicity and the year of school. The demographic information contributes to further analysis. You will also be asked to talk about your opinions in terms of a prototype anti-stigma interventions.

**Contact for further information**

If you have any questions, please feel free to contact the research team.
The researcher:
Ning Song (Email: umnso@leeds.ac.uk)

The supervisors:
Prof Ghazala Mir (Email: g.mir@leeds.ac.uk; Tel: +44 113-34-34832)
Dr Siobhan Hugh-Jones (Email: s.hugh-jones@leeds.ac.uk; Tel: +44 113 343 5744)

**What will happen next?**

Thank you for your time to reading this information sheet. If you have some interests or would like to take part in this research, please contact Ning Song (Email: umnso@leeds.ac.uk; WeChat: SNing_1103) to ask questions or attend. Your participation is greatly appreciated!

| *Project title* | *Document type* | *Version #* | *Date* |
|---|---|---|---|
| How Can Mental Health Stigma Be Reduced in China? Progress Towards Public Health Approaches with Young People | Information sheet for participants | 1 | 25/07/2021 |

## C.3 Participant Consent Form

| **Consent to take part in**<br>**How Can Mental Health Stigma Be Reduced in China? Progress Towards Public Health Approaches with Young People** | Add your initials next to the statement if you agree |
|---|---|
| I confirm that I have read and understand the information sheet/letter dated [insert date] explaining the above research project and I have had the opportunity to ask questions about the project. | |
| I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. | |
| I understand that members of the research team may have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research. | |
| I understand that my responses will be kept strictly confidential. | |
| I understand that the data collected from me may be stored and used in relevant future research publications in an anonymised form. | |
| I understand that relevant sections of the data collected during the study may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. | |
| I understand that I will attend a one-to-one online interview. | |
| I agree that the interview will be recorded. | |
| I agree to take part in the above research project and will inform the lead researcher should my contact details change. | |

| | |
|---|---|
| Name of participant | |
| Participant's signature | |
| Date | |
| Name of lead researcher | |
| Signature | |
| Date* | |

## C.4 Materials of Prototype V2

According to the checklist of TIDieR (Hoffmann et al., 2014), this section sets out materials of Prototype V2. One is a booklet as supplemental material. Another material is for the training of delivery agents.

### C.4.1 Booklet

Since a prototype anti-stigma intervention was developed rather than the actual intervention, this thesis only provides the outline of the booklet and proposes suggestions that are worth considering for the actual intervention development.

#### C.4.1.1 The Outline of Booklet

This booklet consists of six sections. The first five sections introduce five sessions of the prototype anti-stigma interventions respectively, and the last section provides additional information. For the first five sections, the aims, hoped-for outcomes, relevant concepts/terms, vignettes and scenarios, and session procedures are introduced. The additional information includes facts about of youth mental health and emergency contacts for a mental health need as well as information that mental health literacy is known to be effective in reducing mental health stigma.

Alternatively, the school tailors the booklet and adds their encouragement/endorsement of the intervention and how the school wants to see positive change.

#### C.4.1.2 Proposed Suggestions

According to findings from Study 4, two suggestions are worth considering when developing an anti-stigma intervention. The first one is language use. The language should be youth-friendly and avoid professional language or jargons. The other suggestion is the use of specific examples to build a connection to lived experience of mental health stigma.

### C.4.2 Training Material

Although existing literature does not report a detailed description of training processes and content for delivering an evidence-based intervention, training strategies are considered important and meaningful to participant for their engagement, motivation and learning (Frank, Becker-Haimes, & Kendall, 2020). Given that this is a prototype of anti-stigma intervention, the outline of the training material is reported. The training material consists of

four sections. The first section is an introduction of the anti-stigma intervention, including background, rationale, and setting of the intervention. The second section is the specific content and procedures of each session of the anti-stigma intervention. The third section provides external resources pertaining to youth mental health for reference. The last section lists common questions about delivering the anti-stigma intervention.

A critical review of evaluating the effectiveness of training in evidence-based interventions among therapists indicated that active training strategies, such as role-plays, contributed to higher adherence after training (Beidas & Kendall, 2010). Therefore, apart from the above four sections, it is also important to have a training for delivery agents to have role-plays of delivering the intervention and to explore different ways in which young people might react, so that they are more ready for delivering the intervention. This also can support to deal with confrontation or with very strongly held beliefs, as well as what to do if delivery agents hear/see stigmatising attitudes/behaviours in school or during their sessions.