



Exploring Coping Styles and Gender Differences in the Psychological Impact of Living with a Skin Condition.

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the Arts (hons) in Counselling Studies and Psychology.

DECLARATION

This work has not previously been accepted in substance for any degrees and is not being concurrently submitted in candidature for any degrees.

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This dissertation is being submitted in partial fulfilment of the requirements for the degree of (insert degree title)

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Abstract

The objective of this study was to explore coping styles and social appearance anxiety between males and females living with a skin condition. The design of the study was a cross-sectional, web-based questionnaire targeting individuals with skin conditions. A total of 231 participants responded, including 199 females, and 30 males. Social appearance anxiety was measured using the Social Appearance Anxiety Scale (SAAS, Hart, Flora, Palyo, Fresco, Holle, & Heimberg, 2008). Secondly, coping styles were measured using a shortened version of the Coping Inventory for Stressful Situations (CISS-21, Calsbeek, Rijken, Van Berge Henegouwen & Dekker, 2006). Independent Samples T-Tests showed no significant difference between males ($M=42.47$, $SD=16.53$), and females ($M=45.30$, $SD=16.62$; $t(227) = -0.87$, $p=0.38$) on social appearance anxiety. However, there was a significant difference between Males ($M=14.00$, $SD=4.81$), and Females ($M=15.95$, $SD=4.88$; $t(227) = -2.04$, $p=0.04$) engaging in avoidant coping behaviours, with females scoring higher than males. No significant difference was found between scores of emotion-focussed coping between females ($M=18.88$, $SD=6.49$), and males ($M=16.98$, $SD=7.61$; $t(227) = -1.47$, $p=0.14$). Lastly, there was no significant difference between self-reported instances of task-orientated coping in males ($M=19.53$, $SD=5.61$), and females ($M=20.35$, $SD=5.00$; $t(227) = -0.82$, $p=0.42$). Overall, implications of these findings suggest that there is little difference in males and females reports of social appearance anxiety, however although there were no differing reports of emotion-focussed and task-orientated coping, females were found to engage more than males in avoidant coping behaviours. Results suggest that there is no need for gendered psychosocial interventions for skin conditions, as psychological effects were not found to be gender specific.

Chapter 1: Review of Literature

Shah (2018) persists that the skin is not only the body's largest sensory organ, but acts as a physical boundary between a person's internal being and the outward external environment. According to Latheef (2016) the mind and body can be viewed as a single unit with a common ectoderm, meaning that anything that affects the skin will therefore affect the mind, which signifies the importance of the psyche when addressing levels of appearance-related anxiety (Martinez-Gonzalez, 2019). This interrelationship means that chronic inflammatory skin conditions that disrupt the equilibrium of the senses, can have a detrimental impact upon all aspects of a person's life, including their psychological wellbeing (Parna, Aluoja & Kingo, 2015, and Watson & De Bruin, 2006).

Some of the most common skin conditions include, Acne Vulgaris, inflammation of the pilosebaceous glands presenting on the face, upper arms, chest, and back, with pus-filled blisters from lesions and oil-blocked follicles (Bundy, 2012 in Rumsey & Harcourt, 2012). Atopic Eczema, an inherited hyposensitivity to certain allergens, resulting in itchy and dry patches of skin (Bundy, 2012, in Rumsey & Harcourt, 2012). Vitiligo, an acquired condition characterized by loss of pigmenting cells that results in the progressive development of scattered pale patches of skin (Bundy, 2012, in Rumsey & Harcourt, 2012). Psoriasis, a chronic immune-mediated condition that leads to the formation of raised, thickened, and scaly plaques. Lastly, the most severe, malignant Melanoma or skin cancer, a tumor of the melanocytes generally associated in most cases with excessive exposure to UV radiation (Bundy, 2012, in Rumsey & Harcourt, 2012). However, Walker and Papadopoulos (2003) note that although these conditions are now more understood with medical evidence behind their causes, there is still some degree of myth surrounding each condition. For example,

there is still a widespread belief that Acne is due to not washing, Eczema and Psoriasis are contagious, and that Malignant Melanoma only affects those that frequently sunbathe.

Within contemporary western society Shah (2012, in Shah, 2018) argues that unblemished skin is mostly viewed as a sign of beauty and classed as highly desirable, thought to lead to enhancements in popularity and self-esteem, which is consistently exaggerated through the media. Rumsey and Harcourt (2012) state that the media could be largely responsible for placing a substantial amount of pressure upon individuals to look a certain way in order to be considered attractive, as the ideal body image is shown frequently in magazines, and celebrities are openly criticised for not having met this proposed standard. This creates a large psychological burden to conform to an idealized image, which could be unrealistic. The consequential 'failure' to meet these stereotyped ideals can cause negative psychological outcomes, especially in the case of those diagnosed with a skin condition, who may feel inadequate from constantly striving to meet an unachievable body image (Rumsey & Harcourt, 2012). Shah (2018) notes that skin conditions are often immediately distinguishable to others so are linked to psychological distress, as the public nature of the condition may prove stressful for an individual to deal with on a daily basis, and the stigmatization of living with imperfect skin can often be greatly challenging due to being visibly different from the expected 'norm.' Thus, making the connection between psychological instances and dermatology highly significant (Jain & Pareek, 2015).

The British Skin Foundation (2018) estimates there are currently eight million people living with a skin condition in the United Kingdom, yet there is still no cure for many conditions frequently diagnosed. In a society where there is so much importance placed upon physical appearance, there is less importance placed upon understanding the implications of living with a skin condition. Jain and Pareek (2015) claim that patients with a skin condition

may experience a range of symptoms, from the physical of itching, pain and soreness to more psychological, including lack of confidence, distress, or even depression. However, it is important to remember that those who are diagnosed with a form of skin condition, not only have to adapt to living with their diagnosis, but also learn how to deal with potentially negative reactions of other people, which may prove emotionally challenging (Jain & Pareek, 2015).

Historically, Browne (1975) claims there has been a lot of social stigma surrounding the subject of skin conditions, with skin diseases such as Leprosy being seen as a form of punishment, and the maltreatment of those being labelled as ‘Lepers’ and segregated to live in isolation, out of sight from society in fear of catching an unsightly illness. This historical example is evidence of the deep-rooted social attitudes towards individuals whose appearance deviate from the expected and desired norm. This could be said to still exist to some degree today, as Tuckman (2017) states that many individuals diagnosed with skin conditions may limit their life experiences or social opportunities due to lowered self-esteem or feeling self-conscious of their appearance, due to being fearful of other peoples’ perceptions. This could prevent many individuals from partaking in certain activities, and could suggest the presence of contemporary stigma existing today (Tuckman, 2017). Walker and Papadopoulos (2003) points out that, in many cases, the individual diagnosed with a skin condition could feel as if their choice whether or not to discuss their condition could be removed, as depending on how visible the condition is, they may have no option but to deal with unwanted questions, even if they do not feel ready to. This was supported by Rumsey (2018, in Grimes & Gohara, 2018) who found that 25% of individuals with skin conditions experience significant challenges to all aspects of living as a result of their diagnosis and increased likelihood of stigmatization. Rapp et al (1999, in Krishna, 2009) also reported this comparably, with research findings

showing that dermatology patients often ascribe their main difficulties as stemming from other people's reactions to their condition rather than the condition alone.

Walker and Papadopoulos (2003) have highlighted that individuals diagnosed with skin conditions may behave in line with the 'Self-Fulfilling Prophecy', expecting others to react in a negative way towards their appearance, so they attempt to conceal their condition. This could lead to the creation of new problems, for example, an individual may wear clothes that are inappropriate for the weather to hide their skin, or avoid making eye contact, which could unintentionally draw more attention to themselves (Walker & Papadopoulos, 2003).

Parna, Aluoja and Kingo (2015) believe it is important to consider the emotional impairment and fatigue that can be associated with long standing chronic skin conditions, with common relapses despite treatment being associated with poorer emotional functioning and lower energy. The impact of living with a skin condition was investigated by Hong, Koot and Koo (2008) and it was found that secondary psychiatric disorder is often developed as a result of distress. This was evident from a study conducted by Dalgard et al (2015) who reported that out of 4,994 out-patients from thirteen European countries, depression was diagnosed in 10% of the sample, 17% had anxiety, and in severe cases 12.7% had even reported suicide ideation. Furthermore, reports of depression and appearance-anxiety were most significant in individuals with psoriasis, dermatitis and eczema, clearly identifying the major psychological burden of skin condition (Dalgard et al, 2015; Singh, Taylor, Kornmehl, & Armstrong, 2017). Most recently, Tohid, Shenefelt, Burney and Aqueel (2019) have published findings showing that 30 to 60% of patients with skin conditions have developed some form psychiatric problem (Picardi, Lega & Tarolla, 2000; Korabel, Dudek, Jaworek & Wojas-Pelc, 2008).

This was supported by Dowlatshahi, Wakkee, Arends, and Nijsten (2015), who found that those suffering from Psoriasis were at least one-and-a-half times more likely to experience depression. Other skin conditions were investigated by Mooney (2014), showing that 20% of patients with Eczema had high levels of anxiety, those with Acne had experienced anxiety, depression and low self-esteem, whilst patients with Dermatitis and Acne showed significant condition-related emotional distress (Parna, Aluoja & Kingo, 2015). This empirically suggests that skin conditions do have a significant psychological impact upon an individual diagnosed, and can lead to comorbidity.

An explanation for the significant psychological impact can be drawn from psychological theory. Markus and Kunda (1986, in Stake, Huff & Zand, 1995) state that according to Self-Schema Theory, individuals possess systematic internal cognitive views about the self that guide the processing of self-relevant information. This self-concept has been thought to maintain the stable aspects of a trait, and the self-concept then mediates consequential reactions to success and failure (Stake, Huff & Zand, 1995). When viewed as a trait, the self-concept is seen to be associated with the individual's view of the self consistently across time and situations, and can incorporate self-esteem (Stake, Huff & Zand, 1995). Shifts in an individual's self-esteem may occur in response to situational feedback, therefore, according to Watson and De Bruin (2006) those diagnosed with an appearance altering skin condition may be at an increased risk of experiencing disturbances to the psychological dimension of the self. As a result, disturbances can manifest in severe psychopathology and even lead to significant mental health implications (Watson & De Bruin, 2006). This is prevalent into research into the skin condition Vitiligo, characterized by the depigmentation of the skin. Porter et al (1979, in Grimes and Miller, 2018) found that individuals with lower self-esteem coped less successfully with the condition when compared to individuals with higher self-esteem, who coped more successfully. In most severe cases of

psychological distress related to skin conditions, there have been reports noted of high prevalence of suicidal ideation, and a raised risk of suicide in dermatological patients thought to be attributed to changes in body image (Picardi, Lega & Tarolla, 2013).

‘Coping’ is an all-encompassing term that describes an active process of a variety of strategies, used to manage certain encountered stressors at different times. According to Moss and Savin (2005, in Walker & Papadopoulos, 2003), these can vary from searching for social support, voicing emotions, or confronting risks. Many people living with a skin condition may adapt well to their diagnosis, however, there are also many individuals who may develop maladaptive coping strategies (Walker & Papadopoulos, 2005, in Krishna, 2009). Walker and Papadopoulos (2003) note that regardless of whether a skin condition is acquired or congenital, there is normally a period of psychological adjustment in order to accept and deal with their appearance. However, this is largely on an individualistic basis, as different individuals have different methods of coping, along with social factors such as sociability and levels of optimism, that could all affect how an individual copes.

Lazarus’ Transactional Theory is one of the main models of coping in psychological literature (Lazarus & Folkman, 1984). According to Lazarus and Folkman (1984) through a process of primary and secondary appraisal, an individual will draw upon two coping responses, ‘Emotion-Focused’ and ‘Problem-Focused.’ Emotion-Focused coping is attempting to reduce negative emotional responses such as embarrassment or fear, that can lead to distress (Lazarus & Folkman, 1984). For example, in the case of a skin condition, this may include distraction techniques to take focus off illness. Secondly, Problem-Focused coping is confronting or targeting the stressor directly, in order to reduce distress levels (Lazarus & Folkman, 1984). For example, this may manifest in social confrontation in the case of skin condition stigmatization, an individual may confront a person for behaving in a

discriminatory way. However, Latheef (2016) states that the skin is part of the NICE (neuro-immuno-cutaneous endocrine) system, and stress can interfere with many of the pathogenic mechanisms in most skin conditions that reduce individual levels of coping, and act as a trigger to flare-ups of conditions, such as Eczema or Psoriasis. It is recognised that stress has a direct impact on the immune system and impedes the skin's capacity for healing, it is with this relationship between stress and severity of skin conditions that suggest coping may have a biological basis (Al Abadie, Senior, Bleehen & Gawkrödger, 1994; Shah et al, 2014; Shah, 2018). Furthermore, Han, Burns, Weed, Hatchett, and Kurokawa (2009) linked 'Avoidance-Orientated' coping techniques as being maladaptively used when an individual is in a stressful situation, referring to responses designed to avoid dealing with the stressor, involving distractions (such as shopping, or eating), or through socialising. Although these are quick solutions to a potentially distressing situation (such as a skin flare-up) they do not resolve the problem, and could even prolong the stress through constantly distracting the individual and not dealing with the actual underlying issue (such as visiting a friend instead of going to the Doctor).

In contrast, Jain and Pareek (2015) report that not all experiences of living with a skin condition are negative, as greater quality of life emerges from acceptance of the existence of symptoms or altered aesthetics, resulting in a more meaningful life being fulfilled regardless of the skin condition. Tuckman (2017) supports this idea, as although skin clearance is the main aim of dermatological treatment, it is largely important that the patient is fully equipped with appropriate coping mechanisms and tools to accept their diagnosis, in order to reduce the negative psychological impact upon everyday life. In many cases, an individual may also need to learn to adjust to persistent and unpredictable flare-ups in severity of their skin condition, and cope with this frequent variance in physical appearance (Tuckman, 2017).

Barankin and DeKovin (2002) have recognized the importance of frequent contact with a Dermatologist as being vital to patients diagnosed with a skin condition, with the prescription of topical steroid creams, or drugs, and the provision of professional medical advice on how to treat the skin. However, Walker and Papadopoulos (2003) argue that Dermatologists tend to only focus upon the physiological implications of living with a skin condition, and may not provide as much detailed guidance in regards to the associated psychological impact. Some patients raise concerns regarding health care professionals' dismissive response to the more psychological aspects of living with a skin condition, as they may place more of a focus upon how to treat the physical lesions rather than how the patient is actually feeling (Walker & Papadopoulos, 2003). Changing Faces (2018) reports that out of those surveyed, 60% of people with a skin condition said they had never been offered the psycho-social support or advice they needed in order to deal with their condition. It was also reported that these traditional referral routes for psychosocial support are frequently inadequate with long waiting times and often ineffective, due to the fact that the medical professional providing the psychological support are often not used to dealing with individuals with skin conditions (Changing Faces, 2018). This could be due to the fact that most common skin conditions are not life-threatening, so there may be an underestimation in importance of assessing the need for psychological interventions, or providing access to additional sources of support.

Along with Dermatological advice, counselling therapies can alleviate any depression or appearance-related anxiety that may be experienced by patients related to their skin condition. Through working with a mental health professional such as a Psychologist or Counsellor, patients can be taught appropriate and effective strategies in order to improve quality of life. The most commonly used therapy to treat appearance anxiety is Cognitive Behavioural Therapy (CBT), which involves coping techniques being taught in order to

develop long-term resolutions to instances of appearance-anxiety, such as ‘Distractions’ (Clarke, Thompson, Jenkinson, Rumsey & Newell, 2014). For example, if an individual becomes distressed whilst out in public that other people can see their visible psoriasis lesions, a distraction may be used to divert their thoughts to a less distressing subject (Clarke et al, 2014), and allows the individual to have a degree of control over their anxiety levels. Whilst, more recently, research has focused upon the positive outcome of Mindfulness, defined as paying attention to the present moment, which could be used within a therapeutic context to reduce the distress associated with appearance anxiety and avoidance occurring in many skin conditions (Montgomery, Norman, Messenger & Thompson, 2016). In support of this, Montgomery et al (2016) report that patients living with visible skin conditions and practice mindfulness techniques, do actually experience lower levels of psychosocial distress and a better overall quality of life.

It is suggested that strong levels of social support can have a positive effect upon those diagnosed with a skin condition, through buffering any negative outcomes that may be experienced. Janowski et al (2012) found that patients with skin conditions known to have a strong support network around them, reported having a higher quality of life, lower instances of depressive symptomology, and more acceptance of their diagnosis. Furthermore, Janowski et al (2012) found that higher levels of social support were linked to lower instances of depression within women diagnosed with a skin condition, when compared to men. This implies that social support may act as more of a buffer for emotional disturbances and depressive symptomatology within females than males (Janowski et al, 2012). However, although this study suggests gender differences in coping with a skin condition do exist is, it is interestingly a largely under-investigated area related to dermatological problems (Janowski et al, 2012).

Currently, much work has been done in the field of aiming to raise awareness of skin conditions (e.g. Centre for Appearance Research, 2018) to promote understanding of the psychological impact of living with an appearance altering condition. Along with this, many charities work to provide an additional source of support for individuals living with skin conditions through the development of media campaigns, such as the charity Changing Faces (2018) current 'Look at Me' campaign. Changing Faces (2018) has recognised that there is insufficient awareness amongst medical professionals regarding the psychological impact of living with a skin condition, and most individuals treated would benefit from some form of psychological intervention. In addition, Skin Care Cymru, is a charity that aims to improve the lives of those affected by skin-related conditions in Wales, through representing those diagnosed with a skin condition, and establishing direct communications between dermatologists and patients in order to create a dialogue for treatment needs (Skin Care Cymru, 2017).

Charity-led online support forums developed by groups such as the Psoriasis Association (2018) may meet many needs for many patients, being a source of valuable information, and serving as a place they gain insights from other individuals with similar experiences. In line with modern technology and social media, the Psoriasis Association (2018) has launched a 'WhatsApp' confidential chatline available to all users of the popular chat application. It aims to provide a helpline service to those diagnosed with Psoriasis, being a source of help and information signposting to other appropriate organizations of support where appropriate or needed (Psoriasis Association, 2018). This may be invaluable to individuals who may find the thought of seeking traditional face-to-face help from a GP or therapist daunting, providing an alternative platform for those who may be more comfortable communicating in a more anonymous way.

From reviewing existing psychological literature and research, there is an overwhelming lack of studies concentrating upon gendered differences in living with skin conditions. A reason for this has been proposed by Munro (2015) who stated that males may be less likely to discuss issues of mental health due to the existence of social stigma. This could be applied to skin conditions, as seeking help or psychological support for altered appearance may provide both challenging and even embarrassing for many men, who may feel less able to open up about psychological struggles. The notion of stigma associated with mental health can be defined as a process associated with labelling, stereotypes, and unjust prejudice or discrimination, whereby social, economic or political power is exerted at the expense of a specific person, or group of people (Link & Phelan, 2001, in Clement et al, 2015).

Addis and Mahalik (2003) state that men may feel pressures from the traditional masculine stereotype of being physically and mentally strong, and not showing signs of weakness, so could feel uncomfortable seeking help for mental health issues arising from living with a skin condition. This was further supported by Wendt and Shafer (2016) who proposed that men are far less likely to express emotion when compared to women, who seem to be more comfortable talking about experiencing issues and hold far less stigma. This could be similarly explained through Addis and Mahalik (2003) notion of socially constructed stereotypes, as women are traditionally seen as more emotional, talkative, and sensitive than men, so the idea of talking openly about mental health is in line with the social ideal.

Although the idea of gender differences emotional openness may be evident through empirical literature, it could be suggested that both genders may be affected by levels of appearance anxiety. Jain and Pareek (2015) examined levels of social appearance anxiety between males and females living with skin conditions, and reported

a significant difference between genders, with females seemingly more likely to experience social appearance anxiety than males. Hess et al (2000) supported this with the idea that gender stereotypes in western cultures portray women as more expressive and emotional than men, who are thought to engage in emotions relating to aggression and rage (Brody & Hall, 1993, Fischer, 1993, in Hess et al, 2000). According to Birnbaum (1983, in Hess et al, 2000) these gender stereotypes are thought to be socialised into young children's cognitive schemas as early as three years of age. Although stereotypes have been long found to be consisting of substantial gender-bias, there have also been significant findings regarding the effect of the media on gendered body image views. Tiggeman, Hayden, Brown, and Veldhuis (2018) found that women were more vulnerable to being susceptible to body dissatisfaction following exposure to the social media platform Instagram. They reported that greater body and facial dissatisfaction was significantly correlated with viewing of thin-idealized images of body ideals on the internet (Tiggeman et al, 2018).

However, regardless of the fact that there is much empirical literature to support the idea of gendered stereotypes existing, there are mixed findings on differences in coping across genders. Matud (2004) investigated gender differences in coping, and findings seemed to support the 'socialization hypothesis' predicting that males are socialized to use instrumental coping behaviours, whilst females are socialized to use emotion-focused behaviours (Pearlin & Schooler, 1978, Ptacek et al, 1992, in Matud, 2004). This could be explained as a result of a traditional female gender role prescribing attributes of dependence, emotional expressiveness, and a lack of assertiveness (Matud, 2004). Whilst, traditionally, the male character consists of self-confidence, being assertive, instrumental and focussing on goals (Matud, 2004). These stereotypes may make less easy for men to express their

emotions or psychological struggles in coping with a skin condition, while for women it would be more expected to display emotions more openly.

Although, it could be in relation to skin conditions, genders may not differ in their use of instrumental and goal-orientated coping behaviours, because many skin conditions require practical medical treatments such as topical steroids or moisturizers, which could mean that task-orientated behaviours are engaged in equally between both males and females. However, Panayiotou, Karekla and Leonidou (2017) explained that females could be socialised into behaving more expressively by actually actively avoiding a stressor, so could potentially engage in avoidant-coping behaviours more than men, who may be more likely to confront the stressor.

The present research study aims to explore coping styles and gender differences in the psychological impact of living with a skin condition. After reviewing empirical psychological literature, it is therefore hypothesised that there will be; *first*, a significant difference in the scores of social appearance anxiety between males and females, with females expected to report higher scores, as supported in previous findings by Jain and Pareek (2015). *Secondly*, it is expected that Females will report engaging in significantly more avoidant coping than Males, in line with research carried out by Panayiotou et al (2017). *Third*, Females will report engaging in significantly more Emotion-Focussed coping than males, as supported by gender stereotypes (Hess et al, 2000). *Lastly*, Males and Females will not differ in their use of Task-Orientated coping, as many skin conditions often require practical and topical treatments.

Chapter 2 – Methods

2.1. Participants

The target sample for the study was people with skin conditions, aged 18 years of age and over. Respondents were recruited through a range of strategies, including the University of Wales Trinity Saint David (UWTSD) Psychology Experimental Management System (EMS) aimed at students, along with the UWTSD social media pages. The link to the online study was posted with an advert (see Appendix A) and shared by other organisations on platforms Facebook and Twitter, including The Psoriasis Association, The British Skin Foundation, Skin Care Cymru, ‘STOPtheSTARES’ campaign, and DCE (Dermatology Council England).

A total of 231 participants responded, out of this sample 229 data sets were analysed consisting of 30 males (13%), 199 females (86.1%). Two participants responded identifying as ‘Gender Non-Binary.’ Ages ranged from 19-78 years of age ($m=36.7$, $sd=14.1$).

2.2. Design

The study was a cross-sectional questionnaire using a web-based online survey collecting continuous data, and demographic information (including age, gender, type and severity of skin condition), with the software Qualtrics. Along with this, the survey also allowed for the collection of Qualitative data through the use of four open-text questions. Data was collected using two psychological scales, the 16-item Social Appearance Anxiety Scale (SAAS) (Hart, Flora, Palyo, Fresco, Holle, & Heimberg, 2008) (see Appendix B) assessing levels of social anxiety related to overall appearance, and the shortened 21-item Coping Inventory for Stressful Situations (CISS-21) (see Appendix C) (Calsbeek, Rijken,

Van Berge Henegouwen & Dekker, 2006) measuring coping between emotion-focussed, problem-focussed and avoidant styles.

The two Dependent Variables (DV) were outlined as participant scores of ‘social appearance anxiety’ on the SAAS scale, and ‘coping style’ scores measured by the CISS-21 scale, whilst, the Independent Variable (IV) was the gender of the respondent (male or female).

After data was collected, results were preliminary analysed to check the reliability of each scale. Once the internal reliability of each scale and subscale was appropriately determined, data was checked to assess whether it met the criteria for a normal distribution through SPSS software and histograms. It was found that the data was in accordance with all assumptions of parametric testing, so was suitable for analysis using Independent Samples T-Tests (see Appendix D for output).

The primary analysis was conducted in order to establish whether there were significant differences between gender in SAAS scores and CISS-21 scores of avoidant, emotion-focussed, and task-orientated coping styles (Coolican, 2014). Exploratory analysis were carried out, using a correlation to examine whether a relationship between age and appearance anxiety scores existed, a one-way ANOVA to determine whether there was a statistical relationship between social anxiety scores, and perceived skin severity (1= Mild, 2= Moderate, 3= Severe). Lastly, a chi-square was run to assess gender representations across skin severity categories.

The qualitative free-text questions were analysed in accordance with qualitative Content Analysis (see Appendix E for example annotated transcript), analysing personal descriptions through both inductive and deductive techniques and allowing the possibility of

determining themes based on the frequency of occurrence, from a division of contents (Vaismoradi, Turunen, & Bondas, 2013).

2.3. Measures

Social Appearance Anxiety Scale (SAAS) (Hart et al, 2008), a 16-item self-report inventory which assesses anxiety of situations regarding overall appearance, and measure fear of situations whereby appearance may be evaluated, responses were scored on a 5-point Likert Scale ranging from ‘extremely’ (5) to ‘none at all’ (1) with the first item displayed being reverse coded. The SAAS (Hart et al, 2008) scale was chosen due to high levels of test-retest reliability, suggesting that levels of social appearance anxiety are stable across time, with the SAAS being a reliable, empirical measure of this construct (Hart et al, 2008). The high scores obtained from the scale indicate high levels of social appearance anxiety (Yuceant & Unlu, 2017).

Shortened 21-item Coping Inventory for Stressful Situations (CISS-21) (Calsbeek et al, 2006), a self-report inventory assessing three coping strategies: Task-orientated, Emotion-focussed and Avoidance coping strategies, with responses scored on a 5-point Likert Scale ranging from ‘extremely’ (5) to ‘none at all’ (1). This scale was chosen, as when the shortened 21-version was created, the items with the greatest sub-dimension validity were selected to be included, allowing the scale to be easily administered, and internal consistency values have been shown to be between 0.70 and 0.84 for all sub-scales of CISS-21 at different samples (Endler & Parker, 1990, Endler & Parker, 1999, and Endler & Parker, 1994, in Boysan, 2012).

The wordings of both the SAAS (Hart et al, 2008) and CISS-21 (Calsbeek et al, 2006) were adjusted to suit the topic of ‘skin conditions’ in order to elucidate suitable responses.

Scores for each sub-scale were added up to create one overall score for each coping style division, with higher scores showing higher levels of coping behaviours used. The researcher incorporated testing the reliability of the scales using participant data, before the main statistical analysis. These data were entered into the program SPSS as a dataset and tested for reliability using Cronbach's alpha, as the wordings of had been adapted. This analysis measured the internal consistency of the SAAS, and CISS-21 scales through measuring the strength of the correlations between the items, which allowed the researcher to determine that the scales were measuring the same constructs, and conclude the adapted wordings had no effect on the scale.

A Cronbach's Alpha value of .7 or above indicates good internal consistency of a psychological scale, the SAAS had a Cronbach's alpha of .959, whilst the subscales of CISS-21 scale were reported at .727 for avoidance coping, .878 for emotion-focussed coping, and .794 for task-orientated coping. Respondents were also asked to provide their own opinions in free-text boxes on four open-ended questions (for example, 'how do you feel you could be better supported in living with your skin condition?'), these were chosen to allow respondents to express any alternative or more successful coping techniques they may use.

2.4. Procedure

2.4.1 Pilot Study

The online questionnaire was first delivered and piloted in the week commencing 19th November 2018 with a total of eight respondents, through the UWTSD university EMS, an internal database of undergraduate research studies targeted specifically at a student population. This was done to check both the reliability and internal consistency of the study, and to ensure the questionnaire ran appropriately. After piloting, the link for the online study was distributed widely across social media, including Twitter pages, and Facebook.

After the successful piloting of the study, and the high reliability of the scales, the researcher was able to begin official data collection, commencing on 29th November, 2018.

2.4.2 Ethical Considerations

The researcher completed both a Dissertation Proposal and an application for Ethical Approval (Appendix F) before data collection began, to ensure the overall wellbeing of both the participants and the researcher had been suitably assessed, this was evaluated by the university and approval was granted by the SREC (School Research Ethics Committee).

This study had a number of potential ethical concerns that were identified prior to the study commencing, due to the sensitive topic area, it was possible that respondents could become emotionally distressed when answering questions about skin conditions, especially if they had a severe condition. The researcher undertaking this study was also an individual with personal experience of coping with a skin condition, and acknowledged the need for certain precautions to avoid any psychological distress being caused to either themselves, or respondents. As a result of this, the study design was adapted from the initial proposal of collecting data using a qualitative focus-group interview design. Although the researcher was comfortable with conducting research in this way, in order to minimise possibility of distress to participants, the study was changed to a quantitative, web-based questionnaire design. In addition, this was also done as the use of a cross-sectional study would allow for less chance of social desirability and demand characteristics having an impact on responses, especially due to the sensitive subject, so it was decided that a web-based approach would allow for more accurate data (Coolican, 2014).

After respondents opened the link to the study on their computer browser, a paragraph was clearly incorporated before the questions, requesting that participants do not continue if

they felt the topic was likely to cause distress, which was interpreted as informed consent if they continued (See Appendix G) (British Psychological Society, 2014), it also outlined all of the details of the web-based study, such as the topic, approximate time it would take to complete, and researcher details. It also explained that respondents possessed the right to withdraw (British Psychological Society, 2014) at any time during the study by closing the browser, without the need to give a reason. A debriefing page (British Psychological Society, 2014) was displayed at the end of the questionnaire (See Appendix H), to further clarify the research aims and clearly outline the reasons behind the study, along with the contact details for the researchers again, in case of the event any queries or concerns were raised. In addition, the website for Skin Care Cymru was included, in case respondents felt they needed any information regarding skin conditions from an external organisation.

Lastly, the researcher was in regular contact with the research supervisor, so in case any concerns did arise, there was guidance and support available through one-to-one meetings to deal with any issues. Respondent data and collected demographic information (age, gender, and skin condition) was stored securely on a password protected laptop in possession of the principal researcher, in line with the Data Protection Act (2018), and all responses were anonymous to uphold the notion of confidentiality (British Psychological Society, 2014).

2.4.3 Study Procedure

The study was shared through the UWTSD EMS system, and online, through social media platforms Facebook and Twitter. Respondents were taken to the Qualtrics based questionnaire via a link on their computer browser. After this, they were shown a short study information sheet (see Appendix I) providing details about what would happen to their data, how it would be stored, and details of the study with contact information for the researcher. Once this was displayed, respondents were asked to provide consent with a tick box used to gain their permission to continue. In this part, it was clearly stated as an ethical precaution

that consent was entirely voluntary, politely explaining that if distress was likely to occur to please not continue, and that all respondents were free to end their participation at any time by closing their internet browser.

Next, a series of demographic questions were shown, with respondents being asked to provide information on their age, gender, type of skin condition, and how severe they believed their skin condition to be. Once this section was completed, the SAAS (Hart et al, 2008) was introduced with a short paragraph providing instruction for the scale, explaining how to score answers and the topic of the questions in relation to their skin and feelings over the last six months, for recency. This was also done for the CISS-21 (Calsbeek et al, 2006). After the two scales were completed, respondents were then taken to the qualitative data collection part of the study, and provided with a set of instructions on how to answer four open-ended questions on their coping behaviours. Lastly, respondents were shown a debrief page, explaining the aims and objectives of the questionnaire, thanking them, and providing the contact details of the researcher, research supervisor and the charity Skin Care Cymru.

Chapter 3 – Results

Descriptive Statistics

Figure 1 below reports the mean and standard deviation of social appearance anxiety scores, avoidant, emotion-focussed and task-orientated coping scores, and the range of ages, for males and females.

	SAAS Score <i>Score range =16 – 80.</i>	CISS-21 Avoidant Coping Score <i>Score range. =7-35.</i>	CISS-21 Emotion- Focussed Coping Score <i>Score range = 7-35.</i>	CISS-21 Task- Orientated Coping Score <i>Score range = 7-35.</i>	Age of Respondents <i>Range=19- 78 in years.</i>
Male	<i>M = 42.47</i>	<i>M = 14.00</i>	<i>M = 16.97</i>	<i>M = 19.53</i>	<i>M = 37.93</i>
(N = 30)	<i>SD = 16.53</i>	<i>SD = 4.81</i>	<i>SD = 7.61</i>	<i>SD = 5.61</i>	<i>SD = 16.81</i>
Female	<i>M = 45.30</i>	<i>M = 15.95</i>	<i>M = 18.88</i>	<i>M = 20.35</i>	<i>M = 36.56</i>
(N = 199)	<i>SD = 16.62</i>	<i>SD = 4.88</i>	<i>SD = 6.49</i>	<i>SD = 5.00</i>	<i>SD = 13.67</i>
Total	<i>M = 45.10</i>	<i>M = 15.67</i>	<i>M = 18.69</i>	<i>M = 20.21</i>	<i>M = 36.61</i>
(N = 231)	<i>SD = 16.62</i>	<i>SD = 4.89</i>	<i>SD = 6.66</i>	<i>SD = 5.07</i>	<i>SD = 14.09</i>

Figure 1. Table of Descriptive Statistics.

Scores for SAAS were totalled, and subscales for the CISS-21 were summed to form total scale scores, with higher scores indicating greater use of the psychological constructs of appearance anxiety, and coping. With regards to gender, the demographic questions in the survey did allow for diversity, with the option of a third text box to allow respondents to individually identify, however, only two participants (0.9%) identified as gender Non-Binary, so their datasets were not included in the quantitative statistical analysis of gender splits as a result of the small, unrepresentative sample.

The most frequently reported skin condition was Psoriasis (64%), followed by Eczema (48%), Acne (16%), Dermatitis (7.8%), Rosacea (5.6%), Vitiligo (1.3%), Port Wine Stain (0.4%), Melanoma (0.4%), and lastly, Other (not listed skin conditions) (6.1%). The most commonly reported skin severity was 'Moderate' (47.6%), followed by 'Mild' (29.9%) and least 'Severe' (22.5%).

Main Independent Samples T-Test Analysis

It was hypothesised firstly, that a significant difference would be found in social anxiety scores between males and females, with females expected to score higher. No significant difference was found in SAAS scores of appearance anxiety for males ($M=42.47$, $SD=16.53$), and females ($M=45.30$, $SD=16.62$; $t(227) = -0.87$, $p=0.38$). This did not support the predicted research hypothesis, and suggested no difference in social appearance anxiety between males and females.

The second hypothesis stated that Females would report engaging in significantly more Avoidant coping behaviours than Males. A significant difference was found between Avoidant coping scores of Males ($M=14.00$, $SD=4.81$), and Females ($M=15.95$, $SD=4.88$; $t(227) = -2.04$, $p=0.04$). This supports the predicted direction, as the mean score for females was significantly higher than males, suggesting a difference between avoidance coping, with females engaging in avoidant behaviours more than males.

The third hypothesis stated that Females would report engaging in significantly more Emotion-Focussed coping behaviours than males. No significant difference was found between scores of Emotion-Focussed coping between Females ($M=18.88$, $SD=6.49$), and Males ($M=16.98$, $SD=7.61$; $t(227) = -1.47$, $p=0.14$). These findings did not support the research hypothesis, as no difference between males and females use of emotion-focussed coping was found.

The fourth and final hypothesis was that Males and Females would not differ in their use of Task-Orientated coping behaviours. No significant difference was found between the Task-Orientated coping scores of Males ($M=19.53$, $SD=5.61$), and Females ($M=20.35$, $SD=5.00$; $t(227) = -0.82$, $p=0.42$). This is supportive of the research hypothesis, as the findings showed no difference between self-reported instances of males and females engaging in Task-orientated coping behaviours.

Exploratory Analyses

Figure 2 below shows a scatterplot graph of the distribution of social appearance anxiety scores with participant age in years.

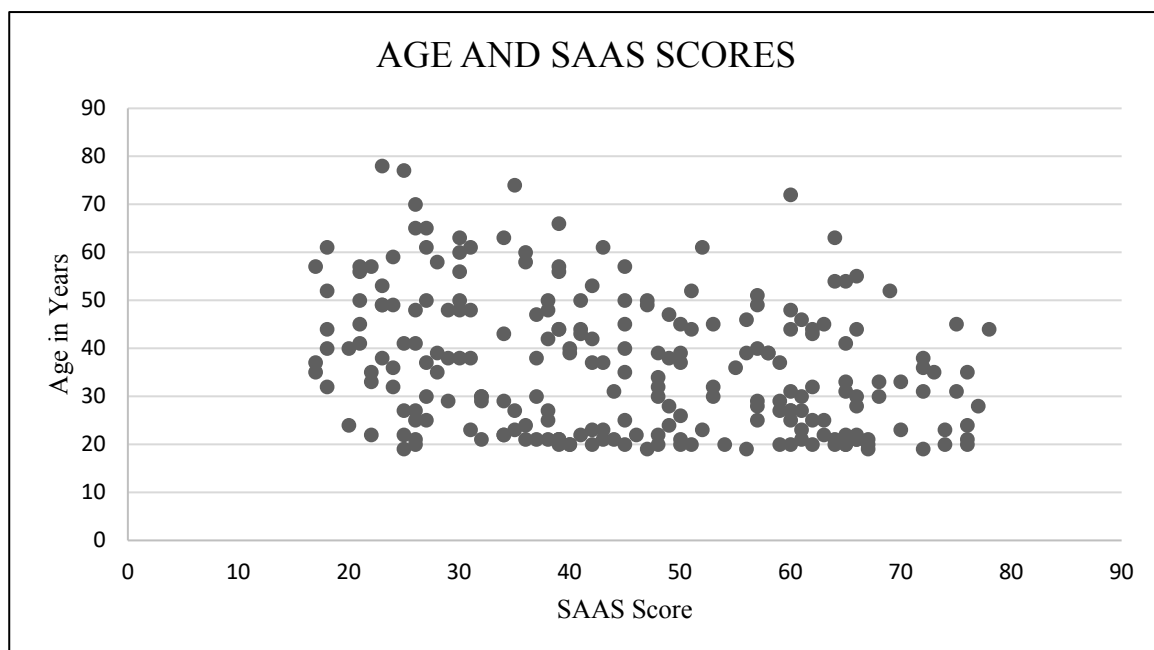


Figure 2. Scatterplot showing distribution of SAAS scores across Age.

Further exploratory analyses were undertaken to explore whether the variables of age and perceived skin severity were related to higher or lower anxiety scores on the SAAS. The relationship between respondents' Age in years and total appearance anxiety scores were investigated preliminary using a scatterplot, and as the data points were not linear and suggested a small correlation, data was deemed to violate the assumption of

homoscedasticity, so a non-parametric test was conducted using Spearman's Rho. There was a statistically significant small to medium, negative inverse correlation between the two variables, $r = -.300$, $n = 231$, $p < .001$. This suggests that younger participants reported higher levels of social appearance anxiety.

Next, to explore whether the level of perceived skin severity was different across genders, a Chi-Square was conducted. A Chi-Square test for independence (with Pearson) indicated no significant association between males, females and perceived skin severity $\chi^2(1, n = 229) = .84$, $p = .66$, Cramer's $v = .06$. The table below (figure 3) shows the number of males and females reporting mild, moderate, and severe skin conditions.

	Mild	Moderate	Severe
Male	10	12	8
Female	59	97	43

Figure 3. Table showing gender related to perceived skin severity scores.

Lastly, a One-Way Between-Groups Analysis of Variance was conducted to explore the relationship between respondents' perceived skin severity, and their reported levels of social appearance anxiety. Gender was not included in this part of the statistical analysis, as no significant difference was found previously through Independent Samples t-testing, therefore it was chosen not to incorporate the construct into further investigations. Figure 4, shown next, is a bar chart illustrating participant scores of social appearance anxiety with reported perceived skin condition severity of mild, moderate, and severe.

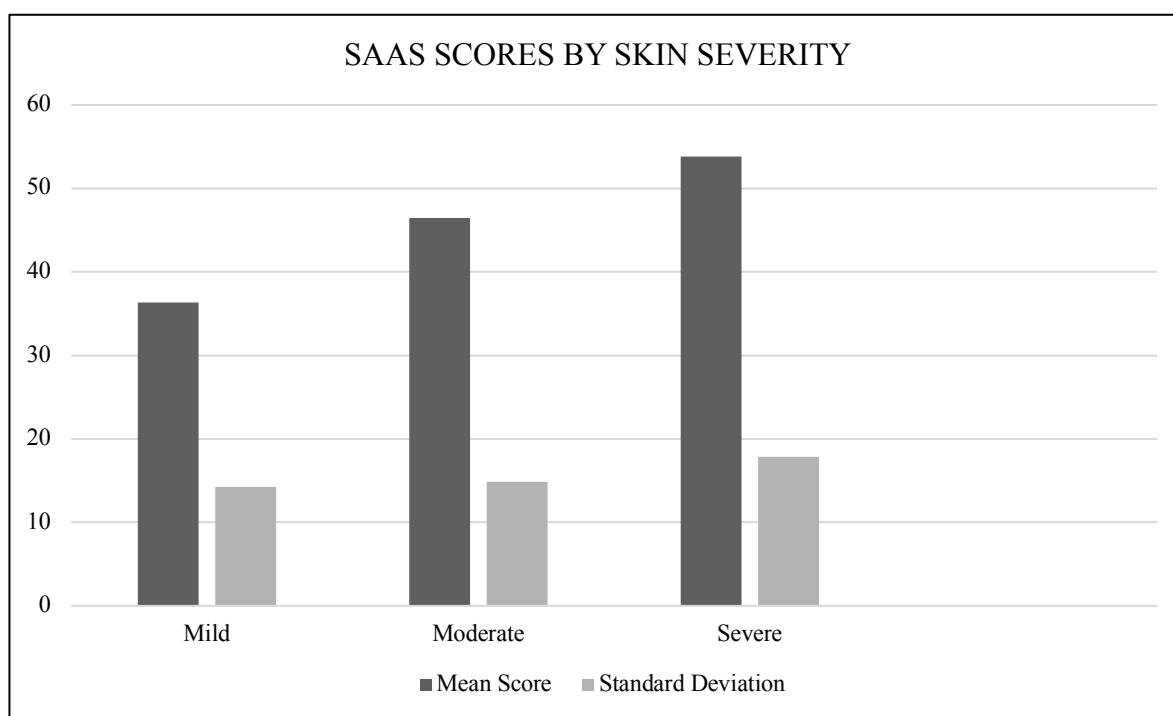


Figure 4. Bar Chart showing SAAS scores and perceived level of Skin Severity.

Respondents were asked to class their perceived skin severity into three categories (1= mild, 2= moderate, 3= severe). It was found that there was a statistically significant difference at the $p < 0.05$ level of social appearance anxiety scores for the three categories of skin severity: $F(2, 228) = 19.94, p = 0.00$. Post Hoc comparisons using Tukey HSD test indicated that the mean score for Mild ($M = 36.32, SD = 14.25$) was significantly different from Moderate and Severe groups, the mean score for Moderate ($M = 46.49, SD = 14.87$) was significantly different from the other categories, and so was the mean score for Severe ($M = 53.79, SD = 17.82$). This shows that the level of reported social appearance anxiety significantly differed according to levels of perceived skin severity, with significant increases from Mild, Moderate, to Severe. This implies that the more severe the reported skin condition was, the higher the reported level of social appearance anxiety.

Qualitative Content Analysis

The free-text answers were analysed following the principles of Qualitative Content Analysis, analysing personal experiences and allowing the identification of codes based on frequency of occurrence (Vaismoradi, Turunen, & Bondas, 2013). During the process of analysis, three ‘codes’ (most commonly occurring) were identified for three of the free text questions, and one code for the fourth question, these were labelled as ‘Code 1, Code 2, and Code 3’ (see figure 5, for table outlining all codes and supporting quotes). These identified ‘codes’ were then tallied up for frequency per respondent answer and were totalled to calculate percentages of frequency of occurrence.

The first question specifically asked respondents to ‘please state the three main challenges you have found in living with a skin condition’, it was determined that the most frequently occurring issue labelled as ‘Code 1’ was related to ‘social appearance, embarrassment, and other peoples’ misconceptions’ (for example, thinking the skin condition is contagious) which was reported by 55% of the sample. Secondly ‘Code 2’, was ‘dealing with skin itching, flaking, soreness, and pain’, from a total of 51.9% of respondents. Lastly, ‘Code 3’ was identified as the ‘challenges in choice of clothing and use of makeup’ and was least frequent, in 27.3% of responses.

The second qualitative research question asked, ‘please could you describe the ways in which you manage these challenges?’ Designed to elucidate examples of respondents’ coping strategies, and yielded the most frequently reported ‘Code 1’ of ‘practically, through the use of topical steroids and medications.’ This task-orientated way of dealing with a skin condition was reported by 51.9% of respondents. After this, ‘Code 2’ was ‘coping through distractions and covering up’ reported by 30.3% of the sample. The last identified ‘Code 3’ for this question was managing ‘emotionally through mindset and self-acceptance’,

mentioned by 24.7% of respondents, suggesting the sample engaged in emotion-focussed coping behaviours.

The third free text question asked ‘how do you feel you could be better supported in living with your skin condition?’ The most frequently reported ‘Code 1’ was ‘better support and treatments from medical professionals’, by 44.6% of the sample. The next most mentioned ‘Code 2’ was ‘less social stigma through more awareness and education of the public’, reported by 25.1% of respondents. And last, ‘Code 3’ was ‘seeking support from friends and family networks’, at only 7.4% frequency. The last free text question was written to allow the respondent autonomy to express any other opinions, asking ‘finally, is there anything else relating to coping with the psychological impact of your skin condition that you would like to mention?’ In these answers, there was one definite overarching code, which was established as ‘overall negative impact on mental health’, as reported by 45.5% of respondents.

Next, figure 5, is a table presenting each of the four free text questions asked, the codes that were identified by the researcher as most commonly reported, with the percentage in frequency of occurrence and supporting quotes as evidence.

Free Text Questions:	Code 1:/ Percentage of occurrence:	Code 2:/ Percentage of occurrence:	Code 3:/ Percentage of occurrence:	Example Quotes : (Question/Response number).
1. Please state the three main challenges you have found in living with a skin condition.	Social appearance embarrassment, and other peoples' misconceptions. Reported by = 55%.	Dealing with itching, flaking, soreness and pain. Reported by = 51.9%.	Challenges in choice of clothing, and use of makeup. Reported by = 27.3%.	<i>'Flaking everywhere and feeling I am making a mess. THE ITCH!!!!'</i> (1. 90). <i>'I have learnt to just look down at the floor and not make eye contact with people that way I don't have to look at their faces when they see my skin.'</i> (1. 163). <i>'Never worn sleeveless tops because of it.'</i> (1.78).
2. Please could you describe the ways in which you manage these challenges?	Practically through the use of topical steroids and medications. Reported by = 51.9%.	Coping through distractions and covering up. Reported by = 30.3%.	Emotionally through mindset and self-acceptance. Reported by = 24.7%.	<i>'Copious amounts of moisturiser...'</i> (2. 64). <i>'Turn a blind eye, tell myself to ignore it and that nobody can see what I can.'</i> (2. 25). <i>'Stand my ground and tell myself that I am more than just my skin and what people see.'</i> (2. 27).
3. How do you feel you could be better supported in living with your skin condition?	Better support and treatments from medical professionals. Reported by = 44.6%.	Less social stigma through more awareness and education of the public. Reported by = 25.1%.	Seeking support from friends and family networks. Reported by = 7.4%.	<i>'A dermatologist who sees me more often.'</i> (3. 183). <i>'Less stigma and more realistic role models.'</i> (3. 11). <i>'My family is supportive.'</i> (3.135).
4. Finally, is there anything else relating to coping with the Psychological impact of your skin condition that you would like to mention?	Overall negative impact on mental health and psychological wellbeing. Reported by = 45.5%.			<i>'Healthcare professionals to consider psychological impact of skin.'</i> (4. 42). <i>'The real battle is happening inside of me.'</i> (4. 86). <i>'Having skin problems and flare ups has caused me psychological stress, depression, and isolation.'</i> (4. 54).

Figure 5. Table showing free text questions, identified codes and percentage of frequency of occurrence, with supporting quotes.

After carrying out the first content analysis, the free text data was then analysed in accordance with gender. Below, figure 6 is a table showing gender splits in the frequency of codes reported by respondents in the free text questions.

Free Text Questions:	Code 1:/ Gender split in percentage of occurrence.	Code 2:/ Gender split in percentage of occurrence.	Code 3:/ Gender split in percentage of occurrence.
1. Please state the three main challenges you have found in living with a skin condition.	Social appearance embarrassment, and other peoples' misconceptions. Males reported = 53.3%. Females reported = 45.2%.	Dealing with itching, flaking, soreness and pain. Males reported = 46.7%. Females reported = 53.3%.	Challenges in choice of clothing, and use of makeup. Males reported = 14.3%. Females reported = 26.6%.
2. Please could you describe the ways in which you manage these challenges?	Practically through the use of topical steroids and medications. Males reported = 60%. Females reported = 58.8%.	Coping through distractions and covering up. Males reported = 13.3%. Females reported = 28.1%.	Emotionally through mindset and self-acceptance. Males reported = 26.7%. Females reported = 27.1%.
3. How do you feel you could be better supported in living with your skin condition?	Better support and treatments from medical professionals. Males reported = 50%. Females reported = 49.2%.	Less social stigma through more awareness and education of the public. Males reported = 20%. Females reported = 28.6%.	Seeking support from friends and family networks. Males reported = 3.3%. Females reported = 4%.
4. Finally, is there anything else relating to coping with the Psychological impact of your skin condition that you would like to mention?	Overall negative impact on mental health and psychological wellbeing. Males reported = 60%. Females reported = 44.7%.		

Figure 6. Table showing free text questions, identified codes, and gender split in percentages of frequency of occurrence.

The gender split content analysis revealed differences in reports, ‘Code 1’ relating to social embarrassment was reported by 53.3% of males, but 45.2% of females, implying that males were more affected than females by other people’s misconceptions. ‘Code 2’ relating to itchiness, flaking, soreness, and pain was reported by 46.7% of males, and 53.3% of females. Third, ‘Code 3’ outlining the challenges of choice in clothing and makeup was mentioned by 14.3% of males, and 26.6% of females, showing across genders that there was mention of struggling with clothing choices.

The second free text question, relating to managing the challenges of living with a skin condition led to ‘Code 1’ being practical management, which was reported by 60% of males, and 58.8% of females, implying that both males and females use task-orientated coping, which supports the original research hypothesis. However, ‘Code 2’ of using distractions and covering up to manage skin conditions was reported by 13.3% of males, and 28.1% of females, suggesting a difference in management styles, with females using more distracting behaviours than males. This supports the original research hypothesis of females engaging more in Avoidant behaviours than males, along with the statistical findings through independent sample t-testing. Lastly, ‘Code 3’ of managing the skin condition through emotions and mindset was reported by 26.7% of males, and 27.1% of females, which is suggestive of there being little difference of emotion-focussed behavioural management between genders.

The third free text question regarding support, led to ‘Code 1’ of better support from medical professionals being reported by 50% of males, and 49.2% of females, which strongly suggests that both genders felt similar about needing more input from doctors. Similarly, ‘Code 2’ of there being a need for less social stigma and increased public awareness, was reported by 20% of males, and 28.6% of females, suggesting that females reported this issue more frequently than males, but the similar score range suggests that both genders have

similar views. Lastly, 'Code 4' of seeking support from friends and family networks was under-reported by both genders, with 3.3% of males mentioning the subject, compared to 4% of females, implying that both genders equally do not seek help regularly from social circles or family.

The last free text question showed a large difference in gender reports, when asked about mentioning anything else regarding skin conditions, 60% of males reported an overall negative impact on mental health and psychological wellbeing, as compared to 44.7% of females. This contradicts the research hypothesis and suggests there is a difference in the psychological impact of living with a skin condition between males and females, with males being more negatively affected.

Summary

The hypothesis that a significant difference in the scores of social appearance anxiety between males and females, with females expected to report higher scores was not supported by statistical results as no significant difference was found between male and female reports of social appearance anxiety. However, qualitative findings showed 'overall negative impact on mental health and psychological wellbeing' was reported by 60% of males, and 44.7% of females, suggesting males are more negatively impacted than females, and contradicts the research hypothesis.

Secondly, it was expected that Females would report engaging in significantly more avoidant coping than Males, which was supported by statistical results, with a significant difference found between scores of avoidant coping between males and females, with females engaging in avoidance behaviours more than males. This was also supported by qualitative findings, as from the free text answers 28.1% of females compared to 13.3% of males discussed managing their skin condition through 'distractions and covering up.'

Thirdly, it was hypothesised that females would report engaging more emotion-focussed coping than males, which was not supported with statistical results as no significant difference was found. This lack of difference was supported with qualitative findings, as 26.7% of males, and 27.1% of females reported managing their skin condition through emotions, which is suggestive of little difference between genders.

Lastly, it was hypothesised that males and females would not differ in their use of task-orientated coping which was supported through statistical results, as no significant difference was found. qualitative findings also supported this, as practical management was reported by 60% of males, and 58.8% of females, implying that both males and females engage in task-orientated behaviours at a similar frequency.

Chapter 4 – Discussion

Key Findings

This study intended to explore coping styles and gender differences in the psychological impact of living with a skin condition, specifically levels of social appearance anxiety. Jain and Pareek (2015) investigated levels of social appearance anxiety between males and females with skin conditions, and reported females were more likely to experience social appearance anxiety than males, this research underpinned the hypotheses of the current study which suggested that gender differences would exist. It is interesting to note that the level social appearance anxiety for this particular sample was (mean score of 45.10 out of a possible score range of 80) not particularly high, with self-reports of anxiety being just over half of the total score range, implying that the sample as a whole, was not severely anxious, which could explain why no difference was found between males and females. Along with this, the most frequently reported level of perceived skin severity was moderate, so perhaps the reported skin conditions were not as a whole, severe enough to cause high levels of social appearance anxiety across the sample. These findings are contrasting to Jain and Pareek (2015) social appearance anxiety score reports, as the previous literature found higher levels of social appearance anxiety within their research sample.

Although there was no difference found between genders in levels of social appearance anxiety, content analysis showed that the ‘overall negative impact on mental health and psychological wellbeing’ was reported by 45.5% of all respondents, with 60% of males compared to 44.7% of females, suggesting that males are more negatively impacted than females, contradicting the research hypothesis. This may be a result of the free text questions providing males with an opportunity to openly and honestly talk about their own experiences without any fears of confidentiality, they were able to answer the questions in their own time,

anonymously, so perhaps felt more willing to share their stories of living with a skin condition. However, this does not explain why the current statistics contradict the qualitative data, one explanation may be that the psychological scale questions were quite strong statements, so in line with research conducted by Munro (2015) who said that males may be less likely to discuss issues of mental health due to the existence of social stigma. This could apply to the SAAS, as men may have felt less able to agree to their psychological struggles (Addis and Mahalik, 2003; Wendt and Shafer, 2016), and as the scale is a psychometric measure, the nature of the questions may have caused some level of discomfort and led to under-reporting. However, the free-text questions could have allowed for males to possess autonomy in their own choice of information they shared, and they could articulate them in a way they felt comfortable with. This evidence showing the negative psychological impact of living with a skin condition is supportive of Rumsey and Harcourt (2012) research into lowered self-esteem, Jain and Pareek (2015) claims of skin conditions being related to a lack of confidence, and instances of depression and anxiety (Dalgard et al, 2015; Singh et al, 2017; Dowlatshahi et al, 2015).

From a theoretical perspective, the present study findings can be used to support the ‘Self-Schema Theory’ proposed by Markus and Kunda (1986, in Stake, Huff & Zand, 1995) and Watson and De Bruin (2006), as disturbances in psychological equilibrium, such as low self-esteem were frequent in self-reports. With regards to coping, as measured by the CISS-21, findings were in line with Lazarus’ Transactional Theory (Lazarus & Folkman, 1984). Lazarus’ Transactional Theory divided styles of coping into two coping responses, ‘emotion-focussed’, and ‘problem-focussed.’ The data in the current study divided respondents into categories that supported Lazarus and Folkman (1984) model of coping, as the most frequently used coping style reported was task-orientated, a form of problem-focussed

coping, and the lowest reported level of coping was emotion-focussed, which is supportive of the division outlined in the theory.

Along with the two forms of coping outlined by Lazarus and Folkman (1984), the construct of ‘avoidance’ as described by Han et al (2009) was clear within the current study, as it was predicted that females would report engaging in significantly more avoidant coping than males, in correspondence with previous research carried out by Panayiotou et al (2017). The study results showed that females did in fact report using avoidant coping techniques significantly more than males. Evidence for the use of avoidant coping behaviours was also found to be present in qualitative findings, as respondents mentioned ‘coping through distractions and covering up’, deliberately responding in a way that is designed to avoid dealing with the skin condition itself. A reason for this gender difference was explained by Panayiotou et al (2017) as being a result of women drawing upon emotional-discharge coping (like behavioural avoidance, McLean & Hope, 2010, in Panayiotou et al 2017). Females adherence to role expectations may be a reason for this differential reinforcement of avoidant behaviours, as during development, girls are encouraged to avoid contact with stressors whilst boys encouraged to show brave behaviours and confront challenges directly (Rosenfield, Richman & Hardy, 1989; Matud, 2004, in Panayiotou et al, 2017). This learnt gender behaviour could transfer from childhood socialization, into adulthood, and affect how females deal with stresses and cope with the presence of their skin condition.

The findings showing the use of covering up, also provides evidence for the ‘Self-fulfilling Prophecy’, outlined by Walker and Papadopoulos (2003) whereby an individual may wear clothes that are inappropriate for weather conditions, avoid making eye contact, or dressing deliberately to cover their skin. The prediction of females being more avoidant than males found to be accurate, as 28.1% of females compared to 13.3% of males discussed

managing their skin condition avoidantly. The gender difference implies that females are more likely to cover up their skin conditions with long sleeves or specific choices of clothing. This was found previously by Rapp et al (1999, in Krishna, 2009) who stated that dermatology patients often ascribe their main difficulties as stemming from other peoples' reactions to their skin condition, rather than the condition alone, so covering the skin with certain clothing may be a way to protect oneself from receiving negative reactions. Findings from the present study also showed that over half of all males and females collectively reported being negatively affected by 'social appearance, embarrassment, and other people's misconceptions', when they were asked to describe the three main challenges they faced when living with their skin condition. Further supporting the tentative suggestion of the detrimental psychological impact living with a skin condition can potentially have, which needs exploring through future research.

It was expected that females would report engaging in significantly more emotion-focussed coping than males, based on research by Hess et al (2000) who reported that females engaged in significantly more emotion-focussed coping than males, as a result of gender stereotypes within western culture, whereby women are typically seen as more emotionally-expressive than men. However, the findings from the present study suggested no significant difference existed between self-reports of emotion-focussed coping between males and females, which contradicts findings of Hess et al (2000), and Pearlin and Schooler (1978). This suggests that regardless of stereotypes, males and females are potentially equally as emotionally affected by living with a skin condition, and there is no generalisable pattern to emotional behaviour that can be ascribed solely to females.

In addition, it was predicted that males and females would not differ in their use of task-orientated coping. The current study showed no differences in reports of task-orientated coping behaviours between males and females, which does not support literature from Matud

(2004) who suggested with the socialization hypothesis, that males are socialized into using instrumental coping, whilst females are socialized into using more emotion-focused coping (Pearlin & Schooler, 1978, Ptacek et al, 1992, in Matud, 2004). In the present study the hypothesis predicted there would be no difference in task-orientated coping between males and females, due to the nature of skin conditions needing topical treatments such as moisturizers to alleviate symptoms. This was supported through content analysis, as half of all respondents reported managing their condition practically, with little difference identified between genders. This provides support for the notion that task-orientated behaviours relating to skin conditions are not gender specific. Furthermore, from a more physical aspect, Jain and Pareek (2015) noted that skin conditions can have great implications, including itching, pain and soreness. This true in the present findings, as over half of the respondents felt that ‘dealing with itching, flaking, soreness, and pain’ was one of the main challenges they had dealt with, as a result of the skin condition such as skin lesions, which can cause significant discomfort. This was found to be similar across genders, although females’ percentage of occurrence was slightly higher, this could be due to females being more openly expressive, supporting findings from Matud (2004).

Lastly, the nature of the role of dermatologists in supporting individuals with skin conditions appears to be inconsistent. For example, research conducted by Barankin and DeKovin (2002) stressed the importance of frequent contact with dermatologists in the treatment and maintenance of skin conditions. Whilst, Walker and Papadopoulos (2003) felt that often based on patient feedback, the dermatologist does not always provide helpful responses to meet individual psychological needs. This was supported in the present study with the identification of the common code ‘better support and treatments from medical professionals’, with no apparent difference between males and females. The frequency of reports shows a thematic trend of individuals feeling like they would benefit from greater

support from medical professionals, including both dermatologists and psychologists in order to assist with dealing with their skin conditions.

Methodological Considerations

The overall research project was seen as a success from the large response rate. The decision to include free text questions within the questionnaire to conduct content analysis, was concluded to have been worthwhile as it allowed for much in-depth data to be recorded. Along with the broad yield of qualitative data being greatly detailed, the large sample was concluded to have been one of the main advantages of choosing a web-based questionnaire as the basis for data collection (Coolican, 2014), as it led to a substantial dataset being gathered for analysis. This may not have been the case if the study had been based on interviews, it is unlikely that such data would have been collected without the risk of distress occurring as a result of the sensitive topic (British Psychological Society, 2014). For example, participants may not have felt as comfortable discussing personal insights into their mental health and wellbeing sitting with the researcher, as compared to via the internet.

However, the present research study does have some methodological issues that arose during data collection. The sample could be said to be unrepresentative of a male population, as the research had a much larger female response. This may be explained through research by Wendt and Shafer (2016) who proposed that Men are far less likely to express emotion when compared to women, and Addis and Mahalik (2003), that women are traditionally seen as more talkative and sensitive than men. This gender-bias could explain why there is such a difference in gender responses, as men may not have responded as willingly as women. It could be that men are active non-responders, and may exclude themselves as a result of dominant gendered perceptions on the subject of appearance being stereotyped as 'female' (Culley, Hudson & Lohan, 2013). The relative absence of male opinion in this study could be

an effect of hegemonic masculinity (Culley et al, 2013) and if so, it may prove difficult for a researcher to rectify this. This claim has been supported by De Lacey (2014) who reported that men are known to be increasingly difficult to contact for research, especially on sensitive subjects, such as skin conditions. Reflecting on their problems of recruiting men for a research study, Preloran (2001, in De Lacey, 2014) found that men seem to be somewhat disengaged from issues relating to health, and suggested it may be most advantageous to collaborate with specifically male health organisations or networks, with the aim to reach out and recruit more male participants. This would allow the formation of a more representative and generalizable research sample for further exploratory research into the subject of gender differences, as specifically targeting a male-dominant group would increase chances of successful participation. Along with this, an incentive could also be provided, such as a gift card or a voucher, that could be given to the respondent after they complete the study as a way of attracting more responses.

Along with the issue of gender representations, the demographics of the sample consisted mostly of individuals with Psoriasis, so may not have been completely representative of other skin conditions. This may have been due to the way in which data was collected, as the study was shared by the Psoriasis Association which could have meant the majority of responses were collected from this source. In order to rectify this in future, researchers could recruit participants in a systematic way through establishing contact with organisations that represent each skin condition respectively, this would allow equal representations of participants with each skin condition, and avoid one condition being overly reported.

Suggestions for Further Research

Relating back to the large study sample, the success in the number of responses to the online questionnaire suggests the need for a qualitative based follow-up study. However, this then may reprise the issue of male recruitment as previously discussed, as males may not feel comfortable discussing a sensitive subject in a face-to-face interview (Preloran, 2001, in Lacey, 2014). Therefore, it may be more successful maintain the study design of a web-based questionnaire in future investigations, but instead of incorporating psychological scales, perhaps using only free-text questions to ensure that respondents feel completely comfortable when answering honestly. This may be the most ethically appropriate approach to such a sensitive subject, as a discussion on coping with skin conditions may cause some level of psychological distress (British Psychological Society, 2014).

Further research could investigate individuals' own perceptions of living with their skin condition in more detail through a secondary follow-up study, to in fact determine whether the difference in gender responses is due to recruitment issues in this study, or an indicator of the presence of social stigma and gender stereotypes. In addition, it may be an interesting extension to this project to instead focus on the general public's perception of individuals with skin conditions, which would allow for claims made in this study to be substantiated, and explore whether the negative implicit attitudes reported in this study as being held by the public do exist so frequently within contemporary society.

With regards to the real-world applications of the outcome of this research study, the findings have potential to be refined and investigated on a wider scale, informing skin awareness campaigns or perhaps education opportunities that can be tailored to either the general public or individuals with skin conditions themselves.

Conclusion

In summary of this research project as a whole, and compared to previous literature surrounding the subject of skin conditions, it can be said that some interesting findings arose during the course of this study. The self-reports of social appearance anxiety have shown that there appears to be no difference in the psychological impact of living with a skin condition, implying that both males and females are perhaps equally as affected, although it was found that females reported using avoidant coping techniques more frequently than males. This is a valuable finding as it could illustrate how society portrays females as potentially more emotional and avoidant, and males as strong and confrontational, when faced with stressful situations. Although interestingly, this was not mirrored by the qualitative findings, which showed that males were more psychologically impacted than females. These discrepancy in results serves as evidence for the need of further investigations into this area of gender and skin conditions, in order to establish an explanation as to why there was a difference in reporting in males, and if this is due to the presence of gender roles.

It is of vital importance to both treatment outcomes and public understanding of how males and females may cope similarly, or differently with appearance-altering conditions are researched further, in order to put in place adequate psychological interventions that can be suited to all patients with skin conditions. The findings from this study add to the growing opinion that more needs to be done support individuals with skin conditions, as the psychological aspect of living with an appearance altering condition is frequently overlooked by health professionals. It is evident that there needs to be more of a collaborative approach established between dermatologists and psychologists in order to create an all-encompassing treatment programme to be available to all dermatology patients, providing the psychological support that is clearly necessary, and lacking.

Along with this, there is an obvious need arising from the data that there is significant gap in public understanding when it comes to the subject of skin conditions. This needs to be changed, in order to reduce instances of social stigma and increase awareness, perhaps through the development of more widespread campaigns. Negativity towards individuals with skin conditions is a growing concern in contemporary society, but could be easily rectified with better education through more information being available. This could perhaps be something that the media could assist with, in order to reach younger generations and change long standing negative biases, the use of models with imperfect skin, instead of those with such flawless complexions could be introduced to make beauty standards more realistic. Overall, this dissertation project has provided insight into the coping styles and gender differences in the psychological impact of living with a skin condition , and has contributed to the growing sum of literature and awareness on this subject.

References

- Addis, M.E. & Mahalik, J.R. (2003). Men, Masculinity, and the Contexts of Help Seeking. *American Psychologist*, 58(1), 5-14.
- Al Abadie, M.S.K., Senior, H.J., Bleehen, S.S. & Gawkrödger, D.J. (1994). Neuropeptide and Neuronal Marker Studies in Vitiligo. *British Journal of Dermatology*, 131(1), 160-165.
- Barankin, B. & Dekoven, J. (2002). Psychosocial effect of common skin diseases. *Canadian Family Physician*, 48(12), 1-5.
- Boysan, M. (2012). Validity of the Coping inventory for Stressful Situations – Short Form (CISS-21) in a Non-Clinical Turkish Sample. *The Journal of Psychiatry and Neurological Sciences*, 25(1), 101-107.
- British Psychological Society. (2014). *Code of Human Research Ethics*. Leicester: The British Psychological Society. Retrieved 8th October, 2018, from, <https://www.bps.org.uk/sites/bps.org.uk/files/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf>
- British Skin Foundation. (2018). *Living with Skin Disease*. Retrieved 17 April, 2018, from <http://www.britishskinfoundation.org.uk/Skinformation/LivingwithSkinDisease.aspx>
- Browne, S.G. (1975). Some Aspects of the History of Leprosy: The Leprosie of Yesterday. *Section of the History of Medicine*. 68(1), 485-493.
- Calsbeek, H., Rijken, M., Van Berge Henegouwen, G.P. & Dekker, J. (2006) Factor structure of the Coping Inventory for Stressful Situations (CISS-21) in adolescents and young adults with chronic digestive disorders. *Psychology and Health*, 21(4), 447-462

Centre for Appearance Research. (2018). *University of the West of England*. Retrieved 28 March, 2018, from

<http://www1.uwe.ac.uk/hls/research/appearanceresearch/aboutus.aspx>

Changing Faces. (2018). *Look at me campaign calls for better psycho-social support for people with skin conditions*. Retrieved 28 November, 2018, from

<https://www.changingfaces.org.uk/resources/health/look-at-me>

Clarke, A., Thompson, A.R., Jenkinson, E., Rumsey, N. & Newell, R. (2014). *CBT for Appearance Anxiety: Psychosocial Interventions for Anxiety due to Visible Difference*. Oxford: Wiley.

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, N., Bezborodovs, C., Morgan, C., Rusch, N., Brown, J.S.L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help seeking? A systematic review of quantitative and qualitative studies. *Journal of Psychological Medicine*, 45(1), 11-27.

Coolican, H. (2014). *Research Methods and Statistics in Psychology*. (6th Edition). East Sussex: Psychology Press.

Culley, L., Hudson, N. & Lohan, M. (2013). Where are all the Men? The Marginalization of men in social scientific research on fertility. *Reproductive Biomedicine*, 27(1), 225-235.

Dalgard, F.J., Gieler, U., Tomas-Aragones, L., Lien, L., Poot, F., Jemec, G.B.E., Misery, L., Szabo, C., Linder, D., Sampogna, F., Evers, A.W.M., Halvorsen, J.A., Balieva, F., Szepietowski, J., Romanov, D., Marron, S.E., Altunay, I.K., Finlay, A.Y., Salek, S.S., & Kupfer, J. (2015). The Psychological Burden of Skin Diseases: A Cross-Sectional Multicenter Study Among Dermatological Out-Patients in 13 European Countries. *Journal of Investigative Dermatology*, 135(16), 984-991.

- De Lacey, S. (2014). Recruiting Men to Research about Reproduction: A Fruitless Goal or a Challenge? *Australian Nursing and Midwifery Journal*, 22(5), 1-2.
- Dowlatsahi, E.A., Wakkee, M., Arends, L.R. & Nijsten, T. (2014). The prevalence and Odds of Depressive Symptoms and Clinical Depression in Psoriasis Patients: A Systematic Review and Meta-Analysis. *Journal of Investigative Dermatology*, 134(1), 1542-1551.
- Grimes, P. & Gohara, M. (2018). Self-Esteem: The Emotional Burden and Psychological Devastation of Skin Disease. *International Journal of Women's Dermatology*, 4(1), 1-2.
- Grimes, P. & Miller, M.M. (2018). Vitiligo: Patient stories, self-esteem, and the psychological burden of disease. *International Journal of Women's Dermatology*, 4(1), 32-37.
- Han, K., Burns, G., Weed, N., Hatchett, G. & Kurokawa, N. (2009). Evaluation of an Observer Form of the Coping Inventory for Stressful Situations. *Educational and Psychological Measurement*, 69(4), 675-695.
- Hart, T.A., Flora, D.B., Palyo, S.A., Fresco, D.M., Holle, C. & Heimberg, R.G. (2008). Development and Examination of the Social Appearance Anxiety Scale. *SAGE Journal*, 15(1), 48-59.
- Hess, U., Senecal, S., Kirouac, G., Herrera, P., Philippot, P. & Kleck, R. (2000). Emotional Expressivity in Men and Women: Stereotypes and Self-Perceptions. *Cognition and Emotion*. 14(5), 609-642.
- Hong, J., Koot, B. & Koo, J. (2008). The psychosocial and occupational impact of chronic skin disease. *Dermatologic Therapy*, 21(12), 54-59.

- Jain, P. & Pareek, S. (2015). Psychosocial impact of skin diseases: A gender based comparative study. *Indian Journal of Health and Wellbeing*, 6(6), 606-609.
- Janowski, K., Steuden, S., Pietrzak, A., Krasowska, D., Kaczmarek, L., Gradus, I. & Chodorowska, G. (2012). Social support and adaption to the disease in men and women with psoriasis. *Arch Dermatol Res*, 30(4), 421-432.
- Krishna, S. (2009). Disfigurement: Psychosocial Impact and Coping. *The Open Dermatology Journal*, 3(1), 54-57.
- Latheef, A. (2016). *Handbook of Psychodermatology*. New Dehli: Jaypee Brothers Medical Publishers Pvt Ltd.
- Lazarus, R.S. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing Company.
- Martinez-Gonzalez, C. (2019). Skin, Body Dysmorphic Disorder and Other Syndromes. *ACTAS Dermo-Sifiliograficas*, 110(1), 1-2.
- Matud, M.P. (2004). Gender Differences in Stress and Coping Styles. *Personality and Individual Differences*, 37(1), 1401-1415.
- Montgomery, K., Messenger, N. & Thompson, A.R. (2016). The importance of mindfulness in psychosocial quality of life in dermatology patients. *British Journal of Dermatology*, 175(44), 930-936.
- Mooney, T. (2014). Preventing psychological distress in patients with acne. *Nursing standard*, 28(22), 42-48.
- Munro, I. (2015). Men's Mental Health. *Australian Nursing and Midwifery Journal*, 23(5), 36.

- Panayiotou, G., Karekla, M. & Leonidou, C. (2017). Coping through avoidance may explain gender disparities in anxiety. *Journal of Contextual Behavioural Science*, 6(1), 215-220.
- Parna, E., Aluoja, A. & Kingo, K. (2015). Quality of Life and Emotional State in Chronic Skin Disease. *Acta Derm Venereol*, 95(1), 312-316.
- Picardi, A., Lega, I. & Tarolla, E. (2013). Suicide risk in skin disorders. *Clinics in Dermatology*, 31(1), 47-56.
- Psoriasis Association. (2018). *Help and Information*. Retrieved 13 September, 2018, from <https://www.psoriasis-association.org.uk/psoriasis-and-treatments/page.aspx?ID=164>
- Rumsey, N. & Harcourt, D. (2012). *The Oxford Handbook of: The Psychology of Appearance*. Oxford: Oxford University Press.
- Schwartz, J., Evers, A.W.M., Bundy, C. & Kimball, A.B. (2016). Getting under the Skin: Report from the International Psoriasis Council Workshop on the Role of Stress in Psoriasis. *Frontiers in Psychology*, 7(87), 1-4.
- Shah, R.B. (2018). Impact of collaboration between psychologists and dermatologists: UK hospital system example. *International Journal of Women's Dermatology*, 4(1), 8-11.
- Singh, S., Taylor, C., Kornmehl, H. & Armstrong, A.W. (2017). Psoriasis and suicidality: A systematic review and meta-analysis. *American Academy of Dermatology*, 19(1), 425-440.
- Skin Care Cymru. (2017). *Mission Statement*. Retrieved 13 September, 2018, from, http://skincarecymru.wales/?page_id=154

- Stake, J., Huff, L. & Zand, D. (1995). Trait Self-Esteem, Positive and negative Events, and Event-Specific Shifts in Self-Evaluation and Affect. *Journal of Research in Personality*, 29(1), 223-241.
- Tiggeman, M., Hayden, S., Brown, Z. & Veldhuis, J. (2018). The effect of Instagram “likes” on women’s social comparison and body dissatisfaction. *Journal of Body Image*. 26(1), 90-97.
- Tohid, H., Shenefelt, P.D., Burney, W.A. & Aqueel, N. (2019). Psychodermatology: An association of Primary Psychiatric Disorders with Skin. *Revista Colombiana De Psiquiatria*, 48(1), 50-57.
- Tuckman, A. (2017). The Potential Psychological Impact of Skin Conditions. *Dermatological Therapy*, 7(1), 53-57.
- Vaismoradi, M., Turunen, H. & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and Health Sciences*, 15(1), 398-405.
- Walker, C. & Papadopoulos, L. (2003) *Understanding Skin Problems; Acne, Eczema, Psoriasis and Related Conditions*. England: Wiley.
- Watson, T. & De Bruin, D. (2006). Getting Under the Skin: The Inscription of Dermatological Disease on the Self-Concept. *Indo-Pacific Journal of Phenomenology*, 6(1), 1-12.
- Wendt, D. & Shafer, K. (2016). Gender and Attitudes about Mental Health Help Seeking: Results from National Data. *Journal of Health and Social Work*, 41(1), 20-28.

Yuceant, M. & Unlu, H. (2017). The analysis of social appearance anxiety levels of physical education teacher candidates in terms of different variables. *Turkish Journal of Sport and Exercise*. 19(1), 102-10

Appendix A – Study Advert

This online study is for a UWTSD student undergraduate dissertation research project in Psychology, on the subject of living with a skin condition, and will take approximately 15 minutes to complete.

Participation is completely voluntary.

To find out more, please click on the link which will provide more information about what taking part will involve.

If you decide to take part, you may end your participation at any time by simply closing the browser.

If you have any questions, email the researcher ohughes.151442@student.uwtsd.ac.uk or research supervisor, ceri.phelps@uwtsd.ac.uk

Thank you.

This online study is for a UWTSD student undergraduate dissertation research project in Psychology, on the subject of living with a skin condition, and will take approximately 15 minutes to complete.

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Please follow the link below to complete the study.

https://uwtsdyrathrofa.eu.qualtrics.com/jfe/form/SV_eQJJAi5xxBvIbR3

Thank you.

Appendix B – Social Appearance Anxiety Scale (SAAS) (Hart, Flora, Palyo, Fresco, Holle, & Heimberg, 2008).

Scale:

1 = None at all

2 = A Little Bit

3 = Somewhat

4 = Very Much

5 = Extremely

1. I feel comfortable with the way my skin appears to others.
2. I feel nervous when having my picture taken
3. I get tense when it is obvious people are looking at my skin.
4. I am concerned people would not like me because of the way my skin looks.
5. I worry that others talk about flaws in my skin's appearance when I am not around.
6. I am concerned people will find me unappealing because of my skin's appearance.
7. I am afraid that people find me unattractive.
8. I worry that my skin's appearance will make life more difficult for me.
9. I am concerned that I have missed out on opportunities because of my skin's appearance.
10. I get nervous when talking to people because of the way my skin looks.
11. I feel anxious when other people say something about my skin's appearance.
12. I am frequently afraid I would not meet others' standards of how I should look.
13. I worry people will judge the way I look negatively.
14. I am uncomfortable when I think others are noticing flaws in my skin's appearance.
15. I worry that a romantic partner will/would leave me because of my skin's appearance.
16. I am concerned that people think I am not good looking.

Appendix C – Shortened version (21-items) Coping Inventory for Stressful Situations (CISS-21) (Calsbeek, Rijken, Van Berge Henegouwen & Dekker, 2006)

Scale:

1 = Not at All

2 = A Little Bit

3 = Somewhat

4 = A Lot

5 = Extremely

1. Take some time off and get away from my skin condition (A)
2. Focus on my skin condition and see how I can alleviate it (T)
3. Blame myself for having got my skin condition (E)
4. Treat myself to a favourite food or snack (A)
5. Feel anxious about not being able to cope with my skin condition (E)
6. Think about how I alleviated similar conditions (T)
7. Visit a friend (A)
8. Determine a course of treatment and follow it (T)
9. Buy myself something (A)
10. Blame myself for being too emotional about my skin condition (E)
11. Work to understand my skin condition (T)
12. Become very upset about my skin condition (E)
13. Take action immediately (T)
14. Blame myself for not knowing what to do (E)
15. Spend time with a special person (A)
16. Think about my skin condition and learn from my mistakes (T)
17. Wish that I could change my skin condition or how I feel (E)
18. Go out for a snack or meal (A)
19. Analyse my skin condition before reacting (T)
20. Focus on my general inadequacies (E)
21. Phone a friend (A)

T = Task-oriented coping

E = Emotion-oriented coping

A = Avoidance coping

Appendix D - SPSS Output

1. SAAS Appearance Anxiety scores between Males and Females:

Group Statistics

	recoded gender	N	Mean	Std. Deviation	Std. Error Mean
SAAS_TOTAL	1 Male	30	42.47	16.529	3.018
	2 Female	199	45.30	16.617	1.178

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
SAA S_T OT AL	Equal variances assumed	.612	.435	-.872	227	.384	-2.835	3.252		-9.243	3.574
	Equal variances not assumed			-.875	38.379	.387	-2.835	3.240		-9.391	3.721

2. CISS-21 Avoidant Coping scores between Males and Females

Group Statistics

	recoded gender	N	Mean	Std. Deviation	Std. Error Mean
CISS_AVOIDANCE_TOTAL	1 Male	30	14.00	4.807	.878
	2 Female	199	15.95	4.882	.346

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
CISS_AVOIDANCE_TOTAL	Equal variances assumed	.000	.999	-2.043	227	.042	-1.950	.954		-3.830	-.069
	Equal variances not assumed			-2.067	38.586	.046	-1.950	.943		-3.858	-.041

3. CISS-21 Emotion-Focussed Coping scores between Males and Females

Group Statistics

	recoded gender	N	Mean	Std. Deviation	Std. Error Mean
CISS_EMOTION_TOTAL	1 Male	30	16.97	7.609	1.389
	2 Female	199	18.88	6.493	.460

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
CISS_EMOTION_TOTAL	Equal variances assumed	.831	.363	-1.473	227	.142	-1.918	1.302		-4.483	.647
	Equal variances not assumed			-1.310	35.654	.198	-1.918	1.463		-4.887	1.051

4. CISS-21 Task-Orientated Coping scores between Males and Females

Group Statistics

	recoded gender	N	Mean	Std. Deviation	Std. Error Mean
CISS_TASK_TOTAL	1 Male	30	19.53	5.612	1.025
	2 Female	199	20.35	5.000	.354

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
CISS_TASK_TOTAL	Equal variances assumed	1.646	.201	-.817	227	.415	-.813	.995	-2.775	1.148
	Equal variances not assumed			-.750	36.277	.458	-.813	1.084	-3.012	1.385

- clothing / style of dressing / 3 MAIN CHALLENGES

30 MALES - QUESTION 1

= itching/soreness/pain - 14/30 (46.7%)
= social appearance/embarassment
misconceptions - 16/30 (53.3%)
hands and wrist but otherwise it doesn't bother me too much

- misconceptions - 16/30 (53%)
1. Itching, Dandruff on clothes, appearance
It's uncomfortable sometimes especially it being itchy which makes it worse. I get self conscious when holding hands as its worst on my hands and wrist but otherwise it doesn't bother me too much.
Its frustrating when it comes back after a concerted effort to get rid of it even if it has been some time.
2. People looking at my arms, constant itching, always covering arms with clothes
3. Prejudice, tiredness, treatment time
4. Embarrassment, itchiness, dry skin
5. Constant need to lotion my skin, try other different treatments (go to different doctors), no happy with how I look
6. Pain, mobility, and anxiety
7. 1. Hard to get ready for special occasions
2. Difficult to find suitable skin products
3. Challenges in choosing proper diet
8. 1. Finding medical professionals who are not focused on treating the symptoms but rather getting to the real source of the problem. My NHS Dermatology team, as wonderful as they are, can't even agree whether diet is related in any way or what treatment for skin is best. I know
9. Psoriasis and its triggers can be quite unique to the individual, however, there must be some consistent belief on how diet is related for instance. Following an unsuccessful 30 treatments of UVB I have done my own research into the condition and believe I am now on a course which is healing the condition from within. (far too much detail to type here :))
2. Skin maintenance. At the conditions peak around 5 weeks ago it was taking up around 5 to 6 hrs maintenance per day to keep me sane. The itching was beyond tolerable and the resultant mess of scales and blood stains along with ruined clothing due to creams and ointments.
3. Feeling Alone. For a condition that affects so many people there is very little support to be found. There are some excellent foundations and associations out there but with the resounding message being, "you've got psoriasis, its likely you'll have it for good as we dont really know enough about it, so here is how to treat the symptoms...bye now". The forums are full of people searching for a magic bullet and you can only imagine some of the proposed remedies (false hopes). I imagine us like extras in The Walking Dead. Wandering aimlessly searching... haha, I'm going to stop now :) Luckily, I love researching!! For the overwhelming majority, they'll live with this condition for evermore or until the NHS eventually catch up with the latest science, the answers are already there.
10. Itch, pain, skin flakes everywhere
11. Washing
12. The mess Sharing a personal space Using everyday products
13. Wearing certain clothes, leaving flakes of skin around, people staring
14. Being confident Being happy Having skin that doesn't hurt
15. Other people's perception. Discomfort when severe Difficulty with treatments
16. Swimming in public, the associated arthritis, bullying
17. dust, weather, atmosphere
18. Not being able to wear the clothes that I want to. Feeling like I need to cover up. Avoid sexual relationships when my condition flares up.
19. Using hands.
20. Unattractiveness, judgment, work experience
21. Making new friends, difficult to choose a cloth,
22. Pain, meeting new people and explaining to people what it is
23. confidence, self-image, social anxiety
24. Constant discomfort Embarrassment Knowing it is chronic

25. Keeping the routine treatment

26. Mobility, Anxiousness, depression

27. Friends work and partners

28. Forming a relationship. Getting advice from the doctor finding time for regular treatments.

29. Compliance with medication regime, side effects of treatment, regular hospital visits for treatment

30. Sudden Flare-ups

Appendix F – Ethical Approval Form

APPLICATION FOR ETHICAL APPROVAL

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance if ethical approval has not been obtained prior to commencement.

The University follows the OECD Frascati manual definition of **research activity**: “creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications”. As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the “principal researcher”.

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic criticism.

Please read the notes for guidance before completing ALL sections of the form.

This form must be completed and approved prior to undertaking any research activity. Please see Checklist for details of process for different categories of application.

SECTION A: About You (Principal Researcher)

Full Name:	Olivia Anne Hughes				
Tick all boxes which apply:					
Member of staff:	☐	Student:	☒	Honorary research fellow:	☐

Faculty/School/Centre:	University of Wales Trinity Saint David		
Campus:	SA1 Campus, Swansea		
E-mail address:	ohughes.151442@student.uwtsd.ac.uk		
Contact Telephone Number:	07974841516		
For students:			
Student Number:	P151442	Undergraduate	☒
Programme of Study:	BA Counselling Studies and Psychology	Taught Postgraduate	☐
Director of Studies/Supervisor:	Dr Ceri Phelps	Research	☐

SECTION B: Approval for Research Activity

Has the research activity received approval in principle? (please check the Guidance Notes as to the appropriate approval process for different levels of research by different categories of individual)		YES	☒	NO	☐
Date					
If Yes, please indicate source of approval (and date where known):	Research Degrees Committee		☐		
	Faculty Research Committee		☐		
	Other (write in) Approved from Supervisor		☒		
					1/10/18

Approval in principle **must** be obtained from the relevant source prior to seeking ethical approval.

SECTION C: External Ethical Guidance Materials

Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines.	
British Psychological Society Code of Research Ethics (2014)	☒
UWTSD Research Ethics & Integrity Code of Practice (2015)	☒
UWTSD Data Management Policy (2016)	☒
The Data Protection Act (2018)	

SECTION D: External Collaborative Research Activity

Does the research activity involve collaborators outside of the University?	YES	☐	NO	☒
If Yes, please provide the name of the external organisation and name and contact details for the main contact person:				
Institution				
Contact person name				
Contact person e-mail address				

Where research activity is carried out in collaboration with an external organisation

Does this organisation have its own ethics approval system?	YES	☐	NO	☒
If Yes, please attach a copy of any final approval (or interim approval) from the organisation				

SECTION E: Details of Research Activity

Indicative title:	'Exploring coping styles and gender differences in the psychological impacts of living with a skin condition.'		
Proposed start date:	02/11/18	Proposed end date:	05/04/19

Purpose of research activity (including aims and objectives)

Outline the purpose, aims and objectives of the research activity, including key research questions. Show briefly how existing research has informed the proposed activity and explain what the research activity will add and how it addresses an area of importance. (Maximum 300 words)

The skin represents an external barrier between an individual's internal being, and the outside external environment (Shah, 2018), with inflammatory skin conditions impacting upon all aspects of a person's life, and often resulting in impaired health and psychological wellbeing (Parna, Aluoja & Kingo, 2015).

Many substantial psychologic factors have long been associated with the onset and maintenance of a wide spectrum of moderate to severe skin conditions (Watson & De Bruin, 2006). In addition to this, the media constantly places pressure upon individuals to look a certain way in order to be considered as attractive. For example, with the ideal body image shown frequently in magazines and television as consisting of flawless hair and skin, perfect teeth, and a slender figure, which creates a large amount of psychological pressure to conform to this ideal image, which is mostly highly unrealistic.

The proposed study will be a web-based questionnaire, aiming to explore coping styles and gender differences in the psychological impacts of living with a skin condition. The main research hypotheses are:

- 1. There will be a significant difference in the scores of appearance anxiety between males and females, with females expected to score higher.**
- 2. Females will report engaging in significantly more avoidant coping than Males.**
- 3. Females will report engaging in significantly more emotion-focussed coping than males.**
- 4. Males and Females will not differ in their use of task-orientated coping.**

The purpose of this research is to add to the body of psychological research in the field of psychosocial dermatology, as there is a considerable lack of literature investigating gender differences in psychological experience.

References:

Parna, E, Aluoja, A. & Kingo, K. (2015). Quality of Life and Emotional State in Chronic Skin Disease. *Acta Derm Venereol*, 95(1), 312-316.

Shah, R.B. (2018). Impact of collaboration between psychologists and dermatologists: UK hospital system example. *International Journal of Women's Dermatology*, 4(1), 8-11.

Watson, T. & De Bruin, D. (2006). Getting Under the Skin: The Inscription of Dermatological Disease on the Self-Concept. *Indo-Pacific Journal of Phenomenology*, 6(1), 1-12.

(this box should expand as you type)

Proposed methods

Provide a brief summary of all the methods that **may** be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. (Maximum 600 words)

The online questionnaire will be posted and circulated on the Swansea-based charity Skin Care Cymru's social media pages, and the UWTSD school of psychology Twitter page in order to increase chances of completion. Respondents will be asked to complete the web-based questionnaire, which also includes instructions and a disclaimer explaining consent (see appendix A) and the right to withdraw (British Psychological Society, 2014). It is estimated that the full questionnaire will take approximately 10-15 minutes to answer.

After the disclaimer, respondents will be asked to answer a series of four demographic questions will be displayed, asking for the respondent's age, gender, skin condition type, and severity.

The web-based cross-sectional questionnaire will be of experimental design, and created by the researcher, consisting of three sections, using two psychometric scales of measurement (see Appendix B).

The first section will assess psychological impacts of living with a skin condition through the 'Social Appearance Anxiety Scale' (SAAS) (Hart et al, 2008) which is a validated and reliable measure of anxiety of situations regarding one's overall appearance (1 = None at all, 2 = A Little Bit, 3 = Somewhat, 4 = Very Much, 5 = Extremely). Each item will be presented as a statement, to which the respondents are asked to agree or disagree on a 5-point Likert Scale (Coolican, 2014), this was chosen as the preferred scale for measurement, as it allows for degrees of opinion to be recorded, rather than a simple 'yes/no' response.

Example SAAS scale question:

I feel comfortable with the way I appear to others (1 = None at all, 2 = A Little Bit, 3 = Somewhat, 4 = Very Much, 5 = Extremely).

In the second section, respondents will be assessed using *Shortened 21-item Coping Inventory for Stressful Situations (CISS-21)* (Calsbeek et al, 2006), a self-report inventory assessing three coping strategies: Task-orientated, Emotion-focussed and Avoidance coping strategies, with responses scored on a 5-point Likert Scale ranging from 'extremely' (5) to 'none at all' (1).

Example CISS-21 question:

Think about how I alleviated similar conditions (1 = Not at all, 2 = A Little Bit, 3 = Somewhat, 4 = Very Much, 5 = Extremely).

Lastly, four 'Open' or 'free text' boxes will also be included at the end of the questionnaire (See Appendix C), in order to elicit some more in-depth data. These will be incorporated in order to allow the respondents to individually express any personal insights into their own experiences.

Example free text questions:

1. Please state the three main challenges that you have found with living with a skin condition.
2. Please could you describe the ways in which you manage these challenges?
3. How do you feel you could be better supported in living with your skin condition?
4. Finally, is there anything else relating to coping with the psychological impact of your skin condition that you would like to mention?

The qualitative free-text questions will be analysed in accordance with Qualitative Content Analysis, analysing personal descriptions through both inductive and deductive techniques, and allowing the possibility determining themes based on the frequency of its occurrence, through a division of manifest and latent contents (Vaismoradi, Turunen, & Bondas, 2013).

Based on the previous literature, and the nature of the scales, it will therefore be hypothesised that there will be a significant difference between male and female responses on the questionnaire, with males predicted to be more psychologically impacted than females (Addis & Mahalik, 2003).

The two Dependent Variables (DV) were outlined as participant scores of “social appearance anxiety” on the SAAS scale, and “coping styles” including scores of Avoidant, Emotion-focussed, and Task-orientated coping as measured by the CISS-21 scale. The Independent Variable (IV) was identified as the gender of the respondent (male or female).

The questionnaire will be piloted, before being used in the proposed study by students in the University through the Experimental Management System (EMS). The construct validity of the proposed material will also be assessed by the research supervisor prior to any data collection taking place.

The first item on the SAAS scale will be reverse-coded by the researcher to avoid respondent bias and improve the internal validity of the response scale (Coolican, 2014). Collected data will then be statistically analysed using appropriate SPSS software, to identify any significant results.

The collected scale data will be analysed using Independent Samples T-Test, in order to establish whether there is a statistically significant result between the mean or average scores of the two groups of males and females. Additionally, internal reliability will be measured using a Cronbach alpha coefficient measurement, in the SPSS programme (Coolican, 2014).

Lastly, data from each of the two psychometric scales (Appendix B), SPSS output, and free text question (Appendix C) content analysis will be compared to identify psychological impacts, which coping strategies are reported as most effective, how much support has been received, and will compare answers across genders to see if any significant differences exist.

References:

Addis, M.E & Mahalik, J.R. (2003). Men, Masculinity, and the Contexts of Help Seeking. *American Psychologist*, 58(1), 5-14.

British Psychological Society. (2014). *Code of Human Research Ethics*. Leicester: The British Psychological Society. Retrieved 8th October, 2018, from,

<https://www.bps.org.uk/sites/bps.org.uk/files/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf>

Calsbeek, H., Rijken, M., van Berge Henegouwen, G.P. & Dekker, J. (2006) Factor structure of the Coping Inventory for Stressful Situations (CISS-21) in adolescents and young adults with chronic digestive disorders. *Psychology and Health*, 21(4), 447-462

Coolican, H. (2014). *Research Methods and Statistics in Psychology*. (6th Edition). East Sussex: Psychology Press.

Hart, T.A., Flora, D.B., Palyo, S.A., Fresco, D.M., Holle, C. & Heimberg, R.G. (2008). Development and Examination of the Social Appearance Anxiety Scale. *SAGE Journal*, 15(1), 48-59.

Lazarus, R.S & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing Company.

Skin Care Cymru (2017). *Mission Statement*. Retrieved 8th October, 2018, from <http://skincarecymru.wales>

Vaismoradi, M., Turunen, H. & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and Health Sciences*, 15(1), 398-405.

(this box should expand as you type)

Location of research activity

Identify all locations where research activity will take place.

The questionnaire will be web-based, so will be completed from the respondents' own specific locations.

(this box should expand as you type)

Research activity outside of the UK

If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, particular cultural sensitivities or vulnerabilities of participants.

Not Applicable.

(this box should expand as you type)

SECTION F: Scope of Research Activity

Will the research activity include:

	YES	NO
Use of a questionnaire or similar research instrument?	☒	☐
Use of interviews?	☐	☒
Use of diaries?	☐	☒
Participant observation with their knowledge?	☐	☒
Participant observation without their knowledge?	☐	☒
Use of video or audio recording?	☐	☒
Access to personal or confidential information without the participants' specific consent?	☐	☒
Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☒	☐
Performance of any acts which may cause embarrassment or affect self-esteem?	☐	☒
Investigation of participants involved in illegal activities?	☐	☒
Use of procedures that involve deception?	☐	☒
Administration of any substance, agent or placebo?	☐	☒
Working with live vertebrate animals?	☐	☒
Other primary data collection methods, please explain in this box	☐	☒

If NO to every question, then the research activity is (ethically) low risk and **may** be exempt from **some** of the following sections (please refer to Guidance Notes).

If YES to any question, then no research activity should be undertaken until full ethical approval has been obtained.

SECTION G: Intended Participants

Who are the intended participants:

	YES	NO
Students or staff at the University?	☐	☒
Adults (over the age of 18 and competent to give consent)?	☒	☐
Vulnerable adults?	☐	☒
Children under 18?	☐	☒
Prisoners?	☐	☒

Young offenders?

☐ ☒

Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?

☐ ☒

People engaged in illegal activities?

☐ ☒

Others (please identify):

☐ ☒

Participant numbers and source

Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?

The aim is to recruit as many respondents as possible to create a reliable sample size.

However, based on a study conducted by Jain and Pareek (2015) (who used questionnaires with the SAAS scale to investigate the psychosocial impact of skin conditions) in order to gain a statistically significant result it is estimated that approximately 100 responses would be most necessary.

Respondents will be recruited through social media, including the UWTSD Psychology page, and Skin Care Cymru's media pages.

Participants will all consist of individuals that have a range of skin conditions. The online questionnaire will be created and posted online for anyone to voluntarily complete at their own convenience.

Reference:

Jain, P & Pareek, S. (2015). Psychosocial impact of skin diseases: A gender based comparative study. *Indian Journal of Health and Wellbeing*, 6(6), 606-609.

this box should expand as you type)

Information for participants:

	YES	NO	N/A
Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
Will you tell participants that their participation is voluntary?	☒	☐	☐
Will you obtain written consent for participation?	☐	☐	☒
Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?	☐	☐	☒
If the research is observational, will you ask participants for their consent to being observed?	☐	☐	☒
Will you tell participants that they may withdraw from the research at any time and for any reason?	☒	☐	☐

With questionnaires, will you give participants the option of omitting questions they do not want to answer?

☒ ☐ ☐

Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?

☒ ☐ ☐

Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?

☐ ☐ ☒

If NO to any of above questions, please give an explanation

(this box should expand as you type)

Information for participants:

YES NO N/A

Will participants be paid?

☐ ☒ ☐

Is specialist electrical or other equipment to be used with participants?

☐ ☒ ☐

Are there any financial or other interests to the investigator or University arising from this study?

☐ ☒ ☐

Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?

☐ ☒ ☐

If YES to any question, please provide full details

(this box should expand as you type)

SECTION H: Anticipated Risks

Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them.

Risks to participants

For example: emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information

Due to the sensitive topic area of the research (skin conditions), it is possible that respondents could become emotionally distressed if asked to answer questions about skin conditions, especially if they have a severe condition. Therefore, before the web-based questionnaire begins, a paragraph will be clearly incorporated before the questions, including a request that participants do not continue if they feel skin conditions is a topic that is likely to make them uncomfortable. This will be interpreted as informed consent (British Psychological Society, 2014).

It will also be explained that respondents possess the right to withdraw (British Psychological Society, 2014) at any time during the study, without the need to give a reason for their withdrawal.

They will also be informed that there will be no repercussions to withdrawing their data from the research.

Respondent data and collected demographic information (age, gender, and skin condition) will be stored securely on a password protected laptop in possession of the principal researcher, in line with the Data Protection Act (2018), and all responses anonymised to uphold the notion of confidentiality (British Psychological Society, 2014).

After the web-based questionnaire is completed, a short debriefing paragraph (British Psychological Society, 2014) will be displayed to further clarify the research aims and clearly outline the reasons behind the study, along with showing the contact details for the researchers again, in case of the event any queries or concerns are raised. In addition, the website for Skin Care Cymru will also be included, in case respondents want any support from an external organisation, or more information on skin conditions. Website: <http://skincarecymru.wales>

References:

British Psychological Society (2014). *Code of Human Research Ethics*. Leicester: The British Psychological Society. Retrieved 8th October, 2018, from, <https://www.bps.org.uk/sites/bps.org.uk/files/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf>

Data Protection Act (2018). *Data Protection Act*. Retrieved 8th October, 2018, from, <http://www.legislation.gov.uk/ukpga/2018/12/contents/enacted>

(this box should expand as you type)

If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities

As outlined above, due to the sensitive nature of the questions, respondents will possess the full right to withdraw for the duration of the entire course of the study, consent will be presumed from the introductory statement prior to data collection, and a short debriefing paragraph will be shown after completion, along with the researchers contact details, and the address for the Skin Care Cymru website for questions or additional support.

(this box should expand as you type)

Risks to investigator

For example: personal safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest

As an individual living with a skin condition, the researcher has acknowledged their own potential for emotional distress, and feels both comfortable and happy to proceed with the research design, being mentally prepared to undertake the study. The researcher will also be working closely with the research supervisor and personal tutor, engaging in one to one meetings throughout the course

of the research study, which significantly reduces the chances of any emotional distress being caused.

It is not likely for any physical risks to occur to the researcher due to the adherence to the BPS (2014) guidelines, full aims being appropriately conveyed and explained to all participants, and the presence of both a UWTSD faculty member, and Skin Care Cymru charity member.

Reference:

British Psychological Society (2014). *Code of Human Research Ethics*. Leicester: The British Psychological Society. Retrieved 8th October, 2018, from, <https://www.bps.org.uk/sites/bps.org.uk/files/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf>

(this box should expand as you type)

University/institutional risks

For example: adverse publicity, financial loss, data protection

No risks are predicted to occur to the University of Wales Trinity Saint David, due to all of the anticipated research following ethical requirements, and the researcher engaging in good research practice at all times (UWTSD Research Ethics and Integrity Code of Practice, 2017). The University's data protection policy will be adhered to during the study, to ensure data protection is upheld.

Reference:

UWTSD Research Ethics and Integrity Code of Practice (2017). *Research Ethics and Integrity Code of Practice*. Retrieved, 8th October from, <https://www.uwtsd.ac.uk/media/uwtsd-website/content-assets/documents/research/research-ethics-integrity-code-practice.pdf>.

(this box should expand as you type)

Adverse outcomes

List measures put in place to limit any adverse effects or outcomes of research activity where appropriate. Include any emergency protocols.

- The use of a statement obtaining presumed consent from every respondent before data collection begins, will ensure the research follows BPS Ethical Guidelines (2014).
- Participants will be made aware of their right to withdraw with no negative outcomes, at any time during the study.
- Data will be anonymous, stored securely and confidential.
- Respondents will be debriefed with a summarising paragraph at the end of the questionnaire and given an opportunity to contact the researcher if they have any questions or concerns
- If any adverse situations arise, the research supervisor will be contacted and consulted immediately.

(this box should expand as you type)

Disclosure and Barring Service			
If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants.	YES	NO	N/A
Has a DBS certificate been obtained?	☐	☐	☒

SECTION I: Feedback, Consent and Confidentiality

Feedback What feedback will be provided to participants, how will this be done and when? Upon completion of the web-based questionnaire, the contact details of the principal researcher, and research supervisor will be made available. Therefore, if any respondent would like any feedback, or have any questions regarding the study they will be urged to make contact. (this box should expand as you type)
Informed consent Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded. Before the web-based questionnaire begins, a paragraph will be clearly incorporated before the questions, including a request that participants do not continue if they feel skin conditions is a topic that is likely to make them uncomfortable. It will also be explained that respondents possess the right to withdraw (British Psychological Society, 2014) at any time during the study, without the need to give a reason for their withdrawal, without any repercussions to removing their data. These measures will be therefore interpreted as gaining informed consent from the respondent, if they continue and complete the questionnaire. Reference: British Psychological Society (2014). <i>Code of Human Research Ethics</i>. Leicester: The British Psychological Society. Retrieved 8th October, 2018, from, https://www.bps.org.uk/sites/bps.org.uk/files/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf (this box should expand as you type)
Confidentiality / Anonymity

Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.

The participants are being asked to complete a web-based questionnaire which will have no identifying information included on them. Even though demographics will be collected (age, gender, skin condition type and severity), they will not be able to be traced back to the respondent.

When data collection is complete, the researcher will input all recorded answers into the SPSS programme, at the point of data entry into SPSS, a participants individual recorded responses will become indistinguishable from others. This means that from this point onward, their data cannot be removed from the study. However, this will be fully explained to participants prior to any data collection.

(this box should expand as you type)

SECTION J: Data Protection and Storage

In completing this section refer to the University's Research Data Management Policy and the extensive resources on the University's Research Data Management web pages (<http://uwtsd.ac.uk/library/research-data-management/>).

Does the research activity involve personal data (as defined by the Data Protection Act)?

YES NO

☒ ☐

If YES, provide a description of the data and explain why this data needs to be collected:

The respondents will be asked to disclose their gender, skin condition (type and severity) and age demographics. This is so that the researcher can understand the distribution of participant demographics when analysing data to compare gender differences, and measuring the external validity of the study.

Does it involve sensitive personal data (as defined by the Data Protection Act)?

☒ ☐

If YES, provide a description of the data and explain why this data needs to be collected:

The Data Protection Act (2018) defines sensitive personal data as including 'physical or mental health or condition.' In this research, the subject of respondent's skin conditions, and mental wellbeing will both be addressed through the questions set out in the web-based study.

However, these are vital for the research questions and underpin the whole study. These must be addressed to gain generalisable data on the coping strategies and gender differences in the psychological impacts of living with a skin condition.

Reference:

Data Protection Act (2018). *Data Protection Act*. Retrieved 8th October, 2018, from, <http://www.legislation.gov.uk/ukpga/2018/12/contents/enacted>

(this box should expand as you type)

Will the research activity involve any of the following activities:

YES NO

Electronic transfer of data in any form?	☐	☒
Sharing of data with others at the University?	☐	☒
Sharing of data with other organisations?	☐	☒
Export of data outside the European Union or importing of data from outside the UK?	☐	☒
Use of personal addresses, postcodes, faxes, emails or telephone numbers?	☐	☒
Publication of data that might allow identification of individuals?	☐	☒
Use of data management system?	☐	☒
Data archiving?	☐	☒

If YES to any question, please provide full details, explaining how this will be conducted in accordance with the Data Protection Act (and/or any international equivalent):

Will the research activity involve storing personal data on one of the following:	YES	NO
Manual files (i.e. in paper form)?	☐	☒
University computers?	☐	☒
Private company computers?	☐	☒
Home or other personal computers?	☒	☐
Laptop computers/ CDs/ Portable disk-drives/ memory sticks?	☒	☐
"Cloud" storage or websites?	☐	☒
Other – specify:	☐	☒

For all stored data, explain the measures in place to ensure data confidentiality, including details of password protection, encryption and anonymisation:

Responses from the online questionnaire will not be traceable to individual participants, and will be kept anonymous throughout the duration of the research. The resulting data sets will be stored securely on the researcher's personal password-protected laptop for safekeeping until the point of statistical analysis.

At the point of analysis and statistical testing, all data-sets will be completely indistinguishable.

(this box should expand as you type)

List all who will have access to the data generated by the research activity:

Olivia Anne Hughes

Dr. Ceri Phelps

(this box should expand as you type)

List who will have control of, and act as custodian(s) for, data generated by the research activity:

Dr. Ceri Phelps

(this box should expand as you type)

Give details of data storage arrangements, including where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not.

Data will be stored securely on the principal researcher's personal password-protected laptop, and will be the only person other than the research supervisor that will have access to the data sets.

Data storage will all be in line and according to the university's Data Protection Policy (UWTSD, 2016), which can be found at <https://www.uwtsd.ac.uk/media/uwtsd-website/content-assets/documents/strategies-policies/Research-Data-Management-Policy-27.01.16.pdf>.

UWTSD (2016). *Research Data management Policy*. Wales: UWTSD, Available from, <https://www.uwtsd.ac.uk/media/uwtsd-website/content-assets/documents/strategies-policies/Research-Data-Management-Policy-27.01.16.pdf> [Accessed 8th October, 2018].

(this box should expand as you type)

SECTION K: Declaration

The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants.

In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's [Research Ethics and Integrity Code of Practice](#)

Signature of applicant: Olivia Anne Hughes

Date: 29th October, 2018

For students:

Director of Studies/Supervisor:	Dr. Ceri Phelps
Signature:	Olivia Hughes
Date:	29 th October, 2018

For staff:

Head of School/Assistant Dean:	
Signature:	
Date:	

Checklist: Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

- ☒ I have read the guidance notes supplied before completing the form.
- ☒ I have completed **ALL RELEVANT** sections of the form in full.
- ☒ I confirm that the research activity has received approval in principle
- ☐ I have attached a copy of final/interim approval from external organisation (where appropriate)
- ☒ I understand that it is my responsibility to ensure that the above-named research activity will meet the University's Research Ethics and Integrity Code of Practice.
- ☒ I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Head of School.

RESEARCH STUDENTS AND STAFF ONLY

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk, with the title 'Ethical Approval' followed by your name.

You will be informed of the outcome of your claim by email; therefore, **it is important that you check your University and personal email accounts regularly.**

STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

This form is available electronically from the Academic Office web pages:

<http://www.uwtsd.ac.uk/academic-office/>

Application Process

All staff research projects and all research students must submit the Ethical Approval Form to the **University Ethics Committee** via the Postgraduate Research office (pgresearch@uwtsd.ac.uk). Staff research directly in relation to personal study for taught undergraduate or Masters programmes should be submitted via the Faculty procedures explained below.

Taught masters and taught undergraduate research Ethical Approval Forms are considered **within Faculties**. Faculties will provide details of the specific processes for this. Where the Ethical issues within any single ethical application are of particular concern the Faculty will refer these to the University Ethics Committee. Any student activity that involves the collection of primary data needs to undergo Ethical approval, this includes assignment work as well as dissertations.

Notes for guidance in completion of this form

Section A: About You

Please complete all relevant sections

Section B: Approval for research activity

Research proposals must be approved in principle before applying for Ethical Approval. The proposal approval only becomes final when the ethical approval is received.

The process for proposal approval varies according the individual and programme of study:

- Research students, by application on form PG1 to the Research Degrees Committee
- Taught students by review of research proposal within Faculties (Faculties provide specific details of these processes)
- Staff, by agreement by the Head of School/Assistant Dean

Section C: External Ethical Guidance materials

Many discipline areas are required to operate with the discipline specific codes of research ethics (for example health, psychology, education etc.), any such codes must be listed and you must tick to confirm that you have consulted with these.

Section D: External Collaborative Research Activity

Provide details of the external collaborative partners, where appropriate you might want to submit a copy of the external collaboration agreement with the Ethical Approval Form. If the partner requires the research to be subject to its own internal Ethical approval process then please provide details of that process and a copy of any final (or interim) approvals received from the organisation.

Section E: Details of Research Activity

Remember that the individuals reviewing this Ethical Approval Form may not have seen your research proposal, and also may not be experts in the specific area of your research. The information provided should therefore be jargon free and clearly stated.

Indicative Title: please use the same title as used on the research proposal.

Purpose: the Ethical approval process will want to ensure that the methods you propose are adequate and appropriate to address the research aims and objectives. Excessive additional data collection can be seen as unethical.

Proposed Methods: the Ethical approval process seeks to ensure that you understand the methods that are intended, and that the implementation of those methods will be appropriate and without unnecessary impact on respondents. Please be specific.

Location: this needs to mention geographical location and also local situation (for example, within Local Authority Offices in Cardiff, using a private room but close to other individuals). If you are collecting data within an organisational setting then you need to explain the permissions that you have obtained to do this.

Research Activity outside of the UK: please complete this section in detail, and note any guidance you have received. Also describe your own familiarity (or not) with the location that you will be utilising.

Section F: Scope of Research Activity

Please tick ALL of the research activities that might be undertaken. If any additional types of activity are intended then please add an extra box and describe these.

If you have answered no to all questions in F then sections G and J do not need to be completed. Section H should be considered, and may be completed. Signatures are still required in section K.

Section G: Intended Participants

Please tick all categories that might apply.

Numbers & Source: if you are using a series of different methods or research activities please list numbers for each stage/phase. Be clear about how you will find respondents. Will you use intermediaries, and if so how? How will you ensure compliance with your sampling strategy?

Information for participants: all participants should be appropriately informed about the research, what is expected of them and what will happen to the information that they provide. The Ethical review process does not ask to see this documentation, but requires this to be reviewed and approved by the Director of Studies in the case of research students, the supervisor/module tutor in relation to students on taught programmes and the Head of School/Assistant Dean in relation to staff research.

Section H: Anticipate Risks

All research carries some level of risk. The answers you provide to questions in this section will be reviewed to ensure that you have an appropriate understanding of the type of risks involved and how you can mitigate against these risks.

Risk to participants Think very carefully about how your actions/questions/discussions might affect the people you are involving as participants. You might identify the risk as small but it would still be a risk. Many types of question have the potential to make respondents less content with their life / job; you need to recognise and try to ameliorate any such effects. If these are business owners, time with you may reduce profit.

In some locations physical risk is very real to both participants and yourself, please consider this.

Risk to you, the researcher Think about where you will meet people, if there are any dangers involved in the location. If you are meeting people as individuals think about using a public place. In general do not visit people in their own homes or remote locations. If you are talking to individuals about certain issues think about how their responses might affect you emotionally. What about the risk of collecting insufficient data?

Risk to the University When undertaking your research, you are acting as a member of the University (student or staff). Professionalism is important, so it is important to be well organised and well prepared. Punctuality, clarity etc. are all part of this. What will you do to ensure this? You must ensure you do not harm the good name of the University in any way and do nothing to undermine the reputation of the research it conducts and sponsors. Upholding high standards of conduct and integrity are vital in this regard. You must also conduct the research in such a way to minimise the potential for claims of negligence made against the University, its researchers and any collaborating individual or organisation. In this respect you should always comply with ethical, legal and professional frameworks, obligations and standards as required by statutory and regulatory authorities, as well as the university's Research Integrity and Ethics Code of Practice. Research misconduct in this respect can take many forms, including:

- fabrication: making up results or other outputs (eg, artefacts) and presenting them as if they were real
- falsification: manipulating research processes or changing or omitting data without good cause
- plagiarism: using other people's material without giving proper credit
- failure to meet ethical, legal and professional obligations: for example failure to declare competing interests; misrepresentation of involvement or authorship; misrepresentation of interests; breach of confidentiality; lack of informed consent; misuse of personal data; and abuse of research subjects or material
- improper dealing with allegations of misconduct: failing to address possible infringements such as attempts to cover up misconduct and reprisals against whistle-blowers

Adverse Outcomes. Think carefully about the possibilities, and cover here

Section I: Feedback, Consent and Confidentiality

Feedback to participants: outline your approach. Will interview transcripts be shared with respondents to check accuracy? Will summaries of questionnaire analysis be made available to respondents in some way? Will an overview report be provided? How and when?

Informed consent: Draft letter / e-mail / or heading (or footer) section of questionnaire must be approved by DoS/supervisor (if research student), supervisor/module tutor if taught student, or Head of School / Assistant Dean if a member of staff.

Confidentiality/Anonymity. Explain clearly how you will ensure confidentiality and anonymity.

Section J: Data Protection and Storage

Before completing this section it is necessary to read the University's Research Data Management information. The questions that follow are designed to ensure compliance with the Data Protection Act as well as established research protocols.

Many research activities will involve electronic transfer of data and use of data management systems in the summarisation and analysis of data. You will need to explain these in relation to compliance with the Data Protection Act.

Think carefully about who will have access to your data, this will include supervisors and examiners. Also that a thesis will be made available via the University library and the British Library system. If you are seeking an access bar for a period of time after completion then mention it here. If you will provide a copy of your findings, or intend to give a presentation, to a facilitating/ supporting/accessing organisation then explain that in this section. But also think about the general principle of data sharing, as explained in the Research Data Management information.

In terms of storage of data please ensure security, and also mitigate against loss of data.

Section K: Declaration

Ensure the appropriate countersignatures have been provided

Look carefully at the checklist and ensure that you comply with and tick all that are relevant to your research.

Appendix G – Consent Paragraph

Consent

This undergraduate research study will focus upon understanding and exploring coping styles and gender differences in the psychological impact of living with a skin condition e.g. Acne, Psoriasis, or Eczema

You will be presented with information relevant to skin conditions and asked to answer some questions. Please be assured that your responses will be kept completely confidential.

The study should take you around 15 minutes to complete. You have the right to withdraw at any point during the study, for any reason, and without any prejudice, by simply closing the browser at any time.

If you would like to contact the Principal Investigator in the study to discuss this research, please e-mail the researcher directly ohughes.151442@student.uwtsd.ac.uk or the study supervisor ceri.phelps@uwtsd.ac.uk if any concerns have been raised.

By clicking the button below, you acknowledge that your participation in the study is voluntary, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

Appendix H – Debrief Paragraph

Debrief Statement

Thank you for filling out this questionnaire.

The study aimed to explore the psychological challenges of living with a skin condition. All submitted data will be held confidentially and stored in accordance with the Data Protection Act (2018).

If you have any questions regarding this questionnaire, please do not hesitate to contact the researcher directly ohughes.151442@student.uwtsd.ac.uk or the study supervisor ceri.phelps@uwtsd.ac.uk if any concerns have been raised.

If you would like any details of external support or any advice regarding skin conditions, please visit <http://skincarecymru.wales>

Appendix I – Study Information

Study Information Sheet:

WELCOME!

Thank you for considering participation in this online research study.

Below there is information describing what this research will involve, please read this before clicking to move on to the questionnaire.

If you have any further questions, or would like any additional information, please do not hesitate to email the researcher directly at ohughes.151442@student.uwtsd.ac.uk or the research supervisor ceri.phelps@uwtsd.ac.uk.

What is the purpose of this study?

This online questionnaire is part of an undergraduate dissertation research project within the University of Wales Trinity Saint David, Swansea.

The study aims to explore coping styles and gender differences in the psychological impact of living with a skin condition, e.g., Acne, Psoriasis, or Eczema

It is therefore asked that you only participate if you have experience of a skin condition.

How do I agree to take part?

Participation is completely voluntary, and you will be asked to provide consent before proceeding to the questionnaire or answering any questions, however you must be over the age of 18.

You are free to withdraw from this study at any time without any repercussions, by simply closing the browser at any point .

Will my answers be held securely?

All data collected will be held completely anonymously, and stored in accordance with the Data Protection Act (2018). The questionnaire will assign anonymous codes to each participant's data set, so any answers provided will be completely untraceable to any individuals that have participated. The only individuals with access to the information provided will be the principal researcher, Olivia Hughes, and the study supervisor, Dr Ceri Phelps.

Thank you for taking time to read this study information.

If you would like any more information on the study please email the researcher on the email address provided above. If you would like any information regarding skin conditions or where to find support, please visit the Skin Care Cymru Website <http://skincarecymru.wales> for further details.

If you are happy to continue with your participation, please click the arrow below to progress.