Stigmatisation, media and acne: A mixed methods interdisciplinary approach.

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Abstract

Acne is associated with a range of psychosocial impacts, including stigmatisation. Yet little is understood about the role of sociocultural context in acne-related stigma. Media representations and consumption are likely to play a role in the nature of such impacts. This thesis adopts a novel mixed methods, interdisciplinary approach to examine how media messages relate to stigma surrounding acne.

An ethnographic content analysis (Study 1) of 637 magazine advertisements (1972 – 2008), indicated that acne was framed as a cosmetic concern, with acne opposed to the ideal of perfect skin. Within advertisements, acne was associated with negative characteristics and psychosocial maladjustment. However, several advertisements normalised acne. The frequency and content of acne-related advertisements differed over time and between magazines, suggesting a shift away from acne myths, yet increased pressures to meet unrealistic ideals.

Thematic analysis of semi-structured interviews (Study 2) investigated 15 women's experiences of acne in the context of contemporary media culture. Participants compared themselves to the media-disseminated ideal of perfect skin, describing themselves as looking and feeling different. Participants were frustrated by stigmatising messages and the absence of acne across media. However, participants also identified benefits to digital media, cautiously using online information to inform treatment, and seeking out images and experiences of acne.

Within an online survey (Study 3) of 650 individuals with acne, negative comparisons mediated the relationship between photo-function use and feelings of stigma in Facebook (but not Instagram) users, although negative comparisons continued to predict feelings of stigma. Furthermore, self-compassion was consistently associated with lower levels of negative comparisons and feelings of stigma.

The findings suggest that individuals with acne are exposed to idealised images of skin and stigmatising messages about acne, which influence feelings of stigma. Cognitive processes like comparisons appear to play an important role in feelings of stigma in this population.

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Chapter 1: Introduction

We live in a society saturated with advertising and idealised images of female bodies and skin. Existing research has raised concerns over how women's bodies are portrayed in the media and how these portrayals may influence psychosocial wellbeing. However, the majority of this research has focused on body shapes and size and neglected other salient aspects of appearance such as the skin. Representations of skin may be of particular concern to people living with conditions that affect the appearance of the skin, such as acne vulgaris.

The research presented in this thesis seeks to examine how acne vulgaris is portrayed in the media, and how such media messages and consumption influence the experiences of women with acne vulgaris, situated within sociocultural and historical context, with particular reference to stigmatisation. This is the first of six chapters, and is intended to introduce the area of research, outline the relevance of the research and provide the rationale behind the interdisciplinary and mixed methods approach adopted within this thesis.

What is acne? Epidemiology and aetiology

Acne vulgaris, which will be referred to as "acne" throughout this thesis, is a common dermatological condition, ranked the eighth most prevalent disease globally (Vos et al., 2012). In developed countries it is estimated that over 80% of adolescents and young adults will experience acne, although to different extents (Williams, Dellavalle, & Garner, 2012). While acne is most prevalent during adolescence, acne often continues and can emerge during adulthood (Williams et al., 2012). Consequently, there have been calls for the need to recognise acne as a chronic condition (Thiboutot et al., 2009). Furthermore, while acne is more prevalent in boys than girls during adolescence, adult acne is more common in women than men (Goulden, Stables, & Cunliffe. 1999). It is unclear why acne is more likely to persist into adulthood in women, but suggestions have been made that it may relate to hormonal changes and use of the contraceptive pill (Goulden et al., 1999; Williams & Layton, 2006).

Acne is a dermatological disorder of the pilosebaceous units. Common symptoms comprise of: non-inflammatory lesions, including closed and open comedones (whiteheads and blackheads), and inflammatory lesions (papules, pustules, nodules and cysts). Acne can also lead to post-inflammatory hyperpigmentation (temporary red or dark marks left after an acne lesion has healed), temporary and permanent scarring. A skin condition is usually considered 'visible' when it affects parts of the body that are less likely to be covered with clothing, such as

the face, scalp, neck, hands or arms (Porter & Beuf, 1991). Acne most commonly affects areas of the body with the highest concentration of pilosebaceous units: the face, neck, chest and back (Williams et al., 2012). Acne can therefore be considered as a condition that can affect appearance.

The visible manifestations of acne occur as a result of a series of nonlinear contributory processes involved in the pathogenesis of acne: (1) increased sebaceous gland activity (oil production); (2) infrequent exfoliation of the follicle, leading to clogging of the sebaceous gland (comedones); (3) increased growth of the bacteria Propionibacterium acnes; and (4) inflammation as part of an immune response. Increased oil production may be linked to sensitivity to certain hormone activity (Arora, Yadav, & Saini, 2011). However, the underlying causes of acne remain unclear. There is an increased prevalence, severity, and chronicity of acne when there is a first-degree relative who has had acne, suggesting a genetic component (Ballanger, Baudry, N'Guyen, Khammari, & Dréno, 2006; Thiboutot et al., 2009). Acne may also be symptomatic of another underlying physical health condition. For example, in women, acne alongside irregular periods is a common symptom of polycystic ovary syndrome (PCOS), which may also explain why there is a higher prevalence of adult acne in women. Treatment is primarily focused on disrupting these processes to reduce the number of acne lesions.

Treatment of acne

In the UK the majority of individuals with acne self-manage the condition or are seen in primary care (All Party Parliamentary Group on Skin [APPGS], 2013; Schofield, Grindlay, & Williams, 2009). Self-management may include the use of over-the-counter or beauty products and lifestyle changes, although the clinical effectiveness of these are not generally supported by research (Tan, Vasey, Fung, 2001). Based on UK data from 2013, acne accounts for approximately 934000 General Practitioner (GP) appointments annually (Francis et al., 2017). Furthermore, alongside eczema and psoriasis, acne is one of the most common reasons for seeing a dermatologist (APPGS, 2013; Schofield et al., 2009).

Prompt treatment and early follow up consultations are recommended to ensure effective treatment, which is important to reduce the incidence of scarring and associated psychosocial impacts (Tuchayi et al., 2015). However, according to a UK cohort study, 26.7% of primary care patients presenting with acne for the first time received no medication, and only around 33.9% of acne patients had a follow up appointment in the 12 months after presenting in primary care (Francis et al., 2017). This is of particular concern as improvement following treatment usually takes up to

eight weeks of continuous adherence to medication (National Institute for Health and Care Excellence [NICE], 2018). Furthermore, oral antibiotics were reported to be the most common (24.9%) medication prescribed during the first appointment, but there is a growing awareness of the risk of antibiotic resistance from excessive and incorrect antibiotic use for acne treatment, making follow up appointments particularly important (Francis et al., 2017; Walsh, Efthimiou, & Dréno, 2016). It is unclear why so few patients access medical treatment and attend follow-ups. It is possible that patients are dissatisfied with the medical consultation and/or treatment. For instance, analyses of online forums discussing antibiotic treatments for acne, indicated that forum users were frustrated with the lack of instant results, and lacked clarity on when to access treatment (Santer, Chandler, Lown, Francis, & Muller, 2017). Furthermore, within qualitative interviews some participants described negative instances where their GP or dermatologist trivialised the condition, or demonstrated a lack of understanding around the psychosocial impact of acne (Magin, Adams, Heading, & Pond, 2009a). This may reflect the lack of dermatology training included as part of core medical training or the lack of time available in medical consultations (APPGS, 2013). Additionally, this may reflect stigmatisation surrounding accessing medical treatment for acne.

Psychosocial impact of acne

Skin charities and researchers warn against trivialising skin disease through seeing dermatological concerns as purely cosmetic or non-life threatening, and neglecting the psychosocial impact of acne (e.g. APPGS, 2013; British Skin Foundation [BSF], 2015). While acne is not considered a life threatening disease, research has demonstrated an increased risk of suicidal ideation in patients living with skin conditions, including acne (Picardi, Lega, & Tarolla, 2013). Furthermore, social and psychological impairments in quality of life have been reported to be equivalent to those experienced by individuals with epilepsy, diabetes, back pain, arthritis and asthma (Mallon et al., 1999). In particular, participants with acne comparatively reported the greatest impairments to mental health, and second and third highest impact on social and emotional functioning respectively, but the lowest impacts on pain and physical functioning (Mallon et al., 1999). However, Mallon et al. (1999) compared a sample of dermatology patients with acne to a community sample with other long term health conditions. It is also possible that comparisons made using generic quality of life measures may underestimate the impact of acne on some aspects of quality of life due to disease specific difficulties. While this highlights the need not to trivialise acne it is also important to be cautious when evaluating these findings.

Existing research had identified the potential wide-ranging impact of skin conditions. Acne has been associated, in both men and women, with pain and

discomfort, difficulties with employment, difficulties forming and maintaining relationships, impairments in psychological well-being, such as anxiety, depression, body dysmorphic disorder and appearance concern (APPGS, 2013; BSF, 2015; Yang et al., 2014). Girls and women with acne, as opposed to men with acne, are considered to be at greater risk of negative psychosocial impacts of acne, such as anxiety, major depression, and suicidal ideation and attempts (Skroza et al., 2016; Yang et al., 2014). Uhlenhake, Yentzer and Feldman (2010) retrospectively analysed data from a United States (US) health insurance database, finding that clinical depression and anti-depressant use was over twice as common in acne patients than the general population. Furthermore, analyses also indicate that female, as opposed to male patients were more likely to seek treatment for acne and were twice as likely to have a diagnosis of depression, with adult women deemed to be at greatest risk of depression (Uhlenhake et al., 2010). However, these findings rely on individuals disclosing and receiving a diagnosis of acne and depression, and are likely to underestimate the prevalence of depression and other forms of psychosocial distress. Qualitative research suggests that skin appearance plays a central role in the distress reported by individuals with acne (Magin, Adams, Heading, Pond, & Smith, 2006a). Interestingly, subjective severity, as opposed to severity assessed by a medical practitioner, appears to be a better predictor of impairments in quality of life and mental health problems, indicating that an individual's self-perceptions and potentially their experiences are likely to influence their psychosocial wellbeing.

Effective medical treatment can reduce psychosocial distress and enhance quality of life (Kellett & Gawkrodger, 1999; Marron, Tomas-Aragones, & Boira, 2013). NICE (2018) guidelines indicate that it can be helpful to use measures for quality of life in individuals with acne. However, there is a lack of information beyond medical interventions relating to psychosocial intervention. Adapted psychosocial and educational interventions, and self-help resources show promise for enhancing quality of life and psychosocial wellbeing in individuals with a dermatological condition (Lavda, Webb, & Thompson, 2012; Pickett, Frampton, & Loveman. 2016), although this area also requires further research to establish a clear evidence-base, as well as research to further understand predictors and mechanism of distress that could be modified in therapy.

Mass media, stigma and skin

Mass media has been proposed as a sociocultural factor that influences stigmatisation (Pescosolido, Martin, Lang, & Olafsdottir, 2008). Existing research has explored the relationship between media and various forms of prejudice and stigma, in relation to obesity and mental health (Puhl & Heuer, 2009; Stuart, 2006). Papadopoulos and

Walker (2003) theorise that media representation of the skin on television and in advertising have the potential to influence stigmatisation towards skin conditions through negative portrayals of visible difference, and reinforcing myths about beauty and skin conditions. However, there is a lack of empirical research applying this to salient aspects of appearance and health, like acne. One of the few studies to explore this was a qualitative study in Australia where participants with acne, eczema and psoriasis described a pervasive media ideal of perfect skin (Magin, Adams, Heading, & Pond, 2011a). Failure to meet the ideal of perfect skin was related to higher levels of depression and stigmatisation in female, but not male participants (Magin et al., 2011a). However, Magin et al. (2011a) did not distinguish between different media platforms or explore the mechanisms through which participants' awareness of the ideal translated into feeling unable to meet the ideal of perfect skin. Furthermore, participants were recruited from primary and secondary care, considering the differences in healthcare systems and media policies; it is unclear whether similar findings would be present in a UK population and whether these findings are consistent over time and between media types. The research presented within this thesis therefore aims to provide a more nuanced understanding of the potential role of mass media in the stigmatisation experience of individuals with acne in the UK, considering the changing sociocultural and historical context.

Stigma surrounding acne

Stigma theory can be applied in order to understand the psychosocial burden of living with acne. In Goffman's (1963) seminal work, stigma refers to a characteristic (e.g. health condition/visible difference) that is considered by wider society to denote a 'spoilt' identity, consequently impacting upon social interactions. Scambler and Hopkins (1986) differentiate between: (i) actual incidents of 'enacted stigma', including discrimination and biases against individuals possessing a stigmatised attribute; and (ii) 'felt stigma', whereby individuals internalise stigma, anticipating wider society to judge and/or reject them, which is often associated with feelings of shame. Discussions of stigma within social psychology have tended to focus on understanding why some groups and individuals are stigmatised. For example, Kurzban and Leary (2001) propose that through selection pressure, psychological systems developed enabling us to cooperate with others effectively and avoid poor social partners and disease.

Existing quantitative and qualitative research demonstrates the potential for individuals living with visible skin conditions, including acne, to experience stigmatisation from others (enacted stigma) and to report feelings of stigmatisation (Liasides & Apergi, 2015; Magin et al., 2006a; Roosta, Black, Peng, & Riley, 2010). In regards to felt stigma, Rooster et al. (2010) reported that University students with acne

were 3.18 times more likely to report feeling stigmatised compared to students without acne. Furthermore, individuals with acne report high levels of shame, embarrassment, avoidance of social situations and report internalising assumptions about acne (Murray & Rhodes, 2005). Examples of enacted stigma towards people with acne can be seen in the form of discrimination, bullying, hurtful comments, staring and avoidance (e.g. Magin, Adams, Heading, Pond, & Smith, 2008; Timms, 2013). A large-scale survey from the BSF (2015) identified that over half of all respondents had experienced verbal abuse about their acne from someone they knew, and approximately 40% from a stranger. The survey also revealed incidents of unfair treatment of individuals with acne in both educational and workplace settings (BSF, 2015). These accounts of stigma from others are corroborated by experimental research that indicates an implicit preference for clear skin, as exhibited by University students and staff taking the implicit association test (Grandfield, Thompson, & Turpin, 2005). Another experimental study reported that participants made negative assumptions about teenagers depicted with acne in photographs, as compared to teenagers presented with clear skin (Ritvo, Del Rosso, Stillman, & La Riche, 2011). These assumptions included ideas about the teenagers' health, emotions, intelligence, personality and self-care (Ritvo et al., 2011). Considering the relevance of stigma theory to this thesis, Chapter 2 provides a more in-depth review of the theoretical literature.

The results of a survey conducted with acne patients in Greece revealed that perceived stigma explained the largest variance (26-36%), beyond other significant predictors (e.g. perceived severity, gender) across each domain of quality of life, as assessed by the Acne Quality of Life Questionnaire (Martin et al., 2001): self-perception, social, and emotional (Liasides & Apergi, 2015). These findings correspond with similar studies conducted with populations with other visible skin conditions, such as psoriasis (Łakuta, Marcinkiewicz, Bergler-Czop, & Brzezińska-Wcisło, 2016; Richards, Fortune, Griffiths, & Main, 2001). It therefore appears important to improve our understanding of the predictors and mechanisms involved in acne stigmatisation. However, few studies have explored predictors of stigmatisation beyond demographic variables and have overlooked the potential role of sociocultural context in populations with visible skin conditions. One potential cultural predictor of stigma that has been underexplored is media messages and images. The focus of this thesis will be on the role of media on stigmatisation.

The role of sociocultural and historical context

It is widely acknowledged that sociocultural and historical context has the potential to influence societal norms and appearance ideals and contribute to the stigmatisation of individuals who are unable to meet these ideals (Thompson, Heinberg, Altabe, &

Tantleff-Dunn, 1999; Thompson, 2012). When considering the impact of sociocultural factors, it is important to recognise that these factors are unlikely to be static and have the potential to change over time and between environments. Cross-cultural and historical differences in appearance ideals can be seen in different preferences for body shape and size. For example, cross-cultural studies have previously reported that South Pacific populations exhibit a comparative preference for larger body shapes and weights than Australian populations (Swami, Knight, Tovée, Davies, & Furnham, 2007), though there are also suggestions that over time these ideals are becoming more uniform across the globe (Swami et al., 2007). It has been suggested that these changes are as a result of globalisation and the use of mass media outlets to increase demand for certain beauty products across country and continental boarders (Jones, 2011; Orbach, 2009). Alternatively, other scholars propose that preferences relating to body shape and size are influenced by evolutionary and economic variables, with larger body shapes associated with access to valuable resources in populations where access to resources like food may be sparse (Swami et al., 2007). There are also clear differences in skin-related ideals. For example, in East Asian countries, pale skin is widely recognised as the ideal, associated with greater social status and beauty (Xie & Zhang, 2013), whereas within Caucasian populations in the UK, tanned skin is more commonly recognised as the contemporary ideal (Xie & Zhang, 2013). Concurrently, different products and practices exist that can be used to modify skin tone, such as skin lightening creams and tanning. These differences are also reported to be reflected in the skin tones of models in advertisements (Xie & Zhang, 2013). The above examples provide evidence that ideals, norms and stigmatising marks are not culturally or historically universal.

There are a multitude of theories that seek to understand and explain the role of sociocultural factors on appearance ideals, and the impact of exposure to these ideals, which are of relevance to the study of stigmatisation in individuals with acne. Sociocultural models of body image support the view that beauty ideals are not static, and change over time and between spaces. Thompson et al. (1999) propose a sociocultural model of body image, based on the assumption that we live in a society preoccupied with appearance. According to the sociocultural model, society exerts pressure on societal members, particularly girls and women, to achieve largely unobtainable appearance ideals, which are internalised and result in 'normative discontent' often characterised by appearance dissatisfaction (Thompson et al., 1999). Indeed, population based surveys report alarmingly high levels of body dissatisfaction in girls and women, with the UK reported to have the second lowest level of body confidence (20%) out of the 13 counties surveyed (Dove, 2017). Thompson et al. (1999) also propose a tripartite model, identifying three key influential factors on body

image: peers, parents and media (Thompson et al., 1999). It is proposed that media influences body image via the promotion of societal ideals about beauty, the exertion of sociocultural pressures to look a certain way, and through advice on how to achieve these ideals (Thompson et al., 1999). These messages become harmful when unrealistic ideals are internalised. Failure to meet such standards may result in a range of negative outcome such as body-shame, dissatisfaction and psychopathology (e.g. Bessenoff & Snow, 2006). This is supported by the results of both survey and experimental research (see Grabe, Ward, & Hyde, 2008 for a meta-analysis). Furthermore, Grabe et al. (2008) report that studies conducted after 1990 compared to those before 1990 had larger effect sizes, suggesting that the impact of media messages on body dissatisfaction may have changed. However, it is also possible that this difference was related to study designs.

More recently, self-discrepancy theory (Higgins, 1987) has been applied to body image, in an attempt to understand the diverse range of psychosocial impacts reported as a consequence of not meeting the societal ideal. Vartanian (2012) proposes that distress associated with appearance arises when an individual perceives their actual self (what they think they look like) to fall short of their ideal self (what they want to look like) and/or their "ought" self (what society expects them to look like). Different psychological outcomes are proposed to occur as a consequence of differential discrepancies. For example, individuals with high levels of actual-ideal discrepancies are proposed to experience dejection related emotions such as depression and appearance dissatisfaction, whereas individuals with higher levels of actual-ought discrepancies are proposed to experience agitation-related distress such as anxiety and self-conscious emotions (Vartanian, 2012). Vartanian (2012) also points to increasing actual-ideal discrepancies as a consequence of increases in population weight. It is unclear whether a similar phenomenon may exist in relation to skin considering that the prevalence of adult acne in women has been reported to have increased over recent decades (Goulden et al., 1999; Uhlenhake et al., 2010). However, it is unclear if this reflects a real difference or increased access to treatments potentially driven by greater awareness and/or greater skin dissatisfaction.

Existing research has typically identified and focused on gender differences in the impact of media (Grabe, Hyde, & Lindberg, 2007; Magin et al., 2011a). Numerous explanations have been put forward for such differences. For example, Karazsia, Murnen and Tylka (2016) report that women consistently score higher on measures of thinness-related dissatisfaction and men on muscularity-related dissatisfaction. Therefore, it is possible that media messages communicate different ideals to men and women. It is also possible that this muscular ideal for men is a reflection of the value of

traits such as strength and power. Self-objectification theory originates from feminist theory and argues that society and media more frequently portrays girls' and women's bodies as sexualised objects valued based on their aesthetic attractiveness (Fredrickson & Roberts, 1997). Through exposure to and experiences of objectification females learn to see themselves through others' eyes: as objects valued on their appearance (Fredrickson & Roberts, 1997). Correlational and experimental studies show exposure to media images of women being sexually objectified correlates with measures of self-objectification (Harper & Tiggemann, 2008). Self-objectification is proposed to manifest through body surveillance, with higher levels of body surveillance leading to increased body shame and anxiety negatively impacting mental health (Moradi & Huang, 2008). Support for this model can be seen in studies using specially developed measures of self-objectification and body surveillance, and findings are more consistent for women than men (Moradi & Huang, 2008). Furthermore, a study of media images, over 40 years, identified a concerning trend of girls being increasing portrayed in a sexualized manner (O'Donohue, Gold, & McKay, 1997).

The majority of the above theories are used to explain appearance concern and associated psychosocial impacts in the general population, without much consideration for how sociocultural contexts influence the wellbeing and experiences of individuals living with a condition that impacts on their appearance. There does, however, appear to be a growing interest in understanding appearance concern, stigma, and psychosocial distress in individuals living with a visible difference. Thompson and Kent (2001) draw on several models to explain distress in individuals living with a visible difference, proposing that a discrepancy exists between the actual self (possessing a medical condition), and the socially acceptable self, as determined by sociocultural norms. Therefore, in societies where skin conditions are considered to be abnormal and unattractive, individuals are likely to be exposed to stereotypes and may experience rejection. Repeated experiences of rejection, accompanied by low levels of social support can lead to the development of body shame and anxiety through a vicious cycle of appearance related schemas concerned with being unattractive and anticipating rejection from others. Cognitive processes and behaviour strategies similar to those in models of anxiety, namely avoidance, concealment and attentional biases are proposed to play a role in the maintenance of body shame and distress through reinforcing self-schemas relating to being unattractive and anticipating rejection from others. Evidence within the social anxiety literature supports the maintaining role of such cognitive and behavioural processes (Beck & Clarke, 1997). Within the visible difference literature, avoidance and concealment are reported as common coping styles (Prior & Khadaroo, 2015; Thompson & Kent, 2001). Furthermore, in an uncontrolled intervention study, participants with a skin condition

who accessed a camouflage service reported reduced levels of avoidance, but did not show significant changes in appearance anxiety (Kent, 2002). While there is research to support the view that individuals living with a visible difference experience stigmatisation including bullying and harassment, there is a lack of research examining whether/how media messages may contribute to this stigma.

Across these models and theories, there appears to be a consensus that mass media has the potential to reflect, communicate and influence societal ideals, and that exposure to these ideals has the potential to impact psychosocial wellbeing. Furthermore, there is recognition that there are individual differences in the impact of these messages on psychosocial wellbeing with cognitive processes such as internalisation, comparisons and body surveillance considered to play a role in determining and maintaining distress. Meta-analyses have reported an effect of media exposure and viewing idealised media images on higher levels of body dissatisfaction, body-shame and appearance anxiety in female populations (e.g. Grabe et al., 2008; Want, 2009). Experimental studies have also identified a relationship between exposures to idealised facial images and reduced facial satisfaction, with orthognathic patients displaying significant more dissatisfaction than controls (Newton & Minhas, 2005). A framework summarising key components from existing appearance research and models for understanding and researching appearance-related wellbeing is put forward by the Appearance Research Collaboration (Clarke, Thompson, Jenkinson, Rumsey, & Newell, 2014). This framework conceptualises sociocultural influences as predisposing factors for a range of appearance-related emotional and behavioural outcomes alongside early life experiences, demographic and physical appearance characteristics. This framework also highlights potential roles of processes implicated in such outcomes, including appearance schemas and cognitive process (e.g. social comparisons). Later amendments to the model emphasize the continuous role of contemporary sociocultural experiences and factors (Thompson, 2012). However, the majority of existing empirical literature focuses on the media's portrayal of the 'thin-ideal', and overlooks the potential role of media messages on the psychosocial wellbeing of individuals living with a visible difference. Therefore, the research presented in this thesis will explore the relationship between media messages and use in the wellbeing of the most common skin condition: acne.

Why study adult women with acne?

It is important to recognise that acne can have a substantial impact on both men and women of any age. However, this thesis will focus primarily on the role of media in the stigmatisation experience of women. As highlighted above adult women are more likely to develop adult acne and appear to be at greater risk of negative psychosocial

impacts including stigmatisation. Furthermore, the work presented in this thesis builds on existing literature that has indicated that girls and women in the general population have alarmingly high levels of body image dissatisfaction, with sociocultural messages from the media and wider society emphasising the importance of meeting appearance ideals. This research presented within this thesis also builds on the findings of Magin et al. (2011a) where female, but not male participants described feelings of stigma and depression as a consequence of not meeting the media disseminated ideal of perfect skin.

Furthermore, considering the wealth of research exploring the influence of mass media consumption on internalisation of the thin ideal, weight stigma and appearance concern, there is comparatively little research examining the influence of media beyond weight or shape. This thesis addresses this gap by examining existing theory and research used to explain the influence of media and applying it to skin appearance. Unsurprisingly, appearance appears to play a central role in the psychosocial impact of acne (Magin et al., 2006a). Furthermore, as a common visible dermatological condition, acne is more closely associated with changes to the appearance of the skin rather than pain. Researching acne therefore provides a useful opportunity to distinguish the role of mass media in communicating messages about visible difference and impact of these messages on individuals living with a condition that primarily affects appearance rather than physical disability. Therefore, the findings of this thesis are likely to be more broadly relevant to psychological knowledge surrounding social and health psychology and research into visible difference.

Aims and structure of the thesis

The overarching aim of the work presented in this thesis is to gain a more nuanced understanding of how acne is portrayed in the media and how these portrayals may influence individuals' experiences of living with acne, situated in historical and sociocultural context. The specific aims and objectives for each study are provided below:

Chapter 1: Introduction

1. Introduce the area of research

Chapter 2 (Narrative review): Theoretical conceptualisations of stigma and stigmatisation: Towards an interdisciplinary understanding.

1. To explore the meaning of stigma and the theoretical conceptualisations around stigma.
2. To put forward an argument for an interdisciplinary approach to stigma.

Chapter 3 (Study 1): A qualitative investigation of portrayals of acne in popular British women's magazines' advertisements, 1972-2008.

1. To examine how advertisements aimed at readers of three different women's magazines portray acne.
2. To explore and contextualise how magazines portrayals of acne have changed over time (1972-2008).

Chapter 4 (Study 2): "You can't walk around with Photoshop on your face" Women's experiences of chronic acne in a digital world: A qualitative exploration.

1. To qualitatively examine young women's experiences of living with chronic acne in the context of contemporary media.

Chapter 5 (Study 3): Upwards appearance comparisons as a mediator between social media use and feelings of stigmatisation in individuals with acne: An online survey.

1. To investigate the relationship between several variables implicated in the stigmatisation experiences of individuals with acne: photo-related social media use, appearance-comparisons and self-compassion.
2. To test whether female participants have higher levels of acne-related stigma.

Methodological approach and underlying assumptions

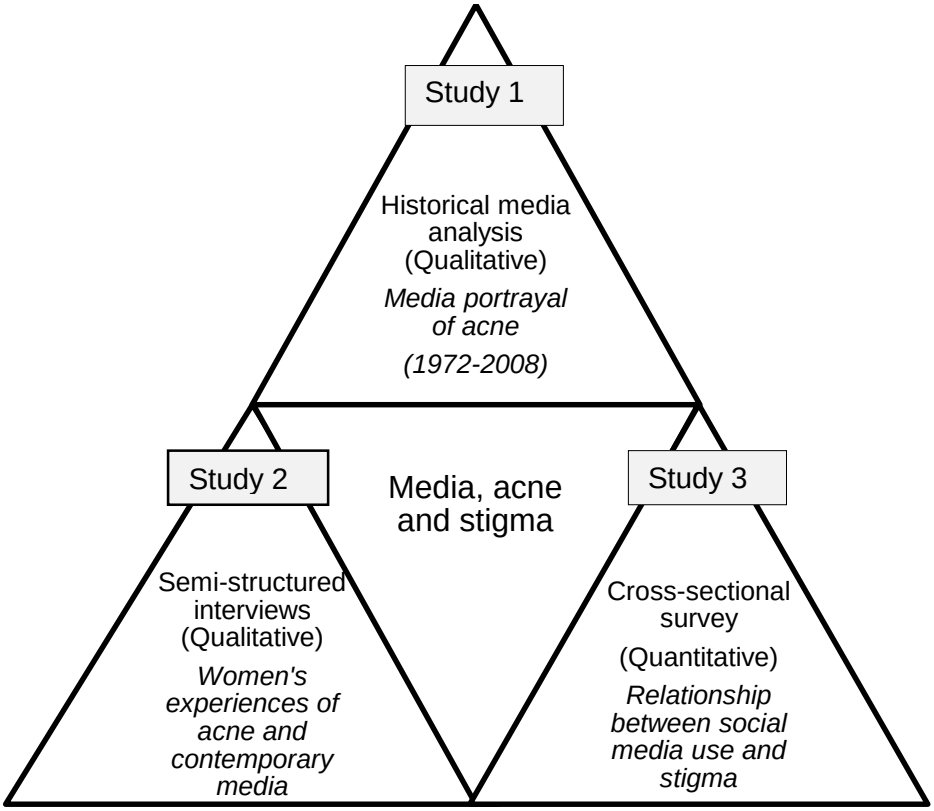
A mixed method (qualitative and quantitative) and interdisciplinary (psychological and historical) approach is employed within this thesis, in order to address the above aims. It is particularly important when conducting mixed methods research to consider the assumptions that underpin the research and methodology (Yardley & Bishop, 2015). These assumptions relate to the philosophy of knowledge and can be divided into: ontology (What is the nature of reality/truth? Are there objective truths waiting to be discovered?), and epistemology (How do we understand and research these truths?). Traditionally, quantitative and qualitative research are considered to sit at polar opposites (Lincoln, Lynham, & Guba, 2011). For example, traditionally, quantitative research assumes a positivist perspective, based on realism where social processes occur independent of our awareness and observations of them and can be measured objectively and numerically as would physical processes (Ayer, 1966). Whereas, traditionally, qualitative researchers assume a social constructivist perspective, whereby multiple realities are constructed at a local level, and within research the participants communicate their interpretation of reality and the researcher interprets their understanding of this communication (Lincoln et al., 2011). Based on these

assumptions, the simultaneous use of both quantitative and qualitative research may appear incompatible. However, more recent thinking considers methods to lie on a continuum (Johnson & Onwuegbuzie, 2004). Indeed, while the aim of most quantitative research is to objectively uncover real phenomena, there is a recognition of the complexities of social phenomenon (critical realism), and it is rarely possible to eliminate all aspects of bias, and good research recognises the potential limitations of the research and can consider the role of contextual influences. Similarly, there are qualitative methods, such as content analysis, that analyse or summarise qualitative data numerically on the basis that a second researcher would be able to replicate the findings.

Within this thesis, the research is approached from a pragmatic perspective. Pragmatism rejects the notion that a researcher must either side with a realist or interpretivist/constructivist perspective (Feilzer, 2010). According to pragmatism, there are multiple types and layers of knowledge, which lie on this continuum, and therefore it is important that researchers have the skills to select a methodology (qualitative and/or quantitative) and specific methods (e.g. thematic analysis/survey) that are appropriate for meeting the aims and assumptions of that particular research question (Johnson & Onwuegbuzie, 2004). Furthermore, the pragmatic use of mixed methods offers the opportunity to make use of the specific benefits of both qualitative and qualitative research while addressing common criticisms of approaching a research question from a purely qualitative and quantitative perspective (Jick, 1979 Johnson & Onwuegbuzie, 2004). For example, quantitative research is particularly useful when testing hypotheses and producing more generalisable findings. Whereas qualitative methodologies can provide in depth insights and are particularly helpful when analysing meaning and individuals experiences (Harper & Thompson, 2012).

Methodological triangulation is consistent with the philosophy of pragmatism, and involves approaching a particular research area from a variety of different angles to create a more robust and rounded understanding of the area (Jick, 1979). Furthermore, the research within this thesis also transcends traditional disciplinary divides by incorporating research methods and approaches from sociology and social history to better understand the sociocultural historical context. Again the emphasis from pragmatism is on the selection of the most appropriate method regardless of the discipline. Within this thesis interdisciplinary and mixed methods are used to produce a more rounded picture of the complex relationship between media and experiences acne, as exemplified by Figure 1.1.

Figure 1.1 Triangulated summary of the methodologies employed within the three studies of this thesis



This thesis contains three studies. As illustrated above (Figure 1.1), the methodology and methods for each study were selected pragmatically to meet the individual aims of that chapter. Studies 1 and 2, were exploratory and conducted using qualitative methodologies to provide in-depth insights into the social messages and experiences relating to acne. These studies were approached from more of an interpretivist perspective.

Chapter 3 (Study 1) was designed to explore historical media portrayals of acne, through analysing acne-related advertisements in three women's magazines over a 40 year period (1972-2008). Ethnographic content analysis (ECA), a qualitative method developed within sociology to select and analyse media documents, therefore provided the framework for Study 1 (Altheide & Schneider, 2013). In line with an interpretivist perspective, ECA is conceptualised as a form of fieldwork where the researcher(s) immerse themselves in a particular culture (Altheide & Schneider, 2013). This immersion is achieved through the study of documents in order to understand how social meaning and voices are communicated in certain cultural contexts, to make up a shared social reality for members of a society. ECA is an appropriate tool for studying how advertisements may influence and reflect public perceptions of acne, as it allows the researcher to reflect on and identify the sociocultural, historical context and

organisational processes with which each document is produced, and examine: how acne is conceptualised (framing e.g. cosmetic or medical concern), themes within the content, and how the language and content in the media items are utilised to feed into the framing of the issue (e.g. emotive language/negative). However, ECA arguably lacks rigour in identifying themes within the documents and therefore principles of thematic analyses aided the coding of inductive and deductive themes. Social history research practices were utilised in Study 1 to ensure rigour when considering the historical and cultural context. The study therefore drew on relevant historiographic literature relating to magazines as a historical source and relating to women's history and analysed advertisements as historical sources from the late twentieth century to the early twenty-first century in Britain.

Chapter four (Study 2) builds on the findings of Study 1, using semi-structured interviews and photo-elicitation, to explore how young women with acne in today's increasingly digitised society interact with and experience contemporary media items, not limited to print magazines. Semi-structured interviews are an appropriate methodology for eliciting detailed accounts of individual's experiences, with thematic analysis an appropriate tool for analysing both media items and personal accounts of health conditions. Thematic analysis is an epistemologically flexible approach to analysis. Considering the emphasis on the sociocultural context surrounding participants' individual experiences, the analysis was approached from more of an interpretivist perspective.

Chapter five (Study 3) builds on the provisional findings of Study 2, whereby participants described comparing their skin to images of skin on social media. An online survey comprising of validated and adapted psychometric measures were completed by 650 individuals with acne, and were used to quantitatively test the hypothesis that skin specific comparisons mediate the relationship between specific types of photo-based social media use and feelings of stigmatisation in individuals with acne, and the hypothesis that self-compassion will moderate both the direct and indirect relationship. In contrast to the previous two studies, Study 3 is more closely aligned with a critical realist approach to knowledge, making the assumption that it is possible and useful to quantitatively measure and analyse the relationships between several variables, but also acknowledging the potential influence of context and biases. While it is important to minimise the influences of biases, a critical realist perspective recognised that there are inherent complexities to measuring human behaviour.

Quality control in mixed methods research

Assessments of reliability and validity are influenced by the ontological and epistemological assumptions underlying each study, as well as the thesis as a whole. Specific information on the quality appraisal tools used within specific studies are discussed in the corresponding chapters. This section more broadly discusses quality control and its relevance to this thesis. As discussed above, methodological triangulation is used within this thesis to enhance the overall reliability (Are the finding across the three studies consistent with one another?), and validity (Do the findings of the three studies build a more complete and sophisticated understanding?). A key measure of reliability in quantitative research (Study 3) is that the methods and results should be replicable and generalisable, when conducted by a different researcher in a similar context. While it is also anticipated that the method of qualitative studies (1 and 2) conducted from an interpretivist perspective could be replicated, it is recognised that the results may differ due to a double hermeneutic process, whereby the researcher actively engages in making sense of the individual experiences and beliefs of others reflected in the data (e.g. interview transcripts and media items). Indeed, from a realist perspective this raises fundamental concerns with the reliability and validity of qualitative research. However, it appears naive to assume that the researchers' own knowledge, experiences and interests will not influence the research area, design or analysis, or that all participants and media documents are objective accounts that are independent of social and cultural influences. In line with this view, quality control and validity remain important issues within qualitative research, but alternative tools and processes are required to assess the quality of qualitative research (Nelson & Thompson, 2015).

An important marker of reliability and validity in qualitative (but also quantitative) research is transparency. Braun and Clarke (2006) highlight the difficulties that arise when the methodology and processes of qualitative analysis are not explicitly stated or explained. These difficulties include other researchers being unable to replicate, compare, and evaluate the findings of the study and clarifying the epistemological influences (Braun & Clarke, 2006). The researcher followed pre-set protocols, documenting any later amendments to ensure methodological validity and kept records of multiple stages of the data collection and analysis to enable an audit to be conducted.

Audits are an appropriate tool for encouraging rigour, transparency and assessing the quality of qualitative research conducted from an interpretivist perspective (Carcary, 2009). Audits require an audit trail to be left by the researcher. This includes notes on decisions, data collection and analysis, as well as clear

information on the procedures followed by the researcher. The auditor uses the audit trail to evaluate whether the procedures have been followed appropriately, whether decisions are justified, and that the results appropriately represent the data. Within this thesis, internal audits for Studies 1 and 2 were carried out by the researcher's primary supervisor, which involved routine meetings during the data collection, analysis and write-up to check documentation and discuss developing themes and subthemes, and three hour-long audit meetings. The audit meetings also involved crosschecking randomly selected data items/extracts against the corresponding coding and themes recorded in the database, and vice-versa crosschecking randomly selected themes and subthemes from the database against the corresponding data items/extracts.

Another measure of quality in qualitative research includes saturation. However, the meaning and operationalisation of this term can be variable (Saunders et al., 2018). Typically, saturation refers to the point when further data collection or analysis is unlikely to provide significant new insights (Saunders et al., 2018). However, in line with the approach taken within this thesis it is important to recognise the interpretivist nature of deciding what is significant. Within this thesis saturation is used to refer to how adequately the themes are represented in the data. In particular, whether there are sufficient examples within the data to support each theme and subtheme.

Reflexivity and motivations for conducting the research.

Researcher reflexivity also plays an important role in supporting high quality qualitative research and transparency (Spencer & Richie, 2012). Naturally, qualitative research from an interpretive phenomenological and hermeneutical approach involves an awareness of the interpretive and selective role of the researcher, in selecting the topic, sources, and data analysis. It was therefore important to reflect on the role of the researcher in a range of decisions, such as selecting the research area and aims, identifying appropriate methods, and analysing and interpreting the data, drawing conclusions that are likely to be influenced in part by the researcher's perceptions and existing knowledge. It was therefore important that the researcher was able to reflect on their role in the research processes, data collection, analysis and interpretation.

The author of this thesis has both personal and professional experience relating to the area of research. The researcher has experienced symptoms of acne since childhood, and also trained as a Psychological Wellbeing Practitioner within a clinical health psychology and primary care mental health service, which included working with several dermatology patients with comorbid mental health conditions and delivering training to dermatology nurses. These experiences raised questions about the relative

lack of awareness and research regarding the psychosocial impact of skin conditions and were a key driving factor behind the choice of research area. Furthermore, due to the high prevalence of skin conditions it has been common for others to comment or add their own thoughts and ideas about the research. As indicated above there are numerous theories that could be applied to understand the psychosocial impact of acne, the research presented within this thesis is informed primarily by theories of stigma. The theoretical underpinning of this thesis is first introduced in this chapter, but is explicitly examined in Chapter 2.

Reflexivity can be encouraged through a variety of methods, including but not confined to reflexive diaries, note-keeping, interviews, supervision and open consideration of theoretical and personal influences (Spencer & Richie, 2012; Watt, 2007). In order to encourage researcher reflexivity, the researcher has engaged with supervision, kept a record of reflexive notes as part of the data collection and analysis of Studies 1 and 2 which were included in the audit described above.

Conclusion

To conclude, existing research has identified that adults with a visible skin condition like acne may experience a range of psychosocial impacts relating to body image, mental health and stigmatisation. The existing theoretical literature discusses the role of sociocultural factors such as media culture on stigmatisation, yet there appears to be a lack of research empirically examining how media messages portray visible skin conditions and how this may interact with individuals' experiences. This will be addressed in the following chapters using a mixed-method and interdisciplinary approach.

Chapter 2: Theoretical conceptualisations of stigma and stigmatisation: Towards an interdisciplinary understanding

The previous chapter identified the relevance of applying stigma theory to understanding the psychosocial impact and experience of individuals living with a visible skin condition like acne. Before examining the relationship between stigma, media and acne, it is helpful to understand the concept and complexities of stigma. Within the previous chapter stigma was defined as a mark that confers a devalued identity (Goffman, 1963). This chapter is intended to: (i) further explore what is meant by stigma and how this has developed over time; (ii) provide a summary of key theories of stigmatisation drawn from a range of disciplines, linking theory to research (particularly research examining skin-related stigma); and (iii) outline potential avenues for examining stigma in relation to media and acne.

Etymology of the term stigma

The Oxford English Dictionary [OED] database provides a useful resource for examining the etymology of words within the English language. The OED returned 26 related words when a search using "stigma*" was entered. The most apparent commonality between these words is that they appear to denote a mark, dot, or point.

The origins of the term stigma can be traced back to the Ancient Greeks, who used the term στίγμα (stigma) to describe the visible 'marks' that had been branded or cut into the skin using a sharp pointed tool called a στίζειν (stigy; Stigma, n.d.a). These visible marks were used to signify that the person's possessed a discredited identity, often as either a slave or thief (Goffman, 1963). Many scholars cite the Greek origin of the term stigma, but none have sufficiently considered the changes in the meaning that the term has acquired over time.

Early definitions and references to stigma appear to be dominated by literal meanings of the term, remaining closely related to the Greek use of the word and limited to the body's physical appearance, and the use of visible cues to a person's identity. This is particularly clear in references to the term before and during the sixteenth and seventeenth centuries, with references to branding and cutting (stigmatising) the body as a punishment. For example, the political and religious writer William Prynee was sentenced to a series of punishments, including "to be stigmatized in the Cheeks with two letters (S & L) for a Seditious Libiller." (Bastwick, 1638, p. 15). The social historian Howard Solomon (1986) also highlights how the original definition of stigma was limited to the interpretation of the visible signs on the body, and a group

or individual's appearance as indicative of a group or individual's identity and moral status, during medieval Europe. During the late sixteenth and early seventeenth century, the term 'stigmatic' (n.d.b) appears to enter use, and was used in reference to undesirable appearance, used synonymously with 'ugliness', 'disfigurement' and 'blemishes', adding support to early ideas of the body and appearance as a readable source of an individual's identity and status.

However, not all definitions of stigma indicate an undesirable identity. For example, in Christianity, the terms stigma (n.d.a) and stigmata have been used across centuries to describe 'sacred' marks on the bodies of saints and worshipers, resembling the marks of crucifixion left on the body of Christ. In writing about the artwork of Giotto di Bondone, the art historian William Aglionby (1686) described the painting of Saint Francis of Assisi receiving the divine stigmata, as expressing devotion and affection. These references to stigmata appear to be associated with extreme goodness and divinity and contrast with the negative and undesirable associations with stigma. However, further discussions suggest that this distinction is not so clear cut. The theologian Ruard Ganzevoort (2008) explains that saints were marginalised members of society, but through interpreting the stigmata as a holy gift, are likely to have gained a sense of meaning to the suffering, pain, and rejection they experienced.

The religious definition of the term stigmata remains in use throughout the nineteenth century. However, there appears to be a shift away from a predominantly literal and corporeal meaning of the word stigma during the nineteenth century. The term stigma (nd.a) gains a broader use, describing physical, religious (stigmata) and social marks, with an increasing understanding of stigma as something that can be caused by branding a person with a negative term or through possessing the visible signs of a disease. For example, Rev R Cruttwell (1836, p. vi-vii) refers to "expressions that would seem to affix a most unjust stigma" in discussions of double standards of wealth inequality between landowners and "money-jobbers, Jews and tax-eaters". These shifts and expansions in meanings reflect a move towards viewing stigma as a social phenomenon, whereby stigmatising marks and characteristics convey a negative message about an individual's character or health.

Why did the term stigma become used more frequently as a metaphorical mark of difference and devaluation in nineteenth century Europe? In order to answer this question we need to consider the role played by wider societal changes that occurred during the nineteenth century. The nineteenth century across Europe, the United States and several other parts of the globe saw marked social transformation due to urbanisation, industrialisation and new movements in imperialism. As a result, broader debate began to reflect changing attitudes and policy relating to class, race, gender-

norms, science and healthcare. For example, in Britain, the 1834 Poor Law sought to reduce the financial burden of the 'poor' by enforcing those dependent on state relief to endure the harsh conditions of the workhouses. The compulsory workhouse can be seen as a method of systematically stigmatising poor individuals through punishment and segregation. The policy was widely criticised by humanitarians and newspapers such as '*The Times*' (Harvie & Matthew, 2000). There were also contrasting opinions between those who criticised and supported the Poor Law, facilitating a conversation about social issues. The historian Gertrude Himmelfarb (1984, p. 525) examined how poverty was transforming into a social issue during the beginning of the industrial age and refers to the Poor Law as having "the perverse effect of stigmatizing the entire body of the poor". The 1834 Poor Law provides an example of how a powerful in-group can influence policy designed to further segregate and discriminate against those stigmatised through poverty, including the elderly, 'pauper lunatics' and 'illegitimate children' (Edsall, 1971).

Furthermore, developments in physiological, biological and social theories may have contributed to increasing ideas relating to visible and non-visible differences. The 1870s saw the emergence of Social Darwinism: the application of Darwin's (1859) principles of natural selection and evolution to physical and intellectual attributes that provide a selective advantage to enable species, to thrive and survive. These principles have historically been used to justify social hierarchies, stigmatisation and discrimination. Francis Galton (1822-1911), an influential figure in Social Darwinian theory, coined the term 'eugenic' in 1883, likening eugenics to the breeding of superior stock with favourable hereditary attributes (Galton, 2004). Moreover, Galton (2004) expressed concerns over the potential for racial degradation caused by the high birth rates of the 'inferior' urban working classes when compared to higher status middle classes. However, Galton (2004) also warns against overlooking additional environmental influences, coining the phrase 'Nature and Nurture'. It is possible that the development of ideas about the heritability of 'superior' or 'inferior' characteristics contributed to and further justified the stigmatisation towards lower status groups. Eugenics is commonly associated with the politics of racial hierarchies and practices of Nazi Germany including segregation, sterilisation, and genocide (Weindling, 1993). However, it is problematic to assume that sociobiological hierarchies and the influence of eugenics are limited to atrocities in Nazi Germany (Stepan, 1991; Weindling, 1993). The historian Nancy Stepan (1991) highlights the influence of eugenics in the worldwide politics across the nineteenth and twentieth centuries, with the first eugenics congress held in London in 1912, and eugenics-based legislation in twentieth century US forcibly sterilising those deemed deviants. These historical examples also highlight

the importance of not using evolutionary perspectives to justify stigma towards specific groups and individuals.

The shift in meanings of stigma in the nineteenth century may also relate or be reflected by changing ideas in philosophy, science and the emergence of new scientific fields. For example, new scientific fields that focused on questions about group and individual differences and patterns in society came to the fore: psychology and sociology. Psychology sought to use scientific methodology, inspired by developments in physiology, to answer philosophical questions (Thorne & Henley, 2005). Sociology also sought to utilise methods from science, but with an emphasis on analysing patterns in society. Emile Durkheim (1858-1917) appears to provide the first exploration of stigma as a social phenomenon in 'The Rules of Sociological Method' first published in 1895. Durkheim (1982) described criminality and deviance as violations of socially constructed norms, emphasising the power and authority of societies to brand someone as deviant and dictate how they are treated.

Stigma Theory

Early interest in stigma was dominated by sociology. The term stigma entered popular use within the social sciences in the mid-to-late twentieth century. Erving Goffman (1963) who developed his theories using ethnographic observations, is one of the most influential figures in the study of stigma within social science. A search on Google Scholar indicates that the sociologist's book: *'Stigma: Notes on the management of spoiled identity'* has been cited approximately 32,767 times. Goffman (1963) refers to stigma as a deeply discrediting mark or attribute. These marks are said to create a discrepancy between the actual and social self, whereby the social self is deemed unacceptable, producing tension in interactions between those with a stigmatised attribute (i.e. the stigmatised) and those without (i.e. 'normals') (Goffman, 1963).

Goffman (1963) proposes three distinct categories of stigma: (i) 'abominations of the body', which include both visible differences and disease (e.g. acne); (ii) 'character blemishes' (e.g. mental illness); and (iii) 'tribal stigma', which incorporates stigmas relating to ethnicity, religion and gender. It is worth noting that the language used to define groups of stigma appears evocative. Blemish is a term commonly associated with skin conditions and marks on the skin that 'spoils' appearance, and abominations evokes ideas of disgust and hatred. Another common distinction relates to the concealability of a stigmatising mark (Jones et al., 1984; Link & Phelan, 2001). Goffman (1963) differentiates between the 'discredited', those with easily identifiable stigmas (e.g. visible difference), and the 'discreditable', those with stigmas that can be concealed (e.g. mental health conditions), and while the 'discredited' are required to

manage the reactions of others, the 'discreditable' have the burden of concealing their stigmatised identity to pass as 'normal', fearing the consequences of their stigma being revealed. However, this distinction may not be so clear cut. For example, acne is generally considered to be a visible condition (i.e. discredited) due to the location and appearance of acne lesions and scarring. However, existing research suggests that individuals with acne (particularly women) invest time, effort and money in concealing the visible signs of acne from others, although this may not always be possible (Murray & Rhodes, 2005; Tanghetti et al., 2014), suggesting that there is most likely a continuum of discreditability and visibility. Furthermore, the course of the condition is not constant, with participant accounts suggesting that the unpredictable nature of skin 'flare-ups' can contribute to the burden of the condition (Murray & Rhodes, 2005). However, Goffman's conceptualisation of stigma continues to provide a useful theoretical basis for understanding stigma and has provided a useful reference point in exploring stigma and his definition and conceptualisations have been built on by scholars from a range of fields.

A common critique of early definitions of stigma relates to the emphasis on what is 'wrong' with the stigmatised individual rather than those who stigmatise others (Sayce, 1998). Consequently, developments in labelling theory (Becker, 1966) whereby terms, often carrying negative connotations are used to classify individuals and influence self-identity have informed later theories and conceptualisations of stigma. Society is proposed to create rules about what differences constitutes deviance, using labels to identify them as outsiders (Becker, 1966), and medical sociologists have contributed towards discussions about whether diagnostic labels are a form of social control and cause of social disability, or source of validity and basis for legal protection (Brown, 1995). Link and Phelan (2001) propose that the term 'label' is more appropriate than 'mark' or 'attribute' as it describes the assignments of those with salient differences to overgeneralised categories and the onus is taken away from the stigmatised individual or group and put onto the 'stigmatiser'. The identification and labelling of a particular difference as deviant appears an important aspect of stigma.

Dehumanisation has also been cited by a number of scholars as a fundamental element of stigma. Crocker, Major and Steele (1998) proposes that stigma refers to the point when an individual or group is perceived as spoiled and thus their spoiled social identity leads others to dehumanise them (cited in: McKay, 2013). Experimental studies using human and animal stimuli have indicated that individuals hold stronger associations between human features/characteristics and members of their own in-group, rather than an out-group, suggesting that out-group members are seen as possessing less human characteristics and being more animalistic (Capozza, Boccato,

Andrighetto, & Falvo, 2009; Viki et al., 2006). It is possible that individuals identified as part of a marginalised out-group are not only ascribed a lower social status (Link & Phelan, 2001), but also have a lower human status. However, many of these studies examine intergroup processes more generally rather than in relation to stigmatisation, and dehumanisation alone appears insufficient to instigate stigma.

Insights relating to group processes within social psychology have contributed to a greater understanding of stigma. Social, affective, cognitive and emotional processes, including stereotyping, prejudice, and discrimination are widely recognised components associated with stigma (Heatherton, Kleck, Hebl, & Hull, 2000; Jones et al., 1984; Link & Phelan, 2001). Negative stereotypes can be observed in relation to a range of groups, such as assumptions that individuals with acne are unclean and unattractive (Tan et al., 2001), and individuals with a mental health condition are unpredictable and dangerous (Stuart, 2006). Stereotypes play a role in the depersonalisation of individuals with a particular stigmatised attribute, through a process where a label is used to discredit and define the stigmatised person's social identity, taking away their individuality (Jones et al., 1984). It therefore seems that stigma refers to a discredited label, visible or not, that infers an undesirable identity, impacts social interactions and can lead to that individual being dehumanised.

Through their research on epilepsy, Scambler and Hopkins (1986) differentiate between two forms of stigma: 'felt' and 'enacted'. Felt (also referred to as internalised, self and feelings of stigma) refers to the stigma that arises from perceiving oneself to deviate from societal norms that have been learnt and internalised, leading to feelings of shame and/or the fear of others' negative reactions. In contrast, enacted stigma refers to the actual discrimination of the stigmatised by others. Scambler (2004) critiques the previous work and conceptualisation of 'felt' and 'enacted' stigma, referring to the focus of stigma theory and research on one to one interactions (Scambler, 2004). Scambler (2004) proposes that felt and enacted stigmas need to be understood as intertwined with notions of change in vessels of power, such as the economy, class divisions and politics and their changes over time.

Power and context

Definitions of stigma have long considered the importance of sociocultural and historical context. Context is proposed to play an important role in determining what labels are considered stigmatising, and the stereotypes associated with a particular label, thus one attribute may be stigmatised at one point in time and place and not in another (Jones et al., 1984). Crocker et al. (1998) highlighted the context driven nature of stigma by proposing that attributes associated with a particular social identity

become stigmatising when they are devalued in a specific context. The historian Howard Solomon (1986) argues that stigma researchers need to consider longer term structural factors, such as economic and social pressures and how these provide the conditions of an environment to foster certain forms of bias, prejudices and stigmatisation. Indeed, consensus around what constitutes normal and deviant behaviour rarely remain static within history and instead change and adjust with social and cultural change (Douglas, 1990). However, the complex historical factors involved in context-driven changes in stigma are commonly overlooked within psychological and sociological research.

Historical context – Leprosy as an example

Powerful examples of stigma can be observed within history, and provide a rich resource for studying the complex historical factors involved in context-driven changes to stigmas. For example, leprosy, a chronic disease, which over time causes irreversible damage to parts of body, particularly the skin and nerves, has a long history of being perceived as a stigmatising disease, with individuals being cast out of societies due to fears over contagion (World Health Organization [WHO], 2017). The WHO (2017) reports that despite increased scientific knowledge and freely available treatment, leprosy remains a stigmatised disease, and that this stigma acts a barrier to early identification and treatment. Individuals inflicted with the disease are frequently referred to as 'lepers', demonstrating the loss of individuality/humanity and the labelling of the individual in reference to their devalued group identity. Gussow and Tracy (1970) suggested that the stigma of leprosy remains due to continued associations of the disease with historical false assumptions about the disease, highlighting the potential for historical beliefs and associations to have a pervasive impact on stigma.

The longstanding nature of stigma towards individuals with leprosy could point to stigma as static and constant. Skinsnes and Elvove (1970) argued that the impact of leprosy on appearance and disability (i.e. a discredited identity), result in a universal social reaction, characterised by stigma, rejection and ostracism. However, Vongsathorn (2013) argues against the assumptions that leprosy is and has been universally stigmatised. The case against universality is exemplified through a historical study of leprosy in several Ugandan tribes during the twentieth century. Vongsathorn (2013) highlights the shift from early acceptance of those with leprosy, in 1920s, towards a fear of those labelled 'lepers', as a result of British missionaries promoting fear of contagion and encouraging communities to segregate lepers. Furthermore, in the early nineteenth century, there were differences between Britain and Uganda in the factors driving the stigma of leprosy (Vongsathorn, 2013). In Britain, altered appearance, relating to the lesions and appearance, and media messages

about leprosy as a contagion drove the stigmatisation of leprosy. Whereas in the Bikiga tribe of Uganda, there was a greater emphasis on economic productivity, suggesting 'lepers' were only stigmatised when, through disability, they were unable to work effectively. However, over time missionaries' teaching resulted in increased stigmatisation, through beliefs and fear relating to the contagion associated with the lesions and visible difference.

Fears over the spread of leprosy appear to have been at their highest in the late nineteenth and early twentieth century following the 'outbreak' of leprosy in Hawaii (Gussow & Tracy, 1970). The compulsory segregation of lepers was passed as a legal motion in 1865, effectively criminalising 'carriers' of the disease (Kern, 2010). 'Lepers' within Hawaii were ostracised and forced to reside in a leper colony based on the island of Molokai, segregated from their communities. Western fear of the disease increased again following news coverage of the death of Father Damien, a Dutch missionary, who had contracted leprosy while based at a Hawaiian leper colony. Consequently, further legislation emerged in other areas of the colonised world, segregating and institutionally stigmatising those stigmatised with leprosy.

Western ideologies surrounding leprosy have arguably contributed towards the stigmatisation of the condition in the colonial world (Worboys, 2000). According to Worboys (2000), a historian of science and medicine, changing views of leprosy were largely influenced by biblical teachings of contagion and disfigurement, as well as medical advances (Worboys, 2000). Furthermore, leprosy was largely viewed as a disease of the dirty and inferior, therefore stigmatising both the disease and the indigenous people. European powers intervened in colonial health for a variety of reasons, including paternalistic ideologies, religious motivations and fears of the disease spreading to Europeans. The British Empire Leprosy Relief Association [BELRA] was set up in 1923, as a voluntary organisation, with the hope of improving leprosy care. Worboys (2000) explores how BELRA were concerned that the stigma associated with disease was causing lepers to hide their disease in order to avoid 'prison-like' leper colonies. In an attempt to reduce stigma and increase the willingness of lepers to voluntarily segregate themselves, BELRA attempted to introduce improved leper communities, providing western education and healthcare (Worboys, 2000). However, BELRA's policies appear far from humanitarian, and demonstrate continued stigmatisation, with healthy children being segregated from their parents and clear continued ideologies around race as a precursor for disease.

Overall, it appears that leprosy is a disease that has been and continued to be associated with fear and loss of status. However, it is clear that stigmatising responses are not universal and that social reactions to the disease are linked to beliefs systems,

policy, treatment availability, and the functional impact of the disease on the 'leper', and the local community. The above example highlights how western ideologies relating to appearance can influence stigmatisation more generally, leading to cross-cultural differences in stigma. Furthermore, context and power also appears to influence how individuals possessing a stigmatised identity are treated by society in large. This may be at an interpersonal level (e.g. staring, intrusive comments) or at an organisational level (reduced funding, policies).

Media as a vehicle of power

In the above example of leprosy, historical research has highlighted the role of societies with power, influencing the stigma surrounding a chronic condition. This is particularly poignant when considering legislation criminalising and segregating individuals with leprosy. This demonstrates how political power can be used to dictate what is considered deviant and dangerous, and determine how individuals with a particular label are treated through structural discrimination. Power, whether social, economic or political, is considered an essential component for stigma (Link & Phelan, 2001; Scambler, 2016). For example, in a courtroom a defendant may hold views that judges are heartless and should not be treated with respect. This, however, does not mean judges are stigmatised, primarily because it is the judge who holds greater power.

A potential vehicle of power, identified in the historical literature, relates to the role of mass media. Mass media messages have the potential to disseminate information about and representations of stigmatised groups to the wider public. There are a number of ways that mass media may contribute towards stigma. For example, through underrepresentation, depicting societal norms and ideals, labelling differences, reinforcing stereotypes, influencing public perceptions both negatively and positively, and contributing to internalised stigma (Klin & Lemish, 2008; Magin et al., 2011a; Puhl & Heuer, 2009). Media content may also act as a situational cue, reminding individuals of their devalued status and reinforcing stereotypes (Major & O'Brien, 2005). Much of this research has been focused on mental health and weight related stigma, rather than other stigmatised conditions like skin conditions.

Based on research around mental health stigma, Pescosolido et al. (2008) advocated the formation of a complex framework to better understand stigmatisation, which considers media as a macro-level factor that can influence stigma alongside micro and meso-level factors. Micro level factors relate to the influence of individual specific factors that influence one to one interactions: for example, specific features of the labelled difference, such as perceived controllability and visibility. Experimental

studies using the implicit association test have demonstrated a role for implicit biases at an individual level (see Jost et al., 2009 for a review), including an implicit preference for clear skin as opposed to skin with visible signs of disease (Grandfield et al., 2005). Experience and interactions are meso-level factors. Research indicates that both real and imagined contact with outgroups can reduce prejudice between groups (Miles & Crisp, 2014; Pettigrew & Tropp, 2006). There are, however, inconsistencies within the literature, with some suggesting that interaction does not always yield positive results (Couture & Penn, 2003; Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004). At the macro level, the influence of media images and national context have a broad and widespread influence on social norms and views and assumptions about those who carry stigmatising labels. For example, the impact of media has been frequently studied in relation to body size, the internalisation of the thin-ideal and psychopathology (see Grabe et al., 2008 for a review and meta-analysis; Groesz, Levine, & Murnen, 2002). According to the model, exposure to real life and media portrayals of stigmas, like mental illness, interact to create emotional, cognitive and physiological reactions of stigmas, which influence people's responses to those with such stigmas (Pescosolido et al., 2008).

Theoretical underpinning of why stigma occurs

While particular characteristics may be stigmatised in one context and not another, the phenomenon of stigma appears to arise across cultures. This raises fundamental questions about why stigma occurs. This question has been of particular interest to social psychologists. A range of theories, factors and explanatory functions have been put forward in attempt to explain and better understand the phenomenon of stigmatisation. Explanations relate to in-group cohesion, justification-based responses, fear and threat-based responses. Many of these explanations revolve around the idea that there are benefits to stigmatising and rejecting others.

One suggestion is that through stigmatising others we bolster our individual and group self-esteem. Downward social comparison theory has been used to suggest that we compare ourselves with those that we consider inferior to ourselves in order to enhance our self-esteem (Crocker et al., 1998; Wills, 1981). This is proposed to be true for both non-stigmatised individuals and individuals with a stigmatised label. For example, in a study with dermatology patients, Rzepa, Jakubowicz, Witmanowski, and Żaba (2013) reported that patients with acne considered syphilis to be the most shameful condition, whereas patients with syphilis considered HIV to be more shameful. This may be explained using Social Identity Theory, which proposes that membership of social groups provide an important sense of belonging, self-esteem and identity; group members therefore strive to bolster the social status and ego of the in-

group, causing groups to differentiate between 'us' (the in-group) and them (the out-group) (Tajfel & Turner, 1979). In order to build the esteem of the group, the in-group creates prejudiced beliefs and discriminates against the out-group (Tajfel & Turner, 1979). However, both these models fall somewhat short in explaining why some differences are stigmatised, while others are not.

Justification-based explanations have also been examined, in an attempt to understand stigma, and relates to a desire to believe that we live in a fair and stable world. Crandall (2000) divides these justification based explanations into attributional and hierarchical justifications. Attributions are causal judgements that we make to explain our own and others' behaviour and are commonly divided into internal (causes related to the person) and external (circumstantial causes) locus of causality (Heider, 1958). Attributional justifications relate to the use of external attributions to place the blame and onus of the stigmatising mark on the stigmatised individual, providing us with a sense that we will not be subject to the same fate (Crandall, 2000). For instance, within qualitative interviews patients with lung cancer cited feeling blamed and stigmatised due to the link between smoking and lung cancer (Chapple & McPherson, 2004). In terms of hierarchical justification, it is assumed that people deserve their own position in life (Crandall, 2000). For example, unemployed individuals may be labelled lazy. However, justification-based explanations appear to better explain stigma for stigma where there is a perceived accountability for the condition. Although, evolutionary genetics have also been misused to generate stereotypes and justify discrimination, for example, linking IQ to race (Rushton, 1995).

Fear based responses to perceived threats, as a function of self and group preservation, have also been discussed in depth (Douglas, 1990; Kurzban & Leary, 2001; Oaten, Stevenson, & Case, 2011). Threats can arise from a range of stimuli and situations, such as threats to resources, threats to survival and threats to beliefs. Threats can arise both between and within groups. Effective group living relies on co-operation and collective contribution. Therefore, if someone is deemed to either not contribute enough or take too much, it is plausible that they would be seen as hindering group cooperation and ostracised/punished. The anthropologist Mary Douglas (1990) explores danger, risk and moral communities as a driver behind law, order and stigmatisation. Douglas (1990) discusses how the contemporary understanding of risks as danger/threats is used politically as a way of establishing communities with shared values, norms and fears. Douglas (1990) compares this to the way that sin, taboo and fear of retribution was utilised by the church in pre-industrial Britain, to form moral communities and to condemn those that sinned, through breaking social, religious or legal rules. Norms and taboos/sins move with the actual threat of real

dangers, for example famine, infant mortality and threats of contagious disease, but it is the way that these dangers are interpreted and presented within moral communities. Dangers provide reason for law and order, if sinful behaviour is thought to lead to death or disease then policies segregating those with contagious diseases are seen to protect the community, such as with the plague. In individualistic and capitalistic societies where contagious disease is less of a danger, the laws and norms are going to be justified to protect the individuals from other dangers, such as threat to economic stability. Norms reflects how we view the world, and deviance may threaten these views. Furthermore, Douglas (1990) proposes that in hierarchical societies differences in the statuses and the devaluation of groups are overt, whereas in individualistic societies, these difference are not acknowledged in the same way. This does not mean individualist cultures are less likely to stigmatise, as they are more likely to ignore the powerless. This fits with the suggestion that there has been a shift away from overt discrimination to implicit biases, as we like to assume we are acting in a non-discriminatory manner due to societal values of egalitarianism, but it may be that we are not recognising our prejudices (Crisp & Turner, 2014). For example, implicit biases may exist even when participants do not report explicit bias (Grandfield et al., 2005).

Disease also poses a threat to group survival. Stigmatisation and avoidance of those with visible signs of disease could reflect an inbuilt disease-avoidance system, which activates cognitions about disease and evokes disgust (Oaten et al., 2011). Crandall and Moriarty (1995) reported that desired social distance from people with 66 different illnesses were predicted by severity, contagion, sexual transmission and whether the illness was attributional to the person. Diseases deemed to be contagious and severe are likely to produce fear and a perceived threat to health, and it is unsurprising that such illnesses should lead to increases in social distance. This is probably best exemplified by the leper colonies built to segregate lepers from regular society, as described above. In an experimental study, participants given a hypothetical situation reported that they wished to maintain greater distance and reduced contact between themselves and a person with a non-contagious skin condition (e.g. acne/eczema) affecting the appearance of the face (Kouznetsova, Stevenson, Oaten, & Case, 2012). Kouznetsova et al. (2012) proposed that this general avoidance of close social contact with individuals with a non-contagious visible skin condition reflected a false alarm affect which had evolved to protect us from potential threats from disease.

Evolutionary psychology models have been put forward to explain fear-based responses to stigma and social exclusion. According to evolutionary psychology, natural selection occurs when certain genes, biological and psychological

characteristics provide a survival advantage. Those that survive are able to reproduce and pass on these beneficial characteristics. Kurzban and Leary (2001) argue that as humans we work most effectively as groups and therefore are more likely to survive through effective relationships with others. However, we also need to be able to detect threats to the functioning and survival of the group. Kurzban and Leary (2001) therefore suggest that through natural selection our brains have evolved 'distinct psychological systems' that enable us to interact and cooperate with others effectively and to avoid poor social exchange partners, in order to evade threats of disease. Evolutionary models have also suggested that certain attributes are universally preferred, such as averageness, facial symmetry, and sexual dimorphism (Rhodes, 2006). These indicators for beauty are proposed to reflect better mate selection, with beauty associated with health (Rhodes, 2006). This therefore suggests that there may be an aversion to individuals who deviate substantially from the norm, such as individuals with a visible difference. However, evidence to support a real relationship between health and beauty is insubstantial (Rhodes, 2006). Furthermore, societal standards of beauty can contravene what is physically possible for most individuals, and historical (e.g. foot-binding) and contemporary (e.g. cosmetic surgery) beauty practices can carry serious health risks (Orbach, 2009).

Overall, it appears that each theory alone is insufficient to explain why stigmatisation occurs and it is likely that stigma is influenced by multiple factors and mechanisms. Scholars have discussed what makes a certain characteristic stigmatising. Jones et al. (1984) distinguished six factors relating to how stigmatising a devalued mark or attribute is: (1) visibility, whether the stigma can be concealed, (2) the "course of the mark", whether it is stable or likely to change, (3) 'disruptiveness', the degree that it impacts interactions with others, (4) aesthetics of the mark; is it deemed ugly? (5) origin, such as, through accident or intention, and (6) the perceived fear/danger. Feldman and Crandall (2007), conducted a study using vignettes of mental illness case histories. The authors reported that only three dimensions significantly predicted desires for greater social distance from the person described: These were, greater perceived threat, increased accountability for the condition and rarer conditions (Feldman & Crandall, 2007). However, Crocker et al. (1998) argued that due to readily accessible schemas, visibility and perceived controllability are most likely to predict increased stigmatisation.

Impact of stigma

It is also important to consider the wide-ranging impact that stigma can have on those who are stigmatised. The burden of stigma can be more disabling than the condition itself (Sayce, 1998). A large volume of research on stigma examines what it is like to

live with a stigmatised identity and typically focuses on the negative effects of stigma. Link and Phelan (2001) argue that discrimination, loss of status and negative impact are essential components of stigma. Large volumes of research have identified the negative effects of having a devalued social identity and being stigmatised, on a wide range of life opportunities and social and psychological wellbeing. For example, employment (Stuart, 2004), healthcare (Hatzenbuehler, Phelan, & Link, 2013), social exclusion (de Boer, Mula, & Sander, 2008), self-esteem (Stokes & Peterson, 1998), and depression (Mickelson, 2001). However, psychological examinations of stigma highlight the individual variability in the impact of stigma with qualitative and quantitative studies reporting that not all stigmatised individuals experience lower self-esteem compared to non-stigmatised individuals, and individuals with visible differences also describe positive adjustment (Crocker & Major, 1989), thus suggesting that negative effects of stigma are not necessarily universal, and can be experienced differently by different people.

Goffman's (1963) original conceptualisation of stigma emphasised the impact of possessing a stigmatised mark on 'embarrassing' and 'awkward' interactions between individuals with and without a stigmatised identity. Subsequent research has examined how both stigmatised and non-stigmatised individuals can feel socially unskilled in interactions with one another (Rumsey & Harcourt, 2005). Limited preliminary and evaluative studies have indicated that social skills training for individuals with a visible difference can improve individuals' confidence in social situations and enhance positive perceptions of the individual with a visible difference (Bessell & Moss, 2007). This may be partially explained by the role of positive interactions at the meso level of stigma. Additionally, principles of the self-fulfilling prophecy (Merton, 1948) have been applied to explain awkward interactions, whereby individuals with a stigmatised label anticipate rejection and interpret any less positive interactions as a consequence of their stigmatised label, thus subtly influencing interaction, leading to less favourable interactions (Kleck & Strenta, 1980). Furthermore, social anxiety is reported to be common in individuals with a stigmatised condition like acne (Ozturk, Deveci, Bagcioglu, Atalay, & Serdar, 2013). In particular, patterns in anticipating negative responses from others and avoidance and concealment behaviours in individuals with a skin condition closely mirrors core aspects of social anxiety (Thompson & Kent, 2001). However, it is also important to recognise that individuals with a discredited identity are likely to have experienced negative responses from others in the form of discrimination, prejudice and rejection.

Discrimination, prejudice and rejection are widely implicated in stigma and take multiple forms (Link & Phelan, 2001; Major & O'Brien, 2005). Discrimination may occur

during interpersonal interactions and include rejection and intrusive reactions, such as appearance-related bullying, verbal abuse and staring towards individuals with a visible skin condition (BSF, 2015; Magin, 2013). Furthermore, stigma can impact directly and indirectly on an individual's life chances. In studies using self-report measures, individuals with acne report impacts on a range of aspects related to quality of life including employment, education and relationships (BSF, 2015; Roosta et al., 2010). Due to the reliance on self-report, it is unclear whether this is a reflection of stigmatised individuals' perceptions of others reactions or actual discrimination. For example, within an experimental study, participants given an artificial scar that was secretly removed before interacting with another participant, interpreted the others' behaviour as discriminatory (Kleck & Strenta, 1980). However, there is also evidence to suggest that individuals with acne are subjected to discrimination. For example, head-hunters and dating agents surveyed in Switzerland ranked acne as having the greatest and second-greatest impact, compared to other visible differences (missing tooth, strabismus, protruding ears, large nose, large facial scar) on finding a partner and employment respectively (Mojon-Azzi & Mojon, 2007; Mojon-Azzi, Potnik, & Mojon, 2008). Considering the real threat and experiences of discrimination and prejudice, it is unsurprising that individuals with a visible difference experience anxiety in relation to social situations, and exhibit symptoms similar to social anxiety.

Individuals within a person's community may not directly discriminate against someone, but there may be effects of wider and systemic institutional discrimination. For example, the APPGS (2013) report highlights that despite being one of the most common reasons for patients attending their GP, dermatology is not listed as a core module within medical training programmes in the U.K. Dermatology appears to be an overlooked field, possibly due to the dermatological conditions being largely viewed as cosmetic and non-life threatening, thus creating inequalities in access to effective healthcare. While the majority of dermatological conditions are not life-threatening, they can have pervasive effects on an individual's quality of life and cumulative life course impairment, as a consequence of the disability and the stigma associated with skin conditions (Augustin & Radtke, 2014; Ongenae, Dierckxsens, Brochez, van Geel, & Naeyaert, 2005; Ros, Puig, & Carrascosa, 2014; Warren, Kleyn, & Gulliver, 2011).

Within psychodermatology research, cross-sectional surveys have consistently indicated that individuals who report greater feelings of stigmatisation are more likely to report higher levels of depression (Böhm, Schwanitz, Stock Gissendanner, Schmid-Ott, & Schulz, 2014; Halioua, Cribier, Frey, & Tan, 2017; Hrehorów, Salomon, Matusiak, Reich, & Szepietowski, 2012; Schmid-Ott et al., 2007), social anxiety and avoidance (Böhm et al., 2014; Halioua et al., 2017; Leary, Rapp, Herbst, Exum, & Feldman, 1998;

Schmid-Ott et al., 2007), and greater impairments on quality of life (Ginsburg & Link, 1993; Hrehorów et al., 2012; Kent & Al-abadie, 1996; Leary et al., 1998; Liasides & Apergi, 2015; Schmid-Ott et al., 2007). Within these studies several measures have been specifically developed, adapted and validated to quantify feelings of stigma in specific dermatological populations in multiple languages (Ginsburg & Link, 1989; Liasides & Apergi, 2015; Lu, Duller, van der Valk, & Evers, 2003; Schmid-Ott, Jaeger, Kuensebeck, Ott, & Lamprecht, 1996). However, due to the cross-sectional nature of these studies the direction of such relationships is unclear, indeed there may be a bidirectional relationship, and there may be an additive dimension related to mental health stigma. Within qualitative research into the psychosocial impact of acne, stigma and being judged emerged as an influential factor that led to a range of psychosocial consequences including anxiety, depression, anger and effects on personality via self-consciousness (Magin et al., 2006a).

Shame, as a self-conscious emotion, has been identified as being closely related to the experience of stigma (Goffman, 1963), and as consequence of felt stigma (Scambler & Hopkins, 1986). According to a biopsychosocial model of shame, stigma threatens our evolutionary need to be seen as socially attractive, leading to feelings of shame (Gilbert, 2002). Shame, as an affect has also been linked to cognitions (i.e. negatively evaluating oneself and/or believing that others perceive us negatively) and behaviour (i.e. concealing shame, avoiding interpersonal situations and isolating oneself) and physiological changes (Gilbert, 1998). Shame can also be focused on different aspects of ourselves and others, such as behaviour, emotions and our bodies. The concept of body-shame has grown in use over recent years and refers to the experience of shame in relation to the human body. Body-shame has also been linked to the internalisation of societal norms and idealised beliefs about how the body should look, smell and work (Bandura, 1991; Gilbert, 2002). Research looking at body-shame has reported negative consequences including increased levels of eating disorders, depression, body dysmorphic disorders and reduced self-esteem (Grabe et al., 2007; Lowery et al., 2005; Noll & Fredrickson, 1998; Veale, 2002).

More recently, Richman and Leary (2009) have proposed a multi-motive framework for predicting individual differences, including differences in the type, extent and duration, of reactions to interpersonal rejection. Similar to Link and Phelan (2001), Richman and Leary (2009) argue that previous rejection-related models and theoretical work limit themselves to understanding singular phenomenon. Richman and Leary (2009) argue that research on stigmatisation, discrimination, prejudice, exclusion, ostracism, bullying, loneliness, rejection, relational rejection and neglect need to be integrated to gain a more complete understanding of the impact of rejection related

experiences. According to the multi-motive model, rejection (including stigma) threatens our underlying need to be accepted and valued by others, triggering an immediate universal response of hurt feelings, and a subsequent reduction in self-esteem, but that differences emerge at the behavioural level as a consequence of three competing motives (Richman & Leary, 2009).

Firstly, the desire to achieve social connection and acceptance is proposed to lead to prosocial responses to repair valued relationships with the rejecter and/or seek social support from others, and prosocial responses (Richman & Leary, 2009). For example, social support is commonly cited by child and adult participants in qualitative research as an important aspect of living well with a visible difference (Egan, Harcourt, Rumsey, & Appearance Research Collaboration, 2011; Prior & O'Dell, 2009; Thompson & Broom, 2009).

Secondly, rejected individuals, particularly those who perceive the rejection as unjust, are likely to experience anger and a need to defend themselves, leading to antisocial responses, which may lead to further rejection (Richman & Leary, 2009). While feelings of anger and frustration are reportedly higher in individuals with severe acne compared to a control group (Wu, Kinder, Trunnell, & Fulton, 1988), and as a consequence of unsolicited advice and negative reactions from others (Pruthi & Babu, 2012), it is unclear whether this leads to antisocial behaviour. Within a qualitative study examining experience of individuals with a visible difference, the two male participants described responding aggressively to the intrusive reactions of others (Thompson & Broom, 2009). However, in contrast to the multi-motive model, the participants perceived their responses as beneficial (Thompson & Broom, 2009). That said, within a survey study, higher trait anger predicted poorer quality of life and lower levels of satisfaction with acne treatment (Rapp et al., 2004). Although it is unclear whether situational anger (e.g. in response to intrusive comments) would lead to different outcomes. Indeed, anger can be helpful in eliciting societal change (e.g. the suffragette movement), and according to attributional theory making external rather than internal attributions for being stigmatised can be helpful in protecting self-esteem (Major & O'Brien, 2005).

Thirdly, individuals, particularly those exposed to chronic rejection (e.g. stigma) may also be motivated to protect themselves from further rejection and hurt through avoidance (Richman & Leary, 2009). As discussed above avoidance/social withdrawal and camouflage are cited as common coping mechanisms, commonly associated with embarrassment and self-consciousness (Murray & Rhodes, 2005; Tanghetti et al., 2014). In accordance with models of social anxiety and stigma (Clark & Wells, 1995; Goffman, 1963; Kent & Thompson, 2002), these may act as safety behaviours

providing initial relief from anxiety, but maintaining the anxiety in the longer term, and contributing to social isolation. However, there are also suggestions that concealment can be helpful in managing the reactions of others and attenuating the effect of acne on self-esteem and quality of life (Matsuoka et al., 2006).

Richman and Leary (2009) propose that prosocial responses typically lead to positive physical and mental health outcomes, whereas antisocial and avoidance responses lead to poorer physical and mental health outcomes. However, as illustrated above, variability remains in the impact of these responses on psychosocial wellbeing. The model does not sufficiently explore the co-occurrence of conflicting coping strategies. For example, Kent and Thompson (2002) propose that within populations with a visible difference, exposure to stigma alongside insufficient social support leads to a cycle of negative appearance related schemas, cognitions and behaviours that lead to a range of negative psychosocial outcomes.

Overall, it is clear that stigma can have a profound impact on individuals' psychosocial wellbeing, but there are substantial differences in the impact the same stigmatised condition can have on individuals. Part of this appears to relate to internalisation of societal stigma and coping mechanisms. However, there remain gaps in the literature examining predictors of stigma and how this may relate to the sociocultural and historical environment.

Discussion

The main aim of this chapter was to (i) further explore what is meant by stigma and how this has developed over time; (ii) provide a summary of key theories of stigmatisation from a range of disciplines, linking theory to research; and (iii) outline potential avenues for examining stigma in relation to media and acne.

The meaning of stigma has shifted over time from a physical mark purposely used to brand an individual as discredited, to a symbolic mark of unacceptability before being adopted within the social sciences to describe and research stigma a social phenomenon, closely interlinked with discrimination, prejudice and other rejection experiences whereby individuals possessing certain attributes are considered to have an undesirable social identity.

Considering the variability in the use of the term it is important to specify the definition adopted. In line with the definition put forward by Link and Phelan (2001), within this thesis stigma is used to describe a label that is used to differentiate someone from the socially acceptable norm. Definitions of what constitutes the norms and deviance from these norms are context-driven and can vary across time and

space. These labels of deviance are typically perceived negatively, and are likely to be associated with negative characteristics through stereotyping, contributing to a socially undesirable identity. Stigma, therefore, poses a threat to the need to be accepted, valued and avoid rejection by others. The impact of being labelled with a stigmatised identity is typically associated, but not always, with a range of negative outcomes at an individual and societal level, including discrimination, prejudice, limited life chances, and reduced self-esteem. However, individuals differ in their awareness, internalisation, experiences and impacts of stigma, and the way that they cope with it.

Scholars and researchers from a broad range of disciplines have built on early social scientific conceptualisations of stigma to provide a greater understanding of stigma. Discussions around the concept of stigma have explored its causes, consequences, measurement, associations, implications, variability and conceptualisation. The majority of these discussions and theories originate from sociology and psychology, particularly in relation the subfields of medical sociology, and social, health and evolutionary psychology. However, historians, anthropologists, philosophers, medics and health professionals have also contributed to and utilised theories and conceptualisations of stigma. Each of these fields provides an interesting insight into the concept of stigma and approaches the phenomenon from a different approach. Sociology provides the foundations of stigma theory and builds on this through important considerations of social structures, power and context. In contrast, psychology tends to focus more on explaining the functions of stigma and the social, cognitive, affective and behavioural components involved and individual differences in the experiences and consequences of being stigmatised. Historical analyses of stigma appear to have been overlooked, but historical research can offer insights into the complex contextual factors behind what is considered a stigmatised mark and how stigma has resulted in past examples of segregation, ostracism and even genocide. In order to best understand this complex phenomenon, the integration of a wide range of disciplines is required. For example, historical research has highlighted the potential for labels of stigma to change over time in response to changing knowledge, social, cultural and economic context. It therefore appears appropriate for researchers to consider and attempt to establish the complex contextual factors surrounding a particular stigma by adopting a historical perspective. Through integrating these multiple perspectives, we can gain a more complete understanding of the processes and impact of stigma. Many psychologists and sociologists use historical events as examples for theories of stigma. However, few psychologists and sociologists explore these events in depth and neglect the complex historical factors involved in context-driven changes in stigma. Similarly, few historians have utilised psychological and

sociological research on stigma. Consequently, this thesis incorporates research and methodologies from multiple disciplines including psychology, sociology and history.

It is also important to recognise and respond to key critiques of existing stigma theory and research. Link and Phelan (2001) draw particular attention to two key criticisms: (1) the risk of overlooking experience and prioritising stigma theory; and (2) the focus of stigma research (particularly within social psychology) on individuals and interactions with small groups of people rather than wider macro factors involved in social exclusion. These issues will be addressed in several ways within this thesis. The experiences of women living with acne will be explored in Chapter 4 (Study 2), through conducting in-depth qualitative interviews. Schneidre (1988) highlights the risk of individuals without experiences of stigma overlooking the actual accounts and perceptions of individuals taking part in stigma research. As indicated in the introduction the author of the thesis has personal and professional experiences of acne. However, it is also important to acknowledge potential difficulties of researching an area of personal relevance, such as ensuring that the researcher's experiences are not projected into others' accounts of living with the condition. Secondly, to address the need to for research examining vehicles of power in relation to social norms and deviance, this thesis focuses on media as macro level factor in stigmatisation. This will be examined in Chapter 3 (Study 1) by analysing historical media representations of acne over a 40-year period; Chapter 4 (Study 2) by asking participants about their experiences in relation to the sociocultural media context; and Chapter 5 (Study 3) by examining the relationship between social media use and stigma testing individual differences in cognitive processes involved in feelings of stigmatisation, using an online survey.

Chapter 3: A qualitative investigation of portrayals of acne in popular British women's magazine advertisements, 1972-2008.

Introduction

Chapters 1 and 2 outlined the relevance of stigma theory in understanding the experiences of individuals living with a condition that visibly 'marks' them as having acne. It is clear from the existing literature that there are historical and cultural variations in what differences and appearance ideals are considered normal, valued, or deviant. Media has been proposed as an influential factor in communicating social norms, influencing body image satisfaction, maintaining stereotypes, and encouraging stigmatisation of specific groups (Pescosolido et al., 2008; Papadopoulos & Walker, 2003). However, few studies have examined the acne-related content and messages contained in various forms of media, and whether these messages have changed over time. This chapter therefore seeks to address this by exploring how acne is portrayed in a specific media format: women's magazine advertisements, over a 40-year period.

While approximately 5-9% of dermatology patients present with acne, a far higher percentage of individuals with acne do not access medical care and instead engage in self-management, expressing a willingness to pay for treatment (Schofield et al., 2009). For example, in a willingness to pay study, 87% of respondents with acne reported that they would prefer a cure for acne rather than £500 (Motley & Finlay, 1989). However, considering the hypothetical nature of the scenario it is unclear whether this effect would be replicated in a naturalistic setting. Nevertheless, there is evidence to suggest individuals with acne buy over-the-counter-products and private dermatology services (Schofield et al., 2009). This high prevalence of acne alongside a desire to reduce the signs of acne with self-management suggests that there is a lucrative market for products that might prevent, treat, or camouflage acne. It is therefore logical to assume that a substantial amount of skincare products will emphasise their anti-acne properties and that advertising campaigns will appear in mass media advertisements. Women's magazines are also a place where women seek information on appearance concerns as well as beauty and fashion tips (Kim & Ward, 2004).

Magazines, media and women's body image

Women's magazines and advertisements have long been criticised for endorsing unrealistic societal ideals for women and encouraging us to 'fight imperfections and aging' and selling the value of appearance (Chrisler, 2011; Jackson & Vares, 2013;

Wolf, 1991). Furthermore, magazine consumption has been associated with internalisation of thin ideals, body dissatisfaction and disordered eating (Grabe et al., 2008). Winship (1987) draws attention to the 'hallmark' cover image of women magazines, which typically display uniform images of women who are almost always 'young and attractive' with smooth skin.

It is possible that the mechanisms by which media affects body image differ between media types (Knauss, Paxton, & Alsaker, 2007; Tiggemann, 2003), for example, magazine as opposed to television consumption has more consistently been associated with internalisation of the thin ideal, body dissatisfaction and disordered eating. The viewers of various forms of media should be considered as active consumers with differing motivations for consuming different media types. Viewers choose to engage with media sources for varying reasons including entertainment, information, personal identity, and appearance and behavioural values (Tiggemann, 2003). Women's magazines include regular content on appearance and health information and advice. Research has indicated that readers are partially motivated to read magazines for these reason (Kim & Ward, 2004; Tiggemann, 2003).

Changes in body satisfaction and media-depicted ideals

Levels of body dissatisfaction, attitudes towards the appearance of the skin and body, and media portrayals of the 'body beautiful' are reported to have changed over time. There is conflicting data as to whether appearance satisfaction has increased or decreased over time. For example, several studies report increases in women's body dissatisfaction, and the effect sizes of gender between the 1960s, 1970s and 1990s (Cash, Perry, & Hrabosky, 2004; Tiggemann, 2004). Increases are reported in women's global body dissatisfaction, despite decreases in weight concern, between 1985 and 1996 and increases in body satisfaction are reported from the mid-1990s into the early-2000s (Cash et al., 2004). However, a recent cross-temporal meta-analysis reported that girls' and women's, but not boys' or men's, thinness-related dissatisfaction had decreased between 1981 and 2012 (Karazsia et al., 2016). Karazsia et al. (2016) suggest that this may be explained by (1) interventions aimed at resourcing girls and women with the skills to recognise and reject the unrealistic ideals endorsed by mass media; (2) increased diversity of body shapes; (3) shifts away from the thin ideal to other ideals. However, data reported in a recent report from the Children's Society (2017) suggested that 10-15-year-old girls are now more dissatisfied with their appearance than girls were in 2000. However, there is a lack of earlier UK-based comparisons; discussions by scholars, activists and the media suggest that pressure to meet appearance ideals has continuously risen (Orbach, 2009; Wiseman, 2012). While the above research suggests shifts in appearance dissatisfaction,

simplistic quantitative measures of appearance dissatisfaction do not necessarily capture the complexity of body image. Furthermore, it appears important to examine contextual factors that may explain changes in body image.

A possible explanation for changes in perceptions of body image over time is through changes in sociocultural ideals reflected and driven by idealised media images. Grabe et al. (2008) reported a small to moderate effect size of media exposure/consumption on internalisation of the thin ideal (d = -.39), eating behaviour and beliefs (d = -.30), and body dissatisfaction (d = -.28). Interestingly, year of publication acted as a moderator variable with larger effect sizes reported in studies published in the 2000s compared to studies published in the 1990s (Grabe et al., 2008). It is unclear whether this was due to contextual changes or research methodology, or indicative of a role of changing media portrayals of women's bodies and/or contextual factors on body dissatisfaction. Magazines have been a common source for studying media portrayals of appearance ideals. In analyses of US magazines from 1987, 10.5 times more articles and adverts endorsing weight loss appeared in women's magazines as compared to men's magazines, arguably mirroring the prevalence of eating disorders in women as compared with men (Andersen & DiDomenico, 1992). It is likely that there is a two-way relationship between media content and contemporary levels of eating disorders and body dissatisfaction, as media has a role to play in reflecting social ideals but also influencing them.

Content analyses have typically been used to add support to the view that magazines' portrayals of women's bodies are not static. The majority of these have been conducted in the US and focus on weight and shape rather than skin. For example a series of studies analysing the weights of Playboy centrefolds, and diet related content in women's magazines suggested a trend where weight decreased and diet-related content increased between 1959 and 1988 (Garner, Garfinkel, Schwartz, & Thompson, 1980; Wiseman, Gray, Mosimann, & Ahrens, 1992), followed by stabilisation and a trend of marginal increases in weight and decreases in content up till 2014 (Roberts & Muta, 2017; Sypeck et al., 2006). This may reflect the decreases in reported body/weight dissatisfaction listed above. However, average centrefold body mass index (BMI) for a year did not exceed 19, and the average weight of the population has increased, suggesting that the disparity between media and average bodies increased. In comparison, Sypeck, Gray and Ahrens (2004) analysed cover images of four US women's magazines, including Cosmopolitan and reported decreases in cover models weight between the 1980s and 1990s. Moreover, Sypeck et al. (2004) reported that between 1959 and 1999 magazines increasingly used full body photos, as opposed to faces, wearing more revealing clothing, which could be

interpreted as increasingly objectifying. Similarly, a study of media images over 40 years identified a concerning trend of girls being increasing portrayed in a sexualized manner (O'Donohue et al., 1997).

Existing research has typically focused on body dissatisfaction, rather than other potential areas of appearance concern. Research analysing U.S. magazine portrayals of 'ideal' facial characteristics has reported significant changes over the twentieth century, specifically in relation to lips (Nguyen & Turley, 1998). A historical analysis of advertisements in Women's Weekly' between 1911 and 1996, reported shifts in how advertisements outlined what constitutes socially acceptable 'good hair', as opposed to bad hair, associating hair appearance and shininess with health, manageability and cleanliness (Hielscher, 2013). For example, by the 1980s/1990s the products within advertisements were reportedly increasingly specialised, with multiple products required to manage different hair types (Hielscher, 2013). It is, however, unclear whether other elements of the adverts have changed, particularly in relation to the images used within these advertisements. Furthermore, research has not examined whether magazine portrayals of skin appearance and conditions have changed.

Sociocultural and historical context of women's bodies

Psychological, dermatological and sociological research examining changes over time in relation to appearance concerns, body dissatisfaction and associated psychopathology often overlook the wider historical and sociocultural context surrounding their findings. Magazines reflect the era in which they were created and provide an insight into what people thought, bought and looked like (Cox & Mowatt, 2014). Therefore, women's magazines provide useful sources for studying women's history, but the researcher needs to acknowledge the wider context and influence of commercial messages in shaping magazine content (Greenfield & Reid, 1998). A brief historiography of relevant historical context is provided below.

Over the period 1972 to 2008 Britain saw substantial changes in the position and role of women in society, technological advances, medical knowledge, consumer culture, magazines and sociocultural ideals. Such sociocultural shifts have the potential to influence women's lives, body satisfaction, wellbeing and experience of living with a visible and potentially stigmatising skin condition like acne.

The mid-to-late-twentieth century was synonymous with changing cultural and moral values. The 1960s and 1970s are often considered a point in history characterised by increased freedom and rights, particularly for women (Marwick, 1988). Legislation, influenced by wider societal pressures was passed marking a shift in

cultural values. The introduction of the contraceptive pill from 1961 in Great Britain is often linked to the sexual revolution of the 'Swinging Sixties', including the early 1970s (Thane, 1998). The mid-sixties are described as a time of self-expression, hedonism and materialism (Morgan, 2001).

It is important to situate changes over time that relate to women's appearance, health and magazines in the contemporary context of women's lives in Britain. Following the Second World War and continuing throughout the remaining twentieth century women had become a growing part of the paid workforce, with greater rights and an increased personal spending power. The 1960s and early 1970s marks a significant point in women's history with the women's liberation movement, commonly referred to as second wave feminism (Thane, 1998). *Spare Rib*, one of the magazines consulted for this study, was first published in 1972 in support of second wave feminism. The pressure from such movements and wider cultural shifts led to the introduction of new legislation aimed at improving gender equality, although arguably some of these have fallen short, such as equal pay. By the early twenty-first century women had distinctively more diverse opportunities and the number of women entering further education now rivals that of men (Zweiniger-Bargielowska, 2001a).

The relationship between the women's liberation movement, the sexual revolution and women's bodies is complex. On one hand it was a point where women were considered to have new-found sexual freedom and control over their own bodies, without the risk of pregnancy and in opposition to the strict moral behavioural code of the church. Fashions had also changed with the rise of the miniskirt, arguably a symbol of either liberation or the increasing sexualisation of girls' bodies. On the other hand, women were under greater pressures to meet the ideals and sexual desires of men, having entered into a new form of exploitation, described as a 'double-edged sword' (Marwick, 2011). With this problem in view, November 1970 saw a backlash from feminist activists against what they considered to be the objectification and ranking of women's bodies at the Miss World Competition in London. Despite this backlash, some feminists such as Germaine Greer (1970) argued that younger women's attitudes towards their appearance were already changing, with young women expressing individuality with the management and styling of their hair based on their own features and preferences, and visiting hairdressers less frequently than their mother's had. However, analysis of *Women's Weekly* demonstrate how advertisements appeared to increasingly endorse the purchase of multiple products to achieve socially acceptable hair (Hielscher, 2013).

Several historians and feminist writers have highlighted that despite significant shifts towards equality, double standards relating to appearance have continued and

potentially worsened. Why in a society where women have improved rights, and equal access to education are women increasingly dissatisfied with their appearance? Zweiniger-Bargielowska (2001b) argues that aesthetic attractiveness and beauty have remained fundamental aspects of the concept of femininity.

The feminist writer Naomi Wolf (1991) argues that unattainable beauty ideals are manufactured to preserve the power dynamics between men and women and maintain economic stability whereby half of the workforce are underpaid and invest a high proportion of their income and time on meeting appearance ideals. Mass media, including magazines, television and advertising are proposed as key mechanisms through which these myths and ideals are disseminated (Wolf, 1992). For example, Forster (2010) uses *Cosmopolitan UK*, *Spare Rib* and *Women's Own* to explore how women's magazines built on and responded to the women's liberation movement and 'cult of femininity' in the early 1970s, with *Cosmopolitan* most closely aligned with the sexual revolution, containing a higher volume of articles guiding women on relationships, sex, and appearance (Forster, 2010). The argument that these pressures and ideals are the result of manipulations by a patriarchal society has not been without critique. Zweiniger-Bargielowska (2001b) acknowledges Wolf's theory as one of several contrasting explanations and adds two 'less pessimistic' explanations: (1) that changes in ideals and pressures reflect a new assertion of female sexuality; (2) that they reflect a shift in femininity away from confinement to the reproductive capacities of the body and towards a breaking-down of gender differences.

There appears to be a consensus that over recent decades the pressure to meet these ideals has changed. Mellican (1995) describes a "cult of beauty" characterised by increased cultural and societal pressure on women to strive to meet narrow culturally-constructed ideas of aesthetic beauty. This may be partially explained by increases in the societal and economic value and benefits of beauty (Marwick, 2004). However, idealised standards of beauty are predominantly out of reach for the average woman (Markwick, 2004; Thompson et al., 1999). Therefore, beauty and its perceived benefits appears to be something that is made or bought (Mellican, 1995; Orbach, 2009). The psychotherapist and feminist writer Susie Orbach (2009) compares the image saturated, consumer based society today with a society 30 to 60 years ago, where we saw significantly fewer idealised images of bodies, and where the human body was something that made things instead of something that needs to be continuously perfected and modified through the consumerism. Similarly, Morgan (1998) describes a society saturated with experts whose services can be bought to transform the body into a perfect yet artificial object, suggesting 'beauty' is a commodity that can be purchased and created. Yet these industries also offer women

a range of perceived benefits, including perceived self-control, acceptance, self-esteem, fulfilment and a sense that their bodies are being cared for (Morgan, 1998).

These changes can be understood in relation to the mass consumer movement in the twentieth century. Global beauty brands had emerged over the twentieth century, facilitated by industrial developments, enabling products to be manufactured cheaply, growing incomes and improved transport within and between countries and continents (Jones, 2011). Jones (2011) argues that globalisation of the beauty industry has played an important role in the homogenisation of perceptions of beauty and attractiveness, and has implications on societies, cultures and individuals (Jones, 2011). Furthermore, the economic recovery post World War II contributed to a new affluent age from the 1950s characterised by politics of consumption and materialism, often labelled as 'freedom' (Hilton, 2003). Consumer markets, including the beauty industries, were booming following rises in real wages and economic recovery in Western Europe, with young people, women, and the working classes and the growing middle classes exercising their spending power (Morgan, 2001; Zweiniger-Bargielowska, 2001b). For example, within Great Britain, the beauty market grew from $58million in 1950 to $581million by 1976 (Jones, 2011). Zweiniger-Bargielowska (2001b) argues that the mass consumer movement of the twentieth century profoundly influenced concepts of femininity and representations of the female bodies, with industries built around and shaping these ideals, with the message that women should and can achieve these ideals through consumption.

Mass consumption interlinks with related industries like mass media and advertising. Advertisements, such as those in women's magazines, are arguably a method of disseminating and reinforcing the message that beauty is something that can be achieved and bought through consumption. Furthermore, beauty and fashion content within magazines are reported to reinforce this message through guidance on products and practices essential to meeting such ideals (Greenfield & Reid, 1998). Zweiniger-Bargielowska (2001b) argues that the present discourse of beauty as achievable through self-investment and improvement places responsibility on the individual to meet these achievable ideals. These assumptions relate to contemporary notions of moral behaviour including self-control, work ethic and self-care.

Despite the consumer and economic boom, the twentieth century was also characterised by several economic downturns: mid 1970s, early 1980s, late 1980s/early 1990s and the global 'Great Recession' arising in 2008 (Hills, Thomas, & Dimsdale, 2010). Recession is usually associated with declining consumer spending on luxury items (Hill, Rodeheffer, Griskevicius, Durante, & White, 2012). However, a 'lipstick effect' has been proposed whereby sales of beauty products, including

cosmetics and skin care products, appear to rise despite recession (Hill et al., 2012). Furthermore, the beauty industry continues to play an important role in the global and British economy and provides a major source of employment and entrepreneurial opportunities for women (Jones, 2010). The UK skincare industry was valued at over £1 billion for 2014 (Aidin, 2015).

Changes in the images presented in women's magazines are also likely to relate to technological developments, which influenced both the cost of production and the ability to manipulate images. While photographs of bodies have long been manipulated to adhere to idealised standards (using make-up, hair-pieces and lighting), the release of the first photo-shopping software in 1990, followed by rapid software developments, has rapidly transformed the capabilities of photography to transform the body (Brown, 2014). Photoshop and airbrushing have become the 'industry standard' in magazines and advertisements and can be used to create idealised standards of beauty that are not only unrealistic but physically impossible (Brown, 2014). Brown (2014) proposes that our perceptions of beauty have developed and been moulded with these technological advances, whereby the ideal has become increasingly unrepresentative of the female body. Concerns have been raised regarding the potential for such images to project and influence wider sociocultural ideals, and negatively impact the psychosocial wellbeing of those viewing the images. Furthermore, the presentation of unrealistic and unattainable bodies created through airbrushing can constitute deception and false advertising, influencing consumer decisions (Brown, 2014). While viewers exhibit awareness of photo-shopping, this awareness is often deemed insufficient to counterbalance the impact of the images, as it is often unclear to what extent and where airbrushing has been used (Brown, 2014).

Aims/Justification

Overall, existing empirical analysis of how skin conditions are portrayed in various forms of media is limited. No existing studies have sought to analyse specifically how women's magazines depict acne and how these portrayals have changed over time in Britain. Existing historical literature provides useful insights into media, beauty, femininity and women's bodies up until the mid-twentieth century. Consequently, the area of study is best examined from an interdisciplinary perspective to explore the historical and macro context of individual psychological responses to acne with a specific focus on depictions in women's magazines, drawing on psychological theory and historical context.

Much of the existing psychological and media literature on media depictions of appearance ideals have focused on quantifiable changes in body size and shape and

have consequently used content analysis. Media portrayals of skin conditions are not necessarily explicit or quantifiable. A qualitative approach has therefore been adopted to extract and explore the latent and manifest themes and messages contained within advertisements. Qualitative historical research has explored concepts of femininity, health and beauty in modern Britain, as communicated in women's magazines. However, these studies mostly focus on earlier periods and have not specifically examined depictions of acne. Therefore, this research looks to build on the existing literature by extending to the early twenty-first century and will seek to consider reflectively the potential implications on individual psychological responses to historical depictions of acne in magazines.

This study therefore aims to: (1) examine how advertisements aimed at readers of three different women's magazines portray acne; and (2) explore and contextualise how magazines portrayals of acne have changed over time.

Method

Methodology

This study draws on qualitative research methods used within psychology, sociology, and history and is explicitly based on Ethnographic Content Analysis (ECA: Altheide & Schneider, 2013). ECA is a form of qualitative document analysis that applies principles of ethnography to media documents (Altheide & Schneider, 2013). Ethnography is concerned with observing the social practices and culture of specific social groups via fieldwork (Griffin & Bengry-Howell, 2008). ECA regards media documents as records of social and cultural practices. Altheide and Schneider (2013) conceptualise ECA as a form of 'fieldwork' whereby the researcher accesses such documents to interpret the messages within media documents and gather information on the practices and beliefs of specific cultural communities. The researcher plays a central role in deciding on the research topic/question, making observations, collecting data and interpreting the data. The procedure for ECA can be seen in Appendix 3A.

While ECA has mainly been used within sociology, it has also been used more recently within psychology to examine online blogs written by women with a chronic illness (e.g. Sosnowy, 2014). However, ECA has been criticised for being over reliant on emergent coding, lacking rigour and guidance on analysis, resulting in poor replicability (Hansen, 2014). Consequently, ECA has been adapted by incorporating elements of compatible qualitative methods of analysis, including thematic analysis and grounded theory (Hansen, 2014; Peixoto Labre & Walsh-Childers, 2003). Hansen (2014) outlines similarities between ECA and thematic analysis (as outlined by Fereday & Muir-Cochrane, 2006) and proposes the addition of a codebook and dual deductive-

inductive approach to coding to improve the validity and rigour of ECA through increasing replicability.

Thematic Analysis (Braun & Clarke, 2006) has therefore been incorporated into the analysis of this study to identify meaningful themes related to patterns that arose in the data by systematically coding themes (see Appendix 3B and 3C for guidelines on conducting thematic analysis). Joffe (2012), and Fereday and Muir-Cochrane (2006) recommend a dual deductive-inductive and latent-manifest approach to coding, to enable themes to be identified using the researcher's existing theoretical knowledge as well as novel themes that appear in the data. It is possible to use thematic analysis to analyse qualitative data from a wide range of sources, which includes media content and images (Joffe, 2012). However, thematic analysis provides no guidance on how to situate findings in the socio-historical context. ECA encourages the researcher to consider the wider context surrounding the production of the documents; however, it provides little guidance on how to do so and neglects the wider socio-historical context.

Techniques derived from social history were therefore incorporated to historicise the data and findings. Social historians employ a range of techniques and sources to construct a historical account of the past. These techniques include: historiographies, historical ethnography, discourse analysis and primary source analysis. Historians categorise two types of sources: (1) primary sources and (2) secondary sources. Primary sources are original artefacts from the period that constitute material for historical studies, whereas secondary sources comprise of secondary accounts of artefacts and time periods written by historians. In order to build a picture of a certain period, historians collate and compare multiple primary and secondary sources. Dobson and Ziemann (2009) provide guidelines on interpreting primary sources. The study took guidelines on interpreting primary sources into consideration (see Appendix 3D) and a brief historiography was incorporated into the introduction to support the interpretation of primary sources and to situate the findings of the study.

Design

A protocol for the study was developed based on ECA and incorporating elements of thematic analysis and social history to explore changing messages about acne in three UK women's magazines, 1972-2008, at five year intercepts. These dates were selected because: (a) new magazines, including Cosmopolitan UK and Spare Rib emerged in 1972 feeding off a changing sociocultural climate; (b) by 2008 there had been a shift away from print magazines towards digital and social media (Robinson, 2007; Office for National Statistics [ONS], 2016).

Sources/sample

The inclusion criteria for this study were: advertisements explicitly mentioning acne or acne symptoms (e.g. spots, blemishes, pimples, zits, greasy/oily skin, blackheads, acne-scarring),

The primary sources were extracted from three UK women's magazines: *Cosmopolitan (UK)*, *Spare Rib*, and *Woman*. These magazines were selected for comparison as they offer varied readerships (class, age, feminist allegiance) and originate from different publishers.

Woman was first published by Oldhams Press Ltd in 1937, as a low cost colour weekly women's magazine which followed a similar format to *Woman's Own* and had a similar readership described as predominantly C2DE: working and lower-middle class young 'housewives with children', but was also regarded as possessing a wider readership (Cox & Mowatt, 2014; Gough-Yates, 2003; Winship, 1987). *Woman* remains in print and is currently owned by Time Inc. UK, previously the International Publishing Corporation [IPC] then IPC Media. By 1963 the IPC was the most dominant publishing and printing corporation in the world and remained the largest magazine publisher into the 1990s (Cox & Mowatt, 2014). *Woman* was classified as one of the IPC's big four (highest sellers): *Woman, Woman's Own, Woman's Weekly*, and *Woman's Realm* (Cox & Mowatt, 2014). *Woman* provides an interesting source, as a longstanding 'women's weekly', showing shifts in ideologies relating to women's roles and femininity. The readership age of *Woman* appears to have changed substantially over the past 80 years and the magazine's readership is currently described as "40-plus women" ('*Woman* magazine subscription', n.d.).

In comparison, *Cosmopolitan (UK)*, is a 'glossy monthly', marketed at a more middle class (ABC1) audience. *Cosmopolitan* was first published in the UK in March 1972 by The National Magazine Company/Hearst Magazine UK following the success of *Cosmopolitan* in the United States and aligned with the sexual revolution of the Sixties. Known for its 'open' approach to sex and relationships, and its articles on fashion and beauty, *Cosmopolitan* was the best-selling women's magazine in the UK, during the late-twentieth century and continues to be a large player in the women's magazine sector, and has established a digital presence. In the third issue of *Cosmopolitan*, Hopkirk (1972) describes 'Cosmo' girls as age 18-34, however the magazine is reportedly popular among younger teenage audiences (Winship, 1987). In the first UK issue, the editor Janice Hopkirk describes a 'Cosmo girl' as:

> *interested in men, naturally, but you think too much of yourself to live your life entirely through him. That means you're going to make the*

most of yourself – your body, your face, your clothes, your hair, your job and your mind. (Hopkirk, 1972, p.10).

The core contents of *Cosmopolitan* include fashion, beauty, relationships, health and problem pages, letters, fiction and offers on fashion and beauty items (Winship, 1987). Each of these areas provide interesting sources for the analysis of this study in regards to contemporary portrayals of acne.

Spare Rib was also first published in 1972, in July. In contrast to the mainstream commercial magazines: *Woman* and *Cosmopolitan, Spare Rib* was published independently and positioned itself as a feminist magazine associated with the women's liberation movement. In the first issue, *Cosmopolitan* is criticised for reinforcing sexist ideas (Neville, 1972). Winship (1987) argues that its readership and influence far exceeded its regular circulation of 20,000 per month. It will be interesting to compare how a socialist feminist magazine portrays acne and skin in relation to beauty and health. Publication of *Spare Rib* ended in January 1993, following financial difficulties (Kimpton Nye, n.d.).

Sampling

Time sampling was used to examine changes between time-periods. Time sampling has been used with ECA and by psychological researchers, to select media content over long time-periods, including magazine content (Altheide & Schneider, 2013; O'Donohue et al., 1997). As *Spare Rib* was only available until 1993 the study will only use the published editions between July 1972 and January 1993.

The years selected for time sampling were:

1972-3, 1977-8, 1982-3, 1987-8, 1992-3, 1997-8, 2002-3, 2007-8.

Data collection

Data was collected using the British Library's online database for *Spare Rib*. There were no freely accessible databases for *Woman* or *Cosmopolitan UK*. Therefore, the data for *Cosmopolitan UK* and *Woman* was collected manually at the British Library. Photographs were taken of the content that met the inclusion criteria. Electronic copies of the images/articles were downloaded and kept on an external hard drive and backed up on a cloud platform. Copies of the material were filed digitally and in paper in accordance with the magazine and year.

The magazines were systematically searched for references to acne and/or symptoms of acne, and entered into a database alongside other references to skin conditions. This database was then divided into acne-related and non-acne-related advertisements.

Analysis

The ‘unit for analysis’ in this study was the whole advertisement.

A detailed Excel database was developed to systematically record extracted information and assist in categorising and coding the data (the initial categories that were included in the database can be seen in Appendix 3E). ECA specifies that researchers should consider four key components of a media item: (i) format (e.g. size, type, location); (ii) framing (e.g. medical/cosmetic issue); (iii) themes and; (iiii) discourse (Altheide & Schneider, 2013). Particular focus should be paid to the themes, and framing, which can be considered a broad and specific type of theme (Altheide & Schneider, 2013). These are included in the heading and sub-headings of the database. Thematic analysis was conducted on the extracts and images from the acne-related advertisements. Extraction labels represented specific areas to extract. Initial labels were driven by stigma theory. Later headers and codes were data driven. Codes and extracts were then drawn into potential themes before being refined into distinctive themes and subthemes. These themes were then checked against the original dataset. Social history supported the interpretation of the primary sources.

Following the completion of the coding, the themes and database information were explored within and between variables. These independent variables included decade and magazine. The similarities and outliers within each segment were summarised with extracts to exemplify typical and atypical themes and portrayals of skin conditions. Comparisons were made between variables using the same process.

Quality Control and reflexivity

As highlighted within Chapter 1, quality control and reflexivity are important aspects of rigorous qualitative research. Within this study several tools were utilised to ensure that the research and analysis followed a rigorous process and demonstrates good face validity. The researcher followed a pre-set protocol, documenting any later amendments (listed below) to ensure methodological validity, and kept records of multiple stages of the data collection and analysis to enable an audit to be conducted. Joffe (2012) highlights the importance of transparency when conducting qualitative analysis, including thematic analysis, as otherwise the coding of themes can be highly subjective. The guidelines and checklist that can be seen in Appendices 3A to 3D were followed to ensure the analysis met the standards for ECA, thematic analysis, and historical source interpretation. Additionally, Fereday and Muir-Cochrane (2006) suggest that themes need to be exemplified by direct quotes and images from the raw data to ensure interpretive rigour. The results therefore include quotes from a range of

sources across magazines and decades to illustrate the themes and interpretation of the data.

In order to encourage researcher reflexivity, the researcher engaged with supervision, and kept a record of reflexivity notes as part of the data collection spreadsheet. Furthermore, reflexivity is an essential component of image interpretation (Lynn & Lea, 2005). The researcher needs to consider the multiple ways in which the content could be interpreted, and the 'external context' relating to how and why the image was produced (Lynn & Lea, 2005; Reavey & Johnson, 2008). Within this study the historical context of the contemporary audience was taken into consideration.

Furthermore, an internal audit was carried out by the researcher's primary supervisor, which involved routine meetings during the data collection, analysis and write-up to check documentation and discuss developing themes and subthemes, and two hour-long audit meetings. The audit meetings involved crosschecking randomly selected advertisements against the corresponding coding and themes recorded in the database, and vice-versa crosschecking randomly selected themes and subthemes from the database against the corresponding advertisements.

Amendments to protocol and ethics

The study was approved by the ethics committee at the University of Sheffield (Reference number: 006060. See Appendix 3F). Several amendments were made to the protocol following the approval and amendments were approved. This included an amendment to the dates studied, amended to finish in 2008, in line with the availability of the magazines and to maintain consistency between magazines. The third source was changed from *Woman & Home* to *Woman* as its low cost indicates that it appealed to a wider readership, providing a more varied and inclusive comparison with *Cosmopolitan* and *Spare Rib.* Following initial data collection, the decision was taken to narrow the focus of this study from any dermatological condition and any magazine content to acne-related advertisements. Data from these sources was retained and used to contextualise the findings.

Results

Data was collected over a period of six months from the British Library (August 2015-January 2016). A total of 2289 items met the original inclusion criteria for the study (any reference to skin conditions) and formed the data corpus, and 637 items met the revised inclusion criteria (adverts referring to acne). Descriptive data relating to the frequency of article types and skin conditions can be seen in Appendix 3G and 3H

respectively. These tables are intended to support the contextualisation of acne-related advertisements in each magazine.

Advertisements accounted for 56% (*n* = 1240) of skin related content overall (see Appendix 3G). *Cosmopolitan* had the highest percentage of skin-condition related advertisements (75.40%), followed by *Woman* (34.1%), and in stark contrast to *Spare Rib* (5.88%). The majority of these advertisements related to acne (*n* = 637, 51.4%), although advertisements often made reference to more than one skin condition (see Appendix 3H). Many advertisements in *Cosmopolitan* (*n* = 250) and *Woman* (*n* = 38), referred to the symptoms and signs without using the term acne, using terms like 'spots', 'blemishes'. Surprisingly, searches of *Spare Rib* recorded no advertisements related to acne. The two *Spare Rib* advertisements that did relate to skin were for a vitiligo support group and homeopathic therapy for 'skin disorders'. The low level of skin-condition related advertisements in *Spare Rib* are likely to be related to the aims and ethos of the magazine. Angela Phillips (2014), a contributor to *Spare Rib,* up until the early 1980's, cites concerns about the use of and portrayals of women's bodies in advertisements, as a driving force behind second wave feminism and subsequently the publishing of *Spare Rib*.

Table 3.1 illustrates the frequency of acne-related advertisements for each time segment between 1972 and 2008. Table 3.1 shows low levels of acne related advertisements in *Woman* from the 1980s onwards, with only one acne-related advertisement between the years 1992 and 2003. Table 3.1 also indicates that advertisements relating to acne scarring appeared in *Cosmopolitan* during 1992, peaking in 2002-2003 and only appeared in Woman during 2007.

Table 3.1: Frequency of adverts relating to acne (including acne scarring) and acne scarring (only) for Cosmopolitan and Woman at each time segment.

	Cosmopolitan (UK)				***Woman***				***Total***			
Years	*Acne*	*%*	*Acne scarring*	*%*	*Acne*	*%*	*Acne scarring*	*%*	*Acne*	*%*	*Acne Scarring*	*%*
1972-3	*36*	*6.74*	*0*	*0.00*	*35*	*33.98*	*0*	*0*	*71*	*11.15*	*0*	*0.00*
1977-8	82	*15.36*	*0*	*0.00*	*49*	*47.57*	*0*	*0*	*131*	*20.57*	*0*	*0.00*
1982-3	*65*	*12.17*	*0*	*0.00*	*8*	*7.77*	*0*	*0*	*73*	*11.46*	*0*	*0.00*
1987-8	*19*	*3.56*	*0*	*0.00*	*6*	*5.83*	*0*	*0*	*25*	*3.92*	*0*	*0.00*
1992-3	*47*	*8.80*	*9*	*8.65*	*1*	*0.97*	*0*	*0*	*48*	*7.54*	*9*	*8.33*
1997-8	*71*	*13.30*	*10*	*9.62*	*0*	*0.00*	*0*	*0*	*71*	*11.15*	*10*	*9.26*
2002-3	*110*	*20.60*	*57*	*54.81*	*0*	*0.00*	*0*	*0*	*110*	*17.27*	*57*	*52.78*
2007-8	*104*	*19.48*	*28*	*26.92*	*4*	*3.88*	*4*	*100*	*108*	*16.95*	*32*	*29.63*
Total	*534*		*104*		*103*		*4*		*637*		*108*	

Note: The figures for Spare Rib are not reported here as none met the inclusion criteria.

Three substantial themes were identified with each containing multiple interrelated subthemes, as well as one smaller divergent theme. The framing, discourse and themes can be seen below in Table 3.2. While the majority of themes remain consistent throughout the time period studied, subtle changes over time can be seen within themes. In the first instance the broader framing, positioning and discourse of the advertisements will be discussed, followed by presentation of the four themes (and subthemes).

Table 3.2: Summary of framing, discourse, themes and subthemes.

Theme	
Framing	Acne as a cosmetic concern for women
	The latent position of the advertiser
Discourse	'War on spots'
Theme	1. 'Spot-free' 'perfect' skin as the ideal
	1.1. Perfect skin as a commodity
	1.2. Achieving perfection through changing treatments
	1.3. Skin clarity as a health indicator
	1.4. Faking perfect skin
	2. (Mis)Associations with acne
	2.1. 'A spotty skin is a dirty skin'
	2.2. Modern living/environmental influencers
	2.3. 'A teenage problem'
	3. Psychosocial impact
	3.1. Social impact
	4. Normalising acne and challenging false assumptions (divergent theme)

Framing

Acne as a cosmetic concern for women

The vast majority of the advertisements positioned acne as a cosmetic concern, often associated with signs of health, rather than as a health or medical condition. This framing could be considered as both normalising and trivialising acne. Most

advertisements either explicitly or implicitly made reference to the appearance and texture of the skin, referring to the visible signs of acne and sometimes associating acne with other skin 'concerns' such as aging. Only four advertisements did not imply some relationship with appearance, either within the text or images, and instead framed the issue as a physiological (e.g. pain, discomfort, itching) or hygiene concern. These advertisements appeared a total of 17 times: nine in *Woman,* and eight in *Cosmopolitan.* This higher volume in *Woman* may relate to its content on family health, and is exemplified by the higher proportion of coverage of skin conditions in health columns; 39.4% in *Woman* as opposed to 4.46% in *Cosmopolitan* (see Appendix 3G).

Advertisements often made connections between skin appearance, beauty, sexual attractiveness, hygiene and psychological wellbeing, and conflated health and beauty. The focus on skin appearance is unsurprising as the majority of advertisements promoted cosmetics, cosmetic procedures, beauty clinics, skincare products or over-the-counter treatments. Furthermore, the framing of acne and skin as cosmetic concerns, fitted with the most salient theme: perfect/spotless skin as a manufactured ideal.

Your skin will become fair, clear and beautiful with a new lemon extract cleanser that gives the complexion and radiant healthy bloom (Delph, 1972b, p.64, appears in Woman three times*).*

> *Your best chances of beautiful hair and clear skin usually go down the sink* (Neutrogena, 1973, p.84, appears in Cosmopolitan twice).

Advertisements across the four decades linked clear skin explicitly with beauty. Others emphasised the undesirable impact of spots on appearance.

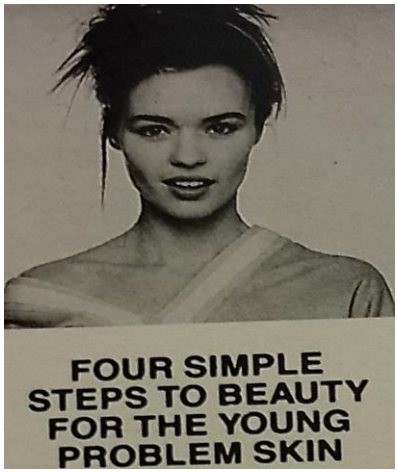
> *Those same cells that can block the pores of your skin and lead to unsightly spots, pimples and blackheads (Buf, 1977-1978a p.217, in Cosmopolitan eight times; Buf, 1977-78b, p.45, appears in Woman four times; Buf, 1978a, p.52, appears in Woman three times).*

While some advertisements stated that the signs of acne were unsightly, others highlighted the cosmetic aspect in the accompanying images. For example, the image below uses a caricature that exaggerates and draws attention to the appearance of a single spot. The accompanying text suggesting it equates to an emergency. Similar caricatures of singular spots have been identified in television cartoon depictions of

acne, whereby a single spot was usually portrayed in a comedic way and associated with appearance concerns and teasing (Subrt & Wagner, 2013).

(TCP, 1987, p.48, appears in Woman three times).

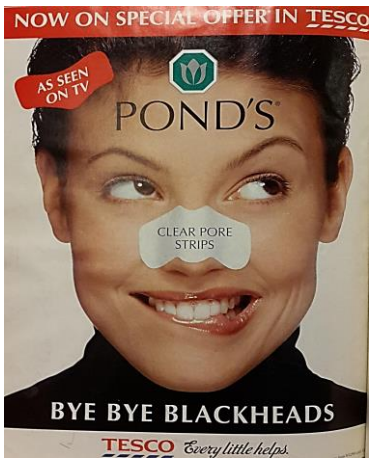
However, caricatured images of spots were rare across the magazines and time segments studied. Instead, advertisements typically paired images of women with clear skin with straplines and headings making reference to beauty.



(Pier Auge, 1987, p.140; Pier Auge, 1988, p.216, in Cosmopolitan).

(LST CLINIC, 1997-98, p.266, appears twenty-one times in Cosmopolitan).

The format of using images of women's faces with noticeably clear skin in advertisement for acne-related products appeared throughout the period studied. This focus on the appearance of the skin was interpreted to suggest that the framing of the advertisements were cosmetic. Appearance concern is reportedly high among individuals with acne (Hassan, Grogan, Clark-Carter, Richards, & Yates, 2009). The cosmetic framing of the advertisements could be considered to convey the message that if you have acne or even the occasional spot then you should be concerned about the appearance and clarity of your skin.



(PONDS, 1998, back cover, in Woman).

(Gorgeous Skin, 2007a, p.52, appears in Woman three times; Gorgeous Skin, 2007b, p.272-273; Gorgeous Skin, 2007c, p.303; Gorgeous Skin, 2007dp.153; Gorgeous Skin, 2007e, p.257; Gorgeous Skin,2008, p. 210, appear in Cosmopolitan)

It is notable that the images above are of women, with one exception that could be considered gender neutral. This gender split was evident within the dataset. The frequency with which skin care products were pictured with women or subtly associated with female gender suggests that acne is a cosmetic concern and problem for women. This is unsurprising as the magazines were all targeted at a female readership. While some adverts made explicit reference to both males and females, the majority of corresponding images were of females or showed a male partner in close proximity, with his gaze fixated on a female. The majority of images that did show a male (not as a partner) appeared in *Woman*, between 1972 and 1987 and were less idealised. This may be related to *Woman's* target readership (e.g. mothers and wives), which reflected a more traditional gender role where the woman may be responsible for household shopping, which may include purchasing products for her husband and children.

The latent position of the advertiser

Advertisers positioned themselves in several ways, usually as caring experts and friends of the reader, offering their help and advice to those 'in need'. Peixoto Labre and Walsh-Childers (2009) reported similar finding regarding the framing of teen girls' magazines digital content.

> *Skin trouble? NOW-RIMMEL ANSWERS YOUR CALL FOR HELP* (Rimmel, 1978, p.49, in Woman).
>
> *Everything we know about skin care goes into our foundations: And Clinique knows a lot about skin* (Clinique, 2007b, p.5, in Cosmopolitan).

Later advertisements in the 2000s made more reference to sharing 'secrets' with the reader, suggesting a close friendship.

> *UNLOCK THE SECRET TO PERFECT FOUNDATION: Psst, girls. Fed up with making foundation mistakes? Lancome holds the key to finding your perfect foundation, so unlock your dream to achieving your best-ever complexion* (Lancome, 2003, p.116-117, in Cosmopolitan).

However, the advertisers also placed an onus on the reader to follow advice.

> *Remember, your skin can be beautiful but it won't wait for ever. So start your new skin-care programme now* (Boots, 1982, p. 138-139, in Cosmopolitan).

The positioning of the reader as accountable for their own treatment becomes increasingly explicit. A 'Take Control' rhetoric is obvious in the twenty-first century Clearasil advertisements.

> *Show your skin who's boss. It's time to take control* (Clearasil, 2003a, p.5, insert in Cosmopolitan).

Discourse: 'war on spots'

The language used within advertisements interlinked with the framing. A striking example was that advertisers also positioned themselves and their products as a protector or warrior of readers' skin, describing spots and the causes of spots as the enemy. Such advertisements use alarmingly violent language to describe how the product 'fights', 'kills' or destroys the enemy'.

> *"Combining three germ-killing medicaments, Torbetol gets down to the root of the trouble. It penetrates deep into the skin and works under the surface; unclogging blocked pores, drying up excess oils and destroying pimple causing bacteria (Torbetol, 1972, p.36, in Woman).*
>
> *Cepton Lotion and Gel works fast to kill spot-causing germs - then set up an "all-clear zone." An army of germ killers. (Cepton, 1977, p.241, appears in Cosmopolitan twice).*

The violent rhetoric contained within many of the advertisements personifies both the treatment and the spots, creating a metaphor of the skin as a site of war. However, the violent language was often accompanied by descriptions of the product caring for your skin.

> *Tough on spots, gentle on skin (Swiss Bio-Facial, 1977a, p.177; Swiss Bio-Facial, 1977b, p.99; Swiss Bio-Facial, 1978a, p.164; Swiss Bio-Facial, 1978b, p.164, appears in Cosmopolitan four times).*

> *Solution 41 fights back at bacteria. Dissolves deep plugs of grease. Cleanses and soothes. It's a medicated liquid that keeps on working. Protecting skin and helping it to heal (Innoxa, 1988, p.24, appears in Woman three times).*

The use of military language in spot treatment advertisements appears more often in *Cosmopolitan* and usually accompanied advertisements for skin cleaning products that cited bacteria and germs as the cause of blackheads and spots.

> *Then it penetrates the pore to kill bacteria. Finally it dries up oils and irritants to actually starve the spot. Clearasil 3-way action goes on working for up to 12 hours. So little application first thing in the morning and last thing at night is all you need for round-the-clock protection. Try Clearasil Cream. Your spots will hate you for it* (Clearasil, 1983, p.82-83, appears in Cosmopolitan five times).

Combative language appears across the four decades. The language does appear to soften somewhat over time using terms like 'beat' and 'evict' rather than 'kill', but retains the notion that bacteria and spots need removing.

> *Powerful enough to help beat spots, but kind enough to use every day* (Clearasil, 1998a, p.189; Clearasil, 1998b, p.214, in Cosmopolitan).

> *Kill them with kindness[:] If you exfoliate, you open clogged pores. Oxygen helps to evict blemish-causing agents. Targeted ingredients rush into accelerated action. […]. Within days, skin starts to look clearer. We come in peace* (Clinique, 2007a, p.5, in Cosmopolitan).

Such language also has the potential to evoke emotional responses through positioning the individual and their skin at odds with one another.

> *WITH FRIENDS LIKE SKIN WHO NEEDS ENEMIES*? (Clearasil, 2003a, p.3, insert in Cosmopolitan).

Themes

'Spot-free' 'perfect' skin as the ideal

In line with the framing of acne as a cosmetic concern, the majority of advertisements within both magazines and across each time segment depicted 'perfect', 'flawless', 'clear' skin as an achievable societal ideal for women and girls.

To keep your skin clear and beautiful and your hair brilliant, you need the natural cleansing, toning and clarifying tonic of lemons. Ask your chemist for a bottle of lemon Delph, the latest skin freshener that beautiful women are using to capture radiant loveliness. Lemon Delph improves the fair splendour of the skin, helps stimulate the release of clogged pores which often lead to skin blemishes (Delph, 1972a, p.58, appears in Woman seven times).

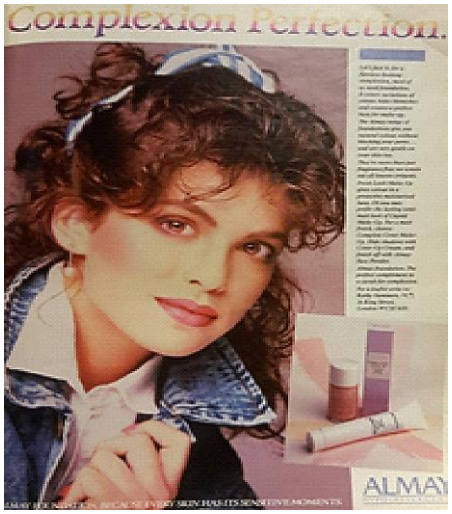
Bio Clear offers you clear, clear, beautiful skin (Helena Rubinstein, 1977, p.65, in Cosmopolitan).

Perfect, soft-textured skin was portrayed as something that women were expected to possess.

Helps keep my skin clear. Soft. Smooth. Just the way skin should be (Almay, 1973, p196-197, appears in Cosmopolitan twice).

This message that beautiful skin equates with perfect, clear, skin was often explicitly and implicitly contained within the titles, images, content and straplines.

(Ella Bache, 1982-83, p.218, appears in Cosmopolitan seven times).



"Complexion Perfection" (Almay, 1987-88, p.46, in Cosmopolitan).

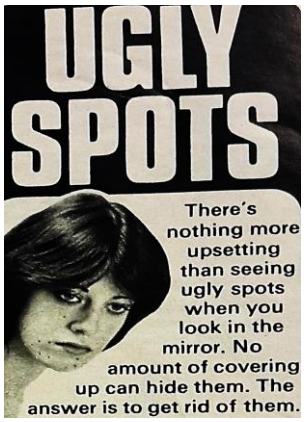
(Gorgeous Skin, 2007, appears in Woman three times and Cosmopolitan four times).

The above images demonstrate how the messages carried within the title and image are often the most salient, often using adjectives in relation to overall and skin appearance, pairing these titles with images of attractive women with glowing clear skin. The frequency with which certain adjectives are used in the title provides an insight into how skin has been portrayed over the four decades studied. Within the titles 'Beauty', appears 78 times across both magazines and all time periods. 'Clear' appears 40 times, and 'perfect' 14 times. 'Pure' appears six times, mainly in the 1970s, potentially reflecting traditional moral values for women. Whereas 'Gorgeous' occurs 11 times, across both magazines in 2007. Moreover, 'imperfect' and 'ugly' are used in advertisement titles in just one advert each, in 1978, appearing three and six times respectively. 'Problem' appears more frequently: 21 times in advertisement titles, and is used in each decade, suggested that acne is something to be solved with the aid of a solution. The variation within the use of certain terms in titles over time indicate that the overtly negative words and descriptions of skin and appearance have become less frequent and that there is an increase in the number of titles using positive and ideal-focussed titles to attract the readers.

While smooth, clear skin was conceived as the ideal, visible signs of acne were presented as 'imperfections', 'unwanted', 'troublesome' problems that prevent someone from meeting the ideal or being considered beautiful or attractive.

> *A BEAUTIFUL SMOOTH SKIN is every girl's dream, but sometimes spots and pimples can ruin a complexion* (Torbetol, 1972, p.46, in Woman).
>
> *it's important that your face isn't spoilt by spots* (Face-Savers, 1977a, p.171, in Cosmopolitan).

The following quotes appear to reinforce the stereotype that women with acne are less attractive. The directness of the quotes below suggests that this is a fact rather than an opinion. "Spotty skin", especially on the face, is explicitly labelled by some adverts as "unsightly" and "ugly".



There's nothing more upsetting that seeing ugly spots when you look in the mirror (DDD, 1978b, appears in Cosmopolitan six times).

For all the love you show your skin, you think it would love you back. But no. Love isn't making your forehead look like a relief map of the Swiss Alps (Clearasil, 2003a, p.5, insert in Cosmopolitan).

The narrow representation of ideals in acne-related advertisements reflected a lack of diversity, which was not only limited to skin clarity. The vast majority of images within the advertisements showed slim females with clear, glowing, perfectly even skin, completely free of any signs of acne, 'flaws', imperfections, pigmentation or pores. Strikingly, almost all the images were of Caucasian females, with only one image depicting a woman whose racial identity was unclear.

Advertisements rarely referred to perfect skin as the norm explicitly. However, the overwhelming number of adverts depicting flawless skin reflect a distorted reality of what skin should and does look like, contributing to the message that not only is perfect skin the ideal but it is also the norm and visible acne is abnormal, deviating from societal expectations. Only 15 images in both magazines showed individuals with visible signs of acne: six in *Woman* and nine in *Cosmopolitan*. All except for one were drawings or cartoons and acne was usually represented by artificially added 'dots' on the face. The one photograph that showed signs of acne, was alongside an advertisement for a collagen procedure to reduce acne scarring. Furthermore, the dark before image contrasts with the bright smiling image post treatment.

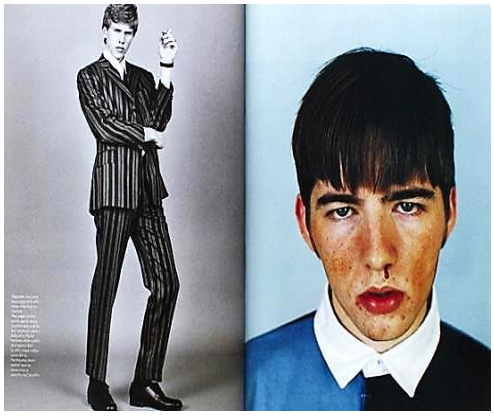
(M.B.N.S., 2008, p.68, in Woman).

Moreover, a number of photographs, accompanying acne-related advertisements, represent 'spots' or blackheads through other means, such as a spots written across the model's 'flawless' skin, or a model with flawless skin using a product designed for removing blackheads.

(Cepton, 1977, p.241, appears in Cosmopolitan twice).

Interestingly, a newspaper article published in *The Scotsman* in 1997 predicted that spots could become fashionable, pointing to an image of a male model with a nosebleed and spots modelling a rugby polo shirt in the fashion pages of *Arena Home Plus* (Stenhouse, 1997). Nonetheless, the author highlights resistance within fashion and magazine industries in presenting models with visible signs of acne. Stenhouse (1997) cites *Cosmopolitan's* response as: *"We wouldn't use spotty models. The magazine's very aspirational so it just wouldn't fit" (p. 16).* The deputy editor of another women's magazine, *Zest,* responds: *"We're a health and beauty magazine and one of the biggest signs of health and vitality is clear skin… Oh you can do wonders with makeup and if all else fails you can take [spots] out with a computer"* (Stenhouse, 1997, p. 16).

The above responses suggest that advertisers and magazines make every effort to ensure that their images show models with clear skin, which they associate with aspirations, health and beauty. These measures include selecting clear-skinned models and using makeup and airbrushing techniques to ensure that throughout the magazine models appear to have perfect skin. It also implies that by the late 1990s airbrushing was a common and widely accepted practice in the fashion industry.



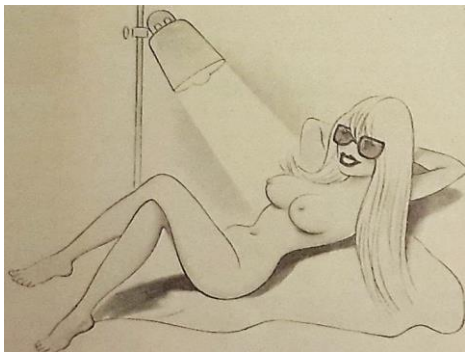
(Arena Homme Plus, 1997, p.208-209)

It is also interesting that it is a male model pictured with acne in a magazine targeted at men. This could indicate that the ideal of perfect skin is more typically aimed at a female audience and that signs of acne are more socially acceptable on boys and men. In this study there was no evidence for spots becoming 'fashionable', but images of men were more likely to show representation of acne. *Woman* contained

proportionally more images of men and boys in acne-related advertisements. This may be explained by differences in the magazines target readership, with *Woman* more likely to contain advertisements aimed at women making decisions on household and family products.

Visual images of women across various media forms are proposed to provide an insight into contemporary notions of femininity (Zweiniger-Bargielowska, 2001b). Zweiniger-Bargielowska (2001b) proposes that while women's role in the home is no longer considered an essential element of femininity, the appearance of the female body continues to be. The prevalence of images of women with seemingly flawless skin feeds into a notion that appearance ideals including flawless skin remain important aspects of femininity.

Furthermore, *Cosmopolitan* frequently contained sexualised images of women's bodies, suggesting that exposure of flawless skin is another component of femininity for the 'young, independent' target reader of *Cosmopolitan*. Images included sketches and later photographs of women either undressed or wearing minimal clothing.



(Escalade, 1972, p.123, Cosmopolitan).

(The Harley Medical Group, 2002-2003, appears in Cosmopolitan ten times).

Further pressure may come from contemporary celebrity culture. From 2003 onwards, several advertisements made reference to celebrities, suggesting a cultural shift towards modifying the skin and body to emulate celebrities and supermodels.

> *US Dermatologist to the stars, Dr Laurie Polis, knows that healthy skin is key to her clients' self-esteem* (Clearasil, 2003c, p324, Cosmopolitan).

> *Renowned Max Factor makeup artist Ashley Ward travels the world to tend to her long list of celebs and supermodels. If you want to know how she gets their skin to look so good read on* (Max Factor, 2007, p.141, in Cosmopolitan).

Perfect skin as a commodity

Most advertisements implied that perfect skin, free of spots, blemishes, blackheads or other 'imperfections' or so called 'flaws', could be achieved easily through the purchase and regular use of specific products from a specific brand. Consequently, they suggest that clear skin is not only an ideal, but also the norm.

> *Bio Clear offers you clear, clear, beautiful skin (Helena Rubinstein, 1977, p.65, in Cosmopolitan).*

> *For a clear, clean, spotless skin and a glowing complexion get MUDD "A glowing complexion in just 15 minutes!" (MUDD, 1982a-83, p.45, appears in Woman five times; MUDD, 1982-83, p.158, in Cosmopolitan sixteen times).*

Terms like 'perfect' were also used in product names suggesting that perfection was achievable.

> *By moistening your nose and applying the biore **Pore Perfect Strip**, it acts like a magnet on clogged pores, pulling out dirt, make-up, even blackheads (Biore, 1997-98, p65, appears in Cosmopolitan six times).*

> *Max Factor Flawless Perfection RRP £12.99 (Max Factor, 2007, p.142, in Cosmopolitan).*

The extract below demonstrates how advertisements often position their products as the only effective product that gives you clear spot-free skin and that you need to spend more for a superior product.

> *Because it's the only spot treatment cream with the special Swiss formula for fresh, young clear skin. That's why it's more expensive, but then it could be the best money you've ever spent (Swiss Bio-Facial, 1977a, p.177; Swiss Bio-Facial, 1977b, p.99; Swiss Bio-Facial, 1978a, p.164; Swiss Bio-Facial, 1978b, p.164).*

Several advertisements also endorsed the use of multiple products, from the same brand, as part of a skincare routine.

> *For problem skins with a tendency to acne Pier Auge have formulated Linge Bardane (prepared from the whole fresh Burdock plant) to*

provide a short, effective treatment. Just four products to cleanse, tone, purify and treat. That's all. All that is needed to regain a good complexion, fresh and healthy, without imperfections (Pier Auge, 1987, p.140; Pier Auge, 1988, p.216, in Cosmopolitan).

You can control blemish breakouts effectively, without over-drying your skin, by using a combination of Foaming Cleansing Cloths, Daily Mortifying Moisturiser and Daily Skin Perfecting Treatment (Clearasil, 2003c, p.324, in Cosmopolitan).

The emphasis on the simplicity through which clear skin can be obtained adds to the perception that clear skin is the norm and that the signs of acne can be erased quickly and easily (if you only go to the trouble of purchasing the right product).

Give yourself CLEAR, SMOOTH NEW SKIN with a safe, effective 6 day home treatment that can be used to treat problems such as ACNE, LARGE PORES, OILY/DRY BLOTCHY SKIN, AGE LINES, ACNE SCARRING, BLACKHEADS, SUN DAMAGED SKIN and RAZOR BUMPS (Dermacare, 1992, p.224, appears twice in Cosmopolitan).

Exclusively from Gorgeous Skin: Dermasponge - the first and only true Microdermabrasion product that you can use at home which achieves clinic results on acne scars, open pores, fine lines, discolouration, wrinkles, sun damage, age spots, fine lines, stretch marks etc. and will also give you a revitalised, healthier, younger looking skin - all at a fraction of clinic prices with no time off travelling to expensive appointments (Gorgeous Skin, 2008, p.210, in Cosmopolitan).

Over time there is an increase in expectations of what products can do, with products offering multiple features and ordinary skin products highlighting that they do not cause blackheads or acne.

RoC Revitalising Night Cream which is hypo-allergenic without perfume, helps "accelerate" cell renewal, giving your skin a fresh start to each day - making it feel more supple, healthier and lovelier. And because it is non comedogenic it will not encourage the formation of blackheads (RoC, 1987, p80., in Cosmopolitan).*

The easiest make-up imaginable. […] Gently moisturises and protects with a natural SPF 15. In skin perfect shades. Non acnegenic (Estee Lauder, 1998, P.2-3, in Cosmopolitan).

Superbalanced Make-up is the ingenious solution. Absorbing oil where needed. Keeping dry patches comfortable. Even reducing the appearance of fine lines (Clinique, 2007b, p.5, in Cosmopolitan).

Achieving perfection through changing treatments

The methods through which perfect skin could be achieved also differed between the magazines and over time. Within earlier advertisements and *Woman,* the treatments offered were primarily washes, topical treatments, and concealer. Early advertisements in *Cosmopolitan* offered similar treatments, with the addition of regular advertisements for home tanning equipment, which promised to give an 'attractive golden tan' while treating acne with UV light.

Be the first with a Deep eye-catching Tan which film stars and "Men at the Top" always have, together with a new feeling of vitality which only sunshine can give. You will look better, feel better with a permanent natural tan […] produces more tanning rays (UVA) than conventional lamps for faster deeper tanning without sunburn. NOW ONLY A FEW MINUTES A WEEK gives the whole family an attractive golden suntan all year. Lie down, relax, at the flick of a switch the ULTRA-VIOLET rays will clear spots and acne, leaving a healthy tanned complexion (Solaire, 1973, p191, appears twice in Cosmopolitan).

The above quote not only links tanned clear skin with attractiveness and health but also equates an attractive tan with success through references to business men and film stars.

> *JUST A FEW MINUTES A WEEK KEEPS THE WHOLE FAMILY ATTRACTIVELY BRONZED. HELPS RELIEVE SPOTS/ACNE (Supernova, 1977-78a, p144, appears in Cosmopolitan ten times).*

These advertisements present sunlamps as safe and healthy ways to improve the appearance of the skin with the added benefit of UV rays 'clearing up' spots, suggesting that attractive skin is not just achieved by having clear spotless skin but also via tanning. These advertisements disappear after the 1970's despite continued beliefs regarding the therapeutic effect of sunlight on acne. This corresponds with a decline in the popularity of home sunlamps and may be related to increased concerns regarding UV light and skin cancers or the growth of tanning salons (Hunt, Augustson, Rutten, Moser, & Yaroch, 2012). The above advertisements also raise concerns over the potentially dangerous messages within advertisements. Societal beliefs that UV tanning treats acne, and tanned skin is a sign of health and attractiveness is cited within reviews as a barrier to skin cancer prevention measures (Garside, Pearson, & Moxham, 2010).

A later trend in both magazines during the late 1990s and early 2000s is that of ‘pore strips’. Ten ‘pore strip’ adverts appear in Cosmopolitan between 1997 and 2003. Pore strips are a method of extracting the contents of pores, usually on the nose, and the content, usually blackheads, can often be seen on the strip once removed.

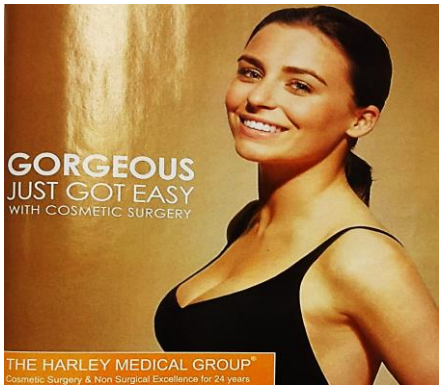
A few words to describe the biore Pore Perfect Strip: Revolutionary. Genius. Yuck. […] Pore Perfect Strip, it acts like a magnet on clogged pores, pulling out dirt, make-up, even blackheads. So in about 10 minutes, all those 'nasties' in your skin are on the strip, instead of blocking your pores (Biore, 1997-98, p65, appears in Cosmopolitan six times).

The above advertisement also suggest that blackheads are a form of dirt and impurities, and that readers ‘should’ feel a sense of disgust when viewing our pore contents. Furthermore, each of the pore strip advertisement’s show female models using the product with seemingly perfect skin, free from any visible ‘imperfections’ or pores, implying that even those with clear skin need to purchase products to perfect their pores, and a trend towards increasing unrealistic ideals.

There is a striking shift from the 1990s onwards, with the introduction of advertisements that relate to cosmetic surgery and cosmetic procedures, which offer to not only perfect the skin but also to achieve the perfect body. A perfect body is conceptualised as a body that comprises of perfect skin, free from acne, acne scarring, signs of aging, ‘blemishes’ and body/facial hair. The body is something that can be altered simply and quickly using surgery and the skin can be perfected using lasers. These advertisements primarily appear in health and beauty classified advertisement section at the back of *Cosmopolitan*.

Laser beam your problems away: Acne, Acne Scarring (The London Cosmetic Laser Centre, 2002, p369, in Cosmopolitan).

The emphasis on the simplicity and quick results of cosmetic surgery raises several concerns, as it disregards the potential risks of undergoing such procedures.



(The Harley Medical Group, 2007-2008, p.333, appears in Cosmopolitan four times).

These striking shifts in advertisements reflects developments in technologies and treatments available to those with acne and those who want to change their skin appearance. Nevertheless, there appears to be a concerning trend towards encouraging people to enter a continual pursuit of self-improvement, via increasingly invasive treatments in the hope of achieving 'perfection'. There are very few ways of identifying which images have been airbrushed and where. However, the appearance of glossy photographed images in advertisements post 1990, with no slight 'imperfections' visible, suggests that airbrushing is likely to have been used in many of the glossy images, adding to the impossibility of the ideals portrayed in the magazines.

Skin clarity as an indicator of health.

Advertisements, across time and magazines, not only portrayed clear skin as aesthetically pleasing but also implied that the skin can be used as a readable barometer for health. Considering the potential health risks of treatments (tanning and cosmetic procedures) discussed above, it appears somewhat ironic that advertisers described skin, post treatment, as healthier looking or referred to their products as 'healthy'. Skin with visible signs of acne was not explicitly described as unhealthy or contagious. However, advertisements did refer to germs, bacteria and infections, which needed to be treated, usually with a medicated product.

> *Derma Foam to deeply cleanse infected pores. Derma tonic to deeply close the pores and help them heal. And Derma Cream to help keep the skin germ free. Then there's the Fontarella for healthy skins (Fontarella, 1972, p.111, in Cosmopolitan).*

> *effectively treat unsightly spots and pimples, help your skin look clearer and healthier than for years (Clearasil, 1977, p.62, in Woman).*

Advertisements often highlighted the potential for other products to harm the skin, as opposed to their products which supported the health of the skin. Several advertisements also referred to recommendations by doctors and dermatologists.

Unfortunately, normal washing can leave behind a harmful soap residue which dries and irritates the skin. Not surprisingly, dermatologists recommend Neutrogena - the pure clear cleansing bar with no dyes, detergents or hardening agents. Mild and hypoallergenic. It liquefies and rinses off thoroughly, leaving you with only the healthy glow of absolutely clean skin. […] Ask your chemist for Neutrogena and know that you are not just washing your face - you have chosen the healthy way to care for your skin (Neutrogena, 1987, p.94, in Cosmopolitan).*

Clear blemish-free skin was assumed to indicate healthy skin, suggesting that the presence of blemishes rendered the skin unhealthy.

It helps prevent blemishes and reduces shine. It's microbeads deep-clean pores and exfoliate. In just two weeks you'll see healthy-looking, beautifully clear skin (Clearasil, 2003b, p.288, in Cosmopolitan).

Furthermore, several advertisements described the importance of clear skin to overall wellbeing.

LOOK GOOD, FEEL GREAT: Be healthy and happy with products for your essential wellbeing (Cosmopolitan, 2007c, p.303).

Faking perfect skin

There was some debate between advertisements as to whether it is acceptable or not to conceal the visible signs of acne.

To give skin a flawless appearance, use Medicated Make-up, a preparation which covers up spots and blemishes while helping to heal them […] use Hide and Heal Stick (so handy to carry with you at all times, and as easy and quick to apply as a lipstick) (Rimmel, 1972a, p.7, in Cosmopolitan, p29, in Woman).

Continuous Coverage is pleasantly deceptive. Smoothed on, it looks like creamy, naturally perfect skin (Clinique, 1982, p.15, in Cosmopolitan).

how do you make sure everyone believes that peachy complexion is yours, and not courtesy of a bottle? Makeup artist Ashley Ward knows that the key to perfect-looking foundation is choosing the right colour and texture for your skin. […] Spots, blotches and dark circles should be tackled with concealer (Max Factor, 2007, p.141, in Cosmopolitan).

These advertisements stress the importance of concealing spots, and the need to constantly carry a product that can hide and heal spots, implying that visible spots are not socially acceptable. This corresponds with accounts from individuals with acne who avoid social situations, and use make-up as a coping mechanism (Murray & Rhodes, 2005). The majority of advertisements that advocated concealment promoted make-up products. Most of these were either concealer sticks or foundation, emphasising the simplicity of achieving a flawless spot-free complexion quickly.

In contrast, advertisements in the 1970s explicitly state that concealment is unacceptable and 'worsens' the skin. These advertisements also take the view that spots are undesirable and require treatment rather than concealment. Both perspectives make it clear that the visible manifestations of acne are socially undesirable and deviate from the social norms and ideals.

> *Using cosmetics to hide an unclear complexion can make your problems worse rather than better (Cidal, 1973, p.45, appears in Woman).*

It makes you feel like hiding your spots behind a mask. Before you do anything quite so dramatic, we'd like you to try Swiss Bio-Facial spot treatment cream. It'll restore your faith as well as your face (Swiss Bio-Facial, 1978d, p.102, appears in Cosmopolitan twice).

The advertisements below implies that the behaviour of women who use make-up to conceal acne is irrational and places accountability on the individuals for the worsening of their condition.

> *What's that you say "But if I don't use make-up my boyfriend will see all my horrible spots and pimples and the red blotches on my nose and he won't love me anymore!" Illogical! Hiding the problem won't make it go away. The only way to get that skin clear and trouble-free, is to get really clean. Ordinary soap won't do that. More make-up will only make it worse (Cidal, 1977, p.65, appears in Cosmopolitan three times).*

Overall, it appears that between the period 1972 and 2008, clear skin remained a relatively stable and widely disseminated ideal for women, linked with ideas of femininity, attractiveness and health. There is a clear message that women can and should achieve these ideals through the consumption of various branded products. The 1990s shows a shift towards increasingly invasive treatments promising readers a perfect body, free from both acne and acne-scarring. The results also provide evidence for increasing pressure on women to meet increasingly unrealistic ideals via a 'cult of self-improvement'.

(Mis)Associations with acne

Another core theme which materialised out of the analysis related to associations with acne and misinformation about acne. Such associations were often reflected in the

information within advertisements about the causes of acne and the rationale for how to treat acne/spots. These associations placed different levels of accountability on the part of individuals with signs of acne.

'A spotty skin is a dirty skin'

One of the most frequently mentioned and salient associations with spots, blemishes and blackheads was the myth that spots and blackheads are caused by dirty skin and poor hygiene.

> *What you need to get rid of your spots is to clear out the dirt, grease and germs that encourage them. Wash everyday with pHisoHex, because to have perfectly clean skin is one way to get rid of your spots (pHisoHex, 1972, p.2, in Woman).*

> *Neutrogena's new Clear Pore Treatment gently works on the root cause of spots and blackheads - blocked pores. This invisible leave on gel clears ingrained dirt, oil and bacteria from deep inside the pores (Neutrogena, 1997, p.138, in Cosmopolitan).*

> *Once the devise is in contact with the face, it produces ozone which sterilises the skin, leaving it gleaming and super clean. At the first sign of a spot, simply, lift the Clear Zone just off the skin so it 'sparks' thereby repressing the offending bump! (The Beauty Works, 1998, p.97, in Cosmopolitan).*

The majority of advertisements referred to cleansing and cleaning the skin as effective treatments and preventative measures. However, there is a lack of substantial evidence to support cleaning as an effective treatment for acne, and over-washing may irritate the skin (Magin, Pond, Smith, & Watson, 2005). Advertisers appear to validate associations with dirt by stating that these opinions are shared by medical professionals.

> *Doctor's will tell you there's a very simple secret for a beautiful complexion. Clean skin (Neutrogena, 1972-73, p.84, appears in Cosmopolitan four times).*

> *Most dermatologists agree that healthy skin is achieved, not by following a complicated skin care regimen, but by keeping your skin meticulously clean (Neutrogena, 1987, p.94, in Cosmopolitan).*

> Advertisements also advocated the use of astringents to cleanse the skin.

> *with its modern astringent action, Witch Hazel really does clean out those clogged pores, your skin has never been so thoroughly cleansed before, and it's a help with pimples and spots too - they just hate clean skin! (Aronde, 1977, p.7, in Woman).*

The dark colour of blackheads, caused by melanin, is frequently mistaken for dirt. Regardless, advertisements appear to perpetuate this myth.

T-Zone Nose Pore Strips use the pure power of natural antibacterial organic Tea Tree to effectively draw out dirt & impurities, clearing blackheads & leaving pores thoroughly purified (T-zone, 2003, p.329, in Cosmopolitan).

The belief that acne is caused by dirt and poor hygiene, and can be treated through improved cleanliness, is frequently reported as a commonly held myth (Magin, Adams, Heading, Pond, & Smith, 2006b; Magin et al., 2005). Interestingly, such myths have also appeared in dermatology textbooks:

(comedones) indicate the mouth of small sebaceous ducts choked with dust or dirt, from which a long, wormy-looking fatty mass can be squeezed (Thompson, 1978, p.12).

Over the time-period, a slight decline in the relative frequency of dirt-related content can be seen. This could relate to improved awareness of the myths surrounding acne.

Modern living/The Environment

A number of advertisements emphasised the impact of environment factors on skin. However, while it is accepted that readers cannot and should not always live a 'goody-two-shoes' lifestyle (Max Factor, 2007, p.141, in *Cosmopolitan*), readers are encouraged to take action to prevent the effect of the environment on their skin and appearance. The environment was often described as posing as a danger to a good spot free complexion.

March comes charging in with everything likely to do unkind whatevers to your skin. Rain wind, and all the rest wreck the complexion (Elizabeth Arden, 1973, p.18, in Cosmopolitan).

"If you live or work in a city," says Mary Quant. "you've got dirty skin" Regular use will rid your skin of the city's grime, excess oil and stale old make-up remnants. (And you know what they lead to: bad skin and evil blackheads (Mary Quant, 1973, p.161, in Cosmopolitan).

As discussed in the previous theme, sunlight and UV light as a 'natural' therapy for acne and pain conditions appears regularly during the 1970's in advertisements for home UV sunlamps, but disappeared in the 1980s.

When it comes to caring for our skin it can be a tough world out there. We all know about the dangers of the sun, but everyday our skin also comes under attack from pollution, such as car fumes, cigarette smoke, even dust (Chanel, 2003, p.22, in Cosmopolitan).

Similar comments appear in some 1970s medical textbooks:

The condition [acne] is often associated with dyspepsia, constipation and lack of fresh air and exercise (Thompson, 1978, p.12).

Although advertisements mentioned that perfect skin could be achieved by a good or virtuous lifestyle, several advertisements implied that a virtuous lifestyle is boring and that certain products and services can be used to hide and erase the effects of lifestyle and the environment.

> *We'll put back in what the good life takes out (Escalade, 1972, p.123, in Cosmopolitan).*

> *We all know that good skincare and a virtuous lifestyle are the way to great-looking skin. But for those of us who can't really be described as goody-two-shoes, a little help in the shape of foundation is gratefully received (Max Factor, 2007, p.141, in Cosmopolitan).*

Diet is commonly debated as a lifestyle factor implicated in acne (Magin et al., 2006b). It is therefore surprising that diet was rarely mentioned in advertisements.

> *Your skin condition is constantly affected by a number of internal and external factors such as diet, stress, pollution and climate (Clarins, 1987, p.101, in Cosmopolitan).*

While earlier advertisements situate diet among other lifestyle factors, later advertisements refer to diet exclusively, suggesting that supplements can improve readers' health and consequently readers' skin appearance.

> *Banish blemishes: If your diet doesn't contain very much garlic, take a daily supplement. It works on the inside to keep your immune and digestive system in tip-top condition which, in turn, will help to keep your skin clear (Superdrug, 1998, p.193, in Cosmopolitan).*

> *If you have spots or skin problems, the natural herbs in HRI Clear Complexion tablets help to treat your skin from within and keep it clear (HRI, 2008, p.272, appears in Cosmopolitan twice).*

There does, however, appear to be a slight increase in the number of advertisements mentioning diet over time. This suggests that those with acne may be purchasing specific supplements in an attempt to manage the condition.

A 'Teenage Problem'

Acne was portrayed as a teenage or young person's problem within many advertisements. The majority of these appeared between the early 1970s and the early 1980s. Furthermore, the higher frequency of acne advertisements in *Cosmopolitan* may reflect how acne/spot advertisements are targeted at magazines with younger target reader ages, as acne is most prevalent in adolescence (Morris-Jones, 2014; Williams et al., 2012). Advertiser references to acne as common in this age group has the potential to normalise the condition for young people. However, many of these advertisement also imply that acne and spots can be and need to be treated easily and quickly. Furthermore, the associations between acne and teenage

years has the potential to convey the message that acne is not 'normal' and associated with immaturity, despite acne often continuing in to adulthood (Mooney, 2014).

> *Every year tens of thousands of young men and young women between the ages of 14-24 can find their lives made miserable by the horrid spots and pimples of acne (Torbetol, 1973, p.46, appears in Woman three times).*

The above quote not only provides a specific age range, but also points to acne as impacting the wellbeing of this age group.

> *The Science Of It: BIO-CLEAR medicated products have been created especially for young people with oily, troubled skin (Helena Rubinstein, 1977, p.65, in Cosmopolitan).*

Recurrent references were made to "young problem skin" and age related to acne/spots.

> *Oily skin. This is often a condition of the teenage years. Unsettled hormone levels result in unsightly hormone problems. Innoxa's 41 range is ideal for difficult young skins, effectively treating oiliness, blackheads and spots. However, many women continue to have oily skin into their twenties and after (Boots, 1982, p139, in Cosmopolitan).*

However, there are several advertisements that challenge the assumption that oiliness and acne are associated with 'young skin'.

> *a girl of 17 can have dry delicate type 1 skin and a woman of 45 can be plagued by excessive oiliness and breakout if she has Type IV skin (Clinique, 1973, p.21, in Cosmopolitan).*

The message that acne is only common among adolescents and young adults appears more frequently in the 1970s and early 1980s. The reasons behind this are unclear. However, there has been an increase in the number of adults seeking medical treatment for acne (Collier et al., 2008; Goulden, Clark, & Cunliffe, 1997). This potential increase in adult demand for acne products may also feed into marketing strategy. It appears plausible that companies are maximising their potential market for skin and acne-related products. Additionally, this shift could reflect improved awareness of acne as a skin condition that also affects adults.

Psychosocial impact

Advertisements also emphasised the impact of spots/acne on body image, psychological wellbeing and social interactions. Furthermore, advertisements commonly emphasised the positive psychosocial impact of 'achieving' clear skin. Several advertisements used a rhetoric of 'look good, feel good'. This fit the idea that you could feel better about yourself and your appearance through consumption.

As part of your everyday beauty treatment they'll help you look good and feel good, help keep your complexion really healthy (Delph, 1973, p.8, appears in Woman five times).

Soon you'll be looking much better. And it's true what they say about feeling as good as you look (Clearasil, 1977, p.62, in Cosmopolitan).

BODY CONFIDENCE: Be healthy, happy and look your best with our fantastic collection (Cosmopolitan, 2007a, p.214).

The advertisements often make specific references to treatments restoring confidence through clear skin. This implies that clear skin is essential for confidence.

Start using Bio-Clear and see how much more confident you can be (Helena Rubinstein, 1978, p.53, appears twice in Cosmopolitan).

Furthermore, the concept of 'complexion confidence' appeared in the late 1970s.

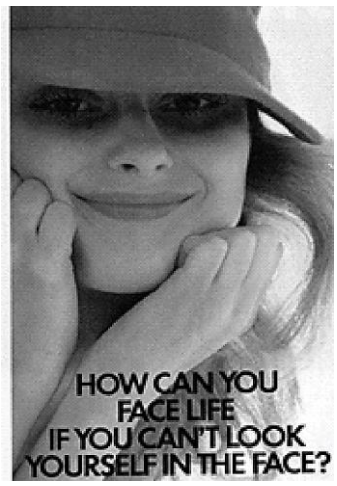
Use Deep Down daily - for Complexion Confidence (DDD, 1882-3, p.30, appears in Cosmopolitan seven times).

With the new Clearasil Total Control range, the future of skin confidence has just begun (Clearasil, 2003c, p.324, October, appears twice in Cosmopolitan).

Advertisements for surgical and non-surgical cosmetic procedures often claimed that the procedure would both improve readers' appearance and confidence. Claims that have been criticised by The British Association of Aesthetic Plastic Surgeons ([BAAPS], 2008) for exaggerating the results of cosmetic surgery and neglecting the potential complications.

The correction of Acne, Wrinkles, Thread Veins, Skin Blemishes, Pigmentation, and the removal of Unwanted Hair can make a significant improvement in your appearance and self-confidence. [...] Your Attractiveness is Important (LST Clinic, 1997-1998, p.266, appears in Cosmopolitan 21 times).

Many of the advertisements associated acne with psychological wellbeing. Acne and spots were described as "embarrassing" and "upsetting". Advertisements also presented images where models were visibly upset or crying and also described signs of social anxiety, referring to a desire to hide or avoid certain situations and feelings of shame and worry. The most poignant of these appear in the 1970s/early 1980s.



Just when she thinks she should start looking beautiful, she starts looking spotty. And life becomes unbearable. […] So now you know about Fontarella. Remember, it's easier to face the world when you can face your face (Fontarella, 1972, p.111, in Cosmopolitan).

The above image of a girl paired with the statement of "How can you face life" is particularly alarming. The suggestion that life becomes unbearable when a girl develops acne implies that life is not worth living, and the only way to face life is through using their particular product. The suggestion that products quickly erase the embarrassment and worry about acne appears frequently in advertisements.

> *The Beauty Of It: Medicated BIO-CLEAR means more than better skin. It takes away the pain and embarrassment, and the fear of face to face confrontation (Helena Rubinstein, 1977, p.65, in Cosmopolitan).*
>
> *ACNE: Individual treatments are given for all stages of this worrying condition (Kellie Collins, 1982-83, p.234, appears in Cosmopolitan six times).*

The image below provides another striking example of how images are used in advertisements to convey messages about acne and psychological wellbeing. The abstract nature of the image provides several areas for consideration regarding how the advertisement might be interpreted by readers. The tear and facial expression could be interpreted as a clear sign that 'imperfect skin' causes sadness and emotional distress. The use of clown make-up, accompanying strapline "Sadly make-up can do funny things to your skin" could be interpreted literally as a play on words, with clowns are associated with humour. It is possible that it suggests that 'you' are a fool for wearing make-up that causes spots. Alternatively, it could relate to the idea of being laughed at and humiliated for having acne.

Sadly make-up can do funny things to your skin. Like clogging your pores and creating the ideal home for germs. So no matter how frequently you cleanse your face, chances are that sooner or later spots will have the last laugh (Swiss Bio-Facial, 1978c, p.152, in Cosmopolitan).

The emphasis on distress appears to reduce over the four decades. However, the example below demonstrates that this message that acne ruins your life continues.

> *Is your life now ruined by skin problems? (The Formosa Centre, 1993, p.296, in Cosmopolitan).*

Messages about psychological distress appear to be indicative of internalised stigmatisation, with the 'actor' with acne portrayed as being aware that their skin appearance does not meet sociocultural ideals and consequentially feeling shame and embarrassment.

Social Impact

Certain advertisements implied negative implications of imperfect and acne-prone skin on a range of social relationships and interactions. Social implications included a range of situations.

> *SPOTs, pimples, rashes and itching can be physically irritating and socially embarrassing (DDD, 1978a, p.46-48, appears in Woman three times).*

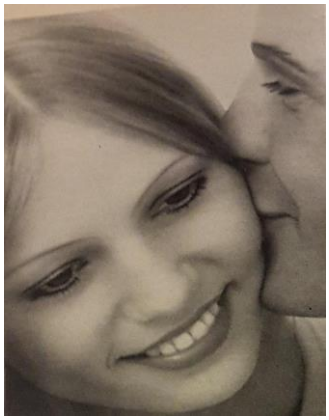
Several advertisements referenced visible signs of acne negatively impacting employment and employment opportunities, particularly in public facing jobs.

> *When your job is to welcome people, you don't welcome spots […] If you have to come face to face with people in your job, it's important that your face isn't spoilt by spots (Face-Savers, 1977a, p.171, in Cosmopolitan).*

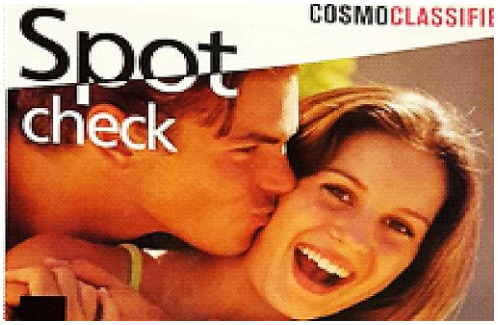
> *I have spent years worrying about the appearance of my complexion particularly as my work involves meeting people face to face. I wish I had found out about EVOLENCE sooner. My confidence has rocketed and I feel like a new person (M.B.N.S., 2008, p.68, in Woman).*

> *Unfortunately there is no answer to the bad timing of spots. They always seem to appear at important moments, like before an interview or a big date (Clearasil, 1982b, p.26, in Cosmopolitan).*

Of particular note, within *Cosmopolitan* was the suggestion that acne was a barrier to romantic relationships. This was often linked to the inference that skin clarity is a barometer for sexual attractiveness, and skin an intimate point of contact.



(Swiss Bio-Facial, 1973, p.165, appears in Cosmopolitan appears in three times).



(HRI, 2002-2003, p.215, appears in Cosmopolitan three times).

The extracts below exemplify anxiety about skin being 'revealed' to a partner and the fear that a relationship will end if their secret is unveiled. Fear of rejection and impact on romantic relationships has been cited by participants in surveys and qualitative interviews (BSF, 2015; Murray & Rhodes, 2005). The advertisements here could be seen as perpetuating anxiety regarding acne and relationships.

To make it work, long-term, you'll need to know his needs before he knows, himself. Like the first evening that he's home after a long, hard day. Your smiling face - no blemishes, no blackheads (DDD, 1977, p.168, appears in Cosmopolitan twice).

The following advertisements appeared in *Cosmopolitan* in 1982 and used an unusual comic-strip style. The comics play on acne as a barrier to social situations and romantic relationships. Both advertisements convey a clear message that acne creates a barrier to engaging in social situations like parties and dates, but that with the use of 'buf acne lotion' spots can miraculously disappear, allowing for a happily ever after, where the girl gets the guy (but only when she has clear skin). The advertisement could be interpreted as a satirical reflection of associations between acne and romantic relationships. However, the message is pretty clear: get clear skin and you will have your 'happily ever after'.

(Buf, 1982a, p.221, in Cosmopolitan).

(Buf, 1982b, p.222, in Cosmopolitan).

Advertisements, between 1972 and 2003, consistently make reference to the skin's impact on relationships and sexual attractiveness. However, in the latter part of the 2000s there seemed to be a subtle shift towards 'improving' your skin appearance for yourself, as a form of self-care and pampering.

> *So if you want to feel more confident and love the way you look call us today (The Harley Medical Group, 2008, p.167, appears in Cosmopolitan four times).*

> *IT'S ALL ABOUT YOU: Whether it's a quiet night in or going out with friends, look to our glamorous collection (Cosmopolitan, 2007b, p.271).*

Many of the advertisements carried powerful messages about skin and its relationship with how we feel and look. These messages may reflect a greater awareness of the relationship between acne and psychological wellbeing. However, there is the potential for these advertisements to project feelings onto readers with acne, regarding how they should feel, and pressing the idea that clear skin will not only make them more attractive but also happier. Furthermore, the use of phrases such as 'embarrassing spots' or 'ugly' may also play a role in maintaining the view that

individuals with acne deviate from the norm, resulting in internalised stigma. It may also affect how others see those with acne, leading to assumptions that those with acne are less likely to be happy, sociable and successful, beliefs that have been identified in experimental studies (Ritvo et al., 2011).

Normalising acne and challenging false assumptions

In contrast with the previous themes, there were several (although relatively few) advertisements that challenged some of the common misconceptions about acne and conveyed more realistic expectations about the results of the products. Furthermore, some of these advertisements appeared to normalise acne.

(Simple, 1972, p.150, in Cosmopolitan).

The above image provides an example of how some advertisements conveyed more realistic results, suggesting that the product would reduce the signs of acne over a period of six weeks. Furthermore, the woman pictured appears relatively more representative of the average woman. There were several adverts that refer to 'miracle cure' claims as unrealistic. Although they do still maintain that their product is the most effective, results take longer to appear.

> *The truth is spots won't magically vanish or disappear overnight. Clearing spots means perseverance. And a treatment that actually lives up to its claim to clear spots by getting right down to the problem (Clearasil, 1982a, p.21, in Cosmopolitan).*

Other advertisements, like the one below, placed an emphasis on imperfect skin as the norm, and also echoed the confusion that can be caused by having so many products to select from.

> *Unfortunately, not all of us are born with oh-so-perfect skin, so finding the right foundation is key. Selecting one to suit you can be utterly mind-boggling (Lancome, 2003, p.117, in Cosmopolitan).*

Many of the advertisements that adopted the perspectives of imperfect skin as normal were for make-up products. Make-up was positioned as a way of 'faking' perfect skin. Furthermore, several advertisements suggested that the virtuous lifestyle needed to achieve perfect skin naturally was boring and incompatible with modern life.

> *We all know that good skincare and a virtuous lifestyle are the way to great-looking skin. But for those of us who can't really be described as goody-two-shoes, a little help in the shape of foundation is gratefully received (Max Factor, 2007, p.141, in Cosmopolitan).*

Myths relating to age and skin were most frequently challenged and advertisements instead appeared to advocate other assumptions based on skin types.

> *For years women have believed that age was the determining factor in the care of their skin. They thought oiliness was a skin problem of the young and dryness a thing that set in after thirty. Clinique and leading dermatologists know differently. The skin type you are born with determines all thoughtful skin care. (Clinique, 1973, p.21, in Cosmopolitan).*

Advertisements have the potential to normalise acne, through referring to acne as a common condition, showing images of women and men with visible signs of acne, and forming realistic expectations of treatments. Furthermore, advertisements can also challenge myths associated with acne. However, few of the advertisements collected as part of the study achieved this. For example, advertisements that normalised acne still emphasised the importance of pursing the ideals of clear skin. Some advertisements challenged one myth and yet perpetuated another.

Discussion

This study sought to examine how acne has been depicted in advertisements within three UK women's magazines over the period 1972-2008. The analysis identified that acne was framed as a cosmetic concern, with brands using language to positioning themselves as a friend and expert protecting the reader from their skin. Three substantial themes were identified: (1) perfect skin as an achievable ideal; (2) acne myths; and (3) psychosocial impact. One smaller divergent theme was identified: normalising acne. Content varied subtly over time, reflecting shifts in magazine technology, acne treatments, marketing strategies, appearance ideals, and the position of women in society.

Comparisons between magazines revealed striking differences in the quantity of acne-related advertisements: *Cosmopolitan* consistently contained the most acne-related advertisements (n = 534, 84%), contrasting with *Spare Rib* (n = 0) which are likely to relate to the target readerships and origins of each magazine, and indicates that readers of mainstream magazines aimed at young women may be more frequently

exposed to acne-free skin ideals and negative messages about acne. Acne-related advertisements in *Woman* diminished from 1980 onwards, which could reflect the increased target age of *Woman* ('Woman magazine subscription', n.d.). Findings relating to differences in advertisement content and quantity fit with existing historical analyses relating to representations of gender and femininity. Forster (2010) describes *Spare Rib* as fitting almost seamlessly with the second wave feminist movement, containing debates on the ethics of beauty and consumption and fewer beauty articles. *Cosmopolitan* instead showed a greater allegiance to the sexual liberation of the 60s, containing a higher volume of articles guiding women on relationships, sex, and appearance, whereas *Woman's Own*, a magazine similar to *Woman*, reflected more traditional views of women's roles (Forster, 2010).

Comparisons over time suggested that the core themes were prevalent across the period studied. However, subtler differences were identified within themes. The results indicate that acne has been consistently portrayed as a cosmetic concern, whereby 'spot-free' perfect skin is depicted as an achievable ideal, while acne is depicted as a barrier to the ideal. There is an absence of studies examining media portrayals of acne. However, the findings are broadly consistent with the wider literature on appearance ideals that highlight the prevalence of the messages and images promoting the thin ideal and the importance of appearance (Luff & Gray, 2009; Roberts & Muta, 2017; Thompson et al., 1999). The findings also corroborate accounts of perfect skin as the societal ideal, and skin conditions as a barrier to meeting this ideal (Magin et al., 2011a). Shockingly, across the four decades studied, all the images were of white Caucasian women or men, and only one image, from 2008, showed any realistic signs of acne (scarring). Papadopoulos and Walker (2003) theorise that the underrepresentation of skin conditions in the media contributes to a lack of public knowledge about conditions, consequently contributing to stigma. It is also surprising that the racial identities of the women depicted in the advertisements did not become more diverse over the late twentieth century, as Britain had become a more diverse country (Jivraj, 2012). The mechanism and implications of homogeneity across several decades are unclear. However, it may relate to a range of underlying factors, such as a lack of diversity in portraying female ideals, racial prejudices, and assumptions regarding the consumers of the product and the magazines.

Images continued to reflect a homogenous ideal: most were of slim females with flawless skin, often pictured wearing little or no clothing. This suggests that content, particularly in *Cosmopolitan*, continued to sexualise and objectify women's bodies, emphasising the importance of appearance. Previous research has suggested the quantity of sexualised images of under 16s rose between the 1950s and 1980s,

and was highest in *Cosmopolitan* compared to other US magazines, including magazines aimed at men (O'Donohue et al., 1997). Within this study sexualised images appeared in *Cosmopolitan* throughout the time period studied. This may be because from the first UK issue *Cosmopolitan* set itself apart from its competition with its frank discussions of sex. Images in *Cosmopolitan* also depicted women as the object of male gaze. Exposure to idealised images of women's bodies as well as images displaying women as the object of male gaze and picturing women nude or in revealing clothing has been reported to increase levels of self-objectification and body dissatisfaction (Tiggemann & Lynch, 2001). This raises concerns regarding the potential impact of exposure to the advertising displayed in *Cosmopolitan*, and to a smaller extent Woman, on body dissatisfaction and self-objectification.

The images of women used in most advertisements shifted over time. Sketches, cartoons and drawings of idealised bodies became less frequent and were replaced with glossy, colour photographs of women with unrealistically perfect skin and idealised bodies. These changes in images are likely to reflect technological changes related to photography and magazine production. The creation of Photoshop in 1990 and its subsequent uptake by magazines and advertising may explain why women pictured in magazine advertisement have become increasingly unrealistic (Brown, 2014). Furthermore, social historians and feminist writers argue that we have entered a 'cult of the body', whereby pressure to meet appearance ideals has increased rapidly, driven by the growth of consumer culture and industries focused on the body (Marwick, 2004; Mellican, 1995; Zweiniger-Bargielowska, 2001b). Orbach (2009) also proposes that we are increasingly exposed to unrealistically idealised images of bodies and whereby a culture of self-improvement puts onus on individuals to engage in a continuous cycle of self-improvement. A cult of the body and self-improvement is evident in the advertisements' representations of both the skin and the body. This includes the message that readers should take responsibility for improving the appearance of their skin by purchasing products and services to erase the signs of acne.

Furthermore, a shift towards increasingly invasive treatments promising readers a perfect body, free from both acne and acne scarring was evident in 1990s and 2000s. This was exemplified by the emergence of cosmetic surgery adverts that promoted multiple surgical and non-surgical procedures to perfect both the body and skin. This could be indicative of sociocultural pressure to meet impossible ideals that most women can only achieve through airbrushing and invasive procedures (Orbach, 2009; Thompson et al., 1999). Correspondingly, statistics from 1997 to 2008 demonstrate increases in the uptake of surgical and non-surgical cosmetic procedures (American

Society for Aesthetic Plastic Surgery [ASAPS], 2008; BAAPS, 2009). Furthermore, BAAPS have previously raised concerns about cosmetic surgery advertisements exaggerating outcomes, airbrushing models and presenting procedures as simple. Concerns have also been raised regarding the normalisation of invasive cosmetic surgery as a means to meet unrealistic ideals and fear that those who chose not to undergo surgery will become stigmatised (Mellican, 1995; Morgan, 1998).

Consideration needs to be made for the potential impact of such messages on women with acne. Qualitative interviews have demonstrated that individuals are aware of the media disseminated ideal of perfect skin (Jackson & Vares, 2015; Magin et al., 2011a). Failing to meet this ideal was related to stigmatisation, and depression in women (Magin et al., 2011a). More broadly exposure to idealised images have been shown, in experimental and correlational studies, to have a range of psychosocial implications including body-dissatisfaction, depression, and body-shame (Bessenoff & Snow, 2006; Grabe et al., 2008).

It is also possible that the messages contained within advertisements may contribute to felt and enacted stigmatisation of individuals with acne, which is a focus within the following two chapters. Stigmatisation levels are considered to be influenced by beliefs about accountability and visibility (Crocker et al., 1998). The findings of this study suggest that advertisements did perpetuate myths about the causes of acne, and placed accountability on the individual for the cause, concealment and treatment of acne. Existing studies have identified that similar beliefs about hygiene, diet, and sunlight as causes of acne are held by trainee medics and internalised by individuals with acne (Green & Sinclair, 2001; Magin et al., 2006b). Furthermore, acne patients report believing these causes can be managed through lifestyle changes and products (Magin et al., 2006b). These beliefs were largely reported to be derived from ‘folk wisdom’ and to a lesser extent girls’ magazines, medical advice and personal experience (Magin et al., 2006b). Participants within qualitative interviews consequently report engaging in time-consuming, expensive and meticulous cleansing routines and the use of make-up to conceal signs of acne, which correspond with the advice presented in advertisements analysed as part of this study (Prior & Khadaroo, 2015; Magin et al., 2006b; Murray & Rhodes, 2005). Furthermore, the advertisements implied that acne was aesthetically undesirable and that acne needed to be either concealed or treated. This corresponds with the view that managing acne is a form of skin-labour whereby individuals with acne are proposed to invest time, effort and money into working on their skin (Lafrance & Carey, 2018).

Over the four decades, the advertisements appear to have switched from emphasising the negative aspects of acne to the benefits of clear skin. There also

appears to be a slight move away from certain myths, particularly those surrounding hygiene, and age, and fewer advertisements explicitly linking clear skin with successful relationships. There was also a cultural shift away from having to look good for others, towards looking good for yourself and emulating celebrities and supermodels. These shifts suggest that the stigmatisation portrayed in advertisements may have decreased slightly in relation to myths regarding the causes of acne. Instead, contemporary advertisements may be increasing stigmatisation and body dissatisfaction via placing a greater onus on the individual as accountable for the treatment of acne and creating a greater difference between acne and the ideal. Furthermore, shifts away from overtly negative language may reflect a shift in the terms deemed acceptable to use in describing appearance, and a shift away from overt discrimination/stigma towards implicit biases (Crisp & Turner, 2014).

Limitations

This study uses a novel interdisciplinary approach to examine historical trends in the portrayals of acne in magazine advertisements. However, it is important to note that there are several aspects which may limit the conclusions drawn from the study. Firstly, the results relate to the three magazines studied. These magazines were selected to represent different readerships, publishers and print frequencies. However, it is unclear whether similar findings would be identified in comparable magazines. While it is possible that the findings would differ from magazines aimed at a male audience, there is insufficient evidence to draw any generalisable conclusions about gender differences. Nevertheless, *Cosmopolitan* and *Woman* represent relatively high volume publications, from two of the largest publishing corporations available throughout the time-period studied.

Secondly, the time-period studied was selected as a turning-point where women's lives and magazines were changing. *Cosmopolitan* and *Spare Rib* were born out of the cultural changes of the sixties and early seventies and therefore more dramatic differences may have appeared in magazines before this period. This would make for an interesting area of historical research. Additionally, the study ends in 2008. Sales of women's magazines, including both *Cosmopolitan* and *Woman*, and magazine advertising revenue have declined markedly in the twenty-first century with 2007 being described as a 'turning point', suggesting the influence of print magazines was declining (Robinson, 2007; Statistica, n.d.; Taylor, 2014). It is important to recognise that the findings are specific to the time-points and sources studied. It is plausible that there will be differences between 2008 and the present. There have been sociocultural and historical changes over the past decade, most notably in the range of media outlets available with a shift away from print media and towards the use

of digital media. Therefore, further research would benefit from examining media messages across a variety of contemporary media platforms. This will be addressed in Study 2 by examining young women's experiences of modern media messages around acne, and through exploring media items collected by participants.

Thirdly, considering the interpretive nature of this study, it is also important to recognise that inferences are made regarding the salient messages within advertisements, and the potential impact of these messages and images. Consequently, additional research is required to better understand how individuals with acne may experience similar media messages, the impact of interacting with media content. This is consequently examined in study two using semi-structured interviews and photo elicitation, and the relationship between exposure to visual media is tested in Study 3 using an online survey.

Overall, a high degree of saturation was achieved for the framing of acne as a cosmetic concern and the main themes, which were highly saturated with examples across each decade in *Cosmopolitan*, and to a lesser extent *Woman*, indicating the findings are most representative for *Cosmopolitan*. There were fewer and less consistent examples of normalisation. It is therefore possible that additional data collection may have influenced development of the theme normalisation.

Conclusion

The current study provides an insight into how the advertising industry portrayed acne in different women's magazines. It appears that advertisements in mainstream magazines aimed at young women continue to exemplify stigmatisation by perpetuating myths and negative associations regarding acne, while maintaining that clear 'perfect skin' is an easily achievable ideal. In this increasingly image-saturated society the messages communicated by the media appear to be endorsing increasingly unachievable ideals via increasing more invasive means. The high frequency of surgery advertisements in *Cosmopolitan* from 1992 onwards raises concerns regarding the potential for cosmetic surgery to be normalised. Viewing such content may have psychosocial implications for female readers with acne. It is hoped that as awareness of these homogenous ideals increases, advertisers will be pressured towards using more representative images of women and challenging some of the myths associated with acne.

Chapter 4. *"You can't walk around with Photoshop on your face"* Women's experiences of chronic acne in a digital world: A qualitative exploration.

Introduction

The results from Study 1 demonstrate how advertisements in women's magazines have the potential to transmit stigmatising messages about acne. The majority of these advertisements emphasised perfect spot-free skin as an achievable beauty ideal and instructed readers to purchase a specific brand and/or treatment to 'fix imperfections', and 'destroy spots and bacteria'. However, it is unclear how individuals living with acne might perceive these messages. Furthermore, the data collected within Study 1 is limited to magazine advertisements and covers the period 1972-2008. It is therefore important to consider individuals' recent experience of living with acne in relation to the contemporary media context. When studying these experiences, it is important to be aware of significant changes to contemporary media culture, facilitated by technological developments.

The media landscape has changed rapidly over the past decade. We now live in an increasingly digital and online world. During 2016 82% of Britons accessed the internet daily, as compared with 49% of adults in 2008 (ONS, 2016). This was highest for 25-34 year olds, followed by 16-24 year olds, with 98% and 96% accessing the internet daily or almost daily (ONS, 2017). Adolescents and young people are increasingly immersing themselves in forms of media that were not widely available fifteen years ago. This virtual world consists of instant messaging, digital magazine and news content, online shopping, social media, blogs, vlogs, and search engines which can return millions of results within seconds. Social media sites are most popular with adults in both the 16-24 and 25-34 age groups, with 91% and 89% engaging in social media respectively (ONS, 2016). With these new technologies and media forms come new opportunities, but also new concerns. It therefore seems appropriate to establish how digital media use, as well as more traditional forms of media may influence the lives and experiences of those who use it most: individuals age 16-34. This chapter will therefore seek to understand the perceived roles of contemporary media in young women's experiences of living with chronic acne, via conducting in-depth interviews.

Qualitative research enables researchers to collect in-depth insights into important issues and the experiences of individuals living with skin conditions (Nelson, 2015). Existing qualitative research methods have been utilised to explore a range of

elements of living with acne, and have drawn particular attention to the importance of recognising the psychosocial impact of acne as a result of the undesirable appearance of the symptoms of acne (Magin et al., 2006a; Murray & Rhodes, 2005; Prior & Khadaroo, 2015; Pruthi & Babu, 2012). Magin and colleagues have conducted a number of qualitative studies focused on skin disease and its psychological sequelae. Within these studies perfect skin was identified as a societal ideal by patients with acne, psoriasis and eczema, which they linked to visual media and advertising in magazines and on television. Perceiving oneself as not meeting this ideal was related to feelings of stigmatisation and depression in female participants; in comparison male participants reflected on the pressure of media ideals on women, but not themselves (Magin et al., 2011a; Magin et al., 2006a; Magin, Adams, Heading, Pond, & Smith, 2009b).

Within both qualitative and quantitative studies, skin appearance has been identified as a central theme, associated with distress in populations with skin disease (Bowe et al., 2011; Fox, Rumsey & Morris, 2007; Magin et al., 2006a; Johnston, Krasuska, Millings, Lavda, & Thompson, 2017; Thompson et al., 2010). While two of these studies explicitly discuss participants' experiences of media disseminated ideals, media was not the initial focus of these studies and discussions generalise media portrayals of skin across traditional forms of media. Consequently, research discussing women's experiences of specific and digital media use in relation to their experiences of living with a visible skin condition is currently lacking. It is therefore important to explore experiences of acne in relation to the wide range of media forms presently available.

There is also the potential for media to provide useful sources of information, advocacy and social support regarding health conditions (Idriss, Kvedar, & Watson, 2009; Khoo, Bolt, Babl, Jury, & Goldman, 2008). Qualitative methodologies have also been utilised to understand how the internet is used for health information and communication (Santer et al., 2017; Santer et al., 2015). Understanding how individuals access and use online information is particularly important as the proportion of UK adults using the internet for health information rose from 18% in 2007 to 51% in 2016 (ONS, 2016). Furthermore, 'acne' appears as the most Googled skin condition and #acne was most frequently used Instagram hashtag (Braunberger, Mounessa, Rudningen, Dunnick, & Dellavalle, 2017; Whitsitt, Karimkhani, Boyers, Lott, & Dellavalle, 2015).

A relatively small number of quantitative and qualitative studies have investigated the internet as a source of information on acne. A population based survey of 15-24 year olds across Europe identified that physicians, followed by friends

and family, and the internet were the main sources of information on acne in 27%, 21.5% and 19.9% respectively (Szepietowski et al., 2017). A smaller survey study, examined US dermatology patients' beliefs about the effect of diet on acne (Nguyen, Markus, & Katta, 2016). Nguyen et al. (2016) reported that information about diet was most commonly obtained from Google searches (49%), followed by dermatologists (42.9%), family (40.8%), and TV (40.8%). However, a higher percentage of participants reported being satisfied with the information provided by dermatologists (75%) than Google searches (45.8%) (Nguyen et al., 2016). It may be that individuals are more likely to use the internet to search for information on alternative treatments for acne, which are less likely to be raised by medical professionals. However, both survey studies do not include a UK sample, which may produce alternative findings due to differences in health care systems. Furthermore, the studies do not explore the nuances in how individuals with acne evaluate and assimilate information from a range of sources, and how this influences the experiences of individuals with acne. This is something that can be explored using qualitative methodologies.

A thematic analysis of online forum discussions about using antibiotics to treat acne, identified the broad range of opinions and advice offered online, some of which were contrary to medical advice (Santer et al., 2017). Santer et al. (2017) concluded that such online information could cause confusion and reduce adherence to antibiotic treatments for acne. Incidentally, quantitative and qualitative analyses have demonstrated that many individuals within the wider population, acne patients and medical professionals, hold non-evidence based perceptions of the aetiology and treatment of acne (Brajac, Bilić-Zulle, Tkalčić, Lončarek, & Gruber, 2004; Green & Sinclair, 2001; Magin, Pond, Smith, & Watson, 2005). For example, Magin et al. (2005) qualitatively analysed 26 interviewees' perceptions of Isotretinoin using a grounded theory approach, finding that interviewees often overestimated the risk of taking the medication, which influenced some participants' decision of whether to take the medication. Magin et al. (2005) proposed that these beliefs were likely to be influenced by media messages. However, the interview study did not explore where participants' had obtained this information. Qualitative studies looking at health information and acne have explored the content within online forums and provide an interesting insight into the messages and advice provided online. However, there is a need to understand how individuals with acne interact with and appraise this information alongside other sources of information. It is therefore important to consider how individuals with acne interact with different sources of health information and the potential benefits and harm to those with skin condition offered by the digital world.

Moreover, there have recently been calls for more extensive qualitative methods within dermatology research to help understand the context and processes involved in living with a dermatological condition and receiving dermatological treatment (Nelson, 2015). Existing qualitative research looking at experiences of acne have either solely analysed interviews or digital content and therefore neglects the intersection between media content and experience. Furthermore, interviews rely heavily on memory recall, and existing qualitative research has not incorporated creative methods like photo-elicitation. Photo-elicitation is a technique whereby visual resources are used in interviews to aid memory recall and evoke more in-depth and focused responses (Harper, 2002). Incorporating photo-elicitation within interviews provides an opportunity to collect and analyse media items from a range of outlets that participants are exposed to and understand how these specific media items are engaged with and perceived.

The study aims were to examine qualitatively young women's experiences of living with chronic acne in the context of contemporary media, including the internet, social media, and advertising. Semi-structured interviews and photo-elicitation were used to create an in-depth understanding of these experiences and to attempt to relate these to interactions with specific media items. Within this study, thematic analysis was used to identify key themes relating to young women's experiences of living with acne, situated in contemporary media culture. Thematic analysis was selected to support a continuation from Study 1, including the use of themes from the previous study. Furthermore, thematic analysis is an appropriate method for identifying and exploring meaningful themes related to experiences of people with health conditions, such as dermatological disorders and can be used to analyse a range of sources, including interview transcripts and a wide variety of media items.

Methods

This study received ethical approval from the University of Sheffield ethics committee (reference number: 006513). A copy of ethical approval can be seen in Appendix 4A.

Design

Qualitative semi-structured interviews, incorporating photo-elicitation, were conducted with women with a diagnosis of acne. Interviews explored participants' experiences of living with acne, with particular reference to their media use. The interviews and photo-elicitation items were analysed using thematic analysis from an interpretivist perspective (Braun & Clarke, 2006; Joffe, 2011). As discussed in the introduction and previous chapter, thematic analysis, is epistemologically flexible, and is an appropriate

approach to analysing patterns in data from a range of sources including face-to-face interviews and visual and textual media items.

Sampling and recruitment

Participant selection was based on purposive sampling, an appropriate method for studies based on interpretive phenomenology, where a small heterogeneous sample are selected based on specific inclusion criteria. Participants were selected based on the following inclusion criteria: (a) female; (b) age 16-34; (c) self-reported symptoms of acne within the past month; (d) a diagnosis of acne from a medical professional; (e) English Language speaker; (f) currently residing in Great Britain.

Participants (*N* = 15) were recruited from a convenience sample, using the University of Sheffield volunteer list (*n* = 2), word of mouth (*n* = 3), and posts on social media (*n* = 9) and webpages (*n* = 1). Potential participants were instructed to express their interest by either contacting the interviewer, or by completing a short survey on Qualtrics (Qualtrics, Provo, UT), which provided information about the study, assessed whether the participant met the above inclusion criteria, and asked for contact details. Overall, 36 potential participants expressed an interest in taking part in the study. Of these: seven did not meet the inclusion criteria, six did not provide contact details, four did not respond to contact from the interviewer, three were unavailable during the period the interviews were taking place and one did not attend the interview.

Participants were provided with an information sheet outlining the aims of the study and what the interviews would involve (see Appendix 4B), and were required to provide informed consent (see Appendix 4C). As the interviews involved discussing potentially sensitive and emotive topics, participants were informed that that they could stop the interview at any point and could withdraw their consent up to a week after the interview. Participants were also provided with information on where to access help if they felt distressed following the interview.

Data Collection

Individual interviews took place between July and November 2016, across six regions of England. Interviews were conducted in a variety of settings, depending on the preference of the interviewee: research rooms at the University of Sheffield (*n* = 7), the interviewee's home (*n* = 5), a meeting room at the interviewee's workplace (*n* = 1), a meeting room at the interviewee's university (*n* = 1), and a meeting room at a community centre (*n* = 1). Interviews were recorded using an encrypted digital sound recorder and the verbatim anonymised and transcribed by a paid transcriber who had signed a confidentiality agreement.

Background information

Additional information was collected prior to the interview to help contextualise the sample and prompt questions during the interview. This included: the Dermatology Quality of Life Index (DLQI: Finlay & Khan, 1994), demographics (age, ethnicity, education level, employment); acne history (age of onset, age of diagnosis, diagnosing practitioner, current treatment, previous treatments, other diagnosed medical conditions); and a summary of regular media use (see Appendix 4D).

Photo-elicitation

The interviews incorporated photo-elicitation: Prior to the interview, participants were encouraged to collect media sources that reflected their experiences of living with acne (e.g. photos, screenshots, articles, hyperlinks). These items were discussed within the interview and interviewees consented to the use of these items in data analysis, and reporting of the results.

Interviews

Within the interview participants were asked to: talk about their experiences of living with acne; discuss their how they encounter and experience various forms of media; and how this influenced their experiences of living with acne (see Table 4.1 for a summary of the interview schedule and Appendix 4E for the full final interview schedule).

Table 4.1: Interview guide – media and skin study

Interview section and focus	Core questions
Part 1: Background information and dermatological history.	Could you tell me about what it was like when you first developed acne? What sorts of things did you try at first to deal with the acne?
Part 2: Experience of having acne	Could you describe what it is like having acne? Has acne in any way impacted on your social life and relationships?
Part 3: Media (main focus)	
Part 3a Sources/Images (if participant has brought along images or sources).	I'd be really interested to hear about the images/items that you have brought with you and what they mean to you and why you have chosen to bring them?
Part 3b: Media use and experience	On the form you completed earlier you mentioned using [insert media platform(s) listed under social media use questionnaire] regularly (ask for each major form of media identified). Can you tell me what it is like for you to use these? In terms of your experience of having acne, how do these different forms of media differ if at all? For example do you find any difference in your experience of X as compared to Y? Do you actively use any forms of media to find or provide information about your skin? What are your thoughts on how skin conditions/acne are portrayed in the media? What it is like, as a woman, living with acne in today's society What changes/improvements would you like to see in the media (and society)?
Concluding remarks	Is there anything you would like to add?

Analysis

The transcripts and photo-elicitation sources were managed and analysed in Nvivo 11 qualitative data analysis software (QSR International Pty Ltd. Version 11, 2015).

Both the transcribed interview verbatim and the photo-elicitation items collected by participants were analysed using thematic analysis in accordance with the steps outlined by Braun and Clarke (2006 – see appendices 3B & 3C). A combination of deductive and inductive coding was used in this study to enable themes to be identified using the researcher's existing theoretical knowledge as well as novel themes in the data (Braun & Clarke, 2006; Joffe, 2012). Deductive codes (see Appendix 4F) were based on the results of Study 1 and the codes developed by Magin et al. (2006a; 2011a). Further analysis sought to identify and explain the patterns of central, inter-related, sub and contrasting themes.

Quality control and reflexivity

As discussed within Chapters 1 and 3, high quality qualitative research needs to be conducted in a transparent, systematic and rigorous manner. Therefore, the same quality control tools discussed in Chapter 3 were utilised within this study. These included following a pre-developed protocol, using supervision to discuss working codes and reflect on the research process and role of the researcher. An audit trail was maintained throughout the data collection and analysis, including reflexive notes stored in the NVivo database. An internal audit was subsequently completed by the researcher's primary supervisor and a record of this can be viewed in Appendix 4H. To ensure the research presented within the chapter was of sufficient quality the researcher followed the guidelines for high quality qualitative research and reporting set by Elliott, Fischer, and Rennie (1999 – see Appendix 4G).

Results

A total of 15 women (see Table 4.2), between the ages of 21 and 33 (M = 25.53, SD = 3.58) took part in in-depth semi-structured interviews, lasting between 38 and 121 minutes (M = 74.13, SD = 22.98). Following the interviews, two participants contacted the interviewer by email with additional information that they wanted to add to their interviews. This correspondence was added to the interviewees' transcripts, with their written consent.

Participant characteristics

A summary of the background information can be seen in Table 4.2. All participants had received a diagnosis of acne from a GP and/or dermatologist and all reported current symptoms of acne. Participants' DLQI scores ranged from 2 to 15 (M = 6.71,

SD = 3.89) indicating that the participants within this study were experiencing a small to very large impact of acne on their quality of life at the time of the interview. These scores highlight individual variability in the impact of acne, and are comparable to other studies using the DLQI to assess quality of life in populations with acne, as estimated by a meta-analysis (*M* = 7.45, *SD* = 7.66, Range = 3.95 - 17.70; Basra, Fenech, Gatt, Salek, & Finlay, 2008).

Table 4.2: Summary of participants' demographics and acne history

ID	Ethnicity	Employment status	Relationship status	Age	Age of onset	Current medical interventions?	DLQI Score*	Body regions affected	Other diagnoses
P1	White British	Student	Single	24	12/13	Isotretinoin [dermatologist]	5	Face	Eczema
P2	White British	Employed	Married	27	adolescence	None	7	Face, neck, back, shoulders	n/a
P3	White British	Student	In relationship	25	10	None	3	Face	Pityriasis versicolor, Reynard's syndrome
P4	White British	Employed	Single	33	12	Contraceptive Pill [GP], Derma PRP [Clinic]	2	Face	n/a
P5	White British	Employed	Married	26	10	Contraceptive Pill [GP]	4	Face, shoulders	Asthma
P6	Chinese	Employed	Married	27	14/15	Oral antibiotics [GP & dermatologist]	9	Face, back	Eczema
P7	White American	Student	In relationship	23	14	Antibiotics [dermatologist]	12	Face, neck, chest, back	Eczema

P8	White British	Employed	In relationship	24	10	Contraceptive Pill, Topical gel [GP]	9	Face, chest, back	Dermatillomania, Anxiety, Depression
P9	White British	Unemployed	Engaged	28	10	Topical gel [GP]	15	Face, back	OCD, Depression
P10	Mixed British	Employed	Single	21	13	Due to start Isotretinoin [dermatologist]	8	Face	n/a
P11	White British	Student	Engaged	26	12/13	None	5	Face	n/a
P12	White British	Employed	Married	32	11	None	3	Face	Eczema
P13	White British	Student	In relationship	21	16	Antibiotics, Benzyl Peroxide [GP]	9	Face, neck	Eczema, OCD
P14	White British	Employed	Cohabiting	23	17/18 22	Contraceptive pill, Tretinoin gel [dermatologist]	2	Face	Anxiety
P15	White British	Student	Other	23	14	Topical Gel [GP]	4	Face	PCOS

**Interpretation of DLQI Scores (0-1 = no impact at all on patient's life; 2-5 = small impact; 6-10 = moderate impact; 11-20 = very large impact; 21-30 = extremely large impact).*

Photo-elicitation items

Thirteen participants collected 75 different multimedia sources, which were discussed and analysed alongside the interviews (see Table 4.3. for a summary, and Appendix 4I for the full list of sources of photo-elicitation items collected by participants).

Table 4.3: Summary of the photo elicitation items provided by participants (Total = 75)

Source	Number of participants providing sources	Total number of each source
Photographs of self	3	4
Photographs of others	1	1
Screenshot(s) of Boolean search	1	2
Screenshot(s) of online shopping	1	1
Screenshot(s) of social media	9	31
YouTube video link	2	5
Digital magazine/news item	6	16
Print magazine cover/article	3	4
Advertisement	4	7
Screenshot(s) of website(s)	3	3
Film	1	1

Media consumption overview

Prior to the interview, participants provided free text reports of the specific types of media that they use and asked to estimate how often they use each media type (see Appendix 4D for a copy of the form provided to participants). The reported frequencies of media use usually corresponded with the responses in the interviews, however there were some discrepancies as participants spoke about additional types of media. Within the current study participants discussed interacting with a range of media types on a regular basis (see Appendix 4J for a summary of participants' responses). Media engagement was dominated by digital media use, with all participants using the internet and social media as part of their daily lives. It is clear from participants' discussions of media use that media types are rarely in isolation from one another, and instead are intertwined and seeded in one another. For example, targeted advertisements appear on social media pages based on previous search histories, and linked to online stores. Content from one source can also easily be shared on other social media platforms and traditional media types often promote their online presence.

Themes

The findings of this study are presented under four core interconnected themes, which relate to women's experiences of living with acne situated specifically within their experiences and use of contemporary media culture. The themes are illustrated by reference to participants' quotes, and photo elicitation items. To improve the readability of the quotes, additional details have been added or deleted in square brackets, and sequential word repetitions have been deleted. Table 4.4 provides a summary of the core themes and subthemes that were identified from both the interviews and multi-media items. All 15 participants contributed to each theme, divergences within the themes are discussed within the reporting of each theme.

Table 4.4: Summary of themes and subthemes

Theme
1. Tension with the overwhelming nature of societal pressures for clear skin
1.1. Clear, acne-free skin as the ideal
1.2. Assumptions and myths surrounding acne
2. Feeling different
2.1. Looking different and feeling self-conscious: 'Why isn't my skin like theirs?'
2.2. Feeling different: stigma and the impact on social interactions and mood
3. Learning to live with acne
3.1. Avoidance and concealment
3.2. Acceptance
3.3. Seeking emotional and practical support
4. Digital media as an important yet confusing resource.
4.1. Searching for information on acne
4.2. Trustworthiness

Tension with the overwhelming nature of societal pressures for clear skin

Appearance was a salient aspect of all participants' experiences of living with acne in contemporary society. Participants spoke about the visible nature of their symptoms and scarring and demonstrated differential levels of dissatisfaction with the appearance of their skin. This was largely attributed to the value and meaning contemporary society places on beauty and appearance, feeling that acne prevented them from meeting the societal ideal of clear skin.

Within the interviews, participants devoted a significant amount of time talking about: (a) sociocultural ideals and norms about acne, with particular reference to media ideals and norms; and (b) commonly held assumptions about the causes and 'cures' for acne, and stereotypes about individuals with acne.

Clear, acne-free skin as the appearance ideal

All participants made references to clear spot-free skin as the sociocultural ideal, and often the perceived norm. There were subtle difference in participants' ideals. For some participants this ideal was perfect skin whereas for other participants it was not having acne. For example, while Participant 15 rejected the ideal of perfect skin, she described internalising the view of acne as a barrier to being considered beautiful.

> *you're going against the norms for women to be beautiful […] you don't have to have flawless skin, but I don't think anyone […] says that 'I love this I think I look beautiful with acne compared to without'. (P15)*

As highlighted in the above quote, clear skin was often conflated with beauty, whereas acne was commonly referred to as 'unsightly', 'disgusting' or 'bad'. The ideal of clear skin was judged particularly salient for women living with acne, providing a barrier to meeting this ideal. This ideal was situated within a wider set of ideals related to how women were expected to look and want to look.

Participant 1 exhibited high levels of distress about her appearance, and talked extensively about not measuring up to these ideals.

> *Interviewer: What do you think is meant by 'beautiful'?*
>
> *Participant: Clear skin for starters, tall, slim, being I don't know, just it's like all you have to do is walk into a room and look good, it's like nothing else matters. (P01)*
>
> *Interviewer: […] where do you think they come from?*
>
> *Participant: Media, definitely the media and I'd say other people around me because like in school they were all just so, you know, tall, blonde girls with lovely clear skin and there I was just a chubby brunette with a pizza face. (P01)*

The above extract exemplifies how participants discussed exposure to and feeling pressure to meet these ideals through a range of sources including wider society, peers and to a lesser extent families. Media messages and representations were discussed as a major source of these ideals: reflecting and influencing societal views of what is normal and contributing to the pressure to attempt to meet these ideals. All participants expressed anger and frustration at the narrow and unrealistic portrayal of beauty across media forums. This was largely reflected by the absence of acne or visible signs of acne in the mainstream media and the prevalence of images of flawless skin.

The advertisements below were selected by Participant 11 to demonstrate the unrealistic nature of skin care advertisements, with use of flawless images of skin in advertisements for skin and acne products.

> *they irritate me because […] even if they bothered to make them look as if they had problem skin their problem skin would be like one spot that suddenly miraculously vanished (P11)*

Participants 10 and 12 highlighted the lack of characters with acne in books and TV programs. Participant 12 brought along an online Guardian article that had resonated with her: *'Spot the difference: why don't teenage book characters have acne?'* (Dawson, 2016).

> *It's like you can write about dragons and vampires and stuff but the idea of having a main character with bad skin it's like 'oh no we don't want to talk about that' […] it almost makes you think, I don't know like, it's a sort of shameful thing. (P12)*

Some participants felt that this absence of acne from media representations contributed to the shame and stigma surrounding acne, with participants expressing

the view that there needs to be a greater diversity of skin types. Similarly, Participant 8 felt that images of skin conditions were hidden away or concealed from public view, contributing to the taboo surrounding skin conditions and feelings of embarrassment.

> *it's almost offensive to be honest that there's so many adverts out there and not one of them has an image of people with a skin condition […] it's not like people with skin conditions are not in the public eye, they cover it up or it's kind of hidden away, that exasperates the taboo around it and the sort of embarrassment around it, so I think adverts need to be more honest. There need to be more images of people with skin conditions. (P08)*

There were differences between what the media portrayed as 'normal' and the actual norm, with participants recognising that acne was a relatively common skin condition. Furthermore, on the occasions where media items addressed acne, most participants felt it was portrayed negatively. Participant 5 spoke about how the shaming of celebrities with spots contributes to the stigma surround acne. This quote also highlights how media messages can be internalised by individuals with acne, resulting in anxiety about being seen with visible signs of acne.

> *they pick on celebrities like if they've got a spot they blow it up on the pictures and say 'how could they go out in public?' it kind of makes you feel well if the celebrities can't do that means that we can't either, even though we know they're all like photo-shopped and stuff it does knock on your confidence. (P05).*

Similar to other participants, Participant 5 demonstrates an awareness of the use of airbrushing techniques to create images of unrealistically perfect skin. Participants had developed good media literacy skills. This included recognition of the widespread use of airbrushing practices, mainly in magazines and advertisements, but more recently across digital and social media platforms. Furthermore, as described below by Participant 10, digital media provided a potential tool for increased awareness of airbrushing.

> *[BuzzFeed have] body image positivity videos and one of them it's like all about photo-shop and that sort of gave me a bit of knowledge of how much of advertisement's actually photo-shopped and like I said it's just getting older and just realising, you know what, no one looks like they do in those magazines, it's completely unobtainable for the average woman and just sort of just focus on my positives (P10)*

For some participants awareness that images were unrealistic because of editing technology buffered the negative psychological impact of idealised media images.

> *I don't think 'oh I wish I had skin like them [adverts in magazines]' because I know that they're probably airbrushed and those don't really bother me as much (P07).*

For other participants, this contributed to feeling unable to meet an increasingly unobtainable ideal, and concerns that others judged them against these manufactured images of flawless skin.

there's not even a mark on their face and, like it's so unrealistic and the people like, look at these and they compare you don't they and you feel like you want to be like that but it's unobtainable, (P09)

These photoshopped images could reflect an increasingly unobtainable societal ideal as discussed in Study 1. Participant 6 talked about how the idealised airbrushed images used by hospitals in China to advertise dermatology services reflects how society wants women to look.

> *hospitals and treatment can make lots of advertisements, […] probably photoshopped, most perfect face ever like mirror to show that's what society wants from you of your face and just constantly brain washing and all let's face it and push you to buy the products or to go to the salon treatment (P06)*

As referenced by Participant 6, participants were aware of the use of marketing techniques in selling products. While most participants demonstrated an awareness of the use of marketing and airbrushing techniques especially in magazines and advertisements, it was clear that it was not always easy to decipher what was real or not. There was less clarity about the use of airbrushing 'filters' and marketing techniques on social media.

> *I think a lot of people use like Facetune [photo/selfie-editing apps …] I was like 'does she really think that no one can tell?' and she was like 'did you realise I use those apps?' and I was like 'no! What?' (P13)*

As highlighted by the above quotes, participants discussed how the use of airbrushing/filters and photo-editing techniques and apps had become increasingly commonplace. Some participants felt these changes reflected a society increasingly focused on appearance with increasingly unrealistic ideals.

> *you look at yourself and you think 'I'm not I don't feel good' […] you're trying to match up in your head like what would I be happy with and you don't know what the bar is anymore 'cos it's kind of twisted so it's it is confusing about like your own image because you don't know like what is real and what's not. (P05)*

As illustrated by Participant 5, most participants felt unable to match up to these unrealistic ideals resulting in appearance dissatisfaction, with acne the most commonly

cited reason for this. Similarly, Participant 3 spoke about acne impacting her self-image, and described consequently investing time in other aspects of her appearance.

> *I am moving away from that as I've said, but I think it's become habitual now to want to look a certain way […] it's made me want to maintain having things like a little waist […], acne changes how you see yourself I think and maybe in some ways pushes you to that high standard, […] you're just bombarded with images of stunning women these days if you spend any significant time on the internet or what society tells us is stunning. (P03)*

As highlighted by Participant 3, most participants wanted to reject the ideal of 'perfect skin' and expressed frustration with the societal pressure to meet these ideals. However, participants found this difficult due to the overwhelming and inescapable nature of visual culture, facilitated in part by developing digital technologies.

While participants felt that media portrayals were unrealistic, they also felt that certain media sources were and could be used to normalise acne and promote diversity. There appeared to be a cultural juxtaposition on social media between the prevalence of idealised images, and access to more realistic and relatable images, including images of acne. In contrast to the previous quotes, Participant 12 described a positive shift towards more realistic images of skin, associated with the rise of social media.

> *social media and blogging culture has made it more that people will put photos of themselves and what they actually look like, and it's kind of an antidote to what it was like when I was growing up which is just like perfect images all the time (P12).*

Some participants specifically sought out images and videos of people with acne as a way of feeling better about their skin. For example, Participant 1 spoke about differences in the images and impact of social media sites like YouTube as compared to traditional media types like magazines.

> *magazines and films make me feel more negative about my skin 'cos obviously everyone's just looks perfect all the time but sometimes it is a bit reassuring say if I go on YouTube and I see someone discussing their Accutane journey or discussing their skin care or something, then that makes me feel a little better and, you know, this 'I Look Disgusting' video [https://www.youtube.com/watch?v=WWTRwj9t-vU] that definitely makes me feel better 'cos I'm not the only one going through this experience. (P01)*

Participant 1 was not alone in feeling that media images or YouTube videos showing individuals with skin affected by acne, normalised the condition, and left participants feeling less isolated.

> *I know it's going to sound silly but like the acne foundation routines I watch a lot of them to see them before so that I don't feel so alone*

because there's not many people around me that have got [acne]. If I watch [YouTube] videos I don't think I feel like 'oh it's not just me' and it makes me feel a bit more comfortable and like especially I'm a big fan of like Zoella and she goes on the camera like she points at her spots but she says she goes out with no makeup on and I just feel like they're such an inspiration to me like I watch those videos to give me the courage to go out myself 'cos I think 'oh she can do it I can do it'.(P09)

Assumptions and myths

Alongside the conflation of clear skin with beauty, another common area of discussion surrounding sociocultural pressures related to assumptions and myths surrounding acne. These were often related to: assumptions about the onset and duration of acne ('teenage problem'/'easy to cure'); myths about the causes and related 'cures' of acne (e.g. diet/hygiene/products); and a lack of awareness of the impact of acne (trivialising). Most participants felt that these assumptions contributed to the stigmatisation of acne, and were the result of a lack of clear accurate information.

The participants within this study differentiated their current symptoms from teenage spots. Participants recalled being told and internalising this belief that acne was something they would "grow out of" (P01, P05, P07, P12). This message was often echoed by family, friends, medical professionals and media platforms.

Participant 7 described the emphasis of media messages, aimed at adult women, conveying the message that they should be concerned with aging skin rather than spots.

I don't think [adult acne]'s really talked about a lot in the media because I think when you're an adult you should have good skin you should be worrying about wrinkles (P07)

Furthermore, several participants commented on the absence of adults with acne in the media/public eye contributing to the perception that adult acne deviates from the norm.

[Even on social media] it's just not a thing that is shown beyond like being adolescent. Like I think as an adult it feels like I'm the only one, I must be broken (P13)

This feeling of "what's wrong with me" (P10) and of isolation related to internalising the assumption that adult acne deviates from the norm, and was echoed by many of the participants. Furthermore, several participants felt that the stereotype of a *"spotty teenager"* (P11) influenced others' perceptions of them as *'immature'* (P13). For instance, Participant 2 had received comments at work about her age, which she felt related to the visibility of her acne.

I've had people say stuff to me about 'oh I was expecting somebody much older' and I think you think that 'cos I've got acne. […] that doesn't help me like act like a professional person (P02)

However, participants also spoke about being better able to cope with acne as adults. For example, while acne is more common in adolescence, participants felt that there were greater pressures on adolescents' appearance. As an adult, Participant 15, was less conscious of her acne and felt more aware of acne as a common condition and challenged particular stereotypes surrounding acne.

you don't realise at the time when you're younger but now like you do see and there's people who are my age and older who have acne. It's just one of those things where it's not like you're a dirty teenager because you have acne, […] it's not really something that I think about. (P15)

Participants spoke about their own and others' perceptions of the causes of acne. Participants were generally aware of the involvement of hormones and increased prevalence in individuals with a family history of acne, but were also exposed to assumptions about the role of various lifestyle and environmental factors, for which there is currently a lack of conclusive evidence (Magin et al., 2005). The most commonly discussed lifestyle factors related to diet, hygiene and specific products. To a lesser extent participants also mentioned stress, and the surrounding environment (e.g. sunlight and air quality).

Most participants had explored making lifestyle changes, by changing their diet, following specific skin care routines and avoiding or using specific products. There were variations in how effective and difficult participants had found these changes. For example, several participants saw improvements in their skin clarity, and felt that such changes enabled them to self-manage the condition. For example, Participant 12 noticed an improvement in her skin when she cut out dairy for other reasons.

I tried to cut down on dairy products actually, for a while, that wasn't initially to help my skin […] but I feel like that helped my skin a bit as well and it hasn't been too difficult to keep that up so I feel like that's helping (P12)

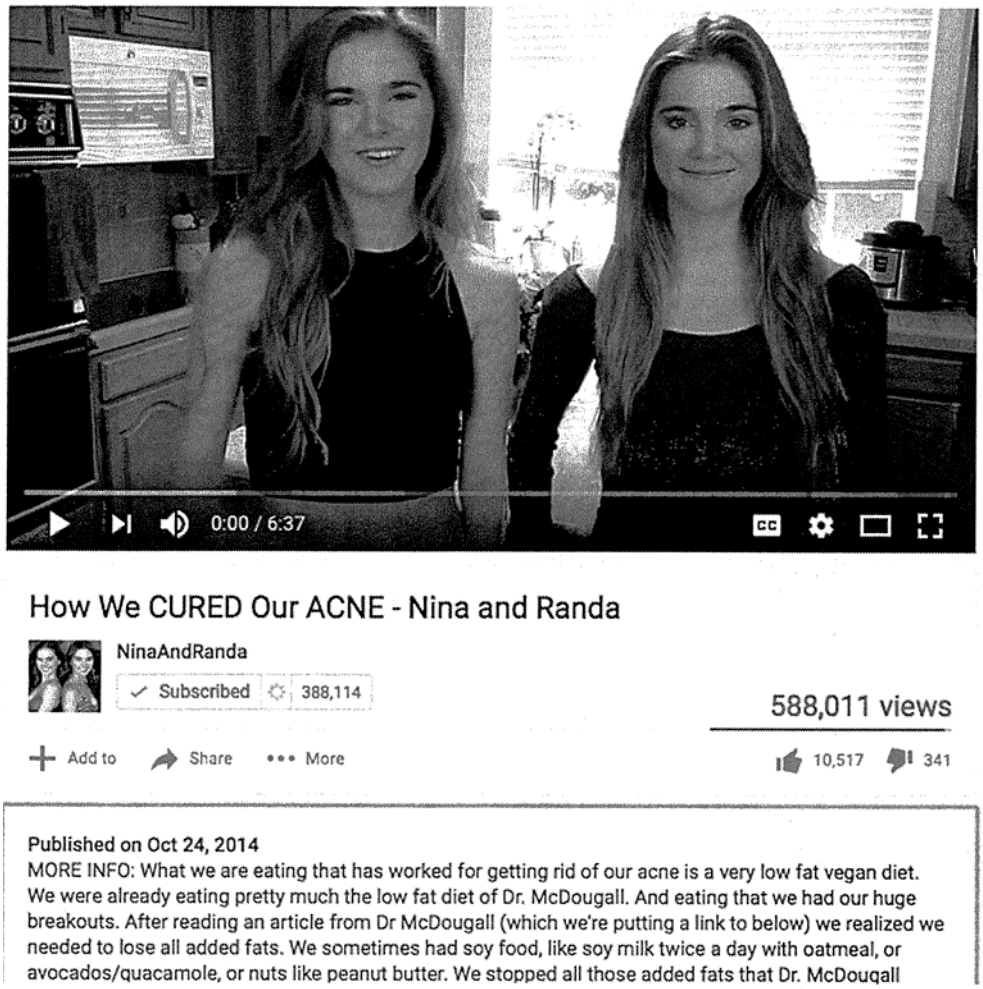
Participants had usually tried countless products and in some cases participants had settled on products that they felt worked for them. Some participants were conscious of the comedogenic properties of certain ingredients in skin care and makeup products, with participants investing time in thoroughly removing makeup and some participants looked for certain ingredients, whereas other participants looked at product claims and packaging. For example, participant 8 described using a specific brand and product.

[Garnier's] exfoliator scrub, it has salicylic acid in it, and some other active ingredients but I feel like I'm in control of my skin when I use their exfoliator scrub every day (P08)

For some participants lifestyle changes gave them a greater sense of control over their condition, seeing lifestyle changes as a tool for self-management. This is an area that some participants wanted more guidance on from reliable sources.

I would rather people tell me that it's not going to be cured but you can control it to a good level and it's good exercise and good diet and, you know, taking the tablets (P06)

However, some participants found these changes time consuming and burdensome. There was also a recognition that these changes could be unhelpful and in some cases potentially dangerous. Participant 7, tried a zero-fat vegan diet advocated by YouTube vloggers (https://www.youtube.com/watch?v=5Qdwn2itsgg).



This screenshot is an example of the many YouTube videos about curing your acne with diet. […] The twins in the screenshots are big advocates of a vegan diet with very low fat, since they claim they cleared their terrible acne that way. I tried their suggestions for a few weeks, and my skin just got dry and worse. (P07)

Participant 13 appeared to have conflated bacteria with poor hygiene, and recognised the harm she had inflicted on her skin trying to burn away the bacteria.

> *I'd have [Dettol] all over my face, I'd have Sudocrem all over my face, I'd have, toothpaste, baking powder or baking soda or whatever one it is, lemon juice, rub in alcohol, hand sanitiser, anything just like almost like just to try and I felt like if it was stinging that meant it was bringing out the bacteria, […] then I'm picking 'cos it's flaking and then it's getting more bacteria and more acne (P13).*

Many participants, including participants who found certain lifestyle changes beneficial, felt that the perception that acne was caused and 'cured' through 'simple' lifestyle changes contributed to a culture of blame, where individuals were considered accountable for either causing or not treating their acne. This was particularly evident in discussions about acne as a sign of poor hygiene. Participant 3 described feeling like people made moral judgments about her.

> *people will think you don't wash, you're lazy because you don't practice personal hygiene and you don't eat the right sort of stuff and that's why you've got acne so and then people make a weird moral judgment based on those things about you as a person. (P03)*

Aware of these assumptions, participants often felt self-conscious about how others perceived and judged them. For example, Participant 3 was aware that these were myths; however, she reflected on how she felt when exposed to these beliefs online.

> *when I read comments about 'doesn't this person wash?' […] even though I know it's a really ignorant thing to say it makes me feel or has made me feel self-conscious 'cos I've thought 'do people look at me and think I don't wash?' (P03)*

As highlighted by the quotes above, most participants expressed frustration with unsolicited advice and felt these assumptions trivialised and stigmatised acne. Indeed most participants felt these beliefs were the results of a lack of understanding about acne, and wanted these assumptions to be challenged. For example, Participant 14 felt that myths perpetuated by media items contributed to this stigma and added to the confusion about the potential causes of acne. Participant 14 raised concerns about these myths delaying acne treatments and wanted greater awareness of acne as a medical condition.

> *'no it is a medical condition it's a diagnosed thing that can actually be that needs to be treated with some form of kind of medicine generally when it gets that bad' […social media] can be less than helpful because you sort of go online and maybe Google like, 'how to get rid of acne' and NHS direct is not necessarily the first thing that comes up it's something like this [blog: http://www.theclearskinessentials.com/blog/] and maybe it stops people from getting clear skin because it just oversimplifies it because*

I think 'oh well if I do', you know, 'these five things then I'll be fine' and so it stops people actually getting to the GP (P14)

While participants criticised the media for perpetuating myths, they also recognised the potential for media platforms to facilitate change, through challenging myths and stereotypes, and normalising exposure to images of skin with signs of skin conditions.

there's so many skin myths aren't there, like eating chips will give you acne, […] if we were all more factual about it in adverts and articles in the media, it will try and like break those myths, 'cos it's a massive myth that it just affects teenagers and because of that like makes adult acne seem even more strange like or looked down upon (P08)

Overall, participants wanted greater and more sensitive media coverage of acne. This included more representative images of bodies, not just limited to shape or size, but also skin appearance, in particular the inclusion of images of individuals with acne represented and discussed accurately in articles and advertisements focused on acne.

Feeling different

Participants spoke extensively about the ways that acne impacted on various aspects of their lives and wellbeing, with ten participants specifically describing themselves and others as 'suffering' from acne, implying that acne had been inflicted on them and was intrinsically linked with distress and hardship. Most participants spoke about the pain and discomfort caused by acne and/or treatment side-effects. However, participants placed greater emphasis on the impact of acne on their psychological, emotional and social wellbeing.

my interaction with my acne is more on a like emotional level than actually physically. (P02)

Common threads within the themes related to: (1) perceiving oneself as not matching up to the ideals and expectations described in theme 1, often involving skin specific comparisons, resulting in appearance dissatisfaction and self-consciousness; (2) feeling stigmatised, and the impact of acne on social relationships and mental health. More generally, this sense of looking and feeling different fed into participants' psychosocial wellbeing and interacted with their mental health.

Looking different: 'Why isn't my skin like theirs?'

As highlighted in the first theme, participants exhibited high levels of appearance dissatisfaction and concern relating to the appearance of their skin, feeling self-conscious and judging themselves as not matching up to the ideal of clear skin. For example, Participant 11 described feeling embarrassed and "self-conscious because it

just doesn't look nice does it?" (P11). Specific cognitive processes appeared to play an important role in triggering self-conscious emotions and maintaining appearance dissatisfaction, as well as feelings of stigmatisation and other psychosocial impacts. The two key cognitive processes which will be explored in this theme relate to attention and comparisons.

Participants described increased attention to their own and others' skin appearance, particularly the presence or absence of acne lesions. Participant 5 noticed other people's skin more because of her own insecurities.

> *if you're uncomfortable about something in your own body you then kind of notice it more about everybody else […] you'll notice that 'oh their skin looks good' (P05)*

This increased attention to skin appearance extended from face-to-face interactions to print and digital media images. Participant 4 described how skin appearance was one of the first things she noticed about people in face-to-face interactions and on social media sites like Instagram.

> *I will always look at someone's skin first. […] when you have like had acne yourself it sort of you do notice it, but yeah so again probably I do notice their skin on Instagram (P04)*

Participant 11 described feeling frustrated that she had been 'conditioned' by society to respond to other people's acne with disgust.

> *I've got bad skin and even when like if I see […] poor teenage lads who've got like a massive breakout you think 'oh God' [disgusted facial expression] (P11)*

Participant 9 appeared to engage in checking behaviours as a safety behaviour to manage anxiety that other people would notice her spots.

> *I'm constantly checking in [my compact mirror] when I'm out […] I get paranoid that my spots are peeping through so then I don't go out for long hours in case that happens (P9)*

Increased attention to skin appearance was often characterised by a process of comparisons. As exemplified by the extracts below, participants spoke about engaging in social and appearance comparisons. Most salient to this research, participants reported engaging in specific skin-related comparisons: comparing their current skin appearance with their own skin previously (e.g. old photos), and to the skin appearance of others.

> *it's made me feel bad about myself that I don't look like that but it's always been about and this is the odd thing I think as an acne sufferer you notice other people's skin more than other people so I'd look at the photos of beautiful women and I would not think 'why don't I why isn't my body like theirs?' I think 'why isn't my skin like theirs?' (P03)*

As described by Participant 12, it was common for participants to attempt to rank how their skin compared to others' skin appearance, and for these comparisons to influence the valence of emotional impact. This monitoring of skin appearance could reflect processes of self-objectification.

> *I kind of benchmark it against other people and if I see somebody that's got really nice skin I think 'oh I feel really bad' and then if I see someone who's like got their own skin problems I think 'oh I wonder if I'm better or worse than them' you know, it's awful really but it's I can't help comparing it (P12)*

The above quote illustrates how participants engaged in both upwards comparisons whereby participants compared themselves negatively to "lovely clear skin" (P01), and downwards comparisons, where participants compared themselves positively to someone else, usually with "worse acne conditions" (P06).

Participant accounts suggested that upwards appearance comparisons were common, particularly in relation to skin-specific comparisons, which often resulted in negative self-perceptions. Participants consistently felt that advertisements and print media provided unrealistic targets for upwards comparisons, and participants were aware of the instant impact of comparisons on their psychological wellbeing. For example, Participant 2 noticed an instant physiological and psychological reaction to viewing idealised images in magazines and on social media and consequently avoided or unfollowed material that impacted on her self-esteem.

> *this is also connected to Facebook so I don't read like fashion magazines now 'cos they make me feel a bit sick and then like I always go worse after I finish reading them, […] it's just like these are just impossibly airbrushed women and I think there's some people on Instagram that are like that […]. If then they post lots of pictures of themselves I think that just made me feel bad about myself so then I unfollow them. (P02)*

Participants differed in their opinions and experiences relating to comparisons via social media. Participant 13 raised concerns about airbrushed images of celebrities, friends and oneself online as an unrealistic source of comparisons and expectations.

> *you think 'why doesn't my skin look that good' and it's because you haven't spent three hours in Photoshop, you can't walk around with Photoshop on your face (P13)*

In contrast, Participant 12 felt that the internet provided access to more diverse images for comparisons.

> *you will never see anybody that looks like you in a magazine but you might on the internet (P12).*

Participant 7 recognised that social media sites and apps included idealised images of perfect skin, but felt her self-esteem was impacted more by comparing her own skin in the mirror.

> *I always do think 'oh their skin looks good' you know 'I wish my skin looked that good' but [seeing people's Snapchats] never affects my self-esteem too much (P07)*

For other participants, social media images and selfies provided a target for upwards skin comparisons. Participant 9 consciously engaged in comparison, which left her feeling jealous of other girls' skin.

> *I compare myself a lot to other girls so if I see, they've put a new like selfie picture up or something I'll, almost look at their skin to see if they've got spots, I know it sounds terrible, but then if they haven't I get really like jealous and envious of them and that that really stands out to me so I often look through their pictures and think 'why have I got this and they haven't?' (P09)*

Participant 3 demonstrated high media literacy skills and was aware of a short term immediate reaction.

> *when you see an image you think these things but then you look at another article and click away from the image and it all vanishes so it's temporary I think, but maybe at one time it didn't used to be for me, these thoughts would bother me a lot more. (P03)*

Participant 3 however raised concerns about the inescapability of idealised digital media images as unhealthy targets for constant comparisons and contrasted these with comparisons with people in face-to-face situations, where she felt downwards comparisons on other aspects of appearance attenuated the impact of appearance related comparisons.

> *if you go out in the street and look at […] people around you and compare yourself to those you'll probably feel a lot better 'cos if you go out into the streets people are all shapes and sizes. Yes you might be the only one with acne or the only one with acne as bad as yours but then you might be in much, I don't know, much better shape than someone else […] it's really diverse it makes you more accepting of yourself but if you just spend time in the virtual world there's a certain image of womanhood that's promoted very heavily and that you get exposed to and because I think that's more damaging now we can't get away from internet (P03)*

Furthermore, some participants described "the fear of missing out" (P13) on social media, as a consequence of being continually exposed to others' idealised lives. Participant 1 engaged in negative comparisons on social media, feeling isolated and that she was missing out on life. This isolation was in part related to her own belief that she was unattractive.

Read all their [Facebook] comments or if they've posted photos of themselves or they'll sometimes like post videos and things, it does upset me sometimes 'cos you look at all them and you think 'good God they're out there' you know 'happy living their lives and I'm just stuck here', it does, I mean I know I've said this before, but I do feel a lot like I'm Quasimodo in in Notre Dame where he just wants to be out and part of the world. (P01)

Participant 1 made multiple references to engaging in upwards comparisons across a variety of mediums, feeling that her appearance marked her as being different "Yeah I just think she looks all right and I just look all wrong." (P01) and isolating herself, suggesting that comparisons also played a role in feelings of stigmatisation.

Feeling different: Stigma and the impact on social relationships

As discussed in the above themes some participants explicitly reported feeling different and/or isolated because of their acne, with the visible signs of acne 'marking' them as different and inadequate, using analogies of feeling like Quasimodo (P1) and Edward Scissorhands (P12). Many participants felt that sociocultural attitudes fed into the stigma surrounding acne. Participants recognised that acne was a common condition and found media images and videos of others with acne normalising. However, the absence of acne from the media contributed to a distorted norm where acne was portrayed as deviating from the socially acceptable norm and a barrier to meeting the ideal of perfect skin. Furthermore, the assumption that the individual was accountable for causing or not properly treating acne exacerbated the blame on the individual. For example, Participant 12 felt that people were less accepting and understanding of acne, compared to other health conditions because of the emphasis on personal accountability.

Interviewer: What do you think is the stigma around it?

Participant: people always perceive it as being your own fault and that you're not managing it in the right way and I think, I mean I get eczema on my neck as well and it doesn't often break out to the point where other people would know about it but I feel like people react to that very differently […acne's] always perceived as something that they've done to themselves and, as a result of that, like you're not supposed to feel sorry for them (P12)

Participant 13 described a two-way interaction between her mental health and acne, feeling that OCD had fed into her anxiety about being unclean, leading to picking her spots and anxiety in social situations.

my OCD kind of plays into it as well because, yeah I think like the percept[ion] like people thinking 'oh there's a scabby girl' a bit like I think that kind of made me more anxious about going out and […] impacted on like compulsively trying to extract or squeeze blackheads or something I think so that probably played into it a bit so I'm probably

quite an anxious end of the bell curve but I think it does make people more anxious about social interaction (P13)

Several participants explicitly used the terms *'stigma'* (P05, P12, P14) and *'taboo'* (P08, P10). However, within the interviews, discussions and experiences and feelings of stigmatisation were common. Most, but not all, participants had experienced verbal abuse and bullying at school, focused on their skin appearance. For most participants this stopped upon leaving education. However, several participants continued to experience staring and derogatory remarks on their appearance, from strangers, family members and colleagues. Participant 1 felt she was judged and treated differently because of her appearance, and described internalising the belief that she was ugly, which prevented her from having romantic relationships.

[Visibly upset] 'Why am I being judged on my looks?' Yeah just makes you feel like you're never really good enough and it's like they [parents] don't tell her off when she says I'm the ugly duckling so you just you just start to believe that about yourself, […] you see, all the pretty girls with their gorgeous boyfriends all around and you just think 'because I look the way I do no one's ever going to want me in that way'. (P01)

Participant 3 tentatively raised concerns that the internet had given a voice to people who wanted to express their stigmatising views and that this had transferred to everyday life.

without the internet I think there still would have been people in the street who would have stared at me or people who would have said things. […] I wonder about the part the internet's played in influencing those people and maybe without the internet they wouldn't have felt motivated or sort of emboldened to say those things (P03)

Participants spoke about acne impacting their confidence in social situations, anticipating that others would judge and reject them because of their skin, often exhibiting cognitive, emotional and behavioural patterns symptomatic of social anxiety. Participant 9 experienced depression and had not left the house on her own in several years, feeling isolated and different.

I do get really low, like at the moment I've got a big spot on my forehead (laughs) so like I'll wear my fringe in a certain way and I'll wear, like the other day I wore a hat to cover it, I find it really hard to go out and socialise 'cos in our group of friends no one's really got acne so I feel a bit like an outsider (P09)

In line with Goffman's (1963) discussion of the 'discreditable' trying to pass as normal most participants felt the need to hide their acne in social interactions, through concealing the visible signs of acne and avoiding talking about acne as they felt it was a taboo subject. This was particularly pronounced in the early months of romantic

relationships. Participant 15 described using makeup to appear to have 'normal-looking skin'.

> *I feel like I can't really take my makeup off, and then obviously that's not good for my skin, I want to keep it on and have normal-looking skin (P15)*

Participant 9 felt that she would be rejected if her 'true self' was revealed, and 'tested' whether her partner would accept her by sending him photographs of herself without makeup.

> *I never went out without makeup on, I felt like it wasn't my true self so when guys would ask me on dates I'd say no because they didn't know who I really was, if that makes sense, because I felt like if they saw me without the makeup then they would reject me […] I used to send [my boyfriend] pictures of myself without makeup just to see what he'd think of me and then because he accepted me, that's sort of how I felt so comfortable with him, (P09)*

Participants were also cautious about how they presented themselves on social media. While none of the participants had received negative comments on their appearance online, most had seen negative comments on other women's appearance, and felt that they could not post images showing signs of acne, anticipating that others would judge them. Participant 10 provided 6 screenshots, including the two below, of meme's and twitter comments mocking women with acne, and felt that if she posted images of herself with acne she would receive abusive comments.

> *Twitter I wouldn't dare post a bare face picture, […] if I do clear my skin like I'd love to make like a YouTube video or post like a before and after and just give general advice. I wouldn't do that on Twitter I'd do that on Tumblr because I feel like that's where it's most accepted, but if I did it on twitter I would just mostly get negative comments (P10)*

Indeed participants wanted to challenge the stigma around acne, and valued and wanted more media items that sensitively discussed acne and the psychosocial impact of acne and felt that vloggers who shared images of themselves with acne were brave, finding these representations of acne as normalising.

> *it was nice to hear that there was someone talking about psychological effects […] it can feel like something you go through on your own whether it's putting up with how you feel about it or try trying to find a*

cure for it because it's your face it's you who's carrying it all the time it's a bit hard for other people to understand the effect that's going to have on you (P1)

Learning to live with acne

It is important to recognise that while participants spoke about negative impact of acne, most participants also described themselves as coping well with acne, and many aspects of their lives being unaffected by acne.

Due to the variable and enduring nature of acne symptoms experienced by the participants within this study, participants described developing a range of coping mechanisms. Participants reported utilising multiple coping mechanisms to manage their own feelings about their skin and how others saw their skin. These coexisting coping styles appeared sometimes contradictory. For instance, acceptance and concealment. While most participants were aware that they were engaging in certain coping mechanisms, some participants mentioned that through the interview discussions they had become more aware of the different coping styles they used, in particular avoidance of certain types of media.

Avoidance and Concealment

Generally participants did not want to be seen with signs of acne, due to fears of being judged. Consequently, the majority of participants described times where they wanted to avoid certain social situations. Participant 9 described "constantly cancelling arrangements" and avoiding leaving the house if she had a flare up "because it's always depending on how my skin's going to look on the day and how I feel about it". (P09)

Most participants made concerted efforts to prevent their skin appearance from dictating what they could and could not do. Most commonly, participants used a range of techniques to cover up the physical signs of acne. These camouflage techniques included wearing clothing and/or hair styles that covered affected parts of the body, using body language to hide affected parts of the face. However, the most common way that participants did this was through make-up. For most participants, applying make-up to conceal their acne was considered an essential part of their day, including leaving the house.

I wouldn't go out without makeup, mostly because I felt people thought acne was an issue of hygiene (P13)

This reliance on makeup to camouflage the appearance of acne could be considered a safety behaviour, maintaining their anxiety about how others would judge them. For example, two participants described that once they regularly started leaving

the house without makeup, they became more comfortable with their skin appearance. For example, one said:

> *I started going out without makeup more often like just when I go out locally and the fact that I did that and it wasn't the end of the world and people weren't actually staring at me the way I assumed they would, that sort of helps, (P12)*

However, other participants had received negative comments and stares, and makeup acted as a tool to manage other individuals' reactions to their skin, and made them feel less self-conscious.

> *if I was to leave the house without makeup or with very little makeup on which I've done in the past people would stare, […] I've had women sort of stare at my face and then bark at me, you know, implying you're a dog you're ugly (P03)*

Participants also described avoiding photographs and selfies, and specifically avoided sharing photographs of themselves, with signs of acne, online. Participant 10 only shared images that had filters applied with friends via Snapchat, and avoided posting selfies due to feeling self-conscious of her skin and anticipating negative reactions from other.

> *I won't post selfies, not unless there's like a filter to like blur it all out. Yes so on social media I don't post selfies at all, I feel too self-conscious. (P09)*

This avoidance of sharing images of acne, and use of filters may reflect internalisation of the ideal and anticipation of rejection from others, but it can also represent a safety behaviour that enabled participants to participate in 'normal' social media use. Participant 2 spent time editing and applying filters to her photos to "make my like spots look less bad." (P02)

this is one of my Instagram posts […] this is like classic person with bad skin or not liking their face photo where I *always like crop normally because it gets really bad around my chin (P02)*

Similarly, Participant 6 demonstrated how apps enabled her to get rid of her acne in a virtual world, even if she could not find something to effectively treat her acne.

> *all my social pretty much moved online and [it] was amazing help it does help to get rid of acne in a, not reality world, in a virtual world. […]*

if you do a selfie [takes selfie] yay, and it shows you acne because of your skin condition. You can select which level you want to be on, this is seven where there is a colour filter as well and I'm about two and finally people see a bit of my skin (P06)

As highlighted by Participant 6, participants did not necessarily use filters or editing to achieve 'flawless' skin, but instead focused on erasing visible signs of acne. Participant 13 left texture on her skin to make the image appear realistic. Indeed, participants described making concerted efforts to manage their online identity.

I do post like profile pictures, I will sneakily take out if I've got like a spot or something, I tend not to use like blurring particularly to take out texture […] I feel like I'm trying to trick people into thinking 'oh well she's got like a bit of texture so obviously that's as bad as her skin gets […] this is like a very carefully constructed image of what my life looks like, what my skin looks like, what makeup looks like in real life. (P13)

Acceptance

An important aspect of coping well related to accepting one's self.

Definitely age and perspective, I mean I think when you're like in your teens and your early twenties you're just a big mess of trying to figure out what you are […] I've got to the stage I'm like secure, people just take me how I am, you know, it's not my problem it's somebody else's if they don't like what they see, […] if there's stuff that I can't fix then it's there's no point trying to fix it, (P11)

Most participants appeared to have become more confident and less critical, although there were times when participants recognised this slipped.

I've got older it has become a lot easier to be comfortable in my skin but I still have days where I think 'oh' in the mirror or good days but it's got better at appreciating me for myself. (P05)

Participant 3 described herself as being "less critical of myself. I don't beat myself up about having acne anymore it's just the way I am" (P03). Acceptance appeared to be associated with a range of factors including a reduction in acne severity, anger and rejecting the pressure to meet the ideal of perfect skin, and reflecting on their own strengths.

part of me also wanted to accept my acne and kind of fight back against society saying I should have beautiful clear skin. I just thought 'well my acne doesn't really cause me any or much physical discomfort it's more emotional and mental distress but I'm such a healthy person in general otherwise' so I kind of thought 'actually this isn't a big deal.' (P03)

Participants used different techniques to manage negative thoughts about being judged because of acne. Participant 4 challenged the idea that others would notice her skin.

you've got to try and remember sometimes it's never as bad for other people as what it is to you (P04)

Participant 14 applied the skills that she had developed in Mindfulness meditation classes, recognising thoughts as thoughts, not facts.

I try and meditate as well, which can be quite helpful, […] recognising the thought pop into my head and then thinking 'oh that's interesting' and kind of letting it float away which has been really useful not just for kind of acne but just for wider sort of stresses, (P14)

However, for some participants this was better described as resignation, 'putting-up' (P1) or 'plodding on' (P5).

the word that's coming to mind is like resigned, that I'm resigned through it, because I feel like, you know, I went down the medical route quite early and it didn't particularly help (P12)

Within the interviews participants consistently called for greater acceptance and understanding from others. Participant 12 reflected on an online article 'Acne: A Love Story (Or, How I Learned To Stop Worrying So Much About My Skin And Just Live My Life)', (Morales, 2014) she had read that focused on acceptance rather than concealment, and how this contrasted with most articles.

it made me feel better […], a lot of the articles you read on like beauty blogs and stuff are all about how to disguise it and how to cover it up and this one is actually about coming to terms with it (P12)

Instrumental and social support

Participants reported receiving social, emotional and practical support from a range of sources, including family, partners, peers, and medical professionals.

Participant 15 felt comfortable talking to friends about her experiences of acne. Furthermore, having other friends with acne as an adult and adolescent appeared to normalise the condition.

I've got friends who have also been in the same boat and it's nice to have people who understand (P15)

While some participants felt they could talk to friends and family about their skin, others worried that friends would get fed-up with them talking about their skin. Participant 1 felt that she would benefit from talking to others with acne in a face-to-face or digital support group. However, this was not something she had actively sought.

'cos then I won't have to keep going on about it to my friends or to my family who may be getting annoyed about me talking about my skin all the time so just to be able to do something like [join an online support group] with other people who can emphasise with you they know exactly what you're going through I think that would be so great. (P01)

Several participants described using online forums as a source of support, often as observers reading other people's posts about acne. Participant 10 saw Tumblr as a supportive online environment that gave her a sense of hope about treatment.

> *there's a community spirit and people sort of discuss acne or Roaccutane they say 'oh don't worry I know it's bad but it will get rid of it', yeah it just makes me feel like I'm not alone there are other people going through it and I can get rid of it one day. (P10)*

As highlighted in the above quote, participants used the internet for advice and information on acne treatments. Occasionally peers and family members shared their experiences of certain treatments. However, friends and family, more commonly offered advice on products and makeup that they had previously tried. This was received differently between different participants. For example, Participant 8 actively sought out this information.

> *I think a big influence is discussing it with friends and acquaintances who also have skin struggles and asking them what they use and what worked for them like this thing with this girl a couple of months ago it was really influential. I went out probably the next day and bought the thing she'd recommended (P08)*

By contrast, Participant 2 felt upset and self-conscious when her mother-in-law bought her face wash.

> *[My mother-in-law]'s totally tactless and she like bought me some Neutrogena face wash or something and was like 'oh [nickname] I've noticed that your skin's quite bad so I've left you some face wash on the sink' and that was like the worst possible thing to say to me (P02)*

Family members and partners often played an important role in encouraging participants to seek medical help for acne. Family members had also played a role in supporting participants in attending these appointments and dealing with the disappointment when treatments failed.

> *My mum, she's put up with my skin as long as I have, 'cos, dare I say it, she'll have a little moan or gets a bit exasperated perhaps when I come home with yet another beauty product to try but, you know, she's come along to doctors' appointments with me and she came with me for the first time when I went to see the dermatologist and, (gets upset) one of the antibiotics I was on it turns out I'm allergic to it and I got really upset, you know, she took me to A&E and she was like, 'I know it's awful for you but don't give up.' (P01)*

The support received from medical practitioners was primarily practical. Attending medical appointments was anxiety provoking for some participants. However, participants who described particularly positive interactions with medical professionals usually cited the professional as being understanding and acknowledging the psychological impact of acne.

he was so good and the first thing he actually said was 'I recognise that you're twenty three and you're female' not that that's got anything to do with it but 'you've also told me you're job hunting, and I can see how we need to like tackle this head on' so actually I've had a really positive experience and that did culminate in him referring me to a dermatologist (P14)

In addition to face-to-face support participants also utilised media sources, primarily digital media, to gather information on acne. This appeared to be an important aspect of individuals' experiences in relation to acne and media and is therefore discussed below.

Digital media as an important yet confusing supplementary tool for active information seeking.

The above themes discuss the role of print and digital media in transmitting appearance ideals and influencing psychosocial wellbeing. Another overarching theme was identied from the analysis of the interviews: Digital media as a supplementary source of information. Such information was used to research acne treatments and medications and inform decisions about treatment. However, participants highlighted concerns about the trustworthiness of online advice, with some participant's feeling that it reinforced stigmatising assumptions about acne and endorsed potentially dangerous practices.

While the internet was a major source of information, it is important to recognise that this information was assimilated with information from a range of sources. These included participants' families and peers, self-observations, medical professionals, print media, beauticians and shop attendants. Furthermore, these other sources of information were sometimes communicated via digital media.

Actively searching for information on acne and acne treatments

All fifteen participants had used digital media to actively search for information on a range of treatments, including prescribed medications, products and alternative treatments. Participants spoke about using a range of sources to both actively gather information about acne and in particular acne treatments.

While the majority of internet and digital media use was not focussed on skin, most participants described going through phases where they would specifically search for information on acne and acne treatments. This was often motivated/triggered by participants frustration with their skin appearance, chronicity and perceived increases in severity and often further fuelled by a desperation to achieve clearer skin. Participant 8 described how this was fuelled by a lack of control over her skin.

when my skin gets worse and I have a bad phase and I get fed up that's when I will start Googling stuff. (P08)

However, Participant 8 reported finding helpful information on chronic skin picking (dermatillomania), which she identified through online research, and prompted her to seek treatment.

I felt a lot of relief when I researched it because, one, I was like this is an actual thing so it's a recognised condition and because of that I can probably get help for it. (P08)

The internet provided an accessible and anonymous source of advice, information and support. Participant 14 used the internet to ask questions participants felt unable to ask their GP.

social media is maybe helpful in terms of a sense of community, a sense that like getting advice, especially because you can't just ring your GP if you've got one question (P14)

Participant 14, alongside other participants used Boolean searches and online information to actively research medical treatment options for acne. This was commonly practiced after having been prescribed or recommended a particular medication by their GP or dermatologist and used to supplement information from medical professionals. One of the most common medications Googled was Isotretinoin. For example, Participant 14 spoke about: (a) researching it from a medical perspective, including information on side-effects; and (b) reading about others' experiences of taking Isotretinoin.

[I] Googled about Roaccutane both from a medical perspective and people's treatment and other people's experiences of being on the treatment (P14)

Blogs and vlogs were used by participants to find out about other people's experiences of treatments. Participant 1 followed others' progress and found these sources helpful in identifying skin care products to manage the common side effect of skin dryness.

I do a lot of random reading on the internet and YouTube videos as well, and they've talked about and sometimes they show photographs of what their skin was [before Isotretinoin] and if you're on a very good blog they keep you updated for their progress […] they give out their own advice on how you could cope if you've got similar symptoms and what face products they like to use as well as this which was really helpful so I think that's, in a way, how they helped me cope with the symptoms better. (P01)

Participants had heard about the link between Isotretinoin and depression from a range of sources, including medical professionals, peers, TV documentaries, online articles and comments.

I also remember watching part of a documentary, about Isotretinoin and again you have to take some of these the information you're given with a pinch of salt but that made me feel quite anxious about it more the links with that and people becoming depressed and then potentially suicidal, made me feel quite concerned and I sort of thought 'do I really want to take this?' (P03)

The information identified online was collated with information from other sources, and used to inform decisions regarding medications, particularly Isotretinoin. Although, often participants focused on online information that supported their existing viewpoints. Participant 3 spoke about deciding not to take the drug after reading online about its similarities to chemotherapy.

when I read that Isotretinoin was like a chemotherapy drug I just thought 'no way I'm not going near this thing' (P03)

Online research often influenced participants' consultations with GPs and dermatologists. Online research was used to answer questions they felt unable to ask medical professionals, gain more information on medication, particularly side effects. In some cases participants discussed the online information in consultations.

I brought that [similarities between Isotretinoin and chemotherapy] up talking to either a GP or the dermatologist and they were a bit hesitant about it as if they maybe thought it wasn't complete nonsense but it wasn't totally factual either, I don't know, but they seemed a bit funny about discussing that with me (P03)

Participants 7, 10, and 14 were receiving treatment from private dermatologists in the UK. Participants 7 and 10 explicitly described using the internet and social media to research and select private dermatologists, while Participant 14 had shared her experience of seeing a Dermatologist privately, on an online forum. Frustrated with the dismissive response of her GP, Participant 10 selected a private dermatologist based on his interest in the psychosocial aspects of acne.

Google. I just typed in like 'private dermatologist' and the reason I picked this dermatologist because he did research about acne and the effects on daily life. (P10)

Participants also described using the internet to find information on alternative treatments options, which included information on lifestyle changes, cosmetic procedures, and most commonly skin care products. Participants were often influenced by advertisements across a range of media formats, and participants often sought out online reviews before purchasing a product.

you see all these ads for it you read reviews for it from other people with acne and you just think 'well if it's made their skin better it's going to do the same for mine' but every time it didn't it just got that really disappointing. (P01)

This was often a time-consuming and expensive process. As highlighted in the above quote, participants spoke about entering into phases a vicious cycle of purchasing products often fuelled by a desperation to change the appearance of their skin. However, this was often followed by disappointment if the product did not work, followed by trying a new product.

Trustworthiness - Information literacy – confusion

Participants discussed the complexity of appraising the reliability and trustworthiness of various sources of information, particularly internet sources.

> *Online guides such as this have often caused more confusion for me in trying to find a treatment to my acne. This has made me question whether social media can actually be damaging, offering conflicting advice and possibly making people with adult acne feel as though something they are doing, whether that is lifestyle or a product they are using, could be a cause of their acne. (P14)*

Participants were critical of the marketing techniques employed by advertisers, including the use of airbrushing, and recognition that there was a blur between certain media content and advertising. For instance, Participant 4 expressed frustration at the covert advertising influences on blogs/vlogs.

> *Interviewer: What would you like to see change in the media?*
>
> *Participant: […] more realistic advertising, less product placement […] it annoys me when [bloggers are] paid to promote a product and you sort of think 'is this genuine or not?' and you just doubt everything everyone says now. (P04)*

Most were cynical about the information and prioritised medical information. However, most participants had found themselves in cycles of trying new products, fuelled by desperation and disappointment with the results.

> *I'm a bit cynical I think the best advice you can take is advice from an actual dermatologist but you still think 'oh well I might give that a go.' (P08)*

However, there were limitations to the availability of reliable information from medical sources. For example, Participant 2 felt that the information on the NHS website did not address many of her questions.

> *when I was like trying to self-manage or whatever before I went to the doc, 'cos I felt like if I could go to the doctors saying 'I've been trying these things' it would be better so I only ever look at the NHS website for like actual medical information but their advice is literally just like wash your face twice a day, it's not that helpful (P02)*

Participants expressed a desire to be signposted to more reliable information. Furthermore, several participants valued social media content written by medical professionals.

> *credible sources would be things like the YouTube videos I sent you (e.g. https://www.youtube.com/watch?v=CWox97l3dGk&list=PLdvvM8lfZEEVIHaU3vKe-TqyfcVufjkAU&index=4 …] that's an actual dermatologist giving free advice which to me that is just golden […] a really positive use of social media I would say in terms of acne, instead of just being presented with these images of, women with amazing skin, and, you know, presented with someone who's actually giving you knowledge on how to improve it and talking about it. (P04)*

Discussion

The aims of this study were to situate young women's experiences of acne in the context of contemporary media culture. In accordance with these aims, four key and overlapping themes were identified: (1) Tension with the overwhelming sociocultural pressure for clear skin; (2) Feeling different; (3) Learning to live with acne; and (4) Digital media as an important yet confusing supplementary tool for active information seeking.

The findings presented under the first theme focus on the sociocultural context and pressures surrounding women's experiences of living with acne, and are closely interrelated with the impacts described in the second theme. These findings can be partially understood in relation to the sociocultural model of body image (Thompson, et al., 1999) and broader frameworks for understanding adjustment to visible difference (Thompson, 2012), and suggest that young women with symptoms of acne perceive and are dissatisfied with a narrow view of beauty communicated via media messages and images of women's bodies, particularly relating to 'flawless' skin as the perceived norm, and acne as opposed to the ideal, as exemplified by the absence of acne from the media. These findings are consistent with qualitative accounts of Australian participants living with skin disease, whereby participants described pressure from the media to meet the ideal of perfect skin (Magin et al., 2011a). However, Magin and colleagues (2006a, 2011a) did not differentiate between traditional and digital media formats. In line with the findings of Study 1, participants within this study unambiguously felt that women's print magazines were stocked full of airbrushed images of women with perfect skin. There was less consistency in participants' discussion of social media, with participants both identifying the potential for social media to contain more diverse and representative images, but also raising concerns about the inescapability of idealised and images of friends and strangers on social media, and the widespread availability of filters. The emotional impact of social media sites seemed also to depend on how the participants used and interacted with the

sites. For example, there seemed to be a more negative impact on individuals when they spent time looking at photos of other people.

The sociocultural model and media literacy research predicts that media literacy skills, including recognition of airbrushing practices and critique of societal appearance ideals are associated with improved psychological wellbeing (Jeong, Cho, & Hwang, 2012; Thompson et al., 1999). Conversely, in the present study there appeared to be a clear tension between participants' anger at the unrealistic nature of the ideals and their subsequent desire to reject such ideals, conflicting with their accounts of succumbing to the overwhelming societal pressure to strive to meet this ideal. Furthermore, as illustrated in the second theme, despite this awareness, the participants reported engaging in skin-related comparisons, judging themselves as deviating from this norm, and for some participants this resulted in feelings of inadequacy and appearance dissatisfaction. This suggests that awareness does not automatically equate to improved wellbeing and the results may be better understood in relation to Self-Discrepancy Theory (Vartanian, 2012). According to Self-Discrepancy Theory, self-perceptions are comprised of three core areas, which can each be seen from both the individual's own perspective and others' perspective: (1) the actual self, comprised of own/others' perceptions of current attributes (e.g. acne); (2) the ideal self which are attributes the individual/others wants to possess (e.g. perfect skin); and (3) the ought self which reflects our own/others perceptions of what is expected of us (e.g. women should be attractive with clear skin). Discrepancies between each of these selves can result in a range of impacts even when one's own ideal is different to the ideals presented in the media.

Pressure to meet this ideal appeared to be further compounded by negative association with acne. Sociocultural theories and researchers interested in visible difference also proposed that sociocultural myths, such as assumptions that beauty is associated with favourable characteristics and outcomes, further contribute to pressure to conform to ideals, and feelings of shame in individuals who perceive these ideals as important and themselves as unable to meet them (Kent & Thompson, 2002; Papadopoulos & Walker, 2003; Thompson et al., 1999). Within this study, the myths more closely associated acne with negative characteristics, such as immaturity and poor hygiene. Such beliefs have been widely reported in both qualitative and quantitative studies and were identified as a theme within the analysis of advertisements in Study 1 (Brajac et al., 2004; Magin et al., 2006b). While most participants felt myths related to public perception in general, participants also highlighted how the media reflected and perpetuated these myths, for example, providing advice on how to quickly achieve clear skin through diet changes, cleaning

and home remedies, and manifesting through abusive comments. Magin et al. (2006b) argued that such myths were not necessarily stigmatising, but instead were associated with a higher locus of control, reducing distress. The findings from this study were less clear cut. Several participants described these myths as stigmatising and reinforcing the taboo surrounding acne, and some participants associated their avoidance of certain social situations and use of camouflage as methods of preventing others from making judgements about their attractiveness, health and self-care. Yet often simultaneously participants engaged in an attempt to manage their skin through products and dietary changes, which made them feel more in-control of their skin, though to many participants these changes and products were expensive and burdensome.

Theme two explores the psychological impact of living with acne, with participants describing a diverse range of impacts largely consistent with both survey and qualitative studies, including appearance dissatisfaction, self-conscious emotions, anger, and stigmatisation (Magin et al., 2006a; Tan, 2004). Previous research has suggested that acne is associated with increased comorbidity of mental health conditions (Gieler, Gieler, & Kupfer, 2015). Within this study, participants who had received mental health diagnoses described how acne interacted with their mental health, in some case existing mental health conditions influenced their behaviour. Furthermore, two participants described behaviours consistent with chronic skin picking. Despite recognition that acne can play a role in the development of dermatillomania, few studies exploring the psychological impact of acne report dermatillomania. This may have been overlooked in previous qualitative studies due to rigid exclusion criteria.

The present study is unique in seeking to understand how consumption of various media influences the psychosocial wellbeing of individuals with acne, living in the UK. In line with Magin et al (2006a, 2011a), female participants felt that they did not measure up to the societal ideal of perfect skin, describing themselves as both looking and feeling different, indicating that media representations of perfect skin contribute to appearance dissatisfaction and feelings of stigmatisation. Experimental and survey data has thus far demonstrated that exposure to images depicting the thin ideal, across both traditional and digital media, can lead to a range of psychosocial impacts and have demonstrated a role of appearance comparisons in mediating this relationship (Myers & Crowther, 2009).

The findings from this study also point towards the importance of cognitive processes in maintaining distress even in the face of awareness, and this has not described by Magin and colleagues (2006a; 2011a). Participants within this study

described heightened attention to skin appearance and acne lesions both in face-to-face interaction and when using various forms of media. An experimental eye-tracking study reported that acne patients, compared to individuals without acne, rated the attractiveness of faces with acne more negatively, which was associated with a greater attentional bias towards acne lesions (Lee et al., 2014).

This increased attention to skin appearance was also reflected in the skin-based comparisons that participants reported engaging in. Social and appearance comparison theory proposes that individuals are innately motivated to compare aspects of themselves including their appearance (Festinger, 1954; O'Brien et al., 2009). These comparisons can be divided into upwards and downwards comparisons. Consistent with the existing literature, participants commonly engaged in upwards comparisons, comparing their skin to individuals and media images with clear acne-free skin, which was associated with temporary and longer term psychological distress. Similar findings relating to the role of comparisons in individuals' wellbeing and experiences have been reported in qualitative and quantitative research and suggest that upwards comparisons are associated with reduced wellbeing and downwards comparison are used to boost self-esteem and wellbeing (Murray & Rhodes, 2005; O'Brien et al., 2009; Prior & Khadaroo, 2015). However, in the present study responses to downwards comparison varied between participants. For some this led to increased self-esteem, for others seeing individuals with acne was normalising, and for others their own negative responses to the skin of other individuals with acne reinforced their concern that others would notice or have a negative reaction to their own skin. Within previous qualitative studies, comparisons were primarily discussed in relation to face-to-face interactions (Murray & Rhodes, 2005; Prior & Khadaroo, 2015). However, quantitative studies exploring appearance comparisons, which were mainly focused on weight and shape, have demonstrated that individuals engage in comparisons across a range of media, including social and print media, resulting in appearance dissatisfaction, low mood and disorders eating (O'Brien et al., 2009). In the present study, participants engaged in comparisons across a range of mediums. Participants felt images in magazines, advertisements and films almost universally depicted images of perfect skin, providing a source of upwards comparisons to computer generated perfect skin. Whereas social media images were closer targets for skin comparisons, though digital media did allow participants to look at images of individuals with skin conditions.

Within the interviews participants perceived others as judgemental of individuals with acne. This was often reinforced by negative and abusive online comments and media messages associating acne with negative attributes. While it is unclear how

accurate these perceptions were, the findings of Study 1 and previous research suggest that such stigmatising views and implicit biases are held about individuals with acne. For example, in a quasi-experimental study members of the public estimated individuals with simulated acne lesions to be younger, less mature, less attractive, and given poorer ratings as potential friends compared to individuals with clear skin, which was consistent with Participant 2's concerns (Timms, 2013). Participant accounts of feeling and looking different can also be understood in relation to stigma theory. Participants reported incidents of enacted stigma, including bullying and witnessing online abuse targeting women with acne. Self-conscious emotions, including shame and embarrassment are commonly associated with feelings of stigmatisation and failing to meet societal ideals (Kent & Thompson, 2002; Scambler & Hopkins, 1986). It is therefore unsurprising that participants described feeling self-conscious about their skin. Richman and Leary (2009) proposed that incidents of rejection consistently trigger negative feelings and lower self-esteem, but that individuals are motivated to respond to threats to acceptance based on their appraisal of the situation. These reactions typically include prosocial, antisocial responses, and avoidant responses and while prosocial responses are theorised to restore feelings of acceptance; avoidance and antisocial reactions are theorised to be counterproductive, preventing individuals from feeling accepted and resulting in poorer mental and physical health. Richard and Leary (2009) conceptualise anger as an unhelpful and antisocial response to stigma. Similarly, within the framework presented by the Appearance Research Collaboration anger is categorised as a negative outcome (Clarke et al., 2014). However, for some participants anger related to rejection of the ideal, and greater self-acceptance, where participants were less likely to blame themselves for not meeting the ideal.

Theme three specifically explored the coping mechanisms that participants had utilised and developed over time to manage living with a chronic and fluctuating skin condition. In line with existing qualitative literature, participants reported utilising a range of coping mechanisms, including avoidance, concealment, acceptance and social support (Prior & Khadaroo, 2015). The present results support these findings, but also highlight how several participants within this study also utilised digital concealment strategies, including photo-editing, to enable them to engage in the sharing of photos online. Prior and Khadaroo (2015) reported that only one participant described using lighting strategies to conceal her acne in images. These differences could be explained by the differing focus of the studies, or it may reflect changes over time, with the increasing popularity of the selfie and/or the increasing availability of photo-editing apps and tools.

There have been earlier discussions regarding the helpfulness of concealment techniques, preventing individuals from challenging the anxiety that others will comment on or judge their appearance, thus maintaining anxiety and shame (Thompson, 2005). Within this study, concealment techniques were used as a tool to overcome avoidance, and to manage feelings of stigmatisation and enacted stigma. While there was some support to suggest that concealment was in part a safety behaviour, participant accounts also suggested that negative comments and reactions were a real threat and that societal views about acne needed to change before participants could feel comfortable without makeup.

Participants demonstrated resilience in living with acne. While participants were conscious of the appearance of their skin, almost all participants described making concerted effort to carry on with their everyday lives, often facilitated by concealment. Participants described becoming more confident and accepting of themselves, having put up with acne for several years, though acceptance was not always stable. Similarly, Thompson and Broom (2009) reported that for individuals living with a visible difference, adjustment was an ongoing process. Participants who described accepting acne appeared to be more compassionate towards themselves, felt less isolated, placed less blame on themselves, and recognised attributes that they viewed positively.

Acceptance and understanding from others was important, and has been previously reported to be an important aspect of living well with conditions that can affect appearance (Thompson & Broom, 2009). Within this study, participants valued practical and emotional support from others. Having friends with acne appeared particularly helpful. However, there appeared to be a line between providing helpful advice and giving unsolicited advice on lifestyle changes. In line with previous qualitative studies, participants spoke more positively about medical practitioners who recognised the potential for acne to impact on psychological wellbeing and provided prompt treatment (Magin et al, 2009a; Prior & Khadaroo, 2015). For some participants social media sites also provided a source of social support. An online survey of forum users with psoriasis reported that respondents valued the availability, convenience, advice and lack of embarrassment linked to anonymity as the main reasons why respondents used the forums (Idriss et al., 2009).

Theme four explored how participants actively used the internet to gather information about acne, and contributes to the growing literature on digital health information (Li, Li, Guan, Ma, & Cui, 2015). A novel finding of this study related to how participants drew information from a range of sources including Boolean searches and social media sites to supplement information from medical professionals, family and

friends to make decisions on medical and alternative treatments. Participants not only wanted medical information (e.g. side-effects), but also valued first person accounts and reviews of treatments, which were more commonly available through social media sites and product website. In line with previous qualitative literature, participants raised concerns about the variable quality and trustworthiness of online resources, and described some confusion in navigating the barrage of information, opinions and advice online (Santer et al., 2015; Santer et al., 2017). The ability to gather information in this way provided both benefits and risks. Indeed, some participants spoke about delaying or disengaging from medical treatments, and reported spending large amounts of money trying ineffective products and treatments. However, information from digital media and alternative treatments were also used to help maintain a sense of control in managing condition, and a sense of autonomy in making informed decisions about their treatments. Overall, participants felt that they would benefit from open conversations with medical practitioners about online information and would value signposting and advice about finding reliable and in-depth information.

The findings more broadly fit with existing body image literature which indicates that exposure to idealised images can negatively impact individuals' psychosocial wellbeing. Much of the existing body image literature and research focuses on weight and shape. The participants' accounts demonstrate a holistic view of body image and appearance dissatisfaction, which encompassed salient aspects of appearance including body shape/size, skin appearance and facial appearance. The emphasis on skin appearance within this study is likely to relate to an increased salience of skin appearance in individuals with chronic visible skin conditions. The findings of this study may also be applicable for individuals with sub-clinical skin concerns. Within experimental research female participants with high levels of appearance comparisons reported an increased discrepancy between their actual and ideal facial, hair and skin appearance after 10 minutes browsing Facebook (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015). However, it is unclear whether any of these participants had a skin condition. Future research could explore whether skin appearance is a concern for individuals with sub-clinical skin concerns, and discussions of body image should recognise the multifaceted nature of body image, including skin appearance.

Limitations

This study carries limitations to generalisability similar to other qualitative studies using a specialised small convenience sample. The findings of this study therefore need to be situated in the research context and sample characteristics, limiting the generalisability of the results. For example, the interviews took place in 2016 and explored experiences of current digital (e.g. Facebook, Reddit) and traditional (e.g.

print magazines, television) media forms, and technologies (e.g. mobile phones with inbuilt cameras and filters). The participants' self-reported exposure to media types can be seen in Appendix 4J. However, as noted in the introduction and participant accounts: digital media platforms and technologies are constantly developing, it is therefore important to recognise that such changes may differentially influence participants' experiences. Furthermore, the participants within this study were recruited in line with a narrow set of inclusion criteria to provide a homogenous sample, in line with other qualitative studies adopting an interpretive stance to research. Therefore, further qualitative studies are required to examine the experiences of acne and media in individuals outside this age range of the population studied, men living with acne, and individuals who have recently developed acne.

Within this study participants were not excluded for having another skin, physical or mental health condition. Eleven participants reported additional diagnoses, which may have acted as confounding factors and reduce the transferability. The decision not to exclude individuals with a comorbid health condition was made as many people living with acne are likely to have an additional health conditions, which does not invalidate their experience of living with acne. Furthermore, in some cases acne is a symptom of an underlying health condition (e.g. polycystic ovary syndrome), and participants spoke about acne influencing their mental health.

Additionally, as participants were recruited from a community sample, participants self-reported symptoms of acne. Therefore, symptoms may have been misreported. Participants were, however, required to have received a diagnosis of acne from a medical professional. Furthermore, as most individuals with acne self-manage the condition, the use of a community sample allowed for the inclusion and insights of participants who were not currently receiving medical treatments, especially as the internet provides information on a range of alternative treatments.

It is also conceivable that there were selection biases, as the participants who volunteered may have felt particularly strongly about the issues discussed within the interviews. Indeed, interviews lasted longer than originally anticipated, and over two hours in one case. The participants within this study had not previously taken part in any qualitative or skin-related research, and during the initial contact and post interview debrief several participants also reflected on the interviews as a positive experience and rare opportunity to discuss their experiences of acne and media.

Overall, the themes and subthemes described above were highly saturated both within and between participants' accounts, and were further supported with examples from the photo-elicitation items. While this highlights both the reliability and

validity of the findings, it is also important to recognise the possibility for further data collection to support the identification of additional codes related to the individuality of experiences of acne and media.

Clinical and societal implications

These interviews highlight the influence digital and social media can have on young women with acne: providing a tool for information seeking, support and active decision making as well as communicating societal ideals. The results of this study also carry a range of implications for clinical practice and policy. These include recommendations made by participants within the study.

Participants wanted greater societal awareness and acceptance around acne and felt that wider societal changes were required to reduce stigma and improve the wellbeing of individuals with acne. As part of these improvements participants wanted greater education about acne. Furthermore, participants wanted to see changes in the ways that skin and acne was portrayed in the media, with media cited as a potential tool to challenge societal views of acne, and normalise the condition. This included: (a) using greater diversity of bodies in the media, including the use of individuals with visible skin conditions, particularly when advertising products for acne; and (b) challenging stereotypes and stigmatising assumptions about acne.

While medical professionals should be aware of the potential influence of digitised media when assessing the psychosocial impact of skin diseases, they should also consider the role played by cognitive processes, including upwards appearance comparisons. Participant's accounts suggest that upwards appearance comparisons played an important role in the psychological impact of living with acne, with accounts suggesting that these comparisons contributed to negative evaluations of being and looking different. Clinicians and researchers could consider employing and developing interventions to target appearance comparisons, such as Cognitive Behavioural Therapy (e.g. Waller, 2007), and interventions to target feelings of stigmatisation and self-conscious emotions, by building self-compassion. Interventions aimed at increasing self-compassion and mindfulness have been reported to reduce feelings of shame and improve psychosocial wellbeing in populations with long term health conditions, including skin conditions (Kelly, Zuroff, & Shapira, 2009).

Medical professionals should be aware that the internet and social media are used by young adults with acne to gather additional information on acne and make informed decisions on acne treatments. It therefore appears important that medical professionals are able to have open conversations with patients about concerns raised

by digital information, and where possible patients should be signposted to reliable information and given guidance on assessing the trustworthiness of digital information.

Chapter 5. Upwards skin comparisons as a mediator between social media use and feelings of stigma in individuals with acne: An online survey.

Introduction

> *as an acne sufferer you notice other people's skin more than other people do, so I'd look at the photos of beautiful women and I would not think 'why isn't my body like theirs? I think: why isn't my skin like theirs?' (Study 2: Woman with acne, age 27)*

The findings from Studies 1 and 2 identified the potential for both traditional and digital media to reflect and perpetuate the idea that acne deviates from the sociocultural ideal and media norm of perfect skin and to transmit stigmatising messages about acne. Furthermore, Study 2 highlights the significance of digital and social media in the lives of women with acne. One of the core themes identified within Study 2 (illustrated by the quote above), was that of skin-specific appearance comparisons. Participants spoke about making these comparisons with individuals in person and via social networking sites. They reflected perceptions of not being able to meet the societal ideal of perfect skin, which contributed to feeling different. Such appearance and social comparisons have been associated with a range of negative psychosocial impacts (e.g. Fardouly et al., 2015; O'Brien et al., 2009; Ridolfi, Myers, Crowther, & Ciesla, 2011). Therefore, this chapter will quantitatively examine: (i) the relationship between specific areas of social media use and stigmatisation; and (ii) whether appearance comparisons act as a mediator in between these relationships in adults with acne.

As highlighted in Chapter 4, there has been an exponential growth in the use of social and digital media with online activity playing a major role in our daily lives. Ofcom (2017) reports that 65% of the adult UK population and 76% of internet users possess a social media account. Facebook remains the most popular site with approximately 60% (31 million) of the UK's population possessing an account (Avocado Social, 2016). Instagram, a primarily image-based platform, allows users to share images on its own platform as well as Facebook and Twitter, has become increasingly popular, with reportedly 14 million UK users a month (Avocado Social, 2016). Instagram also provides users with a series of 'filters' that can be applied to digitally manipulate images before they are posted online. It arguably exemplifies a

society that is more focused on image and appearance than ever before. Not only are we surrounded by idealised/airbrushed images of perfect bodies and skin but we can now interact with these images online, and we can airbrush our own images to 'perfection'. In line with these changes to our daily lives, a relatively new field of social media research has emerged, exploring the implications of this new digital environment.

Media use, body dissatisfaction and psychosocial outcomes

Correlational, longitudinal, and experimental research has established a relationship between social network site use, and a range of negative body image outcomes (Holland & Tiggemann, 2016). Facebook has been the primary focus of such research. Facebook use has been measured in a variety of ways, including: total time, total number of times checked per day, total number of Facebook friends and the Facebook Intensity Scale (Ellison, Steinfield, & Lampe, 2007; Holland & Tiggemann, 2016). Several studies have also considered how Facebook is used. For example, photo-function use and the desire to receive 'likes' on posts appear to be stronger predictors of body dissatisfaction (Mabe, Forney, & Keel, 2014; Meier & Gray, 2014; Smith, Hames, & Joiner, 2013). For example, Meier and Gray (2014) reported that photo function use and not total time spent on Facebook was related to higher levels of weight dissatisfaction, thin ideal internalisation, appearance comparison and self-objectification. However, these studies typically do not consider whether participants have a condition that affects appearance and more commonly use student samples.

More recently, research has started to explore the impact of Instagram. For instance, Brown and Tiggemann (2016) reported that female undergraduate students experimentally exposed to idealised Instagram images of celebrities and peers, as opposed to Instagram travel pictures, reported increases in body dissatisfaction and negative mood, mediated by appearance comparison (Brown & Tiggemann, 2016). Body dissatisfaction was measured using combined scores on visual analogue scales for facial, body and weight dissatisfaction. However, it was unclear whether these scores were highly correlated, and the findings presented in this thesis suggest that individuals with a visible difference may be dissatisfied and compare themselves on specific aspects of their appearance and not others. Similarly, Lup, Trub, and Rosenthal (2015) reported that social comparison mediated the relationship between frequency of Instagram use and depressive symptoms. However, other research indicates that individuals with higher body satisfaction post selfies more frequently on Instagram (Ridgway & Clayton, 2016). This growing field of social media research suggests social media has the potential to impact adversely on psychosocial wellbeing. However, research has focused on body image and mood, rather than feelings of

stigmatisation, where exposure to images of oneself and others may be particularly important, and act as a source for upwards comparisons.

Appearance-based comparison as a mediator variable

Social comparison theory posits that humans are inherently driven to engage in self-evaluations either through objective measure or by comparing themselves to others (Festinger, 1954). This theory has been expanded to include different types of comparisons, including appearance-based comparisons, and downwards and upwards comparisons where individuals compare themselves to others they assume to be superior (upwards) or inferior (downwards).

Social comparisons and upwards appearance-comparisons have also been established as a predictor of body dissatisfaction (Myers & Crowther, 2009), body-shame (Markham, Thompson, & Bowling, 2004) and as mediators between media exposure to idealised images and body dissatisfaction (Fardouly et al., 2015; Fardouly & Vartanian, 2015; Feinstein et al., 2013; Meier & Grey, 2014; Smith et al., 2013). Frequency, direction and objects of comparisons all mediated the relationship between Facebook use and negative body image outcomes in an online cross-sectional survey, using an Australian population (Fardouly & Vartianian, 2015). However, the literature exploring social and appearance-based comparisons has largely focused on general appearance or weight/shape, despite indications that individuals selectively attend to perceived 'flaws' in their appearance (e.g. Lee et al, 2014). Recent experimental research reported that women with relatively high levels of appearance comparison, but not women with relatively low levels of appearance comparison, described larger differences between what they wanted their face, hair and skin to look like compared with what they perceived themselves to look like, after spending 10 minutes on their Facebook account compared to participants who had spent 10 minutes on an arts and craft website (Fardouly et al., 2015). However, it was unclear what these facial, hair or skin discrepancies were, and whether any of the participants had a condition that affected their facial, hair or skin appearance.

Social comparison has been reported to be an important mechanism in the way individuals with a stigmatised identity evaluate themselves (Finlay & Lyons, 2000). Within the Appearance Research Collaboration framework, social comparisons were identified as a key cognitive process in appearance-related wellbeing in individuals with a visible difference. Furthermore, Kellett and Gilbert (2001) theorise that self-comparison is a core process implicated in shame, a central component of stigma, in individuals with acne whereby individuals evaluate their skin as flawed and less attractive than others. In Study 2, interviewees with acne made frequent references to

comparing their skin appearance with others', across real life interactions, social media and with traditional media. This often related to feelings of inadequacy, appearance dissatisfaction and shame, although to varying extents. However, appearance comparisons have not been quantitatively explored as a potential mediator between media use and feelings of stigmatisation. Within Study 2 participants reported most frequently engaging in upwards skin-specific comparisons with individuals with clearer skin. There were clear differences between participants in the frequency of these comparisons and on the impact of engaging with these comparisons. However, appearance comparisons have not been quantitatively examined as a potential mediator between media use and feelings of stigmatisation.

Furthermore, within Study 2 participants who appeared to have higher levels of self-criticism and isolation (lower levels of self-compassion) tended to present with higher levels of appearance comparisons and internalised stigmatisation, as opposed to participants who were more accepting of their skin. Acceptance appeared to be something that they have developed over time. Self-compassion has also been identified as a potential moderator between appearance-based comparisons and appearance-related outcomes such as appearance-related self-worth (Homan & Tylka, 2015). Self-compassion is theorised as involving three main components which influence how we treat ourselves and react to difficulties: self-kindness, mindfulness, and sense of common humanity (Neff, 2003). Furthermore, self-criticism, isolation, and over identification are theorised to be dimensions that represent lower levels of self-compassion (Neff, 2003). Intervention-based studies using compassion-based training have reported significant reductions in shame in participants with chronic acne (Kelly et al., 2009). Furthermore, self-compassion has been identified as a protective factor against psychosocial distress in stigmatised populations (Hilbert et al., 2015; Wong, Mak, & Liao, 2016). For example, in a population-based survey Hilbert et al. (2015) reported a significant negative relationship between components of self-compassion and self-stigma, as well as negative psychological impacts (depression and impaired quality of life) in individuals with a BMI over 25. Moreover, self-compassion mediated the relationship between self-stigma and negative psychological impacts, significantly reducing the association between self-stigma and negative psychological outcomes.

Aims

This study investigates the relationship between several variables implicated in the stigmatisation experiences of participants within Study 2: photo-related social media use, appearance-comparisons and self-compassion. An online cross-sectional survey was used to examine the relationship between photo-related social media use and feelings of stigmatisation in people with acne. Moderated-mediation analysis was used

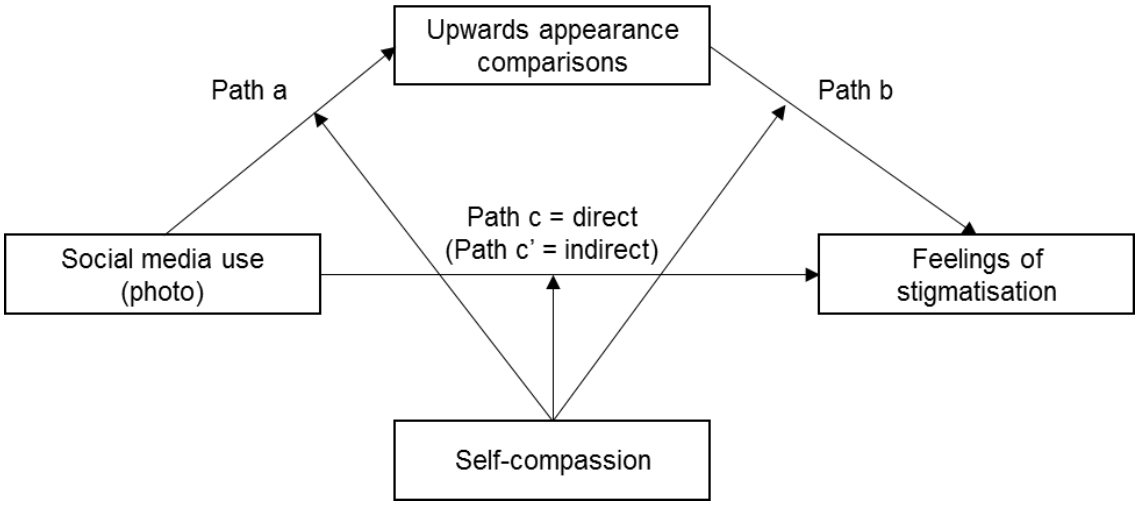
to test whether upwards appearance comparisons and/or self-compassion mediate/moderate this relationship. Based on the existing literature and results of Study 2 it was hypothesised that:

Hypothesis 1: Women, compared to men, will have higher levels of: (i) photo-related social media use; (ii) Upwards appearance comparisons; and (iii) feeling of stigmatisation.

Hypothesis 2: There will be a relationship between the proportion of photo-based social media use and feelings of stigmatisation, but not total time spent on social media sites; (i) Individuals who spend proportionally more of their time using photo/appearance orientated social media (Facebook photo activity and Instagram use) will have higher levels of feelings of stigmatisation; (ii) This relationship will be mediated by upwards skin appearance-comparisons; (iii) These relationships will be moderated by self-compassion.

A moderated-mediation model (Fig. 5.1) summarises the second hypotheses, and was constructed based on the results of Study 2 and the existing literature.

Figure 5.1. Hypothesised moderated-mediation model of the relationship between photo-based social media use and feelings of stigmatisation, via upwards skin comparisons and moderated by self-compassion.



Method

Ethical approval for this study was granted by the University of Sheffield ethics committee (reference number: 011937). See Appendix 5A for a copy of the ethical approval letter.

Participants

Inclusion criteria

Eligible participants were age 16 or above, with current self-reported symptoms of acne. Participants were required to either be UK citizens or living in the UK, with sufficient English comprehension to complete the survey. Participants were excluded if they did not complete the surveys, did not meet the inclusion criteria. Data on excluded participants can be seen in Appendix 5B.

Power analysis

An a-priori power analysis, based on a multiple linear regression was conducted to estimate the sample size required to achieve 80% power with a significance level of 0.05, to detect a small effect size $r = 0.25$. Assuming the three measures of social media use (Facebook Intensity, Facebook photo-use, and Instagram use) are used, a sample size of 168 would be required. The addition of a maximum of three moderating/mediating variables (Upwards appearance comparison, Downwards appearance comparison, and Self-compassion) increases the sample size to 211. It was anticipated that there would be a maximum of four covariates (gender, age, acne severity, and acne duration). Assuming all ten predictors are entered into the model, a sample size of 253 would be required. It was, however, not anticipated that all ten predictors would be entered into the model.

Recruitment

Participants were recruited from a convenience community sample and offered entry into a prize draw to win a £50 voucher. The study was promoted across a variety of platforms, including social media (Facebook, Instagram, Twitter, Reddit), UK based charities (BSF, Changing Faces, Verity UK), online recruitment platforms (Call for participants), emails to participants from Study 2, the University of Sheffield volunteers list, and the Psychology undergraduate credit system.

Procedure

Within this cross-sectional survey participants were asked to complete self-report measures of demographics, acne history, Facebook use, Facebook function use, Instagram use, skin-related upwards/downwards comparison, self-compassion, and stigma via an online survey produced and completed in Qualtrics (Qualtrics, Provo, UT).

Measures

Information on the measures presented to participants are provided below. Cronbach's alphas (α) were calculated using the survey data to assess the internal consistencies of measures within this study. All scales showed good to excellent internal reliability (α = >.76)

Demographics. Participants were asked to provide information about their gender, age, ethnicity, educational level and relationship status and diagnoses of other health conditions (see Appendix 5C). This information was used to describe the sample, and to identify covariates.

Acne history. Participants provided information on the duration, location and perceived severity of acne, whether they have visible scarring, how satisfied they are with their skin appearance, and the importance of hiding the visible signs of acne (see Appendix 5D). Participants were also asked to indicate whether they have received a diagnosis of acne and/or treatment for acne from a medical professional and whether they have any diagnoses comorbid conditions. Perceived severity was measured using a question based on the 5th Question of the Cardiff Acne Disability Index (CADI: Motley & Finlay, 1992), which includes a question about the degree to which acne is a problem for the participant. Information collected on acne history will be used to both describe the study sample and to identify covariates.

Facebook use. Participants were asked whether they had used Facebook within the past month. If participants answered 'yes' they were asked to complete additional measures on their Facebook use listed below. If a participant answered 'no' then participants proceeded to the initial questions about Instagram.

Participants were asked to estimate the amount of time they spent on Facebook in the past week. This was presented in the form of two open-ended questions: (1) How many days a week do you access/use Facebook?"; (2) "On days when you use Facebook how long on average do you spend on Facebook?". Daily Facebook use will be calculated using the formula:

Average daily Facebook use = (Time spent on Facebook x Number of days Facebook used) / 7

Relative Facebook photo-activity. Relative Facebook appearance/photo related activity use was measured using the Facebook function use questionnaire (FBQ-functions: Meier & Grey, 2014). The questionnaire was developed to assess relative levels of photo-related activity compared to other forms of Facebook use (see Appendix 5E). Participants were asked to estimate "how often you do the following on

your Facebook account?" The scale consists of a total of 24 items (α = .86), 9 of these items (e.g. "Create an event") are scored from 0 (never) to 5 (more often than once a month) and include 2 items relating to appearance/photo activities (e.g. "Update your profile photo"). A further 15 items (e.g. "Use Facebook Chat") are scored from 0 (never) to 5 (nearly every time I log on), 6 of these items relate to appearance/photo functions (e.g. "View friends' photos of themselves"). The 8 items that relate to photo-related use form the appearance/photo use subscale (α = .76). Items included in the appearance/photo use subscale specified that the images were of people rather than objects/animals. The Facebook photo activity level was calculated by dividing the total for the photo use subscale by the total for the Facebook functions. The total score ranges from 0 to 1, with scores closer to 1 indicating a higher proportion of time spent using photo-related functions on Facebook.

Instagram use. Participants were asked whether they had used Instagram in the past month. If participants answered 'yes' they were asked for further information on their Instagram use.

Participants were asked to estimate the amount of time they spend on Instagram. This was presented in the form of two questions: (1) How many days a week do you access/use Instagram?"; (2) "On days when you use Instagram how long on average do you spend on Instagram?". Daily Instagram use was calculated using the formula:

Average daily Instagram use = (Time spent on Instagram x Number of days Instagram used) / 7.

Skin Based Self-Comparisons. The Upward and Downward Appearance Comparison Scale (UPACS/DACS; O'Brien et al., 2009) measures both upwards and downwards appearance-based comparisons in relation to body/shape and size and general body comparisons (see Appendix 5F). The UPACS/DACS was adapted, with the author's permission, to measure upwards and downwards comparisons in relation to skin appearance. The original scale does not ask about comparisons social media. Therefore an additional question was added to the UPACS "On social media I tend to compare how my skin looks to photographs of people with clearer skin than me." and DACS "On social media I tend to compare how my skin looks to photographs of people with worse skin than me." Both items correlated highly with the other items in the scales and did not reduce reliability. The adapted UPACS contained 9 items (e.g. "When I see a person with clear/perfect skin, I tend to wonder how I 'match up' with them") and had excellent reliability (α = .93). The adapted DACS also contained 9 items (e.g. "I think about how attractive my skin is compared to people with severe skin

conditions.") and had excellent reliability (α = .94). All items were scored on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). A Pearson's correlation showed a small positive correlation between the UPACS and DACS scores $r(648) = .38$, $p < .001$. This suggested that the two scales measure different but related concepts and therefore the UPACS and DACS were independently scored. Total scores could range from 9 to 45. Higher scores on the UPACS indicated higher levels of upwards appearance comparison. Higher score on DACS indicating higher levels of downwards appearance comparison.

Self-Compassion. Self-compassion was measured using the total score on the Self-Compassion Scale Short Form (SSC-SF: Raes, Pommier, Neff, & Van Gucht, 2011). The SSC-SF is a short form version of the Self-Compassion Scale (SCS: Neff, 2003), comprising of 12 items (α =.86) instead of 26 items (see Appendix 5G) and has a near-perfect correlation of 0.98 with the SCS. The scale is made up of six-factors, each containing 2 questions: self-kindness (e.g. "When I'm going through a very hard time, I give myself the caring and tenderness I need"); self-judgement (e.g. "I'm disapproving and judgmental about my own flaws and inadequacies"); common humanity (e.g. "When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people"); isolation (e.g. "When I fail at something that's important to me, I tend to feel alone in my failure"); mindfulness (e.g. "When something painful happens I try to take a balanced view of the situation"); and over-identification (e.g. "When I fail at something important to me I become consumed by feelings of inadequacy"). The subscale alpha values ranged between .62 and .75. The items are scored on a Likert scale from 1 (almost never) to 5 (almost always). Items measuring self-judgement, isolation and over identification are reverse scored for the total score, which ranges from 12 to 60. Higher scores indicate higher levels of self-compassion.

Skin-related stigma. Stigma was measured using the Feelings of Stigmatization Questionnaire (FSQ: Ginsburg & Link, 1989). The FSQ (Ginsburg & Link, 1989) is an English language questionnaire originally developed to assess feelings of stigmatisation in psoriasis patients. The scale is theoretically based on the conceptual work on stigma of Goffman (1963) and Jones et al. (1984) and incorporated items from previous research examining stigma (Angermeyer, Link, & Majcher-Angermeyer, 1987).

The scale has previously been adapted for populations with atopic dermatitis, vitiligo and acne in other languages. The items were primarily adjusted by replacing the word psoriasis with the name of another skin condition (e.g. Liasides & Apergi, 2015; Ongenae et al., 2005; Wittkowski et al., 2007). Amendments to the scale for the

present study involved replacing the term psoriasis with acne, and replacing the term patient with person as the survey use a community sample. One question ("I do not mind when a family member gives me a vacuum cleaner to clean up the scales that fall from my psoriatic skin") was deleted as it was not relevant to symptoms of acne, and previous authors were required to remove it by ethics (see Appendix 5H).

The adapted measure contained 32 questions and had excellent reliability (α = .92). Questions were scored on a 6 point Likert scale from 0 (strongly disagree) to 5 (strongly agree). Total scores could range from 0 to 160, with higher scores indicating higher levels of stigmatisation. The scale contains six subscales identified using both theory and factor analysis: (1) Anticipation of rejection (e.g. "I sometimes avoid social situations because of acne"; (2) Feelings of being flawed (e.g. "There are times when I feel dirty, as though there is something deeply the matter with me"); (3) Sensitivity to the opinions of others (e.g. "I have been hurt by what other people say to me because I have acne"); (4) Guilt and shame (e.g. "I never feel embarrassed or ashamed because of my acne" reverse scored); (5) Positive Attitudes (e.g. "If my child developed acne, I feel he or she could have as good a life as if he or she didn't have it"); and (6) Secretiveness (e.g. "If someone were to notice a spot and ask what it was, I do not say that it is acne"). In terms of convergent validity, subscales are reported to correlate highly with reported experiences of rejection (Ongenae et al., 2005), feelings of despair (Ginsburg & Link, 1989), and have been reported as a significant predictor of poor quality of life in acne patients and depressive symptoms in dermatology patients (Hrehorów et al., 2012; Liasides & Apergi, 2015). Alpha values for the subscales ranged from .54 to .81. Therefore, the analysis used the total stigma score.

Analysis

Data was analysed using SPSS v.23 (IBM, Armonk, NY: IBM Corp). The data was initially assessed for normality using visual methods (histograms) and absolute measures of skewness and kurtosis, as the sample size was large. The skewness and kurtosis values for each continuous variable can be seen in Table 5.1. Distribution was deemed to be normal if the histogram appeared approximately normally distributed and the absolute value of skewness was <2 and/or the absolute kurtosis was <7 (Hae-Young, 2013). According to these criteria the following outcomes were not normally distributed: average Facebook use per day (skewness = 4.3, *SE* = .1, kurtosis = 26.75, *SE* = .2) and, average Instagram use per day (skewness = 4.51, *SE* = .12, kurtosis = 26.75, *SE* = .28). Therefore non-parametric tests were used when analysing either average Facebook use or average Instagram use.

Table 5.1: Skewness and Kurtosis for continuous variables

	Skewness [SE]	Kurtosis [SE]
Age	1.57 [.1]	2.96 [.19]
Acne duration	1.45, [.1]	2.68, [.19]
Facebook photo use[a]	0.03, [.1]	5.63, [.2]
UPACS	-.85 [.1]	.61 [.19]
DACS	.13 [.1]	-.67, [.19]
Self-compassion	.35 [.1]	.14[.19]
Total stigma	-.01 [.1]	-.24[.19]
Average Facebook use[a]	4.3 [.1]	26.75 [.2]
Average Instagram use[b]	4.51 [.12]	26.75 [.28]

[a]Excluding participants who reported not using Facebook.

[b]Excluding participants who reported not using Instagram.

Demographic and acne-history variables were assessed for covariance with feelings of stigmatisation using t-tests, ANOVAs and bivariate correlations as appropriate. Any significant relationships were entered into subsequent analyses as covariates.

The hypothesised gender differences on social media use, appearance comparison, self-compassion and stigma were tested using chi square tests, t-tests and Mann-Whitney U tests as appropriate. The relationship between the predictor variables, the mediator variables and the outcome variables were initially tested using bivariate correlations.

The hypothesised relationship between photo-related social media activity, upwards appearance comparisons, self-compassion and stigmatisation (Figure 5.1) was: (a) tested using moderated mediation; and (b) tested using mediation only analysis, using ordinary least squares path analysis as outlined by Hayes (2013). Analyses were conducted using the PROCESS macro with 10,000 bootstrap samples.

The significance level was set at $p<.05$.

Results

Demographics

A total of 650 participants (82.9% female) were included in the analysis; age ranged from 16 to 56 years old, with a mean age of 24.47 (*SD* = 6.64). The majority of participants described their ethnicity as White/Caucasian (*n* = 510, 78.5%). The demographic information collected about participants can be seen in Table 5.2. Additional information on participants' acne history and comorbid health conditions is presented in Table 5.3. Acne duration ranged from one month to 40 years (*M* = 115months/9.63 years, *SD* = 82.38). The majority of participants had received a diagnosis and/or medical treatment for acne (*n* = 465, 71.3%).

Table 5.2: Participant demographics

Demographics	Participant characteristics	
Age (years)		*M* = 24.47, *SD* = 6.64, Range = 16-56.
Gender	Female	*n* = 539, 82.92%
	Male	*n* = 110, 16.92%
	Other	*n* = 1, 0.15%
Ethnicity	White/Caucasian	*n* = 510, 78.5%
	Asian	*n* = 92, 14.44%
	Mixed	*n* = 26, 4%
	Black	*n* = 10, 1.5%
	Arab	*n* = 5, 0.77%
	Latin American	*n* = 4, 0.77%
	'Prefer not to answer'	*n* = 3, 0.46%
Employment status	Student	*n* = 409, 62.9%
	Employed	*n* = 209, 32.21%)
	Both employed and student	*n* = 5, 0.8%
	Unemployed or unable to work	*n* = 12, 1.8%
	Homemakers or carers	*n* = 11, 1.7%
	'Prefer not to answer'	*n* = 4, 0.61%
Education level	Undergraduate	*n* = 246, 37.8%
	A level or equivalent	*n* = 206, 31.7%
	Postgraduate	*n* = 145, 22.3%
	GCSE or equivalent	*n* = 21, 3.2%

	Vocational	*n* = 22, 3.4%
	Other, unsure or 'prefer not to answer'	*n* = 10, 1.5%
Relationship status	Single	*n* = 285, 43.8%
	In a relationship	*n* = 196, 30.2%
	Cohabiting with partner	*n* = 84,12.9%
	Married	*n* = 79, 12.2%
	'Other' or 'prefer not to answer'	*n* = 6, 0.9%

Table 5.3: Participant acne and health history.

Acne history	Participant characteristics	
Acne duration (months)		*M* = 115months/9.63 years, *SD* = 82.38, *Range* = 1-480 months
Acne diagnosis	Yes	*n* = 465, 71.2%
	No	*n* = 187, 28.8%
Current treatment	GP	*n* = 189, 29.1%
	Dermatologist	*n* = 57, 8.8%
	Gynaecologist	*n* = 4, 0.6%
	Other health professional	*n* = 3, 0.5%
	None	*n* = 395, 60.7%
	Prefer not to answer	*n* = 2, 0.3%
Visibility	Visible	*n* = 638, 98.2%
	Non-visible	*n* = 12, 1.8%
Subjective severity	'The worse it could possibly be'	*n* = 8, (1.2%
	'A major problem'	*n* = 216, 33.1%
	'A minor problem'	*n* = 397, 60.9%
	'Not a problem'	*n* = 31, 4.8%
Skin appearance satisfaction	'Extremely dissatisfied'	*n* = 132, 20.2%
	'Somewhat dissatisfied'	*n* = 313, 48%
	'Neither satisfied nor dissatisfied'	*n* = 68, 10.4%
	'Somewhat satisfied'	*n* = 130, 19.9%
	'Extremely satisfied'	*n* = 9, 1.4%
Concealment of acne using hair,	Always/almost always	*n* = 284, 43.6%
	Often	*n* = 156, 23.9%

clothing and	Sometimes	*n* = 87, 13.3%
make-up	'Rarely'	*n* = 59, 9%
	Never/almost never	*n* = 66, 10.1%
Other diagnoses	Yes	*n* = 277, 42.6%
	No	*n* = 357, 54.9%
	'Prefer not to answer'	*n* = 16, 2.5%
	Other skin condition(s)	*n* = 71, 10.9%
	LTHC(s)	*n* = 121, 18.6%
	Mental health condition(s)	*n* = 129, 19.8%

There were no significant correlations between age and stigmatisation $r(648) = -.003$, $p = .949$, or duration of acne and stigmatisation $r(648) = .06$, $p = .11$. There was a significant effect of employment status on stigmatisation $F(4, 641) = 2.94$, $p = .02$. However, this was no longer significant after post hoc comparisons using Tukey HSD, adapted for unequal sample sizes. There were no significant effects of education level on stigmatisation $F(4, 635) = 1.78$, $p = .13$, nor of relationship status $F(4, 641) = 2.04$, $p = .09$. There was also no significant effect of ethnicity on stigmatisation $F(5, 641) = 1.71$, $p = .13$.

Participants who had received a diagnosis of acne reported higher levels of stigma ($M = 76.43$, $SD = 25.22$) compared to participants who were unsure or who had not received a diagnosis ($M = 67.91$, $SD = 25.73$), $t(648) = 3.88$, $p<0.001$, $d = 0.33$. Furthermore, Spearman's correlations showed a small positive correlation between severity and stigmatisation $r(648) = .33$, $p<.001$. However, there was no relationship between duration of acne symptoms and stigmatisation $r(648), = .06$, $p = .11$.

Free text responses to the question "Please list any other diagnosed physical or mental health conditions" were coded into yes(1) /no(0) responses on three variables: (1) skin condition; (2) Long Term Health Condition (LTHC; excluding skin conditions); (3) mental health conditions. There was no significant effect of other skin conditions on stigmatisation $t(632) = -.03$, $p = .98$, $d = .003$. However, respondents who reported a comorbid LTHC reported significantly higher levels of stigmatisation ($M = 78.57$, $SD = 24.04$) than participants without a LTHC ($M = 73.03$, $SD = 25.79$) $t(632) = 2.15$, $p = .03$, $d = 0.22$. Furthermore, participants who reported at least one diagnosed mental health condition reported significantly higher levels of stigmatisation ($M = 84.67$, $SD = 25.29$), than participants without ($M = 71.37$, $SD = 24.92$), $t(632) = 5.4$, $p<.001$, $d = .53$.

Therefore, acne diagnosis, acne severity, and LTHC were controlled for in the hierarchical regressions and the moderated mediation analyses. Mental health

diagnoses were not controlled for as higher levels of mental health problems have previously been identified as a potential consequence of internalised stigmatisation in individuals with skin diseases (e.g. Böhm et al., 2014; Łakuta et al., 2016).

Gender differences.

Table 5.4 provides a summary of the data for male and female participants on social media use and each of the outcome variables. There was no association between gender and whether or not participants had used Facebook in the past month X^2 (1) = 18, p = .67. However, female participants reported spending a higher proportion of their time on Facebook engaging in photo-based activities (M = .39, SD = .066) than male participants (M = .36, SD = .76), t(589) = 5.2, p<.001. There was a small but significant association between gender and Instagram use X^2 (1) = 25.2, p <.001, Φ = .2, p<.001. Based on the odds ratio, women were 2.84 times more likely to have used Instagram in the past month than men. Furthermore, in line with the hypothesis, female participants exhibited higher levels of upwards and downward appearance comparison, and stigmatisation (M = 76.17, SD = 24.74), compared to male participants (M = 63.34, SD = 27.35), t(647) = .49 , p<.001, d = 0.49. Female participants also reported lower levels of self-compassion (M = 31.9, SD = 7.3) than male participants (M = 35.9, SD = 8.2), t(647) = -5.2, p<.001.

Table 5.4: Comparisons of the means/medians and standard deviations/interquartile range for each predictor and outcome variable, by gender (N = 649).

	Female (n = 539)		Male (n = 110)		Significant difference
Variable	Mean	SD	Mean	SD	
Average Facebook use per day[a] (mins)	*Mdn* = 30	IQR = 45	*Mdn* = 30	IQR = 45.7	U = 22451, p = .22
Average Instagram use per day[b] (mins)	*Mdn* = 30	IQR = 49.3	*Mdn* = 23.2	IQR = 39.5	U = 8353, p = .17
Facebook Photo use[a]	.39	.066	.36	.076	t(589) = 5.2, p<.001
UPACS	34.5	7.6	28.3	9.9	t(647) = 6.2, p<.001
DACS	25.02	9	22.65	8.6	t(647) = 2.5, p = .12

Self-compassion	31.9	7.3	35.9	8.2	$t(647) = -5.2$, $p<.001$
Stigma	76.2	24.7	63.2	27.4	$t(647) = 4.9$, $p<.001$

[a]Excluding participants who reported not using Facebook.

[b]Excluding participants who reported not using Instagram.

Social media use

Overall, the majority of participants used Facebook (*n* = 592, 91.1%). A smaller percentage of participants used Instagram (*n* = 429, 66%). Furthermore, there was a small association between Facebook users and Instagram users X^2 (1) = 12.72, p <.001, Φ = .14, *p*<.001. Facebook users were 2.62 times more likely to have used Instagram in the past month compared to non-Facebook users. On average, Facebook users reported actively using Facebook for 30 minutes per day (*Mdn* = 30, *IQR* = 45). Instagram users also reported using Instagram for 30 minutes per day (*Mdn* = 30, *IQR* = 50). Approximately 39% of Facebook activity was photo/appearance related (*M*=.39, *SD* = .07). Meier and Gray (2014) reported similar results for adolescent girls (*M* = .4, *SD* = .05).

Stigma was significantly higher in non-Facebook users (*M* = 80.34, *SD* = 26.27) compared with Facebook users (*M* = 73.36, *SD* = 25.48), *t*(648) = -1.99, *p* = .048, *d* = .27. However, there was no significant difference in stigma between Instagram users (*M* = 74.92, *SD* = 24.82) and non-Instagram users (*M* = 72.15, *SD* = 27.12), *t*(648) = 1.31, *p*=.19, *d* = 0.11. Further analyses were conducted to examine whether the difference in stigma levels of non-Facebook users might be explained by differences on the predictor or outcome variables (see Table 5.5 for a summary).

Table 5.5: The means/medians and standard deviations/interquartile range for each predictor and outcome variable.

	Facebook users (*n* = 592)		Non-Facebook users (*n* = 58)		Significant difference
Variable	Mean	*SD*	Mean	*SD*	
Average Facebook use per day[a] (mins)	*Mdn* = 30	*IQR* =45			
Average Instagram use per day[b] (mins)	*Mdn* = 30	*IQR* = 50	*Mdn* = 30	*IQR* =51.07	*U* = 5135.5, *p* = .865

Facebook Photo use[a]	.39	.07			
UPACS	33.62	8.3	32.21	9.11	$t(648) = 1.23$, $p = .22$
DACS	24.47	9.00	26.03	9.04	$t(648) = -1.26$, $p = .21$
Compassion	32.66	7.61	31.45	7.89	$t(648) = 1.15$, $p = .25$
Stigma	73.36	25.48	80.34	26.27	$t(648) = -1.99$, $p = .048$

[a]Excluding participants who reported not using Facebook

[b]Excluding participants who reported not using Instagram

As illustrated in Table 5.5, there were no significant differences between Facebook users and non-Facebook users in levels of UPACS, DACS or self-compassion. Furthermore, there were no associations between Facebook use/non-use and diagnosis $X^2(1) = .009$, $p = .92$, nor LTHCs $X^2 (1) = 2.317$, $p = .13$, nor mental health diagnoses $X^2(1) = .028$, $p = .87$. The likelihood ratio was calculated to test the relationship between Facebook use/non-use and perceived acne severity, as 25% of the cells had an expected count less than 5, violating the assumptions of X^2 (McHugh, 2013). According to the likelihood ratio, there was no significant relationship between severity and whether the participant had used Facebook in the past month $X^2 (3) = 1.93$, $p = .59$.

Relationships between social media use, appearance comparisons, self-compassion and stigma.

The bivariate correlations between each of the outcome variables can be seen in Table 5.6.

Table 5.6: Bivariate correlations between each of the predictor and outcome variables (N = 650)

	1	2	3	4	5	6	7
1. FB use[a]							
2. FB Photo[a]	-.003						
3. Instagram use[b]	[ab.]32***	[ab.]16**					
4. UPACS	.054	.17***	.12*				
5. DACS	.062	.051	.12*	.38***			
6. Compassion	-.048	-.11**	-.093	-.41***	-.18***		
7. Stigma	0.06	.14**	.066	.53***	.29***	-.46***	
Range	0-700	.00-.79	0-600	9-45	9-45	12-57	7-145
Mean	*Mdn* = 30	.39	*Mdn* = 30	33.49	24.61	32.55	73.98
SD	*IQR* = 45	.003	*IQR* = 50	.33	.35	.3	1.01

Note: Facebook use = Average Facebook use per day. FB photo = FBQ-functions, Instagram use = Average Instagram use per day. UPACS [a]Excluding participants who reported not using Facebook (*N* = 592), [b]Excluding participants who reported not using Instagram (*N* = 429), [ab]Excluding participants who reported not using Facebook and Instagram (*N* = 403). *p<.05, **p<.01, ***p<.001.

As predicted, within Facebook users, higher levels of photo-related Facebook activity correlated with higher levels of upwards appearance comparison *r(*590)=.17, *p*<.001, and stigmatisation *r*(590) = .14, *p* = .001. Average Facebook use was not correlated with Facebook photo activity *r*(590) = -.003, *p* = .94, nor stigmatisation *r*(590) = 0.06, *p* = .16. Among Instagram users, average time spent on Instagram was positively correlated with higher levels of upwards appearance comparison *r*(427) = .12, *p* = .011, but not stigmatisation *r*(427) = .066, *p* =.28.

Furthermore, among all respondents there was a large positive correlation between UPACS and stigmatisation *r*(648) = .53, *p*<.001. Self-compassion was negatively correlated with upwards appearance comparison *r*(648) = -.41, *p*<.001, stigmatisation, *r*(648) = -.46, *p* <.001 and Facebook photo activity *r*(590) = -.11, *p* = .009, but not average Facebook use *r*(590) = -.048, p = .24 nor Instagram use *r*(427) = .093, *p* = .055.

Moderated mediation analyses

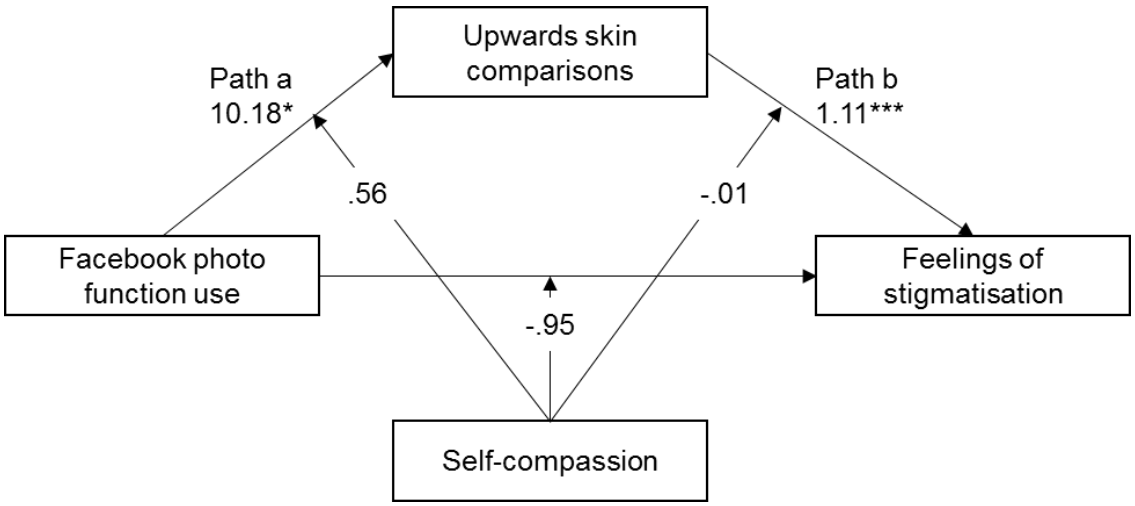
As indicated in the methods section, initially moderated mediation analyses were conducted to assess the conditional direct and indirect effects of photo-related social media activity on stigmatisation at values of self-compassion one standard deviation below the mean, the mean, and one standard deviation above the mean. Acne severity, gender, and diagnosis were entered at covariates and self-compassion was entered as a moderator. Results for Facebook can be seen in Figure 5.2 and Table 5.7, whilst results for Instagram can be seen in Figure 5.3 and Table 5.8.

Results of the initial moderated mediation analysis, using PROCESS Model 59 (Fig. 5.2), did not support a model of moderated mediation for Facebook photo use and acne stigma. Interactions of self-compassion on path a (*b* = .56, *p* = .22), path b (*b* = -.01, *p* = .23) or path c (*b* = -.95, *p* = .48) were non-significant. However, self-compassion predicted lower levels of upwards appearance comparison (*b* = -.34, *p*<.001) and stigmatisation (*b* = -.85, *p*<.001). Likewise, results of the moderated mediation analysis did not support a model of moderated mediation for Instagram use and acne stigma. Interactions of self-compassion on path a (*b*<0.001, *p* = .98), path b (*b* = -.019, *p* = .25) or path c (*b* = 0.0004, *p* = .84) were non-significant. As a consequence, a simpler mediation model was explored, where the conditional direct and indirect effects of photo-related social media activity on stigmatisation were assessed with self-compassion as a covariate.

Table 5.7: Table showing the conditional direct and indirect effects of Facebook photo-function use on stigmatisation at values of self-compassion one standard deviation below the mean, the mean, and one standard deviation above the mean. (N=591)

Value of self-compassion	Direct effect				Indirect effect			
	B	*SE*	Lower *95% CI*	Upper *95% CI*	*B*	*SE*	Lower *95% CI*	Upper *95% CI*
-7.35	20.87	18.01	-14.5	56.25	7.07	6.86	-6.89	20.41
.0000	13.63*	13.49	-12.86	40.12	11.28*	5.09	1.81	21.88
7.35	6.38*	15.85	-24.75	37.52	14.73*	6.09	3.55	27.58

Figure 5.8. Moderated mediation model for Facebook photo use on acne stigma via upwards appearance comparison, with self-compassion as the moderator for each path (N=591).

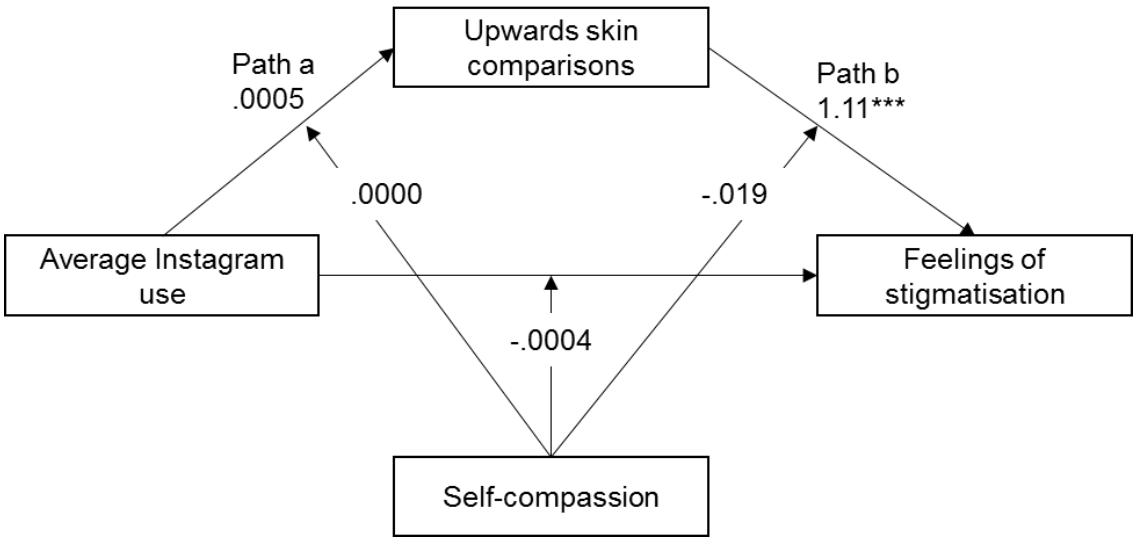


Note: The numbers presented in Figure 2 represent unstandardized beta values, as recommended by Hayes (2013). The numbers on the arrows intercepting path a b and c represent the unstandardized beta values for the interaction effects. **p*<.05. ***p*<.01, ****p*<.001. For clarity covariates are not included in the figure. The covariates that were controlled for on each pathway were: gender, severity, acne diagnosis and downwards skin comparison.

Table 5.8: Table showing the conditional direct and indirect effects of Instagram use on stigmatisation at values of self-compassion one standard deviation below the mean, the mean, and one standard deviation above the mean (N = 429).

Value of self-compassion	Direct effect				Indirect effect			
	B	*SE*	Lower *95% CI*	Upper *95% CI*	*B*	*SE*	Lower *95% CI*	Upper *95% CI*
-7.35	.005	.022	-.038	.048	.0004	.008	-.02	.013
.0000	.008	.014	-.019	.035	.0005	.0056	-.011	0.11
7.35	.011	.016	-.021	.043	.0006	.0083	-.021	0.13

Figure 5.3. Moderated mediation model for average Instagram use on acne stigma via upwards appearance comparison, with self-compassion as the moderator for each path (N = 429).

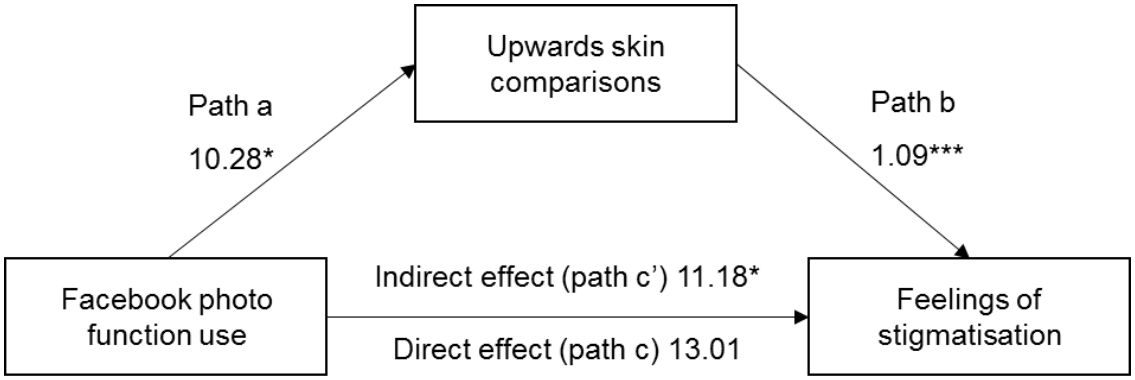


The numbers presented in Figure 2 represent unstandardized beta values, as recommended by Hayes (2013). The numbers on the arrows intercepting path a b and c represent the unstandardized beta values for the interaction effects. *p<.05. **p<.01, ***p<.001. For clarity covariates are not included in the figure. The covariates that were controlled for on each pathway were: gender, severity, acne diagnosis and downwards skin comparison.

Mediation analyses

A mediation analysis (Fig. 5.4., Table 5.9), using PROCESS model 4, indicated that there was a significant indirect effect of Facebook photo use on stigmatisation via upwards appearance comparison (estimation of indirect effect = 11.18, *SE* = 5.06, [95% *CI* 1.64 to 21.67]. There was no significant direct (estimation of direct effect = 13.01, *SE* = 13.1, [95% *CI* -12.72 to 38.75] nor total effect (estimation of total effect= 24.2, *SE* = 15.06, [95% *CI* -5.38 to 53.77]. This was also supported by a Sobel test *z* = 2.17, *p* = .03. The ratio of the indirect to total effect of Facebook photo use on stigmatisation was .46 (*SE* = 14.66).

Figure 5.4. Mediation model for Facebook photo use on acne stigma via upwards appearance comparison (N=591).



Note: The numbers presented in Figure 5. represent unstandardized beta values, as recommended by Hayes (2013). The number shown in brackets represents the indirect mediated effect. *p<.05. **p<.01, ***p<.001. For clarity covariates are not included in the figure. The covariates that were controlled for on each pathway were: gender, severity, acne diagnosis, downwards skin comparison, and self-compassion.

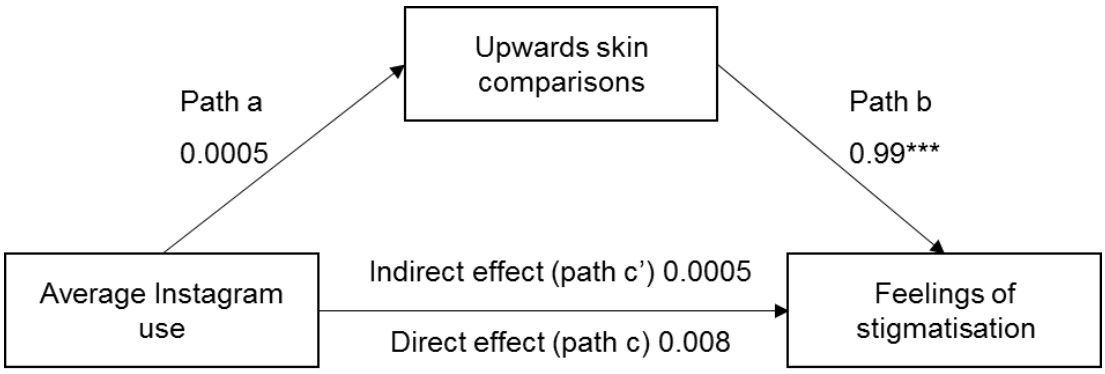
Table 5.9: Summary of the mediation analysis for Facebook photo activity (N = 591).

Variable	*B*	*SE B*	*p*	Lower *95% CI*	Upper *95% CI*
Path a: Outcome = UPACS, R^2= .33, *p*<.001					
Constant	26.91***	2.83	<.001	21.34	32.47
Facebook photo activity	10.28*	4.59	.0025	1.27	19.3
DACS	.28***	.035	<.001	.21	.34
Severity	1.39**	.52	.0081	.36	2.4
Gender	3.39***	.91	.0002	1.6	5.18
Self-compassion	-.34***	.042	<.001	-.42	-.26
Diagnosis	1.33*	.64	.039	.07	2.59
Path b: Outcome = stigma, R^2= .42, *p*<.001					
Constant	30.39***	8.48	.0004	13.74	47.05
UPACS	1.09***	.12	<.001	.86	1.32
Facebook photo use	13.01	13.1	.32	-12.72	38.75
DACS	.25*	.1	.014	.05	.45
Severity	9.46***	1.53	<.001	6.4	12.47
Gender	-1.03	2.22	.64	-5.39	3.32
Self-compassion	-.85***	.12	.<.001	-1.09	-.62
Diagnosis	3	1.82	<.1	-.59	6.58

Furthermore, a mediation analysis (Fig.5.5, Table 5.10.), using PROCESS model 4, indicated no significant direct (estimation of direct effect = .008, *SE* = .013, [95% *CI* -.018 to .033]), total (estimation of total effect= .008, *SE* = .013, [95% *CI* -.018 to .034]), nor indirect effect of Instagram use on stigmatisation via upwards appearance comparison (estimation of indirect effect = 0.0005, *SE* = .005, [95% *CI* -.011 to .01]. However, upwards appearance comparisons continued to predict stigmatisation in Instagram users (*b* = 0.99, *p*<.001), and self-compassion predicted lower levels of

upwards appearance comparison (*b* = -.33, *p*<.001) and stigmatisation (*b* = -1.05, *p*<.001).

Figure 5.5. Mediation model for Average Instagram use on acne stigma via upwards appearance comparison (N = 429)



Note: The numbers presented in Figure 2 represent unstandardized beta values, as recommended by Hayes (2013). The number shown in brackets represents the indirect mediated effect. *p<.05. **p<.01, ***p<.001. For clarity covariates are not included in the figure. The covariates that were controlled for on each pathway were: gender, severity, acne diagnosis, downwards skin comparison, and self-compassion.

Table 5.10: Summary of the mediation analysis for Instagram use (N = 429)

Variable	*B*	*SE B*	*p*	Lower *95% CI*	Upper *95% CI*
Path a: Outcome = UPACS, R^2= .30, p<.001					
Constant	31.23***	2.63	<.001	25.5	36.95
Instagram use	.0005	.005	.91	-.009	.01
DACS	.24***	.044	<.001	.16	.33
Severity	2.03***	.59	.0007	.86	3.19
Gender	2.96*	1.16	.011	.68	5.24
Self-compassion	-.33***	.048	<.001	-.43	-.24
Diagnosis	.72	.73	.33	-.72	2.15
Path b: Outcome = stigma, R^2= .39, p<.001					
Constant	49.3***	10.04	<.001	29.57	69.04
UPACS	.99***	.15	<.001	.69	1.28
Instagram use	.008	.01	55	-.02	.03
DACS	.1	.12	.38	-.12	.33
Severity	8.82***	1.75	<.001	5.38	12.26
Gender	-1.37	3.19	.67	-7.63	4.89
Self-compassion	-1.04***	.16	.<.001	-1.35	-.74
Diagnosis	4.47	2.13	<.04	.28	8.66

Discussion

This study sought to explore the relationship between photo-related social media use and feelings of stigmatisation in adults with acne. In accordance with the hypothesis, higher proportion of time engaged in photo-based Facebook activity, not overall time on Facebook, was correlated with greater feelings of stigmatisation in participants with acne. Further statistical analysis revealed that the variable of upwards appearance comparison mediated this association, which was independent of a direct relationship between relative photo-use and stigmatisation. However, this was the case for

Facebook users only, as no such relationship was identified for participants using Instagram; yet amongst these users, upwards appearance comparisons predicted feelings of stigmatisation. Interestingly, although high self-compassion was related to lower levels of stigmatisation, it did not moderate the relationship between social media photo use and acne-related stigma in either Facebook or Instagram users.

Surprisingly, non-Facebook users reported significantly higher levels of stigma. This was not explained by any of the measured variables. It is therefore possible that there is another aspect of Facebook use that is associated with lower levels of feelings of stigmatisation, for instance, greater social support, and sense of community. Alternatively, individuals with high feelings of stigma may avoid using Facebook. Indeed several participants in Study 2 described Facebook as a tool to keep in contact with friends and family. Whereas one participant from Study 2 spoke about avoiding Facebook as she recognised that it had a negative impact on her wellbeing. Existing studies have identified potential benefits of certain types of Facebook use. For example, increased perceived social support and social capital (Ellison et al., 2007; Nabi, Prestin, & So, 2013). Furthermore, Lu et al. (2003) reported that higher levels of social support predicted lower levels of internalised stigma in populations with a skin condition. Future research could explore the potential benefits of Facebook for individuals with acne, and experimental research could examine whether articles and images challenging the myths and ideals surrounding acne can reduce feelings of stigmatisation for individuals with acne.

In line with our hypothesis, female participants reported higher levels of photo-related social media use, upwards appearance comparisons, and feelings of stigmatisation, and lower levels of self-compassion. However, the mediational role of appearance comparisons was present when gender was controlled for. Existing literature has reported mixed findings when examining gender differences in stigmatisation, and the relationship between media exposure, appearance comparisons and negative psychosocial impacts (e.g. Holland & Tiggemann, 2016; Kelly et al., 2009; Magin et al., 2011a).

Existing research on stigmatisation in individuals with skin conditions has primarily focused on stigmatisation as a predictor of depression and impaired quality of life, and demographic and condition variables as predictions of stigmatisation. Such research has consistently identified perceived stigmatisation as a predictor of reduced quality of life and psychological morbidity (Ginsburg & Link, 1989; Łakuta et al, 2016; Wittkowski et al, 2007). However, there is mixed support for gender, employment status, condition duration and perceived severity as potential predictors of stigmatisation in clinical populations with a skin condition (Ginsburg & Link, 1989;

Łakuta et al, 2016; Liasides & Apergi, 2015). The current study also identified associations with stigmatisation of: gender, perceived severity, as well as having received a diagnosis of acne and having an additional LTHC. The present study adds to this literature by suggesting that contemporary sociocultural factors, like relative photo-related Facebook activity, also predict feelings of stigmatisation, specifically via processes of upwards appearance comparison.

These findings correspond with previous research where relative levels of photo-function use was a better predictor of body dissatisfaction than overall time spent on Facebook (Mabe et al., 2014). Our results also support existing cross-sectional, experimental and longitudinal research regarding the negative psychosocial impact of engaging in frequent upwards appearance comparisons in a range of media contexts, including magazines, TV, social media (e.g. Fardouly et al., 2015; Fardouly, Pinkus, & Vartanian, 2017; O'Brien et al., 2009; Ridolfi et al., 2011). Furthermore, our results provide support for the important role of skin-specific appearance comparisons in the psychosocial wellbeing of individuals living with acne. Future research could explore whether this relationship is present in populations with other conditions that can affect appearance and further explore the relationship with other measures of psychological wellbeing, such as body image, depression and social anxiety.

Limitations

The present study carries similar limitations to other studies using a cross-sectional design and therefore causation cannot be established. Further longitudinal and experimental studies are required to test the direction of the relationships. For example, Facebook/Instagram duration and type of use could be manipulated in future experimental research to examine whether exposure to different types images on social media continues to predict acne-related stigma via comparisons. Participants for this study were recruited online from a community sample. Therefore, information on objective diagnoses and measures of severity were not obtained. Existing research suggests that self-reported severity significantly differs from physician rated severity (Magin, Pond, Smith, Watson, & Goode, 2011b). Therefore, participants may have had sub-clinical acne. However, self-rated severity is a better predictor of skin disease related distress (Magin et al., 2011b). Furthermore, the majority of previous studies have used clinical samples from Dermatology and General Practice clinics, despite the majority of individuals with acne self-managing their condition and consequently there is merit in this study's use of a community based sample. Furthermore, Facebook and Instagram use was estimated by participants, which may have affected the reliability of the frequencies of social media use. This could be addressed in future research using diary methods and novel monitoring techniques.

Clinical Implications

Appearance comparisons predicted stigmatisation in both Facebook and Instagram users and mediated the relationship between relative Facebook photo-activity and stigmatisation. Therefore, the role of upwards appearance comparisons on feelings of stigmatisation should be considered when working with individuals with acne-related distress and considered as an area for future research and target for interventions. While self-compassion did not moderate the relationship between photo-related social media use and stigmatisation, it was consistently related to lower levels of stigmatisation. Similarly, Kelly et al. (2009) reported that a self-compassion based intervention reduced levels of shame in individuals with acne. Interventions based on increasing levels of self-compassion, therefore, provides an additional avenue for exploring ways of reducing feelings of stigmatisation in individuals with acne, and future studies could employ an experimental design to examine whether brief manipulations to increase self-compassion reduces skin-comparisons and skin-related stigma.

Chapter 6. Overall Discussion

The research within this thesis sought to understand how acne is portrayed in the media, whether media representations of acne have changed over time, and how these media representations and technological developments interact with experiences of women living with acne, and relate to feelings of stigmatisation. These aims were addressed using a novel mixed methods and interdisciplinary design, primarily from a psychological perspective, which incorporated approaches and contributions from history and sociology. This final chapter is intended to provide a broader discussion of how the research presented in this thesis collectively contributes to understanding the role of media in the stigma experience of individuals with a visible condition like acne. This chapter will therefore: (a) summarise the findings from each preceding chapter; (b) consider how the findings fit together to contribute to our understanding of the role of media in psychological well-being and accounts of stigma; (c) consider the implications of this research for clinical practice and policy; (d) identify the key strengths and weaknesses of research presented in this thesis; and (e) identify areas for future research.

Study 1 uniquely incorporated research methods from Social History, Sociology and Psychology to enable the systematic identification of portrayals of acne in advertisements from three women's magazines and examine whether these portrayals had changed over time (1972-2008). Overall, the pervasive message within advertisements in *Cosmopolitan UK* and *Woman* was that acne was a cosmetic concern, with acne opposed to the ideal of perfect skin. Readers were told that perfect skin can and should be achieved through the purchase of specific products and services to 'destroy acne'. Acne was typically associated with distress and depicted as a barrier to romantic relationships. However, over time, the focus of advertisements subtly changed, more commonly linking acne treatments with the pursuit of the body beautiful via self-improvement. With the development of new photographic and treatment technologies, there also seemed to be a shift towards achieving an increasingly unrealistic ideal through increasingly invasive measures. Advertisements also perpetuated myths regarding hygiene, age, and accountability. The results add evidence to the media's role in maintaining hegemonic accounts of female 'beauty' that may increase the risk of stigmatisation associated with acne.

On the basis of Study 1, it was suggested that the messages within magazine advertisements might contribute to stigmatising attitudes towards acne, that individuals with acne may engage in appearance comparisons to the idealised and increasingly airbrushed images of women's bodies, and that changes over the past decade,

facilitated by digital technology, might influence women's experience of living with acne. This was investigated in Study 2 using semi-structured interviews and photo-elicitation which sought to provide an in-depth understanding of young women's experiences of acne in relation to the current sociocultural and technological context. In line with the findings from Study 1, participants described and were frustrated with the prevalence of media images of 'perfect skin' and the rhetoric that acne was abnormal in adults, providing photo-elicitation items to exemplify this, and indicated a failure to meet societal ideals and engage in behaviours that would get rid of their acne. Participants reported being acutely aware of the skin appearance of others, engaging in comparisons to idealised images of women's skin and bodies in social situations and across multiple media platforms, judging themselves and anticipating that others would judge them as not meeting the ideal of perfect skin. To a lesser extent, participants engaged in downwards comparisons and actively sought out online images or videos of women with acne, which was helpful for some people, but also exposed participants to online abuse aimed at women with acne (e.g. abusive comments on social media posts). Consistent with the literature, participants described a wide range of psychosocial impacts (APPGS, 2013), and engaged in a range of coping mechanisms, which included camouflaging the visible signs of acne (Magin et al., 2006a), avoiding social situations (Magin et al., 2006a), and seeking social and practical support from others (Murray & Rhodes, 2005), all which transcended 'real life' into 'digital life'.

Study 3 built upon the careful analysis of Studies 1 and 2, to conduct a detailed survey to investigate the relationship between engagement with photo-based social media functions and feelings of stigmatisation in a community sample of individuals with acne. The survey (conducted online) identified a relationship between the proportion of photo-function use on Facebook and stigmatisation mediated by upwards skin-appearance comparisons. This model of stigmatisation was not replicated in Instagram users. However, skin-comparisons continued to predict feelings of stigma. Furthermore, levels of self-compassion were consistently related to lower levels of skin-comparisons and stigmatisation.

While Studies 1 and 2 focused on how acne has been portrayed across media platforms, Studies 2 and 3 examined how these portrayals and media use influence stigma. Overall, there were several overlapping themes identified and saturated across the findings of the studies presented within this thesis:

1. Perfect skin as an ideal/norm, with a lack of diversity in print and digital media images.

2. Myths and negative assumptions about acne (e.g. trivial, self-induced, teenage problem, poor hygiene, easy to treat, diet/lifestyle changes). Media messages reinforce these myths, but can also play a role in challenging them.
3. The impact of media messages and acne (e.g. stigma, appearance dissatisfaction).
4. The role of cognitive processes, including skin comparisons, in the psychosocial impact.

These central findings will be discussed in greater depth and in relation to existing literature below.

A key objective of this thesis was to examine media depictions of acne. Across Studies 1 and 2, perfect skin was identified as the media-disseminated norm, and was perceived to be reflective of the wider sociocultural ideal of clear skin. This was exemplified by the plethora of images of flawless skin and absence of media images of acne. Within Study 1, only one out of 637 magazine advertisements, spanning 1972 to 2008, had an image depicting realistic signs of acne/acne-scarring. It therefore appears unsurprising that survey data recently collected by Changing Faces (2017) found that participants felt visible difference was not represented within the media. These findings are also consistent with the accounts and photo-elicitation items provided by participants in Study 2, drawing particular attention to the discord of using images of flawless skin to accompany articles and advertisements relating to acne.

Acne was not only absent from idealised images of skin, but also appeared to be in opposition to the ideal and a barrier to being considered aesthetically attractive. Indeed, in Study 1, acne was primarily framed as a cosmetic concern and within Studies 1 and 2 clear skin was associated with beauty, while acne was commonly associated with 'bad' or 'problem skin'. It appears that when skin conditions are visible in the media, they are often portrayed negatively. Researchers interested in stigma and shame in individuals with a visible difference theorise that stories and films exhibit the 'what is beautiful is good' phenomenon, whereby beauty is associated with favourable characteristics and individuals who do not meet these culturally defined ideals are perceived less favourably and consequently stigmatised (Kent & Thompson, 2002; Papadopoulos & Walker, 2003). Existing content analyses of media portrayals have sought to quantitatively analyse how acne and other dermatological conditions are portrayed in popular films and TV cartoons. Such analyses have been used to suggest that visible signs of skin disease have been used as visible representations of evil. Croley, Reese, and Wagner (2017) argue that villains are more commonly presented with signs of skin diseases compared to the clear-skinned hero counterparts of twentieth century films and that these portrayals contribute to the stigmatisation

surrounding skin disease, although there are complexities in interpreting and quantifying signs of skin conditions among villains and heroes. For example, Ishida, Lin, Otsuka, and Kabashima (2017) argue that the results neglect the increased prevalence of signs of skin conditions among heroes in films from the twenty-first century, while Croley et al. (2018) counter-argue that Ishida et al. (2017) base their critique on incorrect coding of dermatological signs. Within Study 2 participants reported acute awareness of negative assumptions about acne, and media messages reinforcing stereotypes about acne. However, these were less likely to relate to 'villainous' traits and were more commonly associated with unattractiveness and widespread myths about acne.

These findings build on, and can be situated more broadly within the wider literature on appearance ideals. Both sociocultural (Thompson et al., 1999), and feminist (Fredrickson & Roberts, 1997; Orbach, 2009) theories of appearance distress, including self-objectification theory (Fredrickson & Roberts, 1997), propose that the prevailing media portray a narrow and largely unachievable depiction of female and increasingly male bodies, with an emphasis on appearance. The existing literature has largely overlooked media portrayals of skin clarity. It primarily focuses on media portrayals of body shape and size, with quantitative content analyses (Buote, Wilson, Strahan, Gazzola, & Papps, 2011), qualitative interviews (Ahern, Bennett, Kelly, & Hetherington, 2011; Jackson & Vares, 2015), online surveys and experimental research supporting the prevalence of the thin or toned ideal and the role of a range of media platforms in communicating this ideal (Grabe et al., 2008), although additional research has indicated that media messages also reflect ideals relating to facial proportions and lip size (Nguyen & Turley, 1998; Berneburg, Dietz, Niederle, & Goz, 2010). However, the use of primarily quantitative methods and content analyses limits the scope of the research, and restricts the inclusion of additional and complex messages and context within media items. Study 1 provides the first in-depth analysis of magazine portrayals of acne. The ideal of clear skin described in Studies 1 and 2 is not in isolation from the ideals described in previous research. There was a general lack of diversity in the images used in the advertisements in Study 1, with a complete lack of racial diversity, and within *Cosmopolitan* and *Woman* over the time period studied. Furthermore, participants within Study 2 described the ideals for women as being beautiful and slim with clear skin. The ideal of perfect skin can be situated within the wider set of sociocultural ideals surrounding female bodies. It therefore appears important to recognise body image as a multifactorial concept beyond purely weight or shape and that skin appearance may be of particular concern for women living with a visible skin condition like acne.

The findings presented in this thesis most closely correspond with the findings of Magin et al. (2006a; 2011a), where Australian participants with acne, psoriasis or eczema described feeling unable to meet the media disseminated ideal of perfect skin. However, the accounts provided by Magin et al. (2011a) appear to oversimplify the complex nature of media messages. Within the interviews conducted as part of this thesis, the participants were dissatisfied with the absence of images and discussions of acne across mass media platforms, but there appeared to be a consensus that this was most prevalent in women's magazines like *Cosmopolitan*, advertisements, and in the film industry. Furthermore, both Studies 1 and 2 demonstrated that some media images also provided more realistic images and accounts of acne. Within Study 2, there were differing opinions about whether the growth of digital and social media had increased exposure to the ideal of perfect skin through images of seemingly flawless peers, or whether digital and social media had created platforms where individuals were able to view more representative images of skin, including images of acne.

Another key finding within this thesis relates to the role of media platforms in communicating myths and reinforcing stereotypes of acne. Link and Phelan (2001) described stereotyping as one of several concepts related to stigma. Several myths were repeatedly identified across Studies 1 and 2 that go beyond attractiveness. These included myths about the causes and cures of acne, and the stereotype of the 'spotty teenager'. Negative assumptions about acne appeared to be linked to popularly held beliefs about acne causes and treatments, which often assumed accountability for individuals with acne. These myths about acne causes and treatments were present in the advertisements analysed in Study 1 and the photo-elicitation items of Study 2. Across both studies, commonly cited myths included acne as a sign of poor hygiene, which could easily and quickly be treated by purchasing the right product. While participants within Study 2 talked about myths surrounding diet as common, this was less prevalent within the advertisements in Study 1. This may reflect differences in the content analysed, with advertisements primarily marketing skin care products and procedures, and diet more commonly discussed in articles and vlogs/blogs. Alternatively, it may reflect recent, but limited, evidence to suggest that certain aspects of diet may exacerbate acne and/or a growing trend in making dietary changes for health and beauty reasons (NICE, 2018; The Hartman Group, 2018). Reviews of the literature on lifestyle changes have highlighted a lack of conclusive evidence to support lifestyle changes as an effective treatment for acne (Magin et al., 2005). However, beliefs in such myths are widely reported in a range of populations including individuals with acne (Magin et al., 2006b; Tan et al., 2001), medical students (Green & Sinclair, 2001) and medical practitioners (Brajac et al., 2004). Researchers and clinicians have typically suggested that these myths both trivialise and place blame on the individual,

resulting in stigmatisation (Green & Sinclair, 2001; Papadopoulos & Walker, 2003). This is consistent with theoretical approaches to stigma that emphasise greater accountability as a key predictor of increased stigma (Feldman & Crandall, 2007; Crocker et al., 1998). Consequently, current NICE (2018) guidelines recommend that clinicians challenge certain myths, particular around hygiene, in appointments. However, Magin et al. (2006b) argue that beliefs in and use of lifestyle changes can attenuate the psychosocial impact of living with acne, through a locus of control. The findings within this study indicated that while some participants found lifestyle changes helpful, they predominantly considered them unhelpful, preventing the use of effective treatments and feeling stigmatised as a result of these beliefs.

A less frequently examined myth in the existing literature relates to acne as a teenage problem. Many of the studies cited above focused on myths relating to causes and treatments, but did not examine the myth than acne is a condition of the teenage years. Subrt and Wagner (2013) provide a narrative review of depictions of acne in TV cartoons where a teenage character rapidly develops a single oversized lesion, similar to several images in Studies 1 and 2, which is usually followed by a brief period of conflicting responses from others and psychosocial distress. Most participants in Study 2 had internalised the belief that they would grow out of acne, which had initially provided a source of hope, but later led to disappointment and further contributed to feeling different and isolated as an adult with acne. This is despite acne often continuing into adulthood as illustrated in Study 3, with participants' ages ranging from 16-56. Furthermore, data within a systematic review of the epidemiology of acne estimated that symptoms of acne were present in 64% of individuals in their 20s and 43% of individuals in their 30s, indicating that adult acne is far from uncommon (Bhate & Williams, 2013). Consequently, there have been calls by medical professionals to recognise acne as chronic condition (Thiboutot et al., 2009). Participant accounts from Study 2 and demographic information from Study 3 support the consideration of acne as a chronic condition, not limited to the teenage years. The lack of representation of adult acne and assumption that acne was an adolescent problem was a source of frustration for participants, with some participants stating that they would avoid products aimed at a teenage audience, similar to those in advertisements in Study 1. This, alongside maximising potential customers, may partially explain why over the period studied, advertisements in Study 1 appeared to make fewer references to acne as a teenage problem, with some advertisements and articles in Study 2 challenging these myths.

More generally, the findings within this thesis provide additional evidence to support the view that individuals with acne can experience a range of psychosocial

impacts including stigmatisation from others (enacted stigma) and that this can be internalised (felt stigma). Enacted stigma can be seen in the omission of acne from the media and the communication of negative assumptions and stereotypes about acne in both Studies 1 and 2, whereas internalised stigma was reflected within Studies 2 and 3 in participant accounts of appearance dissatisfaction, feeling different, self-conscious and anticipating intrusive reactions from others.

However, prevalence rates indicate that most people will have acne at some point in their lives, suggesting that stigma is not simply about deviating from the norm, instead it is about deviating from socially prescribed norms and ideals. Later conceptualisations of stigma have emphasised the role of social structures and power (Link & Phelan, 2001). The widespread availability and influence of mass media as highlighted within this thesis and sociocultural and self-objectification theories support the notion that the media and the powerful businesses that have influence over the media has the potential to set societal norms and define what is considered to deviate from them. Furthermore, Pescosolido et al. (2008) provide a framework of stigma whereby media is proposed as a powerful macro (national context) factor that interacts with micro (individual) factors such as visibility, and meso (real life interactions between individuals with and without a stigmatised identity) level factors to influence stigmatisation. This is consistent with Study 2 where participants described a complex relationship between media messages/use and stigma.

However, frameworks of stigma appear to better explain enacted stigma and insufficiently describe mechanisms involved in internalising stigma in relation to the media context. Therefore, processes identified in sociocultural and self-objectification theory offer a greater understanding of how sociocultural norms and ideals as depicted across media platforms can be internalised. In particular, upwards appearance comparisons have been identified as a key mediator involved in internalised appearance ideals and subsequent feelings of shame and body dissatisfaction (Myers & Crowther, 2009). However, there is a lack of research applying this to stigmatisation and/or skin appearance. The findings from Studies 2 and 3 are generally consistent with the existing literature on upwards appearance comparisons and provide new insights into the impact of media use and the processes involved in self-stigmatisation in individuals with acne within the current context. Results suggest that the exercise of comparing oneself with images of seemingly flawless peers and personalities through social media outlets and across multiple media formats is a key factor in the process of self-stigmatisation in individuals that may not conform to the unattainable ideal of perfect skin. This differs from existing stigma theory (Crocker & Major, 1989; Wills, 1981), as discussed in Chapter 2, whereby engaging in downwards comparisons are

proposed to play an important role in bolstering the self-esteem of both the stigmatiser, and the stigmatised.

Another key aim of this thesis was to examine whether media portrayals of acne have changed over time, and to consider how this may have influenced individuals living with acne. Sociocultural and historical research has indicated that there has been a subtle shift in body shape and size ideals over time, with a move towards a more toned ideal (Zweiniger-Bargielowska, 2001). However, with reference to skin it appears that there has been little change in the media disseminated norm and sociocultural ideal of perfect skin, or myths surrounding acne across the time periods studied. This continuity of perfect skin as the ideal and stigmatisation towards acne could be explained from a biopsychosocial perspective whereby the visible signs of acne communicate that an individual has a disease, and that as humans we have evolved: (i) emotional responses such as disgust as a disease avoidance mechanism (Kurzban & Leary, 2001); and (ii) preferences for clear skin and beauty as signs of health and social attractiveness, which collectively threaten our need to be socially attractive (Gilbert, 2002). Concurrently, Oaten et al. (2011) found that participants described a greater desire for close contact with individuals with non-infectious skin conditions than individuals with mild infection conditions such as the flu. Oaten et al. (2011) propose that this indicates an evolved false alarm effect whereby individuals with visible signs of disease are avoided as an automatic protective precaution. However, it is unclear from these finding whether this relates to an evolved or learned response. Furthermore, as highlighted in Chapter 2, it appears problematic to assume that stigmatisation is evolved and static.

The more noteworthy shifts appear to relate to technological developments. The most notable of these are the seemingly airbrushed-to-perfection photographs in *Cosmopolitan* post 1990, the point when Photoshop was released (Brown, 2014), the exponential growth of digital and social media, and the recent normalisation of editing one's own photographs as discussed by participants in Study 2. There were differing opinions about whether the growth of digital and social media had increased exposure to the increasingly unrealistic ideal of perfect skin and images seemingly flawless peers, or whether digital and social media had created platforms where individuals were able to view more representative images of skin, including images of acne. The results of a diary study found that upwards comparisons to images on social media had the strongest association with a range of negative psychological impacts compared to upwards comparisons in real life and with traditional media items (Fardouly et al., 2017). However, magazine use, TV, and billboards were placed into one category, and there may have been differential findings between traditional media types. The findings

from Studies 2 and 3 suggest that there are also differences within magazines and the way individuals engage with a particular media item.

The feminist writer Susie Orbach (2009) proposes that over the past 30 years the trend towards airbrushed ideals reflect our views of the body - that we can modifying the body to achieve increasingly unrealistic ideals using what would have once been considered extreme measures (e.g. cosmetic surgery). A similar trend was identified within Study 1 with the advertisement of increasingly invasive procedures, which several participants had undergone. The growth of digital technologies also enables individuals with acne to conceal their acne online.

There has also arguably been a shift away from the importance of body weight and shape towards concern with facial appearance. According to self-objectification theory, objectifying media images of women's bodies are more likely to show images of parts of the female body and less likely to show close up headshots and that focus on the face may reduce objectification (Fredrickson & Roberts, 1997). However, this is unlikely to be a simple trend, particularly for individuals with conditions that affect facial appearance. Within qualitative focus groups conducted with UK children, aged 10-12, girls reported greater concern about how their face, hair and skin looked, rather than how their bodies looked (Children's Commissioner, 2018). This was proposed to be a consequence of growing up in a social media and selfie culture, where young people can post and edit photos of their faces and are in turn exposed to social media feeds containing a stream of idealised selfies of others (Children's Commissioner, 2018). In older age groups selfie, and social media culture are arguably a driver behind increases in facial cosmetic procedures (American Academy of Facial Plastic and Reconstructive Surgery, 2018).

It is also important to note that social media use does not necessarily equate to greater stigma. Within Study 3, individuals who had used Facebook in the past week had lower levels of internalised stigma. This may reflect potential benefits of social and digital media that would not have been accessible previously. For instance, participants within Study 2 described the importance of practical and emotional support from others, including online contact with friends and support networks. These findings build on existing models of stigma that focus on real-life interactions rather than digital interactions. For example, Richman and Leary's (2009) framework predicts that prosocial responses (e.g. seeking social support/repairing relationships) can reduce the psychosocial impact of rejection experiences. Furthermore, survey data from online forum users with psoriasis suggested that participants' forum use was based on the benefits of access to support (Idriss et al., 2009). However, participants also raised concerns about potential exposure to inaccurate advice, which corresponds with

concerns raised about the content of online forum discussions of acne treatment (Santer et al., 2017). Overall, it appears that digital and sociocultural changes over the past 40+ years provides a double edge sword, where individuals with acne have simultaneous access to idealised images of perfect skin, providing the potential for frequent upwards comparisons alongside normalising images of others with acne, with rapid access to both helpful and unhelpful/stigmatising sources of information and views. The key to this appears to be in navigating this image and information saturated environment with consideration for how individuals engage with these contexts.

Implications for clinical practice and policy

It is important to consider the implication of the findings of the research at both an individual and community level. Within critical and community psychology it is argued that the emphasis for change is often on the individual when the onus should be on wider societal change (Levine, Perkins, & Perkins, 2005). The implications here are informed by the findings of this thesis, existing literature and incorporate suggestions made by participants in Study 2. Furthermore, while the research within this thesis specifically examines the role of media in the experiences of individuals living with acne, the findings are also likely to be relevant to a wider range of clinical and subclinical skin complaints.

Societal/policy changes

At a societal level, it is important to recognise that individuals living with a visible skin condition like acne may be subject to incidents of enacted stigma in interpersonal interactions and via stigmatising media messages about acne, which can be internalised and lead to feelings of stigmatisation. Participants in Study 2 called for changes to the societal views and stigma surrounding acne. Educational approaches to mental health stigma can be helpful in challenging both enacted and felt stigma (National Academies of Sciences, Engineering, and Medicine, 2016). Participants in Study 2 drew comparisons with mental health stigma campaigns and suggested education at multiple levels to improve awareness of the impact of living with a visible skin condition like acne and challenge myths and misconceptions about acne.

In particular, the findings of Studies 1 and 2 raise concerns that media messages predominantly portray acne negatively and can transmit stigmatising messages about acne. This appears to be compounded by the prevalence of images of flawless skin across traditional and digital media, and the absence of images of acne, which contribute to the sense of feeling different. While mass media can be considered to contribute to the stigma surrounding acne, it also provides a potential tool for normalising acne, challenging myths and reducing stigma.

The findings within this thesis support the call for more diverse representations of bodies across media formats, including magazines, children's books, TV/films, and social media. This should be inclusive but not limited to shape/size, ethnicity and visible differences including skin conditions, with articles and advertisements related to acne using representative images of acne. Furthermore, it is important that these images and discussions do not reinforce stereotypes. Media platforms can also provide an educational platform for challenging stigmatising messages and myths about acne, and providing reliable information. The development of digital and social media provides opportunities for individuals, charities and researchers to produce and disseminate media content challenging such myths. For example, the findings of this thesis have informed social media posts as part of the BSF's (2018) #MythMonday campaign, challenging the assumption that acne is caused by poor hygiene, and is a teenage problem (see Appendix 6A).

Considering the omnipresent nature of media information and idealised images of skin illustrated within this thesis, media and information literacy appear to be key life skills. Sociocultural and feminist theories of body image, and researchers, advocate teaching media literacy skills from a young age (Fardouly & Vartanian, 2016; Thompson et al., 1999). Studies indicate that interventions can be helpful in encouraging individuals to critique media representation of bodies and appearance ideals and reject media messages (Choma, Foster, & Radford, 2007; Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005). However, there are inconsistent findings regarding an effect of media literacy on psychosocial wellbeing (Choma et al., 2007). Similarly, within Study 2, participants exhibited high levels of media literacy. While participants felt media literacy was an essential skill for young people, a consistent positive effect of these skills was not always evident and indeed some participants were conscious of how others evaluated them because of this. This may reflect the need to not only challenge the ideals at an individual level but also to make wider society more accepting of individuals with a visible difference.

There have also been repeated calls to raise public, patient, and clinician awareness of the psychosocial impact of skin conditions (APPGS, 2003, 2013). The findings of this thesis support these existing calls by reiterating the potential for acne to impact on various aspects of individuals' psychological and social wellbeing, including experiences of stigmatisation. There does appear to be a recent growth of media coverage discussing the psychosocial impact of acne. Some of this was highlighted by participants in Study 2 (Ford [My Pale Skin], 2015; Morse, 2016). As well as increasing the prevalence of acne related media content, it is important to consider how to ensure media coverage is sensitive and accurate. Within Study 1, a key theme identified from

the advertisements related to the psychosocial impact of acne. While this can be seen as recognising and normalising the psychosocial impact, the emphasis was, in some cases, on acne as a barrier to relationships, employment and happiness. This therefore appeared to communicate the message that individuals with acne 'should' feel embarrassed and unhappy about their skin and that others will not find them attractive unless they use a particular product to get rid of acne. This was explicitly discussed by several participants. Furthermore, a recent TV advert was banned from airing before the 9pm watershed by the Advertising Standards Agency following complains that it implied that children with acne would be bullied if they did not use Proactiv ([BBCNewsbeat], 2017). Overall, policy and practice must be savvy in considering how to engage with people within the context of their media usage.

Implications for clinicians/individuals

It is clear that there are individual differences in the psychosocial wellbeing of individuals with acne. These differences were evident in Studies 2 and 3, where feelings of stigmatisation and comorbid mental health conditions varied between participants. Indeed, it is important to recognise that many individuals cope well with acne, and that objective severity is a poor predictor of psychological morbidity. The findings of Study 2 and the existing literature (e.g. Magin et al., 2009a) indicate that medical practitioners can underestimate the psychosocial impact of visible skin conditions like acne, and that the trivialisation of acne can add to the stigma surrounding talking about acne (APPGS, 2013). These findings support existing recommendations that clinicians should routinely ask patients about the impact of having a particular skin condition (NICE, 2018; Thompson, 2014). Brief routine clinical measure such as the DLQI and Cardiff Acne Disability Index (CADI) have also been developed and validated to enable clinicians and researchers to measure and monitor the impact of dermatological conditions on several areas of individuals' quality of life (Finlay & Khan, 1994; Motley & Finlay, 1992). Asking about the impact of a skin condition can in itself be validating in making it acceptable to talk about the psychosocial impact, furthermore participants describe positive experiences when clinicians have demonstrated an awareness of societal pressures on individuals with acne (Thompson, 2014). Clinicians should also be aware of the sociocultural context surrounding individuals' experiences of living with a visible condition like acne, and NICE (2018) guidelines also encourage clinicians to challenge myths about the causes and cures of acne. However, NICE (2018) guidelines appear to provide little guidance for how to manage the psychosocial impact of acne beyond medical interventions.

While effective medical interventions can be helpful in reducing the psychosocial impact of acne, individuals can also benefit from psychological input, and

there have been repeated calls for integrated psychodermatology services (APPGS, 2003, 2013; Thompson, 2014). Unfortunately, many of these issues have not been fully addressed despite repeated calls to implement changes, such as integrating medical and psychological support, and this remains a focus of the All Party Parliamentary Group on Skin (APPGS, 2003, 2013; Thompson, 2014).

Previous intervention studies have indicated that a range of psychological interventions in one-to-one and group settings, including self-help and social skills training, can be helpful in enhancing psychosocial wellbeing and supporting individuals to manage incidents of enacted stigma (Thompson, 2011). However, the majority of these studies comprise of pilot and feasibility trials and further research is required to assess the effectiveness of such interventions. As discussed in the introduction, this research did not set out to develop an intervention, but instead to understand the role of media in relation to experiences of acne and stigmatisation. The findings of this thesis however can be used to inform the development of interventions. In particular, Studies 2 and 3 suggest that the way that individuals use and engage with media is more important than whether or not they use it and how long they've used it for. In particular, upwards appearance comparisons appeared to play a key role in determining feelings of stigmatisation. Therefore, interventions aimed at reducing upwards appearance comparisons could provide a useful tool for reducing feelings of stigmatisation in individuals with a visible skin condition like acne. Behavioural experiments targeting appearance comparisons are used within CBT for eating disorders to make clients aware of the unhelpful nature of engaging in upwards comparisons (Waller et al., 2007).

The findings from Study 3 also demonstrated that levels of self-compassion were associated with lower levels of upwards appearance comparisons and lower levels of stigma. Therefore, interventions aimed at fostering self-compassion may also be helpful to reduce both upwards skin comparisons and feelings of stigmatisation in individuals with a visible skin condition.

Strengths and limitations

It is important to recognise that each chapter and corresponding method carries strengths and weaknesses, which were considered within the discussions of individual chapters. The limitations presented in this chapter consider the broader strengths and limitations to the thesis as a whole and across chapters. In some cases these limitations could also be considered as strengths.

An important consideration relates to the generalisability of the research presented within this thesis. The samples for each study were drawn from a UK

population and therefore the results are situated in a UK context. Within Study 2, two participants had grown up outside the UK (China and the U.S.A.), both participants reflected on contextual differences (e.g. health service structure, media messages) and how they had influenced their experiences of acne (e.g. direct access to dermatology services, exposure to advertisements for medications, social media sites). In particular, Participant 6 who grew up in China, described receiving negative comments on her skin and feeling under greater pressure to meet uniform appearance ideals, including 'perfect skin' in collectivist cultures like China, than in individualistic cultures like the UK. This focus on appearance may be indicative of the widening influence of specific appearance ideals from individualistic cultures fuelled by globalisation of beauty and media industries (Jones, 2011). Interestingly, existing cross-sectional research reported that Korean participants compared to US participants demonstrated higher levels of appearance dissatisfaction, and larger perceived discrepancies between specific aspects of their appearance in relation to their perceived ideal, including skin and facial appearance (Jung & Lee, 2006). However, further research would need to be conducted to establish whether there are cross-cultural differences and similarities to the results of the three studies within the present thesis.

It is also important to note that this thesis focused principally on women's experiences of living with acne, and magazines aimed at female readerships, and therefore the majority of the findings cannot be generalised to men living with acne. This decision was based on the existing literature, which suggests that there are gender differences in: appearance related media use (Pujazon-Zazik & Park, 2010), appearance concern (Hassan et al., 2009; Karazsia et al., 2016), the prevalence of adult acne (Goulden et al., 1999), and the psychosocial impact and feelings of stigma of both media and acne (Magin et al., 2011a). Indeed, female participants within the cross-sectional survey reported spending a greater proportion of their time on Facebook using photo-related functions, higher levels of upwards appearance comparisons and stigmatisation, and lower levels of self-compassion. However, it is important to recognise that men are not necessarily immune to the psychosocial impact of media and acne. Further research could be conducted to explore these differences, including potential risk factors for psychological distress in men with acne.

A major strength of this research was the integration of qualitative and quantitative methods, which was informed by approaches to research from the researchers' background in psychology as well as input from a historical perspective. This pragmatic mixed methods approach facilitated a broader understanding of experiences of acne, media and stigma, able to take into account and examine media messages, experiences and individual differences. Furthermore, the inclusion of both

a historical and psychological approach to the aims allowed for appropriate consideration of the sociocultural and historical context.

This provided both challenges and rewards. An important consideration raised in the introduction was that the methodologies and analyses within this thesis could be considered to be based on conflicting epistemological assumptions: the qualitative Studies 1 and 2 were approached from an interpretivist perspective whereas the quantitative third study assumed a more critical realist approach to knowledge. However, the methods were selected pragmatically to best address the different aims and data within each study. This was based on the assumption that there are different types of knowledge which are underpinned by different epistemologies. Another challenge raised during this research related to the interdisciplinary nature of the research. The inclusion of both a historical and psychological approach to the aims facilitated greater consideration of the sociocultural and historical context. However, it also presented challenges. Study 1 reflected the greatest integration of interdisciplinary approaches, although compromises to the breadth of data were made to ensure that the data collection and analysis were systematic. Data collection followed a systematic sampling strategy to reduce selection biases.

Overall, the use of a mixed method and interdisciplinary approach to this research question facilitated the development of the researchers' skills in a range of methodologies and methods, enabling the most appropriate method to be selected for each question, and addressed the call for more creative approaches in understanding dermatological conditions (Nelson, 2015). Furthermore, the use of mixed methods provided a more rounded and nuanced picture of the complex relationship between media and experiences acne. Indeed the use of methodological triangulation provided further support for the argument that media plays a role in the stigmatisation experience of acne and the findings of each study informed the design of the proceeding studies, addressing the questions raised and limitations of the preceding studies. However, it is important to note that the present study lacks an experimental or longitudinal element, which therefore limits conclusions about the direct of an effect. This could be addressed through further triangulation, by utilising an experimental design to test the direction of the relationship between media exposure, appearance comparisons and feelings of stigmatisation.

Future directions

While the research presented within this thesis answers many of the questions raised in the introduction it also raises further questions. Future research could help address

the limitations of this thesis and further develop and assess the implications described above.

As indicated above, further research is required to assess the direction of causality. For example, experimental research exposing participants to idealised and non-idealised images of skin across a range of media platforms and measuring skin-related comparisons and perceived stigma could be used to directly test whether exposure to idealised images results in higher levels of perceived stigma via skin-related comparisons. However, it is also important to recognise the complexities of measuring such social phenomena, particularly where the relationships are unlikely to be unidirectional. Additionally, if the participants are exposed to similar images on a daily basis, the impacts may be longer term. Therefore, future research would also benefit from using longitudinal qualitative and quantitative designs.

The huge growth in use and reach of social media worldwide has been relatively recent, which means that academic efforts are still needed to understand how these technologies are impacting individuals that are particularly vulnerable to be the target of stigmatisation. This thesis contributes to the literature on stigmatisation in individuals with acne in the current context, whilst also considering the historical context. However, as evidenced within this thesis, the media environment is continually developing and therefore future research needs to respond to and evaluate these changes. In particular, research could seek to analyse messages and portrayals about acne across a variety of formats.

Above, suggestions were made to develop societal and individual interventions aimed at reducing the stigma surrounding visible skin conditions like acne. The development and implementation of such interventions requires further research to ensure that such interventions are acceptable and evidence based. For example, several participants within Study 2 reported that they watched YouTube videos of women with acne to feel less isolated and help normalise acne. Therefore, experimental research could be used to assess whether exposure to images of women with acne on media platforms like YouTube can lower feelings of stigmatisation in women with acne. Furthermore, new and existing media content aimed at challenging myths about acne and using more diverse images of skin should be evaluated to establish whether it can reduce viewers' stigmatising assumptions about acne.

Appearance comparisons and self-compassion also provide a potential targets for interventions, but require further research. Future research could seek to develop and examine interventions aimed at reducing appearance comparisons, evaluating whether interventions incorporating self-compassion techniques are effective in

reducing upwards appearance comparisons and increasing self-compassion as well as reducing feelings of stigma and distress in individuals with a visible skin condition. Such research should incorporate both quantitative and qualitative research methods to assess both the effectiveness and acceptability of such interventions.

Conclusion

The overarching aim of this thesis was to gain a more nuanced understanding of how acne is portrayed in the media and how these portrayals may influence individuals' experiences of living with acne, situated in historical and sociocultural context. The findings provide a unique insight into the complex role of multiple media formats in the experiences of living with acne. Clear skin was consistently communicated across media formats and recent decades in the UK as the sociocultural ideal. These idealised images act as targets for skin related comparisons, with images becoming increasingly easy to airbrush. Individuals with acne can feel unable to live up to these unrealistic ideals, and women with acne may attempt to meet these ideals through the purchase of products, services, and camouflage techniques. Upwards skin comparisons appear to play a key role in the self-stigmatisation of individuals with acne, and offer a potential target for interventions. Furthermore, it is clear that stigmatising messages towards acne are commonly depicted in media messages and that individuals with acne can be concerned about others holding negative views about them because of their skin. It is important to note that while mass media can be unhelpful in communicating stigmatising messages and narrow appearance ideals, it also offers opportunities to challenge stigma, normalise acne and provide opportunities for social and practical support.

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Appendices

Appendix 3A: Phases of ECA (Adapted from Altheide & Schneider, 2013).

Process	No.	Criteria
Problem and Unit of Analysis	1	Pursue a specific problem to be investigated.
	2	Explore possible sources including familiarisation with the processes and specific context surrounding the sources production.
	3	Familiarisation with several examples of relevant documents (take note of format and select analysis unit).
Protocol Development	4	Draft protocol and identify categories/variables.
	5	Test protocol with data from a small sample of documents.
	6	Amend protocol and retest with additional documents.
Sampling, and Themes & Frames	7	Selection of sampling strategy and awareness of format, frames, themes and discourse.
Data collection	8	Collect data according to pre-set codes, making notes on each document, conduct midpoint analysis to facilitate emergent coding.
Analysis and write up	9	Familiarisation with documents, conduct data coding and analysis with the aim of understanding social processes and social life.
	10	Compare differences between each category, summarising each category.
	11	Provide examples that both support and contradict the summaries noting areas of interest and surprise.
	12	Integrate summaries, examples and interpretation.

Appendix 3B: Phases of Thematic Analysis (Braun & Clarke, 2006, p.35).

Phase	Description of the process
1. Familiarising yourself with your data:	Transcribing data (if necessary), reading and rereading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Appendix 3C: A 15-Point Checklist of Criteria for Good Thematic Analysis (Braun & Clarke, 2006, p.36).

Process	No	Criteria
Transcription	1	The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.
Coding	2	Each data item has been given equal attention in the coding process.
	3	Themes have not been generated from a few vivid examples (an anecdotal approach), but instead the coding process has been thorough, inclusive and comprehensive.
	4	All relevant extracts for all each theme have been collated.
	5	Themes have been checked against each other and back to the original data set.
	6	Themes are internally coherent, consistent, and distinctive.
Analysis	7	Data have been analysed – interpreted, made sense of - rather than just paraphrased or described.
	8	Analysis and data match each other – the extracts illustrate the analytic claims.
	9	Analysis tells a convincing and well-organised story about the data and topic.
	10	A good balance between analytic narrative and illustrative extracts is provided.
Overall	11	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.
Written report	12	The assumptions about, and specific approach to, thematic analysis are clearly explicated.
	13	There is a good fit between what you claim you do, and what you show you have done – i.e., described method and reported analysis are consistent.
	14	The language and concepts used in the report are consistent with the epistemological position of the analysis.
	15	The researcher is positioned as active in the research process; themes do not just 'emerge'.

Appendix 3D: How to interpret primary sources – a basic checklist of key questions (Adapted from Dobson & Ziemann, 2009, p.5).

No.	Question	Description
1.	What are the key concepts of the source and their connotations?	
2.	Does the text use imbalanced binary distinctions?	
3.	Does the text employ metaphors, and what is their specific function for the argument of the text?	
4.	Does the source include references to the narrator and the reader?	
5.	In which mode of emplotment is the text couched?	
6.	What is the reality effect of the source?	
7.	How far is the context important for the interpretation of the text?	

Appendix 3E: Extraction table labels.

Magazine (*Cosmopolitan/Spare Rib/Woman*)

Year

Month (and date if applicable)

Issue

Type of item (e.g. advertisement/Featured article/Readers letter)

Product for sold (adverts only)

Size of item

Page number and Section

Title

Subtitle/byline

Author

Skin condition(s)*

Brief summary

Main focus*

Purpose*

Frame*

Initial themes*

Descriptions given of skin condition/adjectives

Cause of skin condition given*

Treatment*

Associations*

Image present (yes/no). If yes – give brief description of image.

Researcher Notes/Reflections

*Some of this information is likely to be explicit whereas in other articles it may be implicit. If the information is not explicit the information will be accompanied by the word implicit in brackets.

Appendix 3F: Ethics approval letter

Downloaded: 20/07/2018
Approved: 22/09/2015

Kate Adkins
Registration number: 140149719
Psychology
Programme: PhD

Dear Kate

PROJECT TITLE: Skin appearance in historical context: Portrayals and perspectives of skin conditions in British womens magazines, 1972-present.
APPLICATION: Reference Number 006060

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 22/09/2015 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 006060 (dated 25/08/2015).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Yours sincerely

Thomas Webb
Ethics Administrator
Psychology

Appendix 3G: The frequency and percentage occurrence of each type of article in each magazine and in total for all skin condition related content.

Article Type	*Cosmopolitan (UK)*		*Woman*		*Spare Rib*		*Total*	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Adverts	855	81.20	383	34.17	2	6.67	1240	56.26
Beauty	9	0.85	158	14.09	4	13.33	171	7.76
Health/medicine	47	4.46	442	39.43	1	3.33	490	22.23
Problem pages	26	2.47	13	1.16	0	0.00	39	1.77
Featured articles	90	8.55	92	8.21	9	30.00	191	8.67
Letters	4	0.38	12	1.07	5	16.67	21	0.95
Celebrities	11	1.04	16	1.43	0	0.00	27	1.23
Fiction/Poetry	2	0.19	1	0.09	4	13.33	7	0.32
Reviews	1	0.09	0	0.00	5	16.67	6	0.27
Other*	8	0.76	4	0.36	0	0.00	12	0.54
Total	1053		1121		30		2204	

Appendix 3H: The frequency of skin conditions referred to in advertisements for each magazine and in total.

SKIN CONDITION	*COSMOPOLITAN (UK)*	*WOMAN*	*SPARE RIB*	TOTAL
Acne	534	103	0	637
Hirsutism	217	83	0	300
Rosacea	92	9	0	101
Eczema	50	94	0	144
Dermatitis	42	97	0	139
Psoriasis	58	18	0	76
Alopecia	70	11	0	81
Dandruff	41	39	0	80
Infections	8	0	0	8
Warts	49	13	0	62
Hyperhidrosis	10	9	0	19
Melasma/Pigmentation	101	17	0	118
Miliaria crystallina	2	0	0	2
Vitiligo	0	0	1	1
Other	0	0	1	1

Note: Adverts frequently make reference to more than one skin condition, in these instances each condition was added to the tally separately.

Appendix 4A: Ethical Approval Letter

The University Of Sheffield.

Downloaded: 22/08/2017
Approved: 20/04/2016

Kate Adkins
Registration number: 140149719
Psychology
Programme: PhD

Dear Kate

PROJECT TITLE: The experience of young women living with acne and with particular reference to their experience of media use: A qualitative study.
APPLICATION: Reference Number 006513

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 20/04/2016 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 006513 (dated 19/04/2016).
- Participant information sheet 1016560 version 1 (18/03/2016).
- Participant information sheet 1013088 version 2 (15/03/2016).
- Participant consent form 1013089 version 3 (18/03/2016).

The following optional amendments were suggested:

minor typographical errors need to be corrected in the expressions of interest document

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Yours sincerely

Thomas Webb
Ethics Administrator
Psychology

Appendix 4B: Information sheet

Department of Psychology
Western Bank
University of Sheffield
Western Bank
Sheffield S10 2TN

Participant Information Sheet

Study Title: The experience of young women living with acne and with particular reference to their experience of media use.

Researchers: Kate Adkins (PhD researcher)
Dr Andrew Thompson (Reader in Clinical Psychology)
Dr Julia Moses (Lecturer in Modern History)

Thank you for expressing an interest in participating in this study. You are invited to take part in a study exploring experiences of living with acne with particular reference to your experience of media (e.g. social media, the web, and magazines etc.) usage. The information below is intended to help you to decide whether or not to take part in the study. If you have any additional questions or queries please feel free to contact the researcher.

What is the purpose of the study?

The purpose of the study is gain a better understanding of what it is like for young women to live with acne and to examine the potential impact that media has on that experience. We want to hear from young women about their experiences of living with acne, their interactions with various form of media and how they feel media impacts their experiences of living with acne. By agreeing to take part in this research you are helping us to learn more about what it is like to live with acne and the influence media can have on this.

Am I eligible to take part?

We are looking to interview women aged between 16 and 34 who currently have acne that has been diagnosed by a medical professional. If you are unsure whether you are eligible to take part please contact the researcher.

Do I have to take part?

No, it is your decision whether you want to take part or not. If you decide to take part you will be asked to sign a consent form. You are also allowed to change your mind at any point during the duration of the study. You will be able to withdraw from the

interview at anytime and can write to withdraw your data from use in the study for up to one week after the interview.

What will happen during the study?

The study involves an audio recorded, face-to-face interview with the researcher (Kate Adkins). You will be asked to fill in a consent form and some basic information about yourself, your media use and some basic information about your history of acne. Prior to the interview you will be asked to collect photos, screenshots, or other aide memoirs that capture your experience of living with acne. If you choose not to do this you may still come along for the interview as we are primarily interested in discussing your experience of living with acne. During the interview you will be asked to provide some information about your history of acne, and your experience of living acne, with a particular focus on how various forms of media impact you and your experiences of living with acne. It is likely that you will be asked about your thoughts on how media impacts your experience of living with acne, whether you use any forms of media to seek information on acne, and how media depicts acne and the consequences of this. You will also have the opportunity to talk about the images (e.g. media images, web screenshots) that you bring along with you.

Is there anything I need to do before the interview?

We don't always explicitly notice how skin is depicted in the media or how media and social media may influence our experience of living with a skin condition. We would, therefore, like to ask you to record what you notice in the period prior to the interview. You are free to record this in any way you like. This could be done through taking screenshots/photographs of web pages or adverts, and/or bring along cut outs from magazines/newspapers, artwork or notes. It would also be helpful for you to jot down some notes about what the image/item is of, why you took the image, and how it contributed to your experience of living with acne (although this will be asked in the interview). If you are happy for us to do so we would like to take a copy of the material that you bring and we may use this once it has been made anonymous in publications/presentations associated with the study. However, the collection of images is not necessary to take part in the interview and if you choose not to or have no material you will still be able to participate.

Where will the study take place?

The interview can take place either at the University of Sheffield or at your home. The location, date and time of the interview will be agreed between yourself and the researcher.

Will the study be confidential?

The audio recording of your interview will be kept strictly confidential. The interviews will be recorded using an encrypted digital recorder. Any transcription of your interviews will be done by either the researcher or by a transcriber who has signed a confidentiality agreement. Your contact details and full name will be kept separate from your data. Your name and contact information will not be included within the analysis or report of the study, however, your demographics will be (e.g. age and gender). The recordings and transcript of your interview will be kept until the award of the researcher's degree. You will be asked whether you are willing to consent to the anonymous transcripts being kept beyond this point for future research and or/teaching.

Are there any risks from taking part in the study?

There are no known risks to participating in this study. It is, however, possible that you may find some of the topics discussed upsetting. You are free to say if you do not wish to answer or discuss any of the questions. You are also able to take a break from the interview or withdraw at any time.

If you feel distressed as a consequence of taking part in the study you can discuss this with the researcher (Kate Adkins) who can signpost you to available services and support. Alternatively, you can contact your GP.

Who has reviewed the study?

The study has been reviewed and approved by University of Sheffield Ethics Committee.

What will happen to the results of the study?

The results will be analysed and written up in a report that will form part of the researcher's PhD. The findings may also be prepared for publication at conferences and for a peer reviewed journal.

What if I have concerns about how the study is conducted?

If you have any concerns or complaints about the study you can contact the researcher (Kate Adkins) or the researcher's supervisor (Dr Andrew Thompson: email: a.r.thompson@sheffield.ac.uk or Tel: 0114 2226637).

If you are unhappy with how your complaint has been handled you can contact the University's Registrar and Secretary (Office of the Registrar and Secretary, Firth Court, Western Bank, Sheffield, S10 2TN. Tel: 0114 22 21100).

What now?

If you are happy to participate or want further information please contact the researcher Kate Adkins (via email or phone as shown below).

Researcher Contact Details

Kate Adkins

Email: kadkins1@sheffield.ac.uk

Phone: 0114 222 6587

Appendix 4C: Consent form

Department of Psychology
Western Bank
University of Sheffield
Western Bank
Sheffield S10 2TN

CONSENT FORM

Study Title:	The experience of young women living with acne and with particular reference to their experience of media use.
Researchers:	Kate Adkins (PhD researcher) Dr Andrew Thompson (Reader in Clinical Psychology) Dr Julia Moses (Lecturer in Modern History)

Please initial each box and then write your name, the date and signature at the end:

1	I have had the opportunity to read the information sheet and to ask questions about the study.	☐
2	I agree to participate in the study.	☐
3	I understand that the interview will be recorded using an encrypted digital recorder and transcribed by the researcher or/and a transcriber who has signed a confidentiality declaration.	☐
4	I understand that my participation is voluntary and that I am free to withdraw at any time during the study, without giving any reason and without there being any negative consequences. In addition, if I don't want to answer any particular question or questions, I am free to do so. At the end of the interview I will be asked again if I am happy for my interview to be included in the study. I am able to withdraw from the interview at any time and can write to withdraw your data from use in the study for up to one week after the interview.	☐

5	I understand that my personal information will be kept confidential. The anonymous data will be used to write up the study, anonymised images and anonymous demographics (age, gender, acne duration) and extracts from the interview may be used in further research/publications/presentations/teaching.	☐
6	I am happy for parts of my interview to be used in events/resources to promote the research topic and to provide greater awareness of the experiences of young women with acne.	☐
7	I consent to the researcher taking a copy of the images that I have collected as part of my participation in this study and I agree to these being used in analysis and the presentation of the findings of the study (all such images will only be used once made anonymous).	☐
8	I consent to the researcher reproducing and using extracts of the resources/images that I have collected as part of my participation in this study for presentations/reports/further research/events. *(If there are certain images/resources that you do not wish to be used for any of the above reasons please inform the researcher. Images that contain personal information can be anonymised. E.g. screenshots of social media).*	☐
9	I agree for the data collected from me to be used in future research.	☐
10	I would be willing to be contacted regarding participation in further studies and I consent for my details to be kept for this purpose.	☐
11	I would like to receive a report on the study findings and I consent for my details being kept for that purpose.	☐

Additional notes:

Name of Participant	Date	Signature
Name of Researcher	Date	Signature

1 copy for participant, 1 for researcher.

Appendix 4D: Demographics and Acne History Form

Department of Psychology
Western Bank
University of Sheffield
Western Bank
Sheffield S10 2TN

Demographics, Medical information and Media use

Study Title:	The experience of young women living with acne and with particular reference to their experience of media use.
Researchers:	Kate Adkins (PhD researcher) Dr Andrew Thompson (Reader in Clinical Psychology) Dr Julia Moses (Lecturer in Modern History)

Participant ID:

We would like to collect some basic background information for the study.

Age	
Gender	
Ethnicity	
Current employment status	
Highest level of education	
Relationship status	
Diagnosed physical and mental health conditions	

We would also like to record some information about your history of Acne.

Age of onset	
Age/Point of diagnosis	
Diagnosing medical professional (e.g GP/Dermatologist)	
Currently medical interventions/treatments	
Previous medical interventions/treatments	
Body regions affected	

We are also interested in which forms of media you come into contact with and how regularly you use certain forms of media. Please tick the boxes for the forms of media you use, provide the names of the specific media outlets that you use (e.g. Facebook for social media) and how often you generally use each media outlet.

Media type	**Digital?**	**Specific**	**How often do you use or access each form of media?**
Magazines ☐	Digital/ Print/ Both		
Newspapers ☐	Digital/ Print/ Both		
Television ☐			
Internet ☐			
Social media e.g. Twitter, Facebook, Forums ☐			
Health information ☐	Digital/ Print/ Both		
Apps ☐			
Others (Please state) ☐			

Appendix 4E: Interview guide – media and skin study

Part 1: Background information and dermatological history.

- Could you tell me about what it was like when you first developed acne?

Prompts:

  - What symptoms of acne do you have and how long you have had them?
  - Have the symptoms changed over time? Has there been any change in severity?

- Physical management - What sorts of things did you try at first to deal with the acne?

Prompts:

  - What these were like?
  - Where did you learnt of them?
  - What was it like?
  - How has your experience been of medical professionals? How did you find it?
  - And how do you now manage the acne?

- What do you think causes your acne?

Part 2: Experience of having acne

- Could you describe what it is like having acne? What is it like for you now?

Prompts:

  - How do you feel about your skin?
  - How does your skin make you feel?
  - What is it like on a day to day basis? Is there any way that acne affects your life?
  - Do you do anything differently because of your skin

- Has acne in any way impacted on your social life and relationships? (social life, relationships, support)

Prompts:

  - How are other people with your acne? What reactions do you have?
  - Have you received support from anybody else? /Do you talk to other people about your skin?

Part 3: Media (main focus)

Part 3a Sources/Images (if participant has brought along images or sources).

- Thank you for taking the time to collect this material. I'd be really interested to hear about the images/items that you have brought with you and what they mean to you and why you have chosen to bring them?

Prompts:

- Which one do you want to begin with?
- Why have you chosen this one to start with?
- Why did you choose this in the first place? (probe for impact, issues it captures etc.)
- What drew you to that image in particular?
- Is this typical of images/media representations you usually see? Frequency?
- How did/do you feel looking at the image?

Part 3b

- On the form you completed earlier you mentioned using … regularly (ask for each major form of media identified). Can you tell me what it is like for you to use these?

Prompts: (probe for personal and relational factors)

- Do you ever notice any changes in how you feel about yourself or your skin during or following using (go through each major form identified and then ask about comparisons).
- Social media – How do you decide what pictures to put on social media? How do you decide on a profile picture?
- Advertisements – do you ever act on advertisements, what influences you to buy a product?

- In terms of your experience of having acne, how do these different forms of media differ if at all? For example do you find any difference in your experience of X as compared to Y?
- Do you actively use any forms of media to find or provide information about your skin?

Prompts:

- Could you give me an example?
- How do you act on information? (Probe re-evaluating information)

- What are your thoughts on how skin conditions/acne are portrayed in the media? (Probe re how this relates to their experience).

Prompts:

  - Has this every affected how you feel? If so how?
  - Do you feel that media ever affects how other people see you and others with acne?

- What it is like, as a woman, living with acne in today's society and in an increasingly digital world? (Encourage to reflect on problems and benefits of modern/digital forms of media. How does this relate to their experiences?

Prompts:

  - Do you feel that this influences how you feel or others feel about your skin?
  - Does this ever influence you're daily life? (relationships/work/activities).
  - Do you find that there are any problem/benefits of this digital environment in relation to living with acne?
  - Do you think living with acne today is any different from living with acne in previous generations? / Do you think these changes mean that yours and others experiences are similar or different to previous generations?
  - Have you had any positive experience?

- What changes/improvements would you like to see in the media (and society)?

Prompts:

  - How do you feel media can be used for good?

Concluding remarks

- Is there anything you would like to add?

Prompts:

  - Are there any important issues or question that you feel have been missed out?
  - Are there any questions that you would have like to be asked? (Allow to answer question if there is).

Debrief (not recorded)

How did you find the interview?

Is there was anything that has concerned or upset you during the interview?

Participants will also be asked to provide feedback on the interview to help inform future interviews.

Appendix 4F: Inductive codes/themes

Inductive codes/themes drawn from Study 1 and Magin

Perfect skin as the ideal – any references to perfect/spotless/flawless skin as a societal idea

- Acne as opposed to the ideal – any reference to acne/spots preventing someone from meeting the societal ideal.
- Lack of images of perfect skin.
- Perfect skin as something to be bought and achieved
- Clear skin as a sign of health – healthy looking skin
- Use of concealment – make-up
- Concealment bad

Assumptions – associations related to causes/cures or acne.

- Role of dirt
- Role of diet
- Role of environment – sunlight, air quality
- Teenage problem
- Role of hormones
- Role of genetics

Treatments

- Medical treatment
- Products

Impact – any references to the impact of acne

- Psychological impact
- Confidence
- Embarrassment
- Upsetting
- Worry/anxiety
- Shame
- Guilt
- Personality
- Anger/frustration
- Social impact
- Impact on relationships - family
- Impact on sexual attractiveness and romantic relationships
- Impact on employment
- Pain/discomfort

Normalising acne – any reference to acne as normal/common.

- Acne as a common condition
- Challenging myths about acne

Background

- Onset – age started
- Severity

Appendix 4G: Quality guidelines for qualitative research (Adapted from Elliott, Fischer, & Rennie, 1999, p.220).

A. Publishability Guidelines Shared by Both Qualitative and Quantitative Approaches

1. Explicit scientific context and purpose

2. Appropriate methods

3. Respect for participants

4. Specification of methods

5. Appropriate discussion

6. Clarity of presentation

7. Contribution to knowledge

B. Publishability Guidelines Especially Pertinent to Qualitative Research

1. Owning one's perspective

2. Situating the sample

3. Grounding in examples

4. Providing credibility checks

5. Coherence

6. Accomplishing general vs. specific research tasks

7. Resonating with readers

Appendix 4H: Audit checklist.

Data collection

1. Is there evidence that raw data was collected and is appropriate for the research aims?
   Yes/Partially/No (Evidenced by anonymised transcripts/photo-elicitation/data)
2. Has relevant demographic and background information been collected to contextualise the sample (e.g. gender, age, interview location/time)?
   Yes/Partially/No
3. Are there reflections/notes/summaries on the data collection process?
   Yes/Partially/No

Research/analysis process

4. Has the researcher engaged appropriately in supervision as part of the research process?
   Yes/Partially/No
5. Has the data been sufficiently coded? (e.g. is all the relevant data coded?)
   Yes/Partially/No
6. Has the data been systematically coded?
   Yes/Partially/No
7. Is it clear that the researcher has engaged in a process of refining and redefining the themes and subthemes and are these processes justified? (This may be evidenced by looking at different versions of the NVivo documents and notes, and changes to coding/themes should be justified).
   Yes/Partially/No

Cross-checks

8. Crosschecking randomly selected excerpts from the interviews and photo-elicitation items against the corresponding coding and themes recorded on NVivo.
   Are these consistent?

   Yes/Partially/No
9. Vice-versa crosschecking randomly selected themes and subthemes from NVivo against the corresponding data.
   Are these consistent?

   Yes/Partially/No

Study write-up/results

10. Are quotes sufficient to provide evidence of the themes and subthemes?
    Yes/Partially/No
11. Does the results/write-up sufficiently address the aims of the study?
    Yes/Partially/No

    Signature of researcher

    Signature of auditor

Appendix 4I: Summary of the photo elicitation items provided by participants (Total = 75)

Source	Number of participants providing sources	Total number of each source
Photographs(s) of self	3	4
Photographs(s) of others	1	1
Screenshot(s) of Boolean search	1	2
Screenshot(s) of online shopping	1	1
Screenshot(s) of social media: Forum	5	6
Screenshot(s) of social media: Instagram	3	4
Screenshot(s) of social media: Facebook	1	1
Screenshot(s) of social media: Twitter	2	8
Screenshot(s) of social media: BuzzFeed	2	1
Screenshot(s) of social media: Pinterest	2	2
Screenshot(s) of social media: Tumblr	1	1
Screenshot(s) of social media: Blog	2	2
Screenshot(s) of social media: Snapchat	1	1
Screenshot(s) of social media: YouTube	1	5
YouTube video link	2	5
Online/digital magazine	5	14
Magazine cover	3	3
Magazine article	1	1
Advertisement	4	7
Online news item	1	2
Screenshot(s) of website(s)	3	3
Film	1	1

Appendix 4J: Summary of each participants' reported media use and frequency

	Digital									Other (including print and digital)			
Participant ID	Social media	Facebook	Twitter	Instagram	YouTube	Blogs	Other Social Media	Health info page	Apps	Magazines	Newspapers	TV/Films	Other
1	8	7	7	0	7	0	0	0	0	4	0	7	0
2	8	7	7	7	0	0	0	3	0	0	5	7	0
3	8	0	7	0	6	7	0	3	8 [Watsapp]	0	6	5	0
4	8	0	7	7	7	0	0	0	0	2	7	7	0
5	8	7	7	7	0	0	7 [Pintrest]	Occasionally	7 [social media]	Occasionally	7	7	0
6	8	8	8	0	0	0	8 [Weibo; wechatfriends; circles]	3	8 [watsapp; wechat; beautycam; meitu pic]	7	7	0	0
7	8	8	8	8	8	0	8 [Reddit]	4	8 [snapchat and social media]	2	5	5	0
8	8	7	5	5	0	0	3 [LinkedIn]	3	7 [whatsapp; social media; meetup; quizup; rightmove]	2	7	6	7 [radio]
9	8	7	7	0	7	0	0	0	0	0	0	7	0
10	8	0	8	0	0	7	8 [Tumblr]	6	8 [snapchat, social media, online shopping]	0	8	7	0
11	7	7	0	0	0	0	0	0	0	0	7	7	[books]
12	8	0	6	0	0	7	6 [Forums]	0	0	2	7	7	0
13	8	7	7	7	0	0	7 [Reddit; Tumblr]	As needed	7 [social media; games; music; photo-editing]	0	8	7	0
14	8	7	0	7	0	0	7 [Reddit]	0	0	3	6	7	0
15	8	8	0	0	0	0	0	0	8 [Snapchat]	6	6	6	0

Note: Where possible, frequency responses have been coded on a scale of 0-8 where 0 represents no use or not specified, and 8 represents the use of that specific form of media multiple times per day. 0 = not specified or not applicable, 1 = annually, 2, multiple times annually, 3 = monthly, 4 = multiple times monthly, 5 = weekly, 6 = multiple times weekly, 7 = daily, 8 = multiple times daily.

Appendix 5A: Ethical Approval Letter

Downloaded: 22/08/2017
Approved: 18/01/2017

Kate Adkins
Registration number: 140149719
Psychology
Programme: Psychology PhD

Dear Kate

PROJECT TITLE: Social media use and stigma in acne
APPLICATION: Reference Number 011937

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 18/01/2017 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 011937 (dated 17/01/2017).
- Participant information sheet 1025529 version 2 (17/01/2017).
- Participant consent form 1025530 version 2 (17/01/2017).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Yours sincerely

Thomas Webb
Ethics Administrator
Psychology

Appendix 5B: Information on excluded participants

Between the 6th February and the 1st March a total of 818 participants were recorded as starting the questionnaire. Of these, 168 participants were excluded (20.5%). The main reason for exclusion was due to non-completion (*n* = 103, 13.2%). While there was large variation in the average Facebook and average Instagram use per week, two participants total usage equalled or exceeded 24 hours per day and were consequently exclude from the analysis.

Reason for exclusion	Number of participants
Withheld consent.	1
Did not meet inclusion criteria: No symptoms of acne within the past month.	20
Did not meet inclusion criteria: Non-UK citizen not currently living in the UK.	17
No data/Insufficient progress to ascertain whether the participant met the inclusion criteria	25
Total drop outs	103
Demographics and acne history only	47
Demographics and acne history only, plus one measure	24
Demographics and acne history only, plus two measures	13
Demographics and acne history only, plus three measures	13
Demographics and acne history only, plus four measures	6
Unfeasible social media use ≥ 24 hours per day	2

Analyses comparing participant characteristics of those who dropped out of the survey to participants who completed the survey were conducted to identify whether excluding these participants would bias the results. Male participants were more likely to drop out of the survey $X^2(1, N = 751) = 7.71$, $p < .01$, $\Phi = -.1$, $p < .01$. Participants without a diagnosis were also more likely to drop out of the survey $X^2(1, N = 753) = 4.28$, $p = .039$, $\Phi = .08$, $p < .039$. Participants without a LTHC were less likely to complete the survey $X^2(1, N = 742) = 5.22$, $p = .02$, $\Phi = .08$, $p < .02$. There were no significant differences between participants who dropped out of the survey and those who completed the survey on other demographic variables or on any of the outcome variables. Furthermore, including the participants who dropped out of the survey did not alter the conclusions drawn by the analyses. The analyses and results reported in the remainder of this chapter were conducted with participants who had completed the main predictor (measures of social media use) and outcome variables (measures of appearance comparison, self-compassion, and stigmatisation).

Appendix 5C: Demographic questions

We would like to collect some basic background information for the study.

What is your age? (in years) _____

What is your gender?

- Female
- Male
- Other
- Prefer not to say

Please select the option that best describes your current situation.

- Student
- Employed
- Unemployed
- Retired
- Homemaker
- Other (Please state)
- Prefer not to say

Please describe you highest level of education:

- GCSEs or equivalent
- A levels or equivalent
- Vocational qualification e.g. (NVQ)
- Some University
- Undergraduate degree
- University higher degree e.g. MSc, PhD, MD
- Don’t know
- Other (Please state)
- Prefer not to say

Please describe your current relationship status:

- Single
- In a relationship
- Cohabiting (Living with partner)
- Married or Civil partnership

- Other (Please state)
- Prefer not to say

What is your ethnic group?

Choose one option that best describes your ethnic group or background

- White/Caucasian
- Mixed / Multiple ethnic groups
- Asian / Asian British
- Black / African / Caribbean / Black British
- Other ethnic group (please state)
- Prefer not to answer

Were you born in the UK?

- Yes (if Yes skin next 2 questions)
- No
- Prefer not to answer

If no please provide the country you were born in _____

How long have you lived in the UK (in years) _____

Appendix 5D: Acne History

We would also like to collect some information on your acne history

How long have you had symptoms of acne?

Have you ever received a diagnosis of acne or treatment for acne from a medical practitioner (e.g. GP/Dermatologist)?

- Yes
- No
- Unsure

Are you currently receiving prescribed treatment (e.g. topical gels/creams, contraceptive pill, antibiotics, Accutane) for acne from any of the following medical practitioners?

- GP
- Dermatologist
- Other (Please state)
- None

What areas of your body are affected by acne (Please select all that apply)

- Face
- Neck
- Chest
- Back
- Other (Please state)

Please indicate how bad you think your acne is now:

- The worse it could possibly be
- A major problem
- A minor problem
- Not a problem.

Do you have any noticeable scarring resulting from acne?

- Yes
- No
- Unsure

How satisfied are you with the appearance of your skin?

Very satisfied	Satisfied	Neither	Dissatisfied	Very dissatisfied

How often do you hide/cover your acne, when around others, using make-up clothing or hair?

Always/almost always	Very Often	Sometimes	Rarely	Never/Almost never

Do you have any other diagnosed physical or mental health condition? (e.g. eczema, psoriasis, alopecia, diabetes, cancer, Polycystic Ovary Syndrome, depression, anxiety).

- Yes
- No
- Prefer not to answer

If yes please list below _____

Appendix 5E: Facebook function use: Facebook appearance exposure (Meier & Grey, 2014)

To calculate the appearance exposure score: calculate the total score for all items and calculate the total score for the photo-subscale*, then divide the photo subscale total by the total score for all items. A higher score indicates a higher level of Facebook appearance exposure.

Please mark an X in the box that best fits approximately how often you do the following on your Facebook account:

	More often than once a month (5)	On average, about once a month (4)	Every few months (3)	A few times a year (2)	Almost never (1)	I don't know or never (0)
Create an event						
Create a group						
Write a Facebook Note						
Create/share a Facebook Quiz						
Create a photo album with photos of yourself and friends/family*						
Create a photo album featuring artwork/photography						
(photos not of yourself or other people)						
Join ‘‘groups’’						
Update your profile photo*						
Update your profile interests (books, movies, TV, activities)						

Please mark an X in the box that best fits approximately how often you do the following activities when visiting Facebook:

	Nearly every time I log on (5)	Often (4)	Once in a while (3)	Rarely (2)	Almost never (1)	I don't know or never (0)
Use Facebook Chat						
Send/receive private messages						
Play games						
Post a photo*						
Post a status update						
Post a link to a news story, video, Web site, etc.						
View friends' photos that they've added of you*						
View friends' photos of themselves*						
View friends' status updates						
View friends' links to news stories, videos, Web sites, etc.						
Comment on friends' photos*						
Comment on friends' status updates						
Comment on friends' links to news stories, videos, Web sites, etc.						
Tag yourself in friends' photos*						
Untag yourself in friends' photos*						

*Photo subscale (n = 8).

Appendix 5F: The Upward and Downward Skin Appearance Comparison Scale (UPACS/DACS)

Adapted from O'Brien et al. (2009). Permission received from author to make minor adaptions for skin appearance

UPACS

Some people with acne feel that their skin is less attractive and make comparisons with people with clear/acne-free skin. Thinking about how you compare your skin's appearance to others, please use the following scale to rate how often you make these kinds of comparisons.

Please write on the line along-side each statement, the number from the scale below (1= Strongly Disagree to 5 = Strongly agree) that best matches what you think.

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

I compare myself to those who are better looking than me rather than those who are not.

I tend to compare my skin's appearance to that of models.

I find myself thinking about how my skin appearance compares with celebrities.

At the beach or athletic events (sports, gym, etc.) I wonder if my skin is as attractive as the people I see there with very attractive skin.

When I see a person with clear/perfect skin, I tend to wonder how I 'match up' with them.

When I see good-looking people I wonder how I compare to them.

At parties or other social events, I compare my skin's appearance to the physical appearance of the very attractive people.

I find myself comparing my skin with people who are better looking than me.

Additional social media related questions

On social media I tend to compare how my skin looks to photographs of people with clearer skin than me.

DACS

Some people make comparisons with people who's skin they believe is unattractive. Thinking about how you compare your skin's appearance to others, please use the following scale to rate how often you make these kinds of comparisons.

Please write on the line along-side each statement, the number from the scale below (1= Strongly Disagree to 5 = Strongly agree) that best matches what you think.

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

When I see a person who is physically unattractive I think about how my skin compares to theirs.

I tend to compare my skin to those who have below average skin.

At the beach, gym, or sporting events I compare my skin to those with less attractive skin.

I compare myself to people less good looking than me.

I think about how attractive my skin is compared to people with severe skin conditions.

At parties I often compare my looks to the looks of unattractive people.

I often compare myself to those who are less physically attractive.

I tend to compare my physical appearance with people whose skin is not as physically appealing.

Additional social media related questions

On social media I tend to compare how my skin look to photographs of people with worse skin than me.

Appendix 5G: Self-Compassion scale (SCS: Raes et al., 2011)

How I typically act towards myself in difficult times

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never				Almost always
1	2	3	4	5

Self-kindness

I try to be understanding and patient towards those aspects of my personality I don't like.

When I'm going through a very hard time, I give myself the caring and tenderness I need.

Self-judgement

I'm disapproving and judgmental about my own flaws and inadequacies.

I'm intolerant and impatient towards those aspects of my personality I don't like.

Common humanity

I try to see my failings as part of the human condition.

When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.

Isolation

When I'm feeling down, I tend to feel like most other people are probably happier than I am.

When I fail at something that's important to me, I tend to feel alone in my failure

Mindfulness

When something painful happens I try to take a balanced view of the situation.

When something upsets me I try to keep my emotions in balance.

Over-identification

When I fail at something important to me I become consumed by feelings of inadequacy.

When I'm feeling down I tend to obsess and fixate on everything that's wrong.

Appendix 5H: Feelings of Stigmatization Questionnaire

Adapted from Ginsburg & Link (1989).

Strongly disagree					Strongly agree
0	1	2	3	4	5

Factor 1: Anticipation of rejection

1. When my acne improves after intensive treatment, I feel much better about myself

2. I feel physically unattractive and sexually undesirable when the acne is bad.

3. People with acne often think of themselves as being "clean" when their acne improves greatly.

4. If I thought an employer might discriminate against someone because of acne, I would not apply for the job

5. I would not apply or get training for a job that involved dealing with the public because of my acne.

6. I sometimes avoid social situations because of acne.

7. When the acne is severe, I am too ashamed to engage in sexual activity.

8. An employer who knows a person has acne will probably pass over the application and give the job to someone else.

Factor II: Feelings of being flawed

9. There are times when I feel dirty, as though there is something deeply the matter with me.

10. Many people assume that having acne is a sign of personal weakness.

11. I often think that others think that people with acne are dirty.

12. I sometimes think family members feel that I am weaker than they are because I have acne and they do not.

13. When people learn that you have acne, they begin to search for flaws in your personality.

14. Having to use many washes, creams and medications on the skin keeps the individual with acne preoccupied with feeling unclean.

Factor Ill: Sensitivity to the opinions of others

15. Some people act as though my having acne were my fault somehow.

16. Most people believe that a person with acne is just as emotionally stable as the average person. (r)

17. People avoid me and shy away for fear that the skin rash/spots are contagious.

18. I have been hurt by what other people say to me because I have acne.

19. Sometimes I feel like an outcast because of my acne.

Factor IV.' Guilt and shame

20. I never feel embarrassed or ashamed because of my acne. (r)

21. Having acne makes me feel different from other people.

22. If my child were to develop acne, I would not feel guilty. (r)

23. I rarely feel the need to hide the fact that I have acne. (r)

Factor v: Positive attitudes

25. If my child developed acne, I feel he or she could have as good a life as if he or she didn't have it. (r)

26. People with acne ~~patients~~ are treated like lepers. (r)

27. If my child were to have acne, I think he or she could develop his or her potential just as though he or she did not have it. (r)

28. The people closest and most important to me do not seem to notice that I have acne. (r)

Factor VI: Secretiveness

29. I do my best to keep family members I do not live with from knowing that I have acne.

30. If someone were to notice an acne spot and ask what it was, I do not say that it is acne

31. If I were to make a new friend, I would tell him or her all about my acne. (r)

32. I have told people close to me to keep the fact of my acne a secret.

33. People do not want to be my friend when they notice I have acne.

(r) = reverse.

Appendix 5I: Information sheet/Consent

Participant Information

Thank you for expressing an interest in participating in this study. You are invited to take part in an online study about (1) how you feel about your skin; and (2) social media use in individuals with acne. The information below is intended to help you to decide whether or not to take part in the study. If you have any additional questions or queries please feel free to contact the researcher.

Am I eligible to take part?

To participate in this study you must:

- Have **current symptoms of acne** (e.g. spots, blackheads, whiteheads, cysts, nodules, acne-scarring)
- Be **age 16 or over**
- Be a UK resident or based in the UK
- Have sufficient English to complete the questionnaires

Do I have to take part?

No, it is your decision whether you want to take part or not. You are also allowed to change your mind and exit the study at any point.

What will happen during the study?

If you decide to take part in the study you will be asked to complete a number of measures, which should take approximately 15 minutes.

Prize Draw

As a thank you for completing the study participants will be offered the opportunity to enter a prize draw to win £50.

Will the study be confidential?

Your responses will collected anonymously online in a password protected platform. If you would like to enter the prize draw or would be interested in taking part in future research, you will be asked to provide your email address. Once downloaded your email address will be separated from your responses and the email address will be kept in password protected files. All email addresses for the prize draw will be destroyed after the prize draw has taken place and been accepted.

Are there any risks from taking part in the study?

There are no known risks to participating in this study. It is, however, possible that you may find some of the questions upsetting. You are free to exit the study at any time.

If you feel distressed as a consequence of taking part in the study and/or feel like you need further support you should contact your GP.

Below are a couple of websites/sources of support/information that you may also find helpful:

- Changing Faces are a UK based charity who support individuals living with a visible difference (including skin conditions). They provide a variety of support services including confidence workshops and self-help booklets: https://www.changingfaces.org.uk/
- Skin Support is a website developed by the British Association of Dermatologists and provides information and self-help resource for people with skin conditions: http://www.skinsupport.org.uk/
- The Samaritans are a UK based charity who provide confidential emotional support service: http://www.samaritans.org/ . They can be contacted in a variety of ways including by phone and email: Tel 08457 90 90 90 (24 hours), email jo@samaritans.org

Who has reviewed the study?

The study has been reviewed and approved by University of Sheffield Ethics Committee.

What will happen to the results of the study?

The results will be analysed and written up in a report that will form part of the researcher's PhD. The findings may also be prepared for publication at conferences and for a peer reviewed journal.

What if I have concerns about how the study is conducted?

If you have any concerns or complaints about the study you can contact the researcher (Kate Adkins) via the contact details below or the researcher's supervisor (Dr Andrew Thompson: email: a.r.thompson@sheffield.ac.uk or Tel: 0114 2226637).

If you are unhappy with how your complaint has been handled you can contact the University's Registrar and Secretary (Office of the Registrar and Secretary, Firth Court, Western Bank, Sheffield, S10 2TN. Tel: 0114 22 21100 or email: registrar@sheffield.ac.uk).

Researcher Contact Details

If you have any questions or would like to find out more about the study you can contact the researcher via the details below.

Email: KAdkins1@sheffield.ac.uk
Address: Department of Psychology, The University of Sheffield , Cathedral Court. 1 Vicar Lane, Sheffield. S1 2LT

Please indicate below if you have read and understood the above information and if you consent to taking part in the study.

□ Yes, I have read the information above and consent to participating in the study.

□ No, I do not consent to participating in this study.

Appendix 5J: Debrief form

Debrief

Thank you for volunteering your time.

What was the purpose of this study?

The purpose of this study is to examine the relationship between certain types of media use (Facebook use, Facebook photo activity, and Instagram use), appearance based comparisons and feelings of stigmatisation, in individuals with acne. Existing research has reported higher levels of body dissatisfaction in individuals who have high levels of Facebook use and suggest this is because individuals make social and appearance based comparisons with others on social media (e.g. Holland & Tiggemann, 2016). Research also indicates that feelings of stigmatisation and the emotional impact of acne and other skin conditions is often overlooked (e.g. Tan, 2004). Furthermore, most research on body image and comparisons has focused body shape and size rather than skin appearance. It is hoped that this study will help address the gap in the literature and contribute to awareness of the potential impact of certain types of social media use in individuals with acne.

We are also interested in whether having higher levels of self-compassion may help 'protect' individuals with acne against the impact of negative outcomes. Self-compassion involves treating oneself with kindness. These findings may provide insight into whether self-compassion based-interventions might provide a mechanism for reducing the negative impact of social media use and levels of self-conscious emotions in individuals with acne.

What if I feel distressed and/or want further support?

If you feel distressed as a consequence of taking part in the study and/or feel like you need further support you should contact your GP.

Below are a couple of websites/sources of support/information that you may also find helpful:

- Changing Faces are a UK based charity who support individuals living with a visible difference (including skin conditions). They provide a variety of support services including confidence workshops and self-help booklets: https://www.changingfaces.org.uk/
- Skin Support is a website developed by the British Association of Dermatologists and provides information and self-help resource for people with skin conditions: http://www.skinsupport.org.uk/
- The Samaritans are a UK based charity who provide confidential emotional support service: http://www.samaritans.org/ . They can be contacted in a variety of ways including by phone and email: Tel 08457 90 90 90 (24 hours), email jo@samaritans.org

Contacting the researcher

If you are interested in finding out more about the study and/or have any questions about the study please contact the researcher (Kate Adkins) via the contact details below. You are also welcome to request a report of the study results by contacting the researcher.

If you have any concerns or complaints about the study you can contact the researcher directly (Kate Adkins) or contact the researcher's supervisor (Dr Andrew Thompson: email: a.r.thompson@sheffield.ac.uk or Tel: 0114 2226637).

Many thanks,

Kate Adkins (PhD researcher)

Email: KAdkins1@sheffield.ac.uk

Address: Department of Psychology, University of Sheffield, Cathedral Court. 1 Vicar Lane, Sheffield. S1 2LT

Appendix 6A: Instagram #MythMonday post