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Children's Perceptions and Facial Disfigurement

by

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Dissertation Abstract

A detailed review of the literature on attractiveness and disfigurement revealed how people appraise attractive and unattractive others. It was noted that attractive people overall enjoyed better quality of life than unattractive people. Many theoretical perspectives, models and frameworks have been put forward to explain why this happens and its implications on people who may have a visible disfigurement. However, research undertaken in the area of disfigurement appears to be somewhat weak. Most studies have concentrated on specific causes of disfigurement such as cleft lip or burns etc., and have used clinical population. Research studies on children are rare. Therefore, a study was designed to assess the differences in the perceptions children from the non-clinical population hold, towards other children with a skin condition that affected their face. It explored whether these perceptions differed in three age groups and between the two genders. Sixty school children, 30 girls and 30 boys aged 8,12 & 16 years, participated in the study. All participants were shown 12 photographs of children with and without a skin disorder. Their responses were then analysed statistically using repeated measures ANOVA. Harter's self perception profile questionnaire was also used in the study to evaluate the effect of participants' global self-worth (gsw) on their responses towards children with a skin condition. The results indicated that there was a significant effect of skin condition and all participants rated favourably for children without skin condition. The effect of age and gender was not found to be significant and participants' gsw scores did not appear to have any bearing on their responses in this study. However, it was concluded that studies like this one are required to assess changes in children's perceptions regarding skin disorders as they develop to fully understand the impact of disfiguring skin disorders on the sufferer.

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This paper has been prepared for submission to Clinical Psychology Review (see Appendix A for Instructions to Authors).

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Literature Review Abstract

This review examined the research that explored the ways in which people appraise attractiveness and its impact on everyday life situations. It also examined the implications of this appraisal in cases of disfigurement.

The findings from literature indicate that the society in which people live, the influence of media, parents' attitudes towards attractiveness and peer's feedback, all play a role in the development of favourable attitudes towards attractiveness. The effects of such appraisals become especially difficult for someone who may develop a disfiguring condition, consequently leading to emotional, social and psychological problems.

It was noted that there has been a lack of involvement by researchers in the area of disfigurement and the research conducted so far has also been patchy. For example, the psychological effects of disfiguring burns and cleft lip/palate have received more attention than the consequences of conditions such as port wine stain and disfigurements resulting from the removal of malignant tumours. Moreover, studies on disfigurement caused by commonly occurring skin conditions such as acne, eczema, psoriasis are few and the disfiguring effects of such skin disorders on children have not been fully investigated. It is, therefore, imperative that future research gives serious consideration to the factors mentioned above. This would help to understand the emotional and psychological suffering caused by disfigurement due to common skin disorders at a developmental level. It may also help to change the attitude of others in the society towards others who may have a disfiguring condition.

Key Words: attractiveness, disfigurement, skin

Literature Review

Introduction

Appearance is dynamic. It changes throughout life, from month to month, from one day to the next, and from morning to evening. Physical appearance is influenced by many factors such as genetic inheritance, physiological processes of growth, development, reproduction, fat storage and ageing, accidental trauma, disease and medical or surgical intervention.

The fact that, on first impressions, attractiveness is associated with goodness has dominated the literature on appearance over the last few decades (Stevenage and McKay, 1999). A person's physical appearance, along with gender, is the personal characteristic that is most obvious to others in social interaction. It is possible that a correlation between character and outward appearance exists because certain personality traits influence one's appearance. There is some evidence that a calm, relaxed person may develop fewer lines and wrinkles than a tense, irritable person (Dion, Berscheid and Walster, 1972). If casual acquaintances invariably assume that attractive individuals are more sincere, noble and honest than unattractive persons, then attractive individuals should be habitually regarded with more respect than unattractive persons. The question that arises is whether people have stereotyped notions of the personality traits possessed by individuals of varying attractiveness.

Some of the earlier studies carried out on attractiveness drew attention to how people appraise attractiveness and how it affected unattractive people. Subsequently, attention was drawn to the impact of such appraisals on people who had developed a disfigurement. It is important to make sense of the perceptions and reactions of others

towards attractive and unattractive people in order to understand the processes that determine responses to seeing disfigured people.

In Western society, the language used reflects negative attitudes towards those who deviate from the perceived norm. Words such as "abnormality", "flawed", and "disfigured" convey the notion that there is something inherently 'wrong' about the way a person looks. The care and treatment of people with disfigurements reinforces this notion by seeking to "normalise" appearance, thereby reinforcing the assumption that aesthetic improvement will enhance a person's quality of life (Rumsey, 1997).

A disfigurement, blemish on the skin or disease that affects the appearance can lead to feelings of embarrassment, humiliation or other negative feelings such as sadness and anxiety. There is also evidence of psychological distress and concerns about social functioning due to the presence of some facial disfigurement (Bradbury, 1996). Many studies have reported that people with dermatological conditions believed that their skin condition had significantly affected their emotional health (Robinson, Rumsey and Partridge, 1996; Papadopoulos, Bor and Legg, 1999b). Other studies have shown that disfigured people attempt to conceal their disfigurement from others and frequently avoid social situations and may even stop participating in sporting activities such as swimming (Kent, 2000; Jowett and Ryan, 1985).

However, the research conducted so far has also been patchy. For example, the psychological effects of disfiguring burns and cleft lip/palate have received more attention than the consequences of port wine stains, and other dermatological conditions (such as acne, eczema, psoriasis). Disfigurements resulting from the removal of malignant tumours and its effects have also not been researched in detail.

This literature review explores how people of normal appearance perceive other people who have a disfigurement caused by one of a range of conditions. The rationale for exploring these issues is that this will provide an insight into how disfigurement affects the social interaction between the disfigured individual and onlookers, and how this, in turn, affects the development of self-perception of disfigured people and impacts on their self-esteem and self-worth. An understanding of these issues may help both researchers and clinicians to determine how best to provide support to people with a disfigurement and help reduce the stigma attached with it.

The literature review will, therefore, begin by defining disfigurement and describing the common causes of disfigurement and examining the psychological, social and emotional impact of dermatological conditions on the sufferer. Next, it will discuss some of the theories that have been proposed to explain how stereotypes are developed, and then it will review the empirical literature on attractiveness in order to explain how people generally perceive attractiveness. Furthermore, it will explain how development affects the perceptions that children hold regarding other attractive and unattractive individuals, and how these perceptions determine their attitude towards other people who may develop some disfigurement. It will then review studies that have explored how people perceive someone with a disfigurement. In the last part it will review studies on self-perception of individuals suffering from a disfigurement, and examine the interaction between self-perception and perception of disfigurement by individuals of normal appearance.

Disfigurement

Disfigurement is defined as appearance that has been spoilt (Waite, 1994). Human

appearance is described in terms of its constituent bodily and facial features. However, the literature reviewed is based mainly on ratings of facial attractiveness rather than bodily attractiveness. When facial features combine in a harmonious way then a person's appearance is described as 'normal', 'nice-looking' or 'attractive'. When there is disharmony, the appearance is perceived to be 'abnormal', 'disfigured' or 'unattractive'. There are many causes of facial disfigurement. Some of the principal causes are described below:

Causes of disfigurement

- Disfigurement can result from many congenital malformations. The most common of these is a cleft (gap) of the lip and/or palate, occurring in about one in every 750 births. It can be unilateral or bilateral and tends to occur twice as often in boys than in girls (Harris, 1997).

- Birthmarks are of various types. Some of these can be caused by malformation of blood vessels. Vascular malformations such as capillary port wine stains (PWS) are present at birth and can persist throughout life. They occur in about three per 1000 birth and can affect skin in any part of the body, but are most common on the face. Port wine stains are very noticeable due to their distinctive colour, but they rarely lead to distortions of normal shape or contour of the skin.

- In the UK, one million people every year sustain facial injuries. The most serious facial injuries usually affect young people. They can be caused by a variety of accidents such as when under the influence of alcohol, assault, or road traffic accidents (RTAs), and may sometimes lead to scarring. Scars

associated with traumatic injuries can be disfiguring when they result in alteration of shape, colour and contour or if they are irregular (Harris, 1997).

- Extensive disfigurements may also result from surgical removal of malignancies. The incidence of skin cancer is increasing rapidly and the wide excision of skin, especially on the face, followed by skin grafts is a growing cause of post-operative disfigurement (Partridge, 1997). Patients and their families not only have to cope with the fear of cancer and its treatment, but also the effect that it might have on their appearance and speech (Baker, 1992). Facial disfigurements are particularly visible and, when facial features or musculature are affected, they are more likely to alter a person's repertoire of non-verbal behaviours. Removal of other tumours in the region of the head and neck may also lead to some form of disfigurement.

- Disfigurement can also result from chronic skin conditions such as eczema (occurring in about 10-20 % of population), psoriasis (occurring in 2-3 % of population), acne rosacea (occurring in 5-10 % of population, but rare in younger population), or from acne, which commonly occurs in about 85% of adolescents, but may persist in adulthood in some cases. Vitiligo, occurring in 2-3 % of population, is another skin condition, which involves gradual depigmentation of the skin of the whole body and can affect appearance drastically (Harris, 1997). All these dermatological conditions may lead to changes in the texture, unevenness, colour or coarseness of the skin.

The importance of the skin for an individual's psychosocial equilibrium can be easily appreciated. Conditions such as acne, psoriasis and port wine stain can cause facial

disfigurement and have a pronounced effect on the emotional well-being of the sufferer. For example Stevenage and McKay (1999) demonstrated that individuals afflicted with visible disfiguring skin disorders are more likely to be stigmatised and ill-treated than those with obvious physical disabilities.

The next section will review studies that have examined the impact of different types of disfigurement caused by different dermatological conditions on psycho-social factors and on the emotional well-being of the sufferer.

Disfigurement caused by various dermatological conditions

Acne

Acne can have profound social and psychological effects, unrelated to its clinical severity. The psychological and social impact of acne is of particular concern because it affects adolescents at a time when they are developing their personalities. During this time peer acceptance can be very important to the teenager as appearance and attractiveness is highly linked with peer status (Gupta, Johnson and Gupta, 1998).

In Britain, acne appears to be a common disorder in adolescents. About 85% of adolescents suffer from mild to moderate form of acne. Studies have indicated that severity of disease and gender (girls) seem to have a considerable impact on emotional health (Smithard, Glazebrook and Williams, 2001). This claim is also supported by Aktan, Ozmen and Sanli (2000). Their study indicated that although moderate/severe acne is more common in boys, the extent of severity of acne was similar in boys and girls. Moreover, adolescent girls appeared to be more vulnerable to the negative psychological effects of acne than boys. They were also more anxious than boys.

Acne can adversely affect the self esteem and body image. Girls suffering from acne tend to wear heavy make-up to disguise pimples. Boys have been known to reduce or stop participation in sports such as swimming or rugby because of the need to disrobe in public changing rooms (Layton, 2001). Acne also has an impact on social relationship building. Acne, especially on the face, can provoke cruel taunts, which may lead to anxiety and fear of negative appraisal by others. In extreme cases social phobia may develop, which can have a major impact on social relationships and social functioning (Barankin and DeKoven, 2002). The effect of acne on education and work is also profound. School refusal is common in adolescents who suffer from acne (Aktan, Ozmen and Sanli, 2000), which may lead to poor academic performance and reduced career choices. Reduced self-confidence may also lead to future unemployment (Barankin and DeKoven, 2002).

Skin diseases such as acne are sometimes considered unimportant, when compared to the diseases of other organs. However, a study of acne patients revealed that reported levels of social, psychological and emotional problems were as great as those reported by patients with chronic diseases such as asthma, epilepsy, diabetes or arthritis (Mallon, Newton, Klassen, Stewart-Brown, Ryan and Finlay, 1999).

It is suggested that when assessing acne it is important to take into account both the clinical and the psychological effects of the disease process (Layton, 2001). Gupta, Johnson and Gupta (1998) suggested that even clinically mild to moderate disease can be associated with clinical depression. In teenagers depression may manifest itself as social withdrawal or impaired school performance (Gupta and Gupta, 1998).

One recent study assessed the effect of change in clinical severity of acne on a

person's psychosocial state (Mulder, Sigurdsson, van Zuuren, Klassen, Faber, deWit and van Vloten, 2001). Fifty young females with mild to moderate acne were seen before and after a nine month treatment. After nine months, a significant reduction in clinical severity was seen overall that did not relate to the significant improvements in self-esteem, stability of self-esteem and, more importantly, acceptance of appearance. This indicated that perceived psychosocial impairment is individually based and does not necessarily relate to clinical improvement. The reason for this, puzzling, result could be a discrepancy between the expectations of the patient and the clinicians. For example, patients might expect greater clinical improvement than is possible.

Alternatively, patients might attribute a whole range of psycho-social difficulties to their skin condition when, in fact, some of these difficulties have been caused, or are being maintained by other factors that are not directly related to the skin condition. If this is the case, then it is important for the clinician to discuss the probable outcome of the treatment offered, and secondly, psychological treatment should be considered as part of the overall treatment package so that issues around physical appearance and self-esteem can also be addressed. Unfortunately, few validated instruments exist that are suitable for clinical trials in this area and further research is imperative to help clinicians understand the impact of facial acne in young adults (Martin, Lookingbill, Boteck, Light, Thiboutot and Girman, 2001). One promising instrument for future research is the Acne Quality of Life scale, developed by Gupta and Gupta (1998). It is a nine item scale that is sensitive to changes in patient-rated indices of acne severity and the psychological morbidity associated with acne. Future research would be advised to both include this scale and also develop further validated measures.

Atopic dermatitis

This is a common skin condition occurring in children between infancy and adolescence - a period which is the most important for forming character. Thus, it can potentially affect the psychological well being of the sufferer. One illustrative study showed that emotional well-being of people suffering from atopic dermatitis, especially on the exposed areas of skin, was affected by their condition. Hashiro and Okumura (1997) conducted a study in which they compared controls with patients who had atopic dermatitis of varying degrees of severity, on proneness to anxiety, depression and psychosomatic symptoms. They concluded that patients with atopic dermatitis were more prone to depression and psychosomatic symptoms.

Port wine stain (PWS)

As mentioned above, port wine stain is a type of birthmark that is caused by vascular malformation. It is most common on the face and can lead to the distortion of the symmetrical appearance of the face. Demellweek, Humphris, Hare and Brown (1997) evaluated children's perception of, and attitude towards unfamiliar peers with a facial port wine stain. Participants were between the ages of 8 and 11 years in grades 4, 5 and 6 because children at these ages appear to have relatively stable attitudes towards children with handicaps (Rosenbaum, Armstrong and King 1986). Video clips of the same six children with PWS were rated by all participants for attractiveness, overall willingness of participants to interact with them, and friendliness shown towards them. Results revealed that participants thought that the facial condition of the children on the video would attract teasing and staring. However, it did not significantly affect participants' assessment of attractiveness and character, or their willingness to interact with these children. It was not clear whether prejudice expressed by the participants on

the questionnaire would be expressed behaviourally by them if they encountered the children in video clips. According to Gething (1991) and Siller (1986), people seem reluctant to admit to feelings of prejudice against individuals with a disability or a disfigurement. More studies are required to address the potential discrepancy between self-report of attitudes and behaviour.

Augustin, Zschocke, Wiek, Peschen, and Vanscheidt (1998) explored psychosocial stress of patients with port wine stains (PWS) and expectations of Dye Laser Treatment. They found that patients with port wine stains showed significantly higher emotional stress than healthy controls. They were particularly impaired in quality of life with respect to their social life and felt less attractive than a healthy control group. It was also observed that patients with high emotional stress placed high hopes on laser therapy in relation to their chances of employment and social contacts. Augustin et al. (1998) concluded that there was a need for thorough patient consultation prior to laser therapy in order to avoid unrealistic expectations of the outcome of the treatment. Psychological consultation was also recommended for emotionally labile PWS patients.

Psoriasis

Recently it has been proposed that assessing how psoriasis affects an individual's life is more informative than a body surface area measurement for delineating severity. Gupta and Gupta (2003) suggested that, in some instances, psychological co-morbidity is the most important feature of this disorder. They proposed that a psychosocial model, which takes into account the psychological and social factors in addition to primary dermatological factors in the management of patients and their general well-being, would be the most useful approach. However, a number of

interesting studies have been conducted prior to Gupta and Gupta's (2003) recent suggestion and these will be reviewed here.

Kent and Keohane (2001) carried out a postal survey to examine the relevance of social anxiety and past experiences to the psychosocial consequences of disfigurement caused by psoriasis. They showed that patients whose condition was visible on the face and hands reported a high fear of being perceived negatively by others in society.

Al'Abadie, Kent and Gawkrodger (1994) investigated the role of stressful life events in the progression of psoriasis, urticaria, acne, non-atopic eczema, malignant melanoma, fungal infection and other skin conditions. Individuals with psoriasis reported the experience of stress predating the onset and exacerbations of their condition. Al'Abadie et al. (1994) suggested that psychological interventions might be a useful adjunct to therapy for particular patients.

According to research, younger patients with early onset psoriasis are more likely to have greater genetic susceptibility and tend to experience a more severe and recurrent disease. It appears that age of the patient is an important factor to consider when treating psoriasis. It was also suggested that even if the disease is clinically mild, when it is disfiguring, it should be treated aggressively due to its effects on appearance. This may help to avoid its effect on the emotional well-being of the sufferer (Choi and Koo, 2003).

It seems evident from the above studies that appearance, which changes due to disfiguring skin condition, can impact on the emotional well-being of the sufferer. This is because the individual with disfigurement believes that other people will

appraise him or her negatively and form opinions about personality due to more general perceptions that the perceivers hold about attractiveness (Barankin and DeKoven, 2002).

In order to explain the processes, which determine responses to seeing disfigured people, it is important to understand how people perceive attractiveness and how this affects their perception and resultant reactions towards unattractive people. The most clear conceptualisation of the relationship between physical appearance and social interaction was provided by Adam (1977) in his four-stage model. This model helps to explain the development of appearance stereotypes, their influence on the perceptions people have of attractive and unattractive people, and the effect of these perceptions on social interactions. This model may also help to provide some useful insight into how children's perceptions develop regarding people who have a disfigurement of some kind and how these perceptions may influence social interactions from an early age. The next section of this review will discuss Adam's model and then present a socio-cultural perspective on disfigurement that can complement Adam's model to provide a more comprehensive account of the perceptions of attractiveness.

Model of the relationship between physical appearance and social interaction

The first stage of Adam's (1977) model discussed the phenomenon of stereotyping. According to him, stereotypes are knowledge structures (schemata) that guide the way that individuals process information about others. These structures are necessary to impose order on the enormous wealth of information involved in the perception of other people. People develop these knowledge structures through their experience of social interactions and through cultural influences such as representations in the

media. The knowledge structures channel or filter information to guide an individual's attention to information that fits the pre-existing schemata and to ignore things that do not fit. For example, people appear more inclined to strike a conversation with strangers whom they find attractive rather than someone who may be less attractive or disfigured (Partridge, 1997). Cues derived from physical appearance play a crucial part in the stereotyping process during initial encounters.

In the second stage, Adam (1977) discussed the process of social exchange. He proposed that subjective assumptions, based on stereotypes, influence subsequent behaviour towards other people. So, on the basis of differing stereotypes of people, individuals behave differently towards attractive people compared to those who are less attractive. This claim is well supported by research studies, some of which will be discussed in a later section of the review.

In the third stage of his model, Adam (1977) suggested that through the process of initial encounters and the stereotypes used by others, attractive people develop positive self-concepts, which become internalised. In contrast, the internalized self-concepts formed by unattractive people are negative because of the way that others behave towards them. There is a substantial body of evidence that supports the idea that physical appearance and the feedback that different levels of attractiveness elicit from other people are central to self-concept (Feingold, 1992; Kent, 2000)

In the last stage of his model, Adam (1977) described a self-fulfilling prophecy. He proposed that as a result of being the recipient of positive social behaviour from others and also from feelings of positive self-worth, attractive people behave differently compared to unattractive people in social encounters. For example, they

tend to smile more, initiate interactions, and appear to be at ease with others. On the other hand, unattractive people expect to be ignored, which may lead to strained interaction, leading to social withdrawal and constriction of free interaction (Pruzinsky and Cash, 1990). The consequence can be a lowering of self-esteem.

One criticism of Adam's model stems from the fact that, although useful, it implies that the process of social interaction is more uniform and universal than it really is. Physical attractiveness, although initially important, is less influential in the longer term than other social skills such as expressive facial behaviour, speech and gestural fluency (Riggio and Friedman, 1986). Given the limitations of Adam's model, a theoretical perspective known as the socio-cultural perspective might also be useful in understanding the wider cultural context and how cultural values influence individual values, behaviour and the development of self-concept. The difference between Adam's model and the socio-cultural perspective is that the latter explains the role of culture, in which an individual grows, on the development of perceptions regarding attractiveness and how cultural influences affect the perceptions of disfigurement.

The Socio-Cultural perspective (Jackson, 2002)

The basis of the socio-cultural perspective is that cultural values are important in understanding how individuals are perceived by others and how they perceive themselves. Non-verbal feedback, such as expressive facial behaviour, speech, and gestural fluency (Riggio and Friedman, 1986), which people receive from others in social interactions, are crucial in forming self-concepts according to this perspective. The type of feedback used by individuals is determined by the culture or society in which the individual lives.

There are many variants of the socio-cultural approach. However, three particular theoretical approaches within this perspective have been particularly useful in conceptualising the role of physical attractiveness in everyday life. Therefore, the review will only explore these three as they have particular relevance to how children may perceive facial disfigurement.

The first approach, which is identified with Feingold's (1992) work, states that there is consensual agreement within cultures about who is attractive and who is not. In most cultures, people behave differently towards attractive and unattractive people. Cultural values are mostly instilled through conversations that people may have or what they do when they meet someone. In interviews, all over the world, people report that first impressions count (Stevenage and McKay, 1999). Cultural institutions such as the mass media, and the diet and beauty industries communicate the value of attractiveness by presenting attractive people in a positive light. For example, fashion magazines put attractive people on the front pages, and on television attractive people are newsreaders or programme presenters. This wider cultural context is translated into the individual's experiences in daily life by influencing the nature of social interactions. For example, cultural stereotypes about attractiveness influence individual behaviours in dyadic interactions (Smolak, 2002). This differential behaviour of others can affect variants of self-concepts, such as self-esteem and personal characteristics, and these may also influence self-perceptions. This idea supports the notion of self-fulfilling prophecy, an idea proposed in the final stage of Adam's model.

The second theoretical approach within the socio-cultural perspective focuses on the knowledge structures or schemata that people use to make sense of their social world, that is to understand and predict the behaviour of others. According to Jackson

(2002), cultural information is transformed into schemata through direct observations of people's reactions to attractive individuals and by exposure to cultural representations of attractiveness through the media or other influences. These schemata provide a framework for understanding the physical attractiveness stereotype and making sense of the processes of social exchange to determine the differing stereotypes of people. Again, this theory is consistent with the first and second stage of Adam's model.

The third approach within the socio-cultural perspective evolved from sociological theories that explain how external characteristics influence social interactions and their outcomes (Langlois, Kalakanis, Rubenstein, Larson, Hallam and Smoot, 2000). It predicts that people will hold more positive expectations for attractive individuals rather than for unattractive ones. According to this approach, physical attractiveness is associated with a wide range of desirable attributes with regards to both self-perception and perception of others.

These socio-cultural theories complement and elaborate Adam's (1977) proposals that the role of stereotyping influences the development of self-concept and that this influence is modulated through cultural influence. They help to explain why people behave more favourably towards attractive than towards unattractive people. Socio-cultural theories predict that attractiveness which is related to more favourable treatment will result in more positive self-concepts.

The review will now explore the empirical research on attractiveness and try to establish whether such stereotypes exist and if they do, how they are developed and influence perceptions formed by children from an early age. Most research studies have used samples across the age span, reviewing them will provide an insight into

how children's perceptions regarding attractiveness develop and what factors become important at different stages of development.

Empirical research on attractiveness

One such study was undertaken by Dion et al. (1972). They examined whether a physical attractiveness stereotype does exist, and if it did, then they wanted to delineate the content of the stereotype along several dimensions. Specifically, their study was designed to investigate mainly whether a physically attractive stimulus person (male or female) is assumed to possess more socially desirable personality traits than an unattractive person. Next, they looked at whether physically attractive persons are generally expected to be better husbands and wives, better parents, and more socially and occupationally successful than less attractive persons.

Dion et al. (1972) used twelve different sets of three pictures. The physical attractiveness rating of each of the pictures was determined in a preliminary study. One hundred undergraduates rated 50 yearbook pictures of the opposite sex with respect to attractiveness. The criteria used for choosing the pictures for the experiment included high inter-rater agreement. The pictures chosen for very attractive and very unattractive categories were not at the extreme ends of spectrum. Each participant received and rated only one set, which consisted of three envelopes. Each envelope contained one photo of the stimulus person, approximately the participant's own age. However, one of the stimuli was physically attractive, another was of average attractiveness and the final photograph was of a relatively unattractive stimulus person. The photographs in the three envelopes were presented randomly. The researchers predicted that the participants would attribute more socially desirable

personality traits to attractive individuals than to average or unattractive individuals. They also anticipated that jealousy might attenuate these effects if the participant was of same sex as the stimulus person. Attractive persons were indeed judged as more socially desirable than unattractive persons, whether the person rating the photograph was the same or the opposite sex as the stimulus person. There was also strong support for all the other hypotheses except for the idea of attractive persons being better parents. All in all, the attractive people were expected to have more total happiness in their lives than those of lesser attractiveness.

The results of the study suggested that a physical attractiveness stereotype did exist and that its content was compatible with the "what is beautiful is good" thesis (Dion et al., 1972). Not only were physically attractive persons assumed to possess more socially desirable personalities than those of lesser attractiveness, but participants also presumed that attractive people's lives would be happier and that they would be more successful.

Two later studies by Eagly, Ashmore, Makhijani, & Longo (1991) and by Feingold (1992) suggested that attractive people are seen as more socially competent, more intelligent, more dominant, and better adjusted. These researchers conducted two meta-analyses of studies of appearance and person perception, which confirmed the existence of the 'physical attractiveness stereotype' as described by Dion et al. (1972). In a society, such as the West, that places a high premium on physical attractiveness and 'wholeness', it is not surprising that a considerable research literature reports the benefits of having a physically attractive appearance. Overall, the findings indicated that the physical attractiveness variable may have a number of implications for a variety of aspects of social interactions and influence. When compared with an unattractive facial

appearance, good-looking people are perceived as more intelligent, popular, honest and socially desirable. Teachers also rate attractive children as more intelligent and popular (Bull and Rumsey, 1988).

Speculations about the origins of stereotypes and prejudices relating to physical appearance have focused on instinctive rejection of the less than perfect. The processes of social conditioning and reinforcement are also based on ideals of attractiveness and the positive attributes that attractive people are assumed to possess. Research suggests that all of these explanations may play a part in responses shown to people on the basis of their appearance (Rumsey, 1997). Appearance is commonly judged on various aesthetic dimensions such as, size, shape, symmetry, proportion, straightness, tidiness, firmness, smoothness, colour and presence or absence of a particular feature. Body-esteem or appearance-esteem tends to include items concerning facial features, hair and general appearance (Patzer , 1996). These elements also appear to be substantially correlated with global self-esteem.

Self-esteem can be defined in terms of cognitive generalisation derived from past experiences. It is one of the most important personality characteristics in every person's life. Since people are not isolated from their environment, a person's experiences impact on his or her self-esteem. Research has indicated that improving physical attractiveness will improve attitude, personality and interpersonal interactions (Patzer, 1997).

The following section will move on to examine the impact of negative attitudes towards unattractive individuals as these provide a platform for understanding views and, most importantly, attitudes towards disfigurement.

Attitudes towards unattractive individuals

Research has indicated that an individual's physical attractiveness is an important social cue used by others as a basis for social evaluation. A study by Dion (1972) suggested that the effects of a physical stereotype may be present early in childhood. One of the reasons for this could be differential treatment displayed by adults towards attractive and unattractive children in circumstances in which their behaviour is identical (Dion, 1972).

The theoretical models and perspectives discussed above have highlighted the fact that one's self-concept develops in part from observing other people's reactions, and inferring their judgements (Dion et al., 1972). For example, a preschooler's level of physical attractiveness, as judged by adults, was related to the extent to which he or she was popular with peers. Perceived physical attractiveness was also related to how much he or she exhibited certain types of behaviours in interactions with others (Dion and Berscheid, 1971). However, this study did not clarify the factors that mediated these observed relationships. It was postulated that there could be a variety of intervening processes. For example, there was a possibility that preschoolers may have already observed the adult cultural stereotype and had distorted their perception of their peers to fit the stereotype. Alternatively, the affect towards attractive and unattractive peers may be generated directly from differential behaviours displayed by these peers in their interactions. These mediating factors presuppose that adults display differential treatment toward attractive and unattractive children, even under circumstances in which children's behaviours are identical.

Dion (1972) investigated the tenability of this assumption in a situation integral to the socialisation process. For example, a child committed a transgression and the

socialising adult evaluated the child. It was assumed that adults held a physical attractiveness stereotype for children similar to that held for other adults. If so, they would expect that physically attractive children to engage in more socially desirable behaviour than the unattractive children. To explore this idea, Dion (1972) conducted a study where black and white photographs of second grade boys and girls were selected on the basis of judges' ratings of their physical attractiveness. The photos were rated on a five point scale, and the scores ranged from 1 (very unattractive) to 5 (very attractive). Four photographs of each sex were used to accompany the behavioural descriptions. All of the photographs were of 'normal' appearance, in other words, none of them had a physical defect or deformity and none of them wore glasses. The behavioural description included details of interpersonal physical aggression towards another child, and impersonal physical aggression towards an animal. Both a mild and a severe version of each behavioural description was used.

On the whole, the results of the study supported the hypothesis that the adults' evaluation of a child who committed a transgression differed as a function of the child's attractiveness. Adult evaluators were also less likely to attribute chronic, antisocial behaviour to attractive than to unattractive children. Unattractive children who transgressed, were perceived by adult evaluators as being more dishonest and more unpleasant than attractive children. They also saw attractive children as less likely to have similarly transgressed in the past whether the offence was mild or severe.

The findings of the study indicated that the physical attractiveness of the child who committed a transgression did indeed influence the adults' evaluation of him or her.

Attributional inferences were affected by the severity of a transgression and the attractiveness of the child who committed the offence. Children's physical attractiveness seemed to have influenced the judgement of the transgression's undesirability whether the offence was mild or severe. The results of the study, therefore, supported the hypothesis that physically attractive people are perceived as having more desirable personalities than unattractive people and that this applies to children as well as adults.

The development of body image during adolescence

Attitudes of adults towards attractive people play an important role in developing appearance stereotypes in children from a very early age (Cash and Pruzinsky, 2002). These stereotypes then affect the way that children view themselves and others. Body image encapsulates a variety of psychological concepts including perceptions of and attitude towards appearance, and is considered important in the development of self-esteem. Since positive body image is related to high global self-esteem, it is especially important to study the development of body image during childhood and adolescence. Adolescence is a critical time in the psycho-social development of the individual and physical appearance also becomes highly salient at this time. Consequently, awareness of disfigurement or appearance of disfigurement could be critical in terms of individual development as a whole. This review will now explore the various factors that are highly influential in the development of body image during adolescence.

Culture and society play a major role in the construction and hence the development of body image. Likely socio-cultural influences include parents, peers and the media. In addition to direct comments, parental modelling of weight concerns may contribute

to body-esteem problems in children. Social learning theory (Bandura, 1977) proposes that parents are important agents of socialisation, who can influence their children's body image through modelling, feedback and instructions. Some studies (Smolak, 2002) have found that parents' attitudes and behaviours towards their own body image were correlated with body image in their adolescent children. Kolb (1959) also stressed the parents' role in affecting the child's attitude towards his or her body when he described the effect on self-image of parental praising or criticism of particular attributes. Even without physical defects, children tend to internalise messages from their parents about their bodies. They internalise the way they are touched, talked about and accepted or rejected by family members throughout the developing years. Across cultures, teasing and other negative verbal comments by family members could have both short and long term negative effects on body image.

Young children are mostly influenced by parents whereas adolescents' body image may be more affected by interactions with their peers (Cash and Pruzinsky, 2002). There is consistent support for a relationship between negative peer messages and body dissatisfaction (Cash and Pruzinsky, 2002). Perceptions regarding peer acceptance may serve to elevate concerns about appearance (Smolak, 2002). The most obvious and direct manner in which peers exert their influence is through feedback. The influence of peer group, particularly throughout adolescence, can be paramount in the development of a young person's self-worth.(Smolak, 2002).

There has also been some research that has explored the development of body image during childhood and adolescence. By the age of six years, children are aware of a societal bias against fat people and frequently express this bias themselves (Dietz, 1998). Discrimination against over-weight children begins early in childhood and

becomes progressively institutionalised. Smolak (2002) found that as obese children appear to be bigger than other children their age, they may be seen as more mature which may lead to inappropriate expectations of their abilities from others. Thus, adversely affecting their socialisation (Dietz, 1998). Reports from overweight individuals have shown that there are strong cultural biases that demonstrate a negative attitude towards obese persons (Friedman and Brownell, 1995). It is also known that teasing about weight or physical appearance is positively related to body dissatisfaction in the early school years (Smolak, 2002). There is also some evidence that by early adolescence, negative body image predicts the development of depression and eating disorders (Frances, 2004).

Developmental psychologists have suggested that the pubertal transition accentuates previously existing vulnerabilities and problems (Erikson, 1982). The onset of a disfigurement during adolescence may be particularly distressing. Forming new relationships may become difficult if confidence in relationships has been steadily eroded by the attitudes of partners in previous relationships (Walters, 1997). Disfigured young adults and adolescents may also be disadvantaged in job interviews and prone to inaccurate stereotyping by potential employers.

It appears that across adolescence concerns regarding appearance assume a new importance. The correlation of body image, self-esteem, and negative affect appear to be significantly greater for girls than boys. Appearance and attractiveness are especially important topics for girls as they make the transition from childhood to adolescence because they become more self-conscious due to the changes in their body shapes and the reaction of peers regarding appearance (Brown, Robert and Browne, 1988). Research consistently indicates that boys appear to be more satisfied

with their weight and shape (Thompson and Kent, 2001). These assertions are made consistently in the literature, however, robust empirical support for them is lacking.

It is well established that attractive people are perceived as having more desirable personalities by other people and that these attitudes exist in both children and adults (Dion et al., 1972; Lansdown, Bradbury, Carr and Partridge, 1997). Research has also shown that young and attractive people in the general population elicit significantly more favourable impressions than the older or the less attractive (Stevenage and McKay, 1999). Quality of interpersonal relationships, the way people see themselves in comparison to others and the feedback people receive from others all contributes to their self-concept (Jackson, 2002). It is not surprising, therefore, that an individual's attractiveness or physical appearance is a major factor influencing his or her self-esteem (Patzer, 1997). Whether self-esteem also influences the perceptions that an individual has of other people with a disfigurement has not yet been investigated. Therefore, it is important to look at how the level of self-esteem of people in the normal population affects their perception of people with a disfigurement. A detailed discussion of the relevant literature would help to elaborate this point further.

Research on attitudes towards disfigurement

Most research into the perception of attractiveness compares attractive with unattractive faces, however, the unattractive faces used in these studies represent mild deviation from the average. Nevertheless, there is a consistent finding that less attractive faces are perceived more negatively, which strongly suggests that attitudes towards disfigured faces will be negative. In relation to the discussion of body image in adolescence above, it is reasonable to suppose that these negative attitudes could be

particularly damaging in adolescence, since it is a crucial time in a young person's life as they develop their personalities. This following section reviews evidence on attitudes to disfigurement and considers the implications of this research for development.

There is consistent evidence of a range of negative attitudes and behaviours, shown by children and adults, in response to people with facial disfigurement whether they are children or adults (Lansdown et al, 1997). Expectations about children's abilities are influenced by the presence or absence of a facial difference such as a cleft lip or palate (Richman and Harper, 1978). In adulthood, individuals with facial disfigurements are often avoided in social situations. Pedestrians waiting to cross the road stand further away from a disfigured confederate (Rumsey, Bull and Gahagan, 1982). It has also been observed that people give less money and prefer to spend less time in the company of a disfigured charity collector than a non-disfigured one (Rumsey and Bull, 1986; Bull and Stevens, 1981). A more recent study, (Houston and Bull, 1994) found that people tended to choose a seat further away from another passenger in their rail carriage when that person possessed a facial disfigurement. Thus, while there is a strong positive bias towards attractive people, there is also a strong, reverse bias, in the form of negative reactions to disfigured individuals (Partridge, 1997). This has the potential to make disfigured people feel rejected thus negatively affecting their self-esteem.

Indeed, there is evidence that facial disfigurement does elicit an extreme social reaction, which extends throughout the life span of a disfigured individual. As with the attractiveness bias, this appears to extend across social situations as well (Altabe and Thompson, 1996). This can lead to the development of incorrect assumptions on

part of the onlookers. For example, Bernstein (1976) suggested that due to the strong association between good looks and health, a person with a disfigurement might be avoided due to the assumptions that the person may have something contagious. The perceptions regarding disfigurement and the individual suffering from it may lead to them being perceived by others more negatively in comparison with others. Alternatively, Langer, Fiske, Taylor and Chanowitz (1976) proposed that uncertainty about how to behave could lead to a desire to escape or avoid an encounter. The first encounter with a facially disfigured person can be potentially problematic as the normal rules of social interaction do not apply. For example, there may be concerns about conventional patterns of non-verbal communication because eye contact directed to the face could be construed as staring by the facially disfigured person. Thus, avoidance may seem preferable to the risk of embarrassment for both parties.

As a consequence of such negative assumptions, disfigured individuals may miss out on meaningful relationships and valuable future job opportunities. According to Cash and Kilcullen (1985), recruitment personnel appear to be greatly influenced by first impressions and tend to make decisions very quickly. Marlow, Schneider, and Nelson (1996) proposed that attractive people were favoured over equally qualified unattractive people in hiring decisions. However, they also suggested that more experienced recruiters were less susceptible to such bias.

An interesting study was conducted by Stevenage and McKay (1999) to explore the role of facial disfigurement in situations such as recruitment, where appearance can have a strong and clear effect on judgement or decision-making. These researchers specifically explored the question of whether the negative attitude of recruiters towards unattractive applicants extended to those with a facial disfigurement. The

reactions to an applicant with a facial disfigurement were compared to an applicant with no facial disfigurement. Another illuminating comparison provided in this study was examining the perceptions of an applicant who had a visible but non-facial disability, such as someone who was wheelchair bound but who did not have a facial deformity. The use of this comparison was to examine whether applicants who 'looked' different are responded to differently per se, or whether the type of visible difference had a part to play. While both facial disfigurement and physical disability may cause strain in social situations and impede the flow of communication, it was assumed that facially disfigured applicants would elicit a more negative reaction than the physically disabled applicants. This was assumed because facial disfigurement is, by definition, situated on the face, which is the point of focus for maintaining eye contact and following speech.

The results of the study suggested that possession of a facial disfigurement had a marked negative effect. In contrast, physical disability showed only a small negative bias. This pattern emerged more clearly for the perception of personal qualities and job skills. The recruiters perceived people with facial disfigurement as not only lacking in interpersonal and social skills, but also in technical skills required to perform the job to the best of their abilities. The training and/or experience of the recruiters was shown to be effective in modifying their reactions towards physical disability but had little effect in curbing the negative bias towards applicants who were facially disfigured. The results of this study also indicated that the negative perceptions may be changed by appropriate training and education. A good example of this is the change in the attitudes of people towards wheelchair users in a recruitment setting, but perceptions regarding facial disfigurement still need to be

changed for individuals who suffer from it (Stevenage and McKay, 1999).

The disfigurement caused by diseases and injuries can often cripple people emotionally if they feel stigmatised by prospective partners or employers, who may judge them inappropriately. Research has highlighted the fact that disfigured faces tend to elicit all the stereotypic reactions, which unattractive faces do, such as lack of consideration or attention and sometimes even revulsion. Additionally, factors such as sorrow, curiosity, anxiety, repulsion, embarrassment and distress may also be felt, both by the person with the disfigurement and the onlookers in social encounters (Lansdown et al., 1997; Partridge, 2003). Many people with a disfigured face often feel avoided and rejected by the general public. Studies of the process of social interaction have revealed that avoidance does occur. For example, people who do engage in interaction stand further away from a disfigured person and make less frequent eye contact (Rumsey et al., 1982). Several reasons for this avoidance reaction were proposed, such as, lack of knowledge about the nature and cause of the condition (Robinson et al.,1996), fears of it being contagious (Bernstein, 1976); a tendency to assume that disfigurement is a form of punishment for past transgressions Goffman, 1968); and uncertainty about how to behave when encountering an individual with a visible difference (Langer et al., 1976). According to Gilbert (1997), reactions towards others with a visible difference may be guided by perceptions of their relative ranking in society.

In order to understand the impact of a disfigurement on the disfigured individuals' psycho-social development and emotional well-being, it is important to examine a variety of factors. Some of these, such as other people's attitudes have been discussed in the earlier sections. However, it would also help to examine the disfigured

individual's own behaviour and the interaction between perception of disfigurement, self-perception of the disfigured person and any behavioural or interpersonal reactions that are engendered. For example, people with a facial disfigurement may adopt a shy, defensive, or aggressive style of interaction (MacGregor, 1990) and consequently anticipate a negative reaction from others. Such beliefs and resulting patterns of behaviour increase the likelihood of negative behaviours from others. Thus, the expectation of negative reactions from others is reinforced which may lead to a cycle of behaviours such as avoidance and social withdrawal. (Rumsey, Bull, Gahagan, 1986).

The interaction between people with a disfigurement and other people

During the 1990s research, attention focused on the effects that the behaviour of the disfigured people themselves had on social interactions. It was noted that the majority of visibly different people became preoccupied with their appearance in social encounters (Partridge, 1997). This affected the way that others behaved in their company and the way that they behaved themselves. Cash (1990) proposed that the nature of the difficulties experienced by disfigured people could be understood from two overlapping perspectives. The first perspective is largely social and cultural in nature and can be seen as the 'view from the outside'. The impact of appearance from this perspective is concerned with how appearance influences the perceptions that individuals hold regarding other people and the effect of these perceptions on social interactions. A good example of this is the study by Stevenage and McKay (1999) where people with facial disfigurement were rejected compared to other applicants who were in a wheelchair. The second perspective is concerned with the impact of appearance on the individual's self-concept, emotional well being and quality of life

and could be considered as the 'view from the inside'. A good example of this perspective is the impact of skin disorders such as acne or eczema on adolescents, both of which can impact on the emotional well-being of the sufferer, which may then affect academic abilities and hence future employment prospects (Gupta and Gupta, 1999). In order to understand the full impact of disfigurement, it is imperative that researchers consider both perspectives (Ben-Tovim and Walker, 1995; Butters and Cash, 1987).

One model that incorporates both perspectives is Partridge's (1997) 'SCARED' model which was developed to explain the series of interacting cycles taking place for people with disfigurement during social encounters. The initials of the model (S.C.A.R.E.D) represent the emotional and behavioural responses of both the person with a disfigurement and the onlookers. According to this model, when facially disfigured individual meet someone, they may feel **S**elf-conscious, **C**onspicuous, **A**ngry or **A**nxious, **R**ejected, **E**mbarrassed and **D**ifferent, which may lead to **S**hy, **C**owardly, **A**ggressive, **R**etreating, **E**vasive and **D**efensive behaviour. The emotional response of the onlooker, on the other hand, could encompass feeling **S**orry or **S**hocked, **C**urious or **C**onfused, **A**nxious, **R**epelled, **E**mbarrassed and **D**istressed, which may lead to behaviours such as **S**taring or **C**hoosing to keep quiet, being **C**lumsy, **A**sking awkward questions, **R**ecoiling or being **R**ude, being **E**vasive and **D**istracted.

Thompson and Kent (2001) used the 'SCARED' model to examine current psychological understanding of the process of adjustment to acquired and congenital disfiguring conditions such as dermatological diseases and cleft palate. Their research indicated that the experience of disfigurement is multifaceted, incorporating

individual and societal factors. They concluded that the adjustment process involves both the way in which disfigured people interpret their disfigurement themselves and the reactions of other people in social encounters. Interpretations of the disfigurement are likely to be influenced by various underlying cognitive self-schemas and the social context. According to Altabe and Thompson (1996), and Cash and Labarge (1996) self-schemas are representations of self-related information that usually develop in childhood and influence cognitive processing. Schema-related information is more readily recalled from the memory and new counter-schematic information is distorted or ignored (Markus, 1977). Cognitive theorists argued that schemas influence how events are interpreted and have consequences for feelings and behaviour.

Another theoretical framework, proposed earlier by Higgins (1987), was called self-discrepancy theory. This could be seen as an alternative to the 'SCARED' model, as it also tries to explain the disfigured individual's own behaviour and the consequent behavioural and interpersonal reactions that may occur. Self-discrepancy theory suggests that self-concept consists of actual, ideal and ought selves, and specific discrepancies between these components are related to specific emotions (Strauman and Higgins, 1987). When people suffer from a disfigurement then they develop a discrepancy between the actual and ideal self, which may lead to depressed mood. Some support for this theory came from Altabe and Thompson (1996), who presented a schematic definition of body image as an internalised model of appearance. According to them, presence of self-appearance discrepancies and the importance of these to an individual are central to the nature and degree of the psychological impact of a disfigurement. There is no robust research evidence to support these ideas, but it would be helpful to explore these issues in relation to disfigurement in future research.

Besides the behaviours of the disfigured individual, the reactions of other people have a major impact on the psycho-social development and emotional well-being of the person with a disfigurement. It is well known that people ascribe a variety of negative attributes to individuals whom they perceive as unattractive and give preferential treatment to attractive individuals, including children, across many contexts (Dion et al., 1972). Self concepts may be shaped from the very earliest stages of development by parental responses to disfigurement. The reaction to the birth of a child with a defect has been likened to a bereavement reaction (Lansdown, Lloyd and Hunter, 1991). The attachment of one or both parents to the infant may be adversely affected by the disfigurement. Due to the grief reaction felt by parents, smiling and other interactions, such as holding the infant close, talking and feeding, may be affected. This can interfere with their ability to care for their child, thus, reducing the opportunities for reinforcement of any positive interaction from the caregivers (Walters, 1997).

Children and adolescents, who have some kind of facial disfigurement, may also face problems of teasing and bullying by others. They may develop a fear of going to new places and may also encounter problems associated with negative feelings about the self (Bradbury, 1996). Preferences shown by others for physically attractive friends may lead to a gradual social withdrawal and a tendency to avoid social situations, which may serve to undermine confidence in the future. Anxiety in disfigured children is more common than in non-disfigured children (Pertschuck and Whitaker, 1982). Some studies have reported that disfigured children achieve lower academic and occupational status (Bradbury, 1996), however, other studies have found no difference between visibly different children and their peers (Nash, 1995).

Situations involving encounters with strangers are regarded as the most difficult by people with visible facial disfigurement (MacGregor, 1990). Problems are particularly apparent at times of transition or change, for example, moving to new areas, a new school or a new job. Bradbury (1996) stated that lowered self-esteem and negative feelings of self-worth may result in people with a facial disfigurement settling for inappropriate friendships and less than ideal partners in longer term relationships. Anecdotal evidence also suggests that people with visible differences may have more trouble than their non-disfigured counterparts in obtaining the kind of employment that they would like. Some studies of people affected by a cleft lip have suggested that they achieve a lower status than their peers (Nash, 1995). Many visibly disfigured people allude to a lack of privacy, resulting from pointing, whispering, staring, hurtful comments and intrusive and unsolicited questions about the disfigurement (Robinson et al, 1996).

Various negative emotions associated with visible disfigurement have been identified in the literature. Among these, the most common ones are negative self-image and low self-esteem. Many visibly different people feel ashamed, embarrassed or guilty about their appearance and have reported feeling stigmatised or flawed. Feelings of shame and embarrassment were reported in 89% of a sample of psoriasis patients (Ginsburg and Link, 1989). Avoidance is a common behaviour associated with anxiety and shame and may be associated with fear of negative evaluation by others (Leary, Rapp, Herbst, Exum, & Feldman 1998). Papadopoulos et al.'s (1999b) study of vitiligo sufferers suggested that there was a high frequency of appearance related negative thoughts in this population. Salzer and Schallreuter (1995) reported that 75% of patients attending a vitiligo clinic found their disfigurement moderately or severely intolerable.

Revealing the disfigurement to others, or being seen without makeup can also be very stressful. Other instances such as posing for a photograph, laughing, smiling, eating or drinking in public, or unexpectedly catching sight of their own disfigurement in the mirror or shop window, is described as distressing by people with visible disfigurement. Dermatology patients often try and avoid situations or activities where their skin may be 'on show', such as swimming, or enjoying beaches (Jowett and Ryan, 1985). Any change in appearance can be devastating and, where psychosocial needs are not addressed, people may withdraw completely from social contact and the activities of everyday life (Rumsey, Clarke, and Musa, 2002).

Research studies indicate that individuals with a visible difference report that they experience difficulties in forming relationships and also encounter negative reactions from others such as stares, rude remarks, intrusive comments and discrimination (Porter, Beuf, Lerner, & Norlund, 1990; van der Donkl, Hunfield, Passcher, Knegt-Junk, & Nieboer, 1994). The tendency for others to avoid or discriminate is well-established (Partridge, 1997), although, little theoretical consideration is given as to why this occurs. According to Robinson et al. (1996) these explanations may be more appropriate for certain conditions such as severe cases of burns or some extreme cases of disfigurement. Lansdown et al. (1991), argued that it is also possible that the way people react towards disfigured people may be applicable to initial encounters rather than subsequent ones.

To sum up then, the impact of disfigurement on a person's psycho-social development and emotional well-being is dependent on both the reactions of other people and also the behaviour of the person with a disfigurement. However, there

seems to be great variation in the severity of distress felt by disfigured people, and research in this area suggests that factors other than severity influence this distress related to disfigurement (Lansdown et al., 1991). This variation will be discussed in the next section.

Variation in the psychological impact of disfigurement

Research has frequently indicated that people with a disfigurement are more likely, as a group, to experience increased levels of distress as compared to others in the normal population (Thompson and Kent, 2001). According to Lansdown et al. (1997), given the reality of the negative reactions directed at people with a disfigurement, it is not surprising that these individuals experience higher than average levels of psychological distress and lowered self-esteem.

Interestingly, however, there is also evidence that a large variation exists between individuals in both the presence of psychological distress and its severity and there are a number of studies that have failed to find a relationship between disfigurement and psychological distress. For example, studies of people with port-wine stain (Kallick., Goldwyn, & Noe, 1981) and of people who have suffered burn injuries (Bowden, Fdeller, Thorlen, Davidson, & James 1980) revealed that those samples did not demonstrate any abnormal emotional disturbance in comparison to the normative population. They also revealed that most of them had made a positive adjustment to their disfigurement in a range of areas, including social integration, emotional adjustment and self-esteem. One possible explanation for the failure to find the expected levels of distress in these samples is that they did not adequately represent those individuals who have some kind of disfigurement. However, there is no evidence to suggest this. It could also be that presence of other variables, which were unaccounted for, affected the results of these

studies. Therefore, future research needs to concentrate on what protects some individuals from psychological distress, as well as recognising those people who are at risk.

Research on a younger population has also revealed this variability in adjustment (Lansdown et al., 1991). Despite the obvious problems encountered by children and adolescence with visible difference, some writers have asked how these children and young people manage to be so 'normal' when life is likely to be appreciably harder for those with a face that is out of the ordinary (Nash, 1995).

Many researchers, in the past, believed that there is a linear relationship between the severity of psychological disturbance and the degree of deformities. However, Epsteen (1958) noted that a slight facial deformity potentially produced a psychological effect out of proportion to the extent of the disfigurement. McGregor (1970) also concluded that a mild deformity may be harder to cope with than the one that is more severe. Harper, Richman and Snider (1980) found that children with either a cleft deformity or cerebral palsy, with a mild degree of physical impairment, showed more inhibition of impulses than severely impaired children. William and Griffiths (1991) also reported that the visibility of a burn injury was the best predictor of a more positive psychological outcome. Cahners (1992) supported this idea and proposed that people with visible burn scars are forced to face the reactions of others and therefore adapt accordingly whereas, those with hidden scars may continue to avoid reality and thus become more vulnerable to experiencing difficulties in the future. Several explanations have been put forward to account for this 'lack' of linearity. Lansdown et al. (1991), believe that problems in adolescence and early childhood are under-reported. Support for this claim also comes from a study by

Rumsey, Robinson, Turner, & Mercer (1997). Data collected from 20-year-olds, who had completed treatment for cleft lip and/or palate suggested that these individuals under-reported the difficulties that they had experienced during childhood and adolescence for a variety of reasons such as not wishing to upset parents.

Reich (1969) speculated that the severely deformed individuals are more resigned to teasing and can, therefore, confidently predict a negative response from other people, whereas individuals with milder deformities are faced with less predictable reactions because other people's responses are more variable. An inability to predict other people's reaction is well known as an underlying factor in producing anxiety (Kelly, 1955). Lansdown et al. (1991) explored the psychological adjustment of children with mild, moderate, and severe facial deformities. Their findings suggested that children with severe facial deformities knew that they would be stared at, called names, shunned and pitied, and they learned to cope with this consistent reality. However, children with a mild facial deformities may spend time and energy worrying about whether or not their deformity would be noticed. Therefore, mildly deformed children tended to suffer from poor psycho-social adjustment and lower self-esteem. It is not just the children with a deformity who suffer distress. Lansdown et al.'s (1991) study also indicated that their families required professional help for a variety of reasons, including their inability to handle distress felt by their child, their own feelings about the disfigurement and other people's reactions. It emerged from this study that children and their families were pleased to have a chance to discuss their difficulties with a sympathetic outsider. However, Lansdown et al. (1991) pointed out that such interventions needed to be individually tailored to the families because of the variability in types of difficulties that they experienced.

The findings discussed above confirm that differences in the responses of other people to disfigurement can have an important impact on psychosocial adjustment. These reactions could be conceptualised as the process of transmitting stereotypes of appearance preference, which in turn affects the self-perception of people with disfigurement (Issacs, 1996). In other words, self-perception develops at least in part through the interactions that take place between people. Moss (1997) investigated why some individuals appear to cope well with being physically different from others whereas others become psychologically distressed and socially disabled. Four factors, namely clinical severity and visibility, demographic characteristics (age and gender), social support and coping strategies, were used to explore the differences that exist between people with disfigurement. The research discussed earlier indicates that the severity of a disfigurement is not a good predictor of psychological distress (Bradbury, 1996; Robinson, 1997) and, in some cases, adapting to a major disfigurement seem to be more straightforward than adapting to relatively minor blemishes (MacGregor, 1990).

Research on demographic characteristics has also been of little help to date in understanding the adjustment process, since it lacks clarity. Some studies have found that women suffering from disfigurements have greater psychological problems when compared with men who may also have some form of disfigurement (Smithard et al., 2001; Issacs, 1996), whereas, others have found no such differences (Robinson et al., 1996). The reason for this disparity could be due to sampling procedures or the choice of measures used in the studies. Another possibility is that disfigurement has a different meaning for men and women or that they use different types of coping strategies (Brown et al., 1988).

The research on age is perhaps more promising and suggests a number of possible explanations for the variability in adjustment. Children born with a disfigurement may develop difficulties due to the disruption of attachment brought on by their disfigurement (Holmes, 1997). Remarks of other children at school can also be traumatic to a disfigured child (Walters, 1997). Erikson (1982) describes adolescence as a time when concerns about body images are often at the fore. Some studies have indicated that psychological problems related to physical appearance may be more severe during adolescence (Ben-Tovim and Walker, 1995), however, others have not supported this assertion (Robinson, 1997). It is possible that age may confer adjustment benefits through the development of coping strategies over time (Knudson-Cooper, 1981). Porter and Beuf (1988) found a wide variation in responses between age groups in a study of vitiligo sufferers, which suggested that factors other than age may also play a part.

The third factor that Moss (1997) suggested as important in creating variable outcomes in response to disfigurement was social support. Social support conveys to people the message that they are loved, cared for and esteemed (Cobb, 1976). Higher levels of social support are related to both lower levels of mortality and to better psychological adjustment following an injury or trauma (Robinson, 1997; Wills, 1997). Social support helps individuals by providing a sense of being accepted through the maintenance of their self-esteem (Argyle, 1988). Related to social support, another important factor that could influence the individual's response to facial disfigurement is the degree of family acceptance. This is crucial in the psychosocial development of a disfigured child and it is important to remember that families and peers can help to buffer media and socio-cultural pressures (Cash and Pruzinsky, 2002). Research findings in port-wine and other disfigured populations have indicated that support from family

members was associated with low levels of psychological morbidity (Kallick et al., 1981; Baker, 1992). The personality characteristics such as shame-proneness, low self-esteem and concerns regarding appearance are first developed in childhood and are later modified by wider social experiences (Thompson, 1998). Researchers have identified a link between disfigurement, poor adjustment and low self-esteem (Bowden et al., 1980), which can impact on how people perceive themselves and its impact on their social interactions. Thus social support appears to act as an important moderator of the individual's reactions to disfigurement.

The fourth factor in Moss's (1997) model was coping skills. Partridge (1997) suggested that positive coping strategies, which include effective social skills, can help people to take the initiative in social encounters. This can help to generate positive responses from others and to boost a sense of acceptability in social situations, which in turn, may influence self-esteem positively. According to Lazarus (1993), people with disfigurements employ emotion-focused and problem-focused coping strategies related either to 'protection of self' or to 'presentation of self' (Thompson, 1998). They may use behavioural and/or cognitive strategies to maintain a sense of acceptability and to protect their fragile self-esteem against the impact of other people's reactions. For example, people with a disfigurement may use special make up to hide their disfigurement and avoid meeting others without their make-up on. However, behavioural strategies, such as concealment, may help in providing short-term positive consequence but do not address the underlying issues faced by the disfigured individual, such as coming to terms with and accepting their disfigurement. People with disfigurements generally avoid social encounters due to fears of negative evaluation and tend to stay away (Partridge, 1997). According to Cahners (1992), avoidance thwarts the development of new coping strategies and does not allow

disconfirmation of unrealistic beliefs. There is also evidence that distress associated with disfigurement is partly due to attempts to conceal and avoid.

It can be seen from the above, that Moss's (1997) model has helped a little in explaining why some people cope better with their disfigurement than others. Although the model used four factors, which were demographics, age, social support and coping skills, it appears that social support and coping strategies play a more vital role in mediating responses shown by the individuals suffering from the disfigurement. What seems to be missing from the model is the role of attributions as a possible moderator of the distress felt by the disfigured individual. There is evidence to suggest that attributions made by people influence the way they interpret events (Jackson, 2002; Partridge, 1997), and then this has an impact on their emotional responses. For example, some disfigured people have an exaggerated tendency to attribute the negative behaviour of others to their disfigurement (McArthur, 1982; Robinson, 1997). The tendency to make such attributions about the cause of a negative event has been linked to lowered social confidence, poor adjustment and lowered self-esteem (Anderson, Horowitz and French, 1983). Self-esteem was described by Leary and Kowalski (1995) as a subjective gauge or a 'sociometer'. They argued that a disfigured person with low self-esteem would perceive the possibility of rejection by others in a social situation, whereas another disfigured person with high self-esteem would not entertain such ideas. They, therefore, concluded that the ways in which disfigured people think about themselves, and how they interpret specific situations, affect their emotional and behavioural responses, predisposing them to experience distress and disability as a consequence of their appearance. However, it can also be argued that the way in which disfigured people think about their interactions with others appears to depend upon their past experiences and

also on the current levels of social support (Thompson and Kent, 2001).

Conclusion

The concept of disfigurement is complex. The term disfigurement covers a range of presentations from a minor and unobservable blemish, to a major physical difference that is immediately visible. It can be understood in terms of the individual who has the disfigurement and also by the society in which he or she lives.

There is a well established association between attractiveness and goodness (Dion, 1972; Stevenage and McKay, 1999). Numerous studies have shown that people ascribe a variety of negative attributes to individuals whom they perceive as unattractive, and give preferential treatment to attractive individuals, including children, across many contexts (Dion et al., 1972). This differential treatment can influence the way in which people perceive themselves. It was argued that the opinions of other people influence the development of self-perception and other self-related concepts such as self-esteem and self-worth.

Some of the earlier studies carried out on attractiveness drew attention to how people appraise attractiveness and how this appraisal affected unattractive people. Subsequently, attention was drawn to the impact of such appraisals on people who had developed a disfigurement. It is important to make sense of the perceptions and reactions of people in the general population towards attractive and unattractive individuals in order to be able to understand the processes that determine how they respond to seeing disfigured people.

According to Cash and Labarge (1996), self-related information that is developed in childhood influences cognitive processing. Quality of interpersonal relationships, the

way people see themselves in comparison to others, and the feedback that people receive from others, all contribute to their self-concept (Jackson, 2002; Lansdown et al., 1997). The reactions of families and peers can, on the one hand, help to buffer media and socio-cultural pressures or may, on the other hand, serve to enhance concerns regarding appearance (Cash and Pruzinsky, 2002). If a person with a facial disfigurement has experienced rejection by others in the past, this rejection will influence how they perceive themselves. If self-perception is negative, then an individual may find social encounters distressing, which would, in turn, affect his or her behavioural responses towards other people. During the 1990's, attention was also drawn to the impact of the disfigured individual's own behaviour on social interactions. It was argued that among other factors, the behaviour of the disfigured individuals was crucial in influencing the way in which other people behaved towards them. Research studies have indicated that, generally, disfigurement elicits an extreme social reaction that recurs throughout the life span of a disfigured individual. The consequences of such interactions can result in such individuals missing out on valuable relationships and future job opportunities, which may have an adverse effect on their self-concept and psycho-social development.

Attention was also drawn to disfigurement caused by skin disorders. It was reported that skin diseases such as psoriasis, eczema, acne and port wine stain can all produce anxiety and depression, leading to low self-esteem and other psychological problems that can affect patients' lives in ways comparable to arthritis and other disabling conditions (Barankin and DeKoven, 2002). However, the fact that skin diseases can lead to disfigurement, which may affect the psychosocial well-being of the sufferer, is under-appreciated. Research into the psychosocial effects of common skin conditions,

so far, has been helpful in raising awareness of the fact that dermatological problems are more than just a cosmetic nuisance. The impact of skin diseases on the quality of life of adults has been well investigated and documented. However, it is suggested that increased understanding of the psychiatric co-morbidity associated with skin diseases is essential to address issues regarding appearance at an early stage, as it can influence the way that children with disfigurement perceive themselves and this can, in turn, have an impact on social interaction (Thompson and Kent, 2001).

From the discussion of the research studies above, it is clear that conditions which lead to facial disfigurement (including common dermatological conditions such as acne, psoriasis, PWS, eczema) can lead to lasting emotional and psychological difficulties for the sufferer. These emotional and psychological problems can then influence how the disfigured individual is perceived by other people and these perceptions can influence the development of the disfigured individual's self-perception. Although some studies such as those of Bradbury (1996), Nash (1995) and Demellweek et al. (1997) have included children as participants, the bulk of research seems to have concentrated on reactions and perceptions of adults towards other adults and children who were either unattractive or suffered from some form of disfigurement.

Research studies also seem to have explored facial disfigurement due to cleft lip or palate and burns rather than more commonly occurring skin conditions. Only Demellweek et al. (1997) used children as participants from the normal population and explored their perceptions of their peers who suffered from facial disfigurement due to port wine stain. Research into an appreciation of the effects of sex, age and location of the lesion are also important factors to be considered for future work,

since it may enable physicians to effectively manage the psychological components of their younger patients' dermatological conditions (Thompson and Kent, 2001; Smith, 2001). It is also not clear how children in the normal population perceive disfigurement at different stages of development, and how these perceptions influence their behaviour or reactions towards their peers who may be disfigured in some way.

Furthermore, research on the perception of facial disfigurement caused by skin conditions is important to ascertain how people with facial disfigurement are perceived. It is especially important for research to examine how children with facial disfigurements are perceived by their peers and how these perceptions influence the disfigured child's self-perceptions because of the important developmental tasks that children have to accomplish at different ages. Such research would help clinicians to adequately address the needs of younger individuals suffering from facial disfigurements caused by chronic skin disorders.

REFERENCES

Adam, G. (1977). Physical attractiveness research: toward a developmental social psychology of beauty. *Human Development, 20,* 217-225.

Aktan, S., Ozmen, E., & Sanli, B. (2000). Anxiety, depression, and nature of acne vulgaris in adolescents. *International Journal of Dermatology, 39,* 354-357.

Al'Abadie, M. S., Kent, G. G., & Gawkrodger, D. J. (1994). The relationship between stress and the onset and exacerbation of psoriasis and other skin conditions. *British Journal of Dermatology, 130,* 199-203.

Altabe, M. & Thompson, J. K. (1996). Body image: a cognitive self-schema construct. *Cognitive Therapy and Research, 20,* 171-193.

Anderson, C., Horowitz, L., & French, R. (1983). Attributional style of lonely and depressed people. *Journal of Personality and Social Psychology, 45,* 127-136.

Argyle, M. (1988). Social relationships. In M. Houston, W. Stroebe, J. Codol, & G. Stephenson (Eds.), *Introduction to Social Psychology: A European perspective, pp 224-245.* Oxford: Blackwell.

Augustin, M., Zschocke, I., Wiek, K., Peschen, M., & Vanscheidt, W. (1998). Psychosocial stress of patients with port wine stain and expectations of dye laser treatment. *Dermatology, 197,* 353-360.

Bandura, A. (1977). *Social Learning Theory.* NJ: Prentice Hall.

Baker, C. (1992). Factors associated with rehabilitation in head and neck cancer. *Cancer Nursing, 15,* 395-400.

Barankin, D., & DeKoven, J. (2002). Psychosocial effect of common skin diseases. *Canadian Family Physician, 48,* 712-716.

Ben-Tovim, D., & Walker, M. K. (1995). Body image, disfigurement and disability. *Journal of Psychosomatic Research, 39,* 283-291.

Bernstein, N. (1976). *Emotional care of facially burned and disfigured.* Boston:

Bowden, M., Fdeller, I., Thorlen, D., Davidson, T., & James, M. (1980). Self-esteem of severely burnt patients. *Archives of Physical and Medical Rehabilitation, 61,* 449-452.

Bradbury, E. (1996). *Counselling people with disfigurement.* Leicester: British Psychological Society.

Brown, B., Roberts, J., & Browne, G. (1988). Gender differences in variables associated with psychosocial adjustment to a burn injury. *Research in Nursing Health, 11,* 23-30.

Bull, R. & Rumsey, N. (1988). *The social psychology of facial appearance.* New York: Springer.

Bull, R., & Stevens, J. (1981). The effects of facial disfigurement on helping behaviour. *Italian Journal of Psychology, 111, 1,* 25-33.

Butters, J., & Cash, T. F. (1987). Cognitive-behavioural treatment of women's body image dissatisfaction. *Journal of consulting and Clinical Psychology, 55,* 889-897.

Cahners, S. (1992). Young women with breast burns: a self- help group by mail. *Journal of Burn Care and Rehabilitation, 13,* 44-47.

Cash, T. F. (1990). The psychology of physical appearance: aesthetics, attributes and images. In T. Cash, & T, Pruzinsky (Eds.), *Body Images, pp 51-78.* New York: Guildford Press.

Cash, T. F., & Kilcullen, R. N. (1985). The eye of the beholder: Susceptibility to sexism and beautyism in the evaluation of managerial applicants. *Journal of Applied Social Psychology, 15, 7,* 591-605.

Cash, T. F., & Labarge, A. (1996). Development of the appearance schemas inventory: a new cognitive body-image assessment. *Cognitive therapy and Research, 20,* 37-50.

Cash, T. F. & Pruzinsky, T. (2002). *Body Image: A Handbook of Theory, Research,*

and Clinical Practice. New York: The Guildford Press.

Choi, J., & Koo, J. Y. (2003). Quality of life in psoriasis. *Journal of American Academy of Dermatology, 49,* S57-61.

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38,* 300-314.

Demellweel, C., Humphris, G. M., Hare, M., & Brown, J. (1997). Children's perception of, and attitude towards, unfamiliar peers with facial port-wine stain. *Journal of Pediatric Psychology, 22,* 471-485.

Dietz, W. (1998). Health consequences of obesity in youth: childhood predictors of adult disease. *Paediatrics, 101,3,* 518-525.

Dion, K. (1972).). Physical attractiveness and evaluation of children's transgression. *Journal of Personality and Social Psychology, 24, 2,* 207-213.

Dion, K., & Berscheid, E. (1971). *Physical attractiveness and sociometric choice in young children.* University of Minnesota.

Dion, K., Berscheid, E. & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology, 24, 5,* 285-290.

Eagley, A., Ashmore, R., Makhijani, M., & Longo, L. (1991). What is beautiful is good

but....A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin, 111,* 109-128.

Epsteen, C. (1958). Psychological impact of facial deformities. *American Journal of Surgery, 96,* 745-748.

Erikson, E. (1982). *The life cycle completed.* New York: Norton.

Feingold, A. (1992). Good looking people are not what we think. *Psychological Bulletin, 111,* 304-341.

Frances, J. (2004). *Educating children with facial disfigurement – creating inclusive school communities.* London: RoutledgeFalmer.

Friedman, M, & Brownell, K. (1995). Psychological correlates of obesity: Moving to the next generation research. *Psychological Bulletin, 117, 1,* 3-20.

Gething, L. (1991). Interaction with disabled persons scale: Manual and kit. Sydney: University of Sydney.

Ginsburg, I., & Link, B. (1989). Feelings of stigmatisation in patients with psoriasis. *Journal of the American Academy of Dermatology, 20,* 53-63.

Gilbert, P. (1997). The evolution of social attractiveness and its role in shame, humiliation, guilt and therapy. *British Journal of Medical Psychology, 70,* 113-147.

Goffman, E. (1968). *Stigma: notes on the management of spoiled identity.* London: Penguin.

Gupta, M. A., & Gupta, A. K. (1998). Depression and suicidal ideation in dermatology patients with acne, alopecia areata, atopic dermatitis and psoriasis. *British Journal of Dermatology, 139,* 846-850.

Gupta, M. A., & Gupta, A. K. (2003). Psychiatric and psychological co-morbidity in patients with dermatological disorders: epidemiology and management. *American Journal of Clinical Dermatology, 4,* 833-842.

Gupta, M. A., Johnson, A. M., & Gupta, A. K. (1998). The development of an Acne Quality of Life Scale: reliability, validity and relation to subjective acne severity in mild to moderate acne vulgaris. *Acta Dermatologica-Venereologica, 78,* 451-456.

Harper, D., Richman, L., & Snider, B. (1980). Social adjustment and degree of physical impairment. *Journal of Pediatric Psychology, 5,* 377-383.

Harris, D. (1997). Types, causes and physical treatment of visible differences. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.). *Visibly Different: Coping with disfigurement, pp 79-90.* Oxford: Butterworth Heinemann.

Hashiro, M., & Okumura, M. (1997). Anxiety, depression and psychosomatic symptoms in patients with atopic dermatitis: comparison with controls and among

groups of different degrees of severity. *Journal of Dermatological Science, 14,* 63-67.

Higgins, E. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Bulletin, 94,* 319-340.

Holmes, J. (1997). Attachment, autonomy, intimacy: some clinical implications of attachment theory. *British Journal of Medical Psychology, 70,* 231-248.

Houston, V. & Bull, R. (1994). Do people avoid sitting next to someone who is facially disfigured? *European Journal of Social Psychology, 24,* 279-284.

Issacs, J. (1996). *An investigation of predictive factors of psychological morbidity in burn injured patients three months post burn.* UK: University of Manchester.

Jackson, L., A. (2002). Physical attractiveness: A socio-cultural perspective. In T.F. Cash and T. Pruzinsky (Eds). *Body Image: A Handbook of Theory, Research, and Clinical Practice, pp 13-21.* New York: The Guildford Press.

Jowett, S. & Ryan, T. (1985). Skin disease and handicap: an analysis of the impact of skin conditions. *Social Science and Medicine, 20,* 425-429.

Kallick, S., Goldwyn, R. & Noe, J. (1981). Social issues and body image concerns of port wine stain patients undergoing laser therapy. *Lasers in Surgery and Medicine, 1,* 205-213.

Kelly, G. (1955). *The Psychology of Personal Constructs.* New York: W.W. Norton.

Kent, G. (2000). Understanding experiences of people with disfigurements: an integration of four models of social and psychological functioning. *Psychology, Health and Medicine, 5,* 117-129.

Kent, G., & Keohane, S. (2001). Social anxiety and disfigurement: The outstanding effects of fear of negative evaluation and past experience. *British Journal of Clinical Psychology, 40,* 23-34.

Knudson-Cooper, M. (1981). Adjustment to visible stigma: the case of the severely burned child. *Socia Science and Medicine, 15,* 31-44.

Kolb, L. (1959). Disturbances of body image. In S. Arieti (Eds). *American Handbook of Psychiatry.* New York: Basic Books.

Langer, E., Fiske, S., Taylor, S., & Chanowitz, B. (1976). Stigma, staring and discomfort: A novel-stimulus hypothesis. *Journal of Experimental Social Psychology, 12,* 451-463.

Langlois, J.H., Kalakanis, L., Rubenstein, A.J., Larson, A., Hallam, M. & Smoot, M. (2000). Maxims or myths of beauty?: A meta-analytic and theoretical review. *Psychological Bulletin, 126,* 390-423.

Lansdown, R., Lloyd, J. & Hunter, J. (1991). Facial deformity in childhood: Severity

and psychological adjustment. *Child: Care, Health and Development, 17,* 165-171.

Lansdown, R., Rumsey, N. Bradbury, E. Carr, T & Partridge, J. (1997). *Visibly Different: coping with disfigurement.* Oxford: Butterworth-Heinemann.

Layton, A. M. (2001). Optimal management of acne to prevent scarring and psychological sequelae. *American Journal of Clinical Dermatology, 2,* 135-141.

Lazarus, R. (1993). Coping theory and research: past, present and future. *Psyhcosomatic Medicine, 55,* 234-247.

Leary, M., & Kowalski, R. (1995). *Social Anxiety.* London: Guildford Press.

Leary, M., Rapp, S., Herbst, K., Exum, M., & Feldman, S. (1998). Interpersonal concerns and psychological difficulties of psoriasis patients: effects of disease severity and fear of negative evaluation. *Health Psychology, 17,* 1-7.

MacGregor, F. (1990). Facial disfigurement: problems and management of social interaction and implications for mental health. *Aesthetic Plastic Surgery, 14,* 249-257.

Mallon, E., Newton, J. N., Klassen, A., Stewart-Brown, A. L., Ryan, T. J., & Finlay, A. Y. (1999). The quality of life in acne: a comparison with general medical conditions using generic questionnaires. *British Journal of Dermatology, 140,* 672-676.

Markus, H. (1977). Self-schemata and processing information about self. *Journal of Personality and Social Psychology, 35,* 63-78.

Marlow, C. M., Schneider, S. L., & Nelson, C. E. (1996). Gender and attractiveness biases in hiring decisions: Are more experienced managers less biased? *Journal of Applied Psychology, 81, 1,* 11-21.

Martin, A.R., Lookingbill, D. P., Botek, A., Light, J., Thiboutot, D., & Girman, C. J. (2001). Health-related quality of life among patients with facial acne – assessment of a new acne-specific questionnaire. *Clinical and Experimental Dermatology, 26,* 380-385.

Moss, T. (1997). Individual variation in adjusting to visible difference. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.). *Visibly Different: Coping with disfigurement, pp 121-130.* Oxford: Butterworth-Heinemann.

Mulder, M. M., Sigurdsson, V., van Zuuren, E.J., Klaassen, E. J., Faber, J. A., de Wit, J. B., & van Wloten, W. A. (2001). Psychological impact of acne vulgaris: evaluation of the relation between a change in clinical acne severity and psychosocial state. *Dermatology, 203,* 124-130.

McArthur, L. (1982). Physical distinctiveness and self-attribution. *Personality and Social Psychology Bulletin, 8,* 460-467.

McGregor, F. (1970). Social and psychological implications of dento-facial disfigurement. *Angle Orthodontist, 40, 3,* 231-233.

Nash, P. (1995). *Living with Disfigurement: Psychosocial implications of being born with a cleft lip and palate.* Aldershot: Avebury.

Papadopolous, L., Bor, R., & Legg, C. (1999b). Coping with the disfiguring effects of vitiligo: a preliminary investigation into the effects of Cognitive Behaviour Therapy. *British Journal of Medical Psychology, 10,* 11-12.

Partridge, J. (1997). Living visibly different: a summary. In R. Lansdown , N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.) (Ed.). *Visibly Different: Coping with disfigurement (Chap. 12).* Oxford: Butterworth: Heinemann.

Partridge, J. (2003). *Changing Faces: the challenge of facial disfigurement.* London: Changing Faces.

Patzer, G. L. (1996). Understanding the causal relationship between physical attractiveness and self-esteem. *Journal of Esthetic Dentistry, 8,* 144-147.

Patzer, G. L. (1997). Improving self-esteem by improving physical attractiveness. *Journal of Esthetic Dentistry, 9,* 44-46.

Pertschuk, M., & Whittaker, L. (1982). Social and psychological effects of cranio-facial deformity and surgical reconstruction. *Clinics in Plastic Surgery, 9,* 297-306.

Porter, J., & Beuf, A. (1988). Response of older people to impaired appearance : the effect of age on disturbance by vitiligo. *Journal of Aging Studies, 2,* 167-181.

Porter, J., Beuf, A., Lerner, A., & Norlund, J. (1990). The effects of vitiligo on sexual relationship. *Journal of the American Academy of Dermatology , 22,* 221-222.

Pruzinsky, T. & Cash, T. F. (1990). Integrative themes in body image development and change. In T.Cash and T. Pruzinsky (Eds). *Body image: Development, Deviance and Change, pp 337-35,* New York: Guildford Press.

Reich, J. (1969). The surgery of appearance. *Medical Journal of Australia, 2,* 5-13.

Richman, L. & Harper, D. (1978). The effects of facial disfigurement on teacher's perceptions of ability in cleft palate children. *Cleft Palate Journal, 15,* 155-160.

Riggio, R. & Friedman, B. (1986). Impression formation: The role of expressive behaviour. *Journal of personal Social Psychology, 50,* 421-427.

Robinson, E. (1997). Psychological research on visible differences in adults. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.), *Visibly Different:Coping with disfigurement, pp 102-111.* Oxford: Butterworth Heinemann.

Robinson, E., Rumsey, N. & Partridge, J. (1996). An evaluation of the impact of social interaction skills training for facially disfigured people. *British Journal of*

Plastic Surgery, 49, 281-289.

Rosenbaum, P. L., Armstrong, R. W., & King, S. M. (1986). Children's attitudes toward disabled peers: A self-report measure. *Journal of Pediatric Psychology, 11,* 517-530.

Rumsey, N. (1997). Historical and anthropological perspectives on appearance. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.), *Visibly Different:Coping with disfigurement (Chap. 15).* Oxford: Butterworth Heinemann.

Rumsey, N. & Bull, R. (1986). The effect of facial disfigurement on social interaction. *Human Learning, 5,* 203-208.

Rumsey, N., Bull, R., & Gahagan, D. (1982). The effect of facial disfigurement on the proxemic behaviour of the general public. *Journal of Applied Social Psychology, 12,* 137-150.

Rumsey, N. Bull, R, & Gahagan, D. (1986). A preliminary study of the potential of social skills for improving the quality of social interaction for the facially disfigured. *Social Behaviour, 1,* 143-145.

Rumsey, N. Clarke, A., & Musa, M. (2002). Altered body image: the psychosocial needs of patients. *British Journal of Community Nursing, 7,* 563-566

Rumsey, N., Robinson, E., & Turner, S., & Mercer, N. (1997). Patient or provider

centred care? *Transactions: 8th International Congress on Cleft Palate and related Craniofacial Anomalies, pp 423-426.* Stamford Press.

Salzer, B. & Schallreuter, K. (1995). Investigation of the personality structure in patients with vitiligo and a possible association with catecholamine metabolism. *Dermatology, 190,* 109-115.

Siller, J. (1986). The measurement of attitudes towards physically disabled persons. In C.P. Herman, M. P. Zanna and E. T. Higgins (Eds.). *Physical appearance, Stigma and Social behaviour, pp 245-290.* Hillsdale, NJ: Erlbaum.

Smith, J. A. (2001). The impact of skin disease on the quality of life of adolescents. *Adolescent Medicine State of the Art Reviews, 12,* 343, 353.

Smithard, A., Glazebrook, C., & Williams, H. C. (2001). Acne prevalence and psychological morbidity in mid-adolescence: a community-based study. *British Journal of Dermatology, 145,* 274-279.

Smolak, L. (2002). Body image development in children. In T.F. Cash and T. Pruzinsky (Eds). *Body Image: A Handbook of Theory, Research, and Clinical Practice, pp 65-73.* New York: The Guildford Press.

Stevenage, S. V. & McKay, Y. (1999). Model applicants: The effect of facial appearance on recruitment decisions. *British Journal of Psychology, 90,* 221-234.

Strauman, T. & Higgins, T. (1987). Automatic activation of self-discrepancies and emotional syndromes: when cognitive structures influence affect. *Journal of Personality and Social Psychology, 53,* 1004-1014.

Thompson, A. (1998). *Exploring the process of adjustment to disfigurement with particular reference to vitiligo.* Unpublished doctoral thesis, University of Sheffield, UK.

Thompson, A., & Kent, G. (2001). Adjusting to disfigurement: processes involved in dealing with being visibly different. *Clinical Psychology Review, 21,* 663-682.

Van der Donk, J., Hunfield , J., Passcher, J., Knegt-Junk, K., & Nieboer, C. (1994). Quality of life and maladjustment associated with hair loss in women with alopecia androgenetica. *Social Science and Medicine, 38,* 407-415.

Waite, M. (1994). *The Little Oxford Dictionary of Current English.* New York: Oxford University Press.

Walters, E. (1997). Problems faced by children and families living with visible difference. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.), *Visibly Different: Coping with disfigurement, pp112-120.* Oxford: Butterworth Heinemann.

Williams, E., & Griffiths, T. (1991). Psychological consequences of burn injury. *Burns, 17,* 478-480.

Wills, T. (1997). Social support and health. In A. Baum, S. Newman, J. Weinman, R. West, & C. McManus (Eds.), *Cambridge handbook of psychology, health and medicine.* Cambridge: Cambridge University Press.

Wright, B. B. (1960). *Physical disability – A psychological approach.* New York: Harper & Row.

Empirical Paper

Children's Perceptions of Skin Disorders Causing Facial Disfigurement

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Running head: AGE RELATED CHANGES IN CHILDREN'S PERCEPTIONS

This paper has been prepared for submission to The Journal of Child Psychology and Psychiatry (see Appendix B for Instructions to Authors)

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Empirical Paper Abstract

Background: A study was performed to assess changes in children's perceptions of skin disorders. **Method:** Sixty children took part in the study. There were three groups of 20 children, ten boys and ten girls, aged 8, 12 and 16 years. This study was undertaken to explore the effects of skin condition, age and gender on perceptions children hold for others who may have a facial disfigurement. Twelve photographs of children were used in the study, six had no skin condition and the other six had a skin condition on their face. All photographs were shown to all participants randomly. Six repeated measure ANOVAs were conducted to explore the effects of skin condition, age and gender on participants' ratings. Harter's self-perception profile questionnaires (HSPP - Adolescent and Children versions) were also used for determining the effect of participants' global self-worth (gsw) on their ratings of photographs of children with and without skin condition. **Results:** The results revealed an effect of skin condition across the ages and for both the genders. All participants rated photographs of children without skin condition more favourably. No significant results for the effect of age or gender were found and no significant interactions between age and the skin condition or between gender and the skin condition were found. Pearson product-moment correlation co-efficient found no relationship between participants' ratings of the photographs and their global self worth rating, which were found to be in the normal to high range. **Conclusion:** There was a significant effect of skin condition on participants' ratings, but age and gender of participants did not affect their ratings. This was an exploratory study and further research is required to explore these factors. Exploration of the effect of self-worth/self-esteem on participants' ratings of other people with disfiguring skin conditions is also recommended.

Keywords: disfigurement, attractiveness, age related changes, skin disorders.

Abreviations: HSPP, ANOVA, gsw.

Introduction

Appearance is dynamic. It changes throughout life, from month to month, from one day to the next, and from morning to evening. Physical appearance is influenced by many factors such as genetic inheritance, physiological processes of growth and development, reproduction, fat storage, ageing, accidental trauma, disease and medical or surgical intervention. The fact that, on first impressions, attractiveness is associated with goodness has dominated the literature on appearance over the last few decades (Stevenage and McKay, 1999). A person's physical appearance is the personal characteristic that is most obvious to others in social interaction. The question that arises is whether people have stereotyped notions about the personality traits possessed by individuals of varying attractiveness and whether these notions influence their perceptions of people with a disfigurement.

A considerable amount of research literature reports the benefits of having a physically attractive appearance (Rumsey, 1997). When compared to an unattractive facial appearance, good-looking people are perceived as more intelligent, popular and socially desirable (Bull and Rumsey, 1988). Numerous studies have shown that people ascribe a variety of negative attributes to individuals whom they perceive as unattractive, and give preferential treatment to attractive individuals, including children, across many contexts (Dion, Berscheid and Walster, 1972). According to Marlow, Schneider, & Nelson (1996), attractive people were favoured over equally qualified unattractive people in hiring decisions. This differential treatment influences the way in which people perceive themselves. It also affects their body image and their self-esteem.

Social experiences have an important role in determining self-esteem and people with

more favourable social experiences tend to possess higher self-esteem (Patzer, 1997). The opinions of other people influence the development of self-perception and other self-related concepts such as self-esteem and self-worth. The quality of interpersonal relationships, the way people see themselves in comparison to others and the feedback that people receive from others all contribute to the development of their self-concept (Jackson, 2002; Lansdown, Rumsey, Bradbury, Carr and Partridge, 1997). Furthermore, self-related information, which is developed in childhood, influences cognitive processing (Cash and Labarge, 1996). Some of the earlier studies carried out on attractiveness drew attention to how people appraise attractiveness and how these appraisals affected unattractive people (Dion et al., 1972). Subsequently attention was drawn to the impact of such appraisals on people who had developed a disfigurement (Stevenage and McKay, 1999).

The concept of disfigurement is complex. It is defined both by the individual who has the disfigurement and also by the society in which he or she lives. It appears to cover a range of presentations from a minor and unobservable blemish, to a major physical difference that is immediately visible. Disfigurement can result from many congenital malformations. The most common of these is a cleft (gap) lip and/or palate, occurring about one in every 750 births, mostly in boys (Harris, 1997). Other causes of disfigurement include birthmarks, some of which are caused by malformation of blood vessels. Vascular malformations such as capillary port wine stains (PWS) are present at birth and can persist throughout life. They have a distinctive colour, but rarely lead to distortions of the skin.

In addition to the above, facial injuries can also lead to disfigurement. These can be caused by a variety of accidents such as when under the influence of alcohol, assault,

or road traffic accidents (RTAs) and may sometimes lead to scarring (Harris, 1997). Extensive disfigurements may also result from surgical removal of malignancies. The incidence of skin cancer is increasing rapidly and the wide excision of skin, especially on the face, is a growing cause of post-operative disfigurement (Partridge, 1997). Patients and their families not only have to cope with the fear of cancer and its treatment, but also the effect it might have on their appearance and speech (Baker, 1992). Removal of other tumors in the region of head and neck may also lead to some form of disfigurement.

Besides the above, disfigurement can also result from chronic skin conditions such as eczema (occurring in about 10-20 % of the population), psoriasis (occurring in 2-3 % of population), acne rosacea (occurring in 5-10 % of the population, but rare in the younger population), or from acne, which commonly occurs in about 85% of adolescents, but may persist in adulthood in some cases. Vitiligo, occurring in 2-3 % of the population, is another skin condition, which involves gradual de-pigmentation of the skin of the whole body and can affect appearance drastically (Harris, 1997).

In order to explain the processes, which determine responses to seeing disfigured people, it is important to understand how people perceive attractiveness and how this affects their perception and resultant reactions towards unattractive people. The perception of attractiveness is thought to be influenced by the creation of physical stereotypes in which attractive physiques are automatically linked with certain favourable traits. The empirical research on attractiveness has tried to establish whether such attractive physique stereotypes exist and if they do, how they are developed and influence perceptions formed by children from an early age. Dion et al. (1972) examined whether physical stereotypes do exist. Specifically, their study

was designed to investigate whether a physically attractive person is assumed to possess more socially desirable personality traits than an unattractive person. Additionally, they also looked at whether physically attractive persons are generally expected to be better husbands and wives, better parents and more socially and occupationally successful than less attractive people. The results of the study suggested that a physical attractiveness stereotype did exist and that its content was compatible with the "what is beautiful is good" thesis (Dion et al., 1972). Not only were physically attractive persons assumed to possess more socially desirable personalities than less attractive people, but participants also assumed that attractive people's lives would be happier and more successful.

Two later studies by Eagly, Ashmore, Makhijani, and Longo (1991) and by Feingold (1992) also suggested that attractive people are seen as more socially competent, more intelligent, more dominant and better adjusted. The findings of these studies indicated that physical attractiveness may have implications for a variety of aspects of social interactions. When compared with an unattractive facial appearance, good-looking people are perceived as more intelligent, popular, honest and socially desirable. Teachers also rate attractive children as more intelligent and popular (Bull and Rumsey, 1988).

Speculations about the origins of stereotypes and prejudices relating to physical appearance have focused on an instinctive rejection of the less than perfect. The processes of social conditioning and reinforcement are also influenced by the positive attributes that attractive people are assumed to possess. Research suggests that all of these explanations may play a part in responses shown to people on the basis of their appearance (Rumsey, 1997). The following section will examine some of the

research, which reflects how these attitudes develop, to help provide a platform for understanding attitudes towards disfigurement.

Research has indicated that improving physical attractiveness will improve both the attitude of the target person and also behaviour of other people towards him or her, personality of the target person and interpersonal interactions (Patzer, 1997). A study by Dion (1972) suggested that the effects of a physical stereotype for attractive individuals, such as the experience of positive social interaction, may be present early in childhood. One of the reasons for this could be the treatment displayed by adults towards attractive and unattractive children in circumstances in which their behaviour is identical. Dion (1972) investigated the assumption that adults hold a physical attractiveness stereotype for children similar to that held for adults and for this reason would expect physically attractive children to engage in more socially desirable behaviours than unattractive children. The findings of this study supported the hypothesis that physically attractive people are perceived as having more desirable personalities and that this applies to both adults and children alike. A pre-schooler's level of physical attractiveness, as judged by adults, was related to the extent to which he or she was popular with peers. Perceived attractiveness was also related to how much he or she exhibited certain types of behaviours in interactions with others (Dion and Berscheid, 1971). Theoretical models and perspectives (Adams,1977; Jackson, 2002) have also highlighted the fact that one's self-concept develops in part from observing other people's reactions and inferring their judgements.

As mentioned above, an individual's physical attractiveness is an important social cue used by others as a basis for social evaluation. Body image or appearance-esteem is based on facial features, skin, hair and general appearance (Patzer, 1996). These

elements appear to be substantially correlated with global self-esteem. Self-esteem is one of the most important personality characteristics in every person's life and is an integral part of a person's body image. It can be defined, in part, as a cognitive generalisation derived from a person's past experiences of social encounters. Physical attractiveness influences the development of personality through the quality of interpersonal interactions (Patzer, 1997). The experiences of these interactions are internalised, and since people are not isolated from their environment, a person's experiences impact on his or her self-esteem. The way that people see themselves in comparison to others and especially the feedback that they receive from others in social encounters contributes to their self-concept (Lansdown et al., 1997; Adams, 1977). The culture and society in which people grow up also play a major role in the construction and the development of their body image. Likely socio-cultural influences include parents, peers and media. Social learning theory (Bandura, 1977) proposes that parents are important agents of socialisation who influence their children's body image through modelling, feedback and instructions. Kolb (1959) stressed parents' role in affecting their child's attitude towards his or her body and the effect of parental praising or criticism of particular attributes on self-image.

For children with a disfigurement, self-concept may be shaped from the very earliest stages of development by parental responses. Children born with a disfigurement may develop early difficulties due to the disruption of attachment with one or both parents, which is brought on by the parents' responses to the child's disfigurement (Holmes, 1997). The reaction of parents to the birth of a child, with a defect, has been likened to a bereavement (Lansdown, Lloyd and Hunter, 1991). Due to the grief reaction felt by parents, smiling and other interactions such as holding the infant close, talking and

feeding may get affected. This can interfere with the parents' ability to care for their child, thus, reducing the possibilities of positive reinforcement (Walters, 1997).

Young children may be most influenced by parents, whereas adolescents' body image is more affected by interactions with peers. Early adolescence is an important period for the development of body image. Developmental psychologists have suggested that the pubertal transition accentuates previously existing vulnerabilities and problems (Erikson, 1982). There is some evidence that by early adolescence, negative body image predicts the development of depression and eating disorders (Frances, 2004). However, robust empirical support for this claim is lacking. Children and adolescents, who have some kind of facial disfigurement, may also face problems of teasing and bullying by others. Remarks of other children in school can be traumatic to a disfigured child (Walters, 1997).

Erikson (1982) described adolescence as a time when body images are often at the fore. Some studies have indicated that children with a disfigurement may suffer from severe psychological problems during adolescence (Ben-Tovim and Walker, 1995) whereas, others have not supported this assertion (Robinson, Rumsey and Partridge, 1996). Preferences shown by others for physically attractive friends may lead to a gradual social withdrawal and a tendency to avoid social situations may also develop, which may serve to undermine confidence in the future. Anxiety in disfigured children is more common than in non-disfigured children (Pertschuck and Whitaker, 1982). Some studies have reported that disfigured children achieve lower academic and occupational status (Bradbury, 1996), however, other studies have found no difference between visibly different children and their peers (Nash, 1995). Despite the mixed picture, it is a well known fact that adolescents are concerned about their body

image, and across all cultures it is a very important aspect of their psychological and interpersonal development (Cash and Pruzinsky, 2002). The influence of peer groups, particularly throughout adolescence, can be paramount to the development of a young person's self-worth. The most obvious, direct manner in which peers may influence body image is through feedback on physical appearance (Smolak, 2002). Perceptions regarding peer acceptance may serve to elevate concerns about appearance, and research indicates that across adolescence, the correlation of body image, self-esteem, and the negative affect is significantly greater for girls than boys (Cash, & Pruzinsky, 2002).

The importance of the skin for an individual's psychosocial equilibrium, especially in adolescence, can be easily appreciated. Disfigurement, disease or blemishes on the skin can lead to feelings of embarrassment, humiliation or other negative feelings. It can greatly influence an individual's self-esteem and body image, especially if there are problems with their skin in obvious places like the face. There is evidence of psychological distress and concerns about social functioning due to the presence of some form of disfigurement caused by skin disorders (Robinson, 1997). Conditions such as acne, psoriasis, PWS, and eczema can all lead to lasting emotional and psychological difficulties for the sufferer, and can influence how they are perceived by others in the society, which can affect the development of their self-perception (Smith, 2001). Disfiguring skin conditions are more than a cosmetic nuisance, and Stevenage and McKay (1999) demonstrated that individuals afflicted with visible disfiguring skin disorders are more likely to be stigmatised and ill-treated than those with obvious physical disabilities. Research into the psychosocial effects of such disorders has been extremely helpful in raising awareness of this important issue. Some of these conditions and their effects on an individual's quality of life are

discussed below.

Acne can have profound social and psychological effects on the sufferer regardless of its severity. The psychological and social impacts of acne are of concern because it has an impact at a time when adolescents are developing their personalities. During this time peer acceptance can be very important to the teenager, as appearance and attractiveness is highly linked with peer status (Cash, & Pruzinsky, 2002). According to Gupta and Gupta (2003), the reactions of others to the presence of acne and perceived negative appraisal could lead to lowering of self-esteem and distorted body image. Many adolescents stop participating in activities that they enjoyed previously, such as, rugby and swimming (Jowett and Ryan, 1985; Gupta, Johnson and Gupta, 1998). Avoidance of activities enjoyed in the past can lead to social withdrawal, adding to the sense of isolation of a young person. School refusal, as a result of disfigurement, could lead to a reduction in future career choices, which in turn may lead to unemployment (Rumsey, Clarke and Musa, 2002). Thus denting the self-confidence of the young person even further. A study by Stevenage and McKay (1999) found that disfigured young adults and adolescents were disadvantaged in job interviews and prone to inaccurate stereotyping by potential employers.

Another common, disfiguring skin condition, which occurs in children between infancy and adolescence, is atopic dermatitis. One illustrative study by Hashiro and Okumura (1997) compared controls with patients who had atopic dermatitis of varying degrees of severity, on variables such as proneness to anxiety, depression and psychosomatic symptoms. They concluded that patients with atopic dermatitis were more prone to depression and psychosomatic symptoms, when compared to controls.

As mentioned before, port wine stain (PWS) is a type of birthmark that is caused by vascular malformation, which can lead to the distortion of the symmetrical appearance of the face. Demellweek, Humphris, Hare and Brown (1997) conducted a study to evaluate children's perception of, and attitude towards unfamiliar peers with a facial port wine stain. Participants were between the ages of 8 and 11 years in grades 4, 5 and 6 because children at these ages appear to have relatively stable attitudes towards other children who suffer from handicaps (Rosenbaum, Armstrong and King 1986). Video clips of the same six children with PWS were rated for attractiveness, overall willingness of participants to interact with them, and friendliness shown towards them. The results of this study revealed that participants thought that the facial condition of the children on the video would attract teasing and staring. However, it did not significantly affect participants' assessment of attractiveness and character, or their willingness to interact with these children. However, it was not clear whether the prejudice expressed by the participants on the questionnaire would be expressed behaviourally if they encountered these children in person. According to Gething (1991) and Siller (1986), people seem reluctant to admit to feelings of prejudice against individuals with a disability or a disfigurement. More studies are required to address the potential discrepancy between self-report of attitudes and behaviours.

Research on psoriasis, another common skin condition, indicates that it adversely affects the lives of people who suffer from it. According to Choi and Koo (2003), age of the patient is an important factor to consider when treating psoriasis. Younger patients with an early onset of psoriasis are more susceptible to severe and recurrent disease, which may affect their emotional well-being more adversely than older people. It was suggested that developing psoriasis at a later age may confer

adjustment benefits through the development of coping strategies over time (Knudson-Cooper, 1981). It was also suggested that even if the disease is clinically mild, when disfiguring, it should be treated aggressively due to its effects on appearance. This may help to avoid its effect on the emotional well-being of the sufferer. Kent and Keohane (2001) carried out a postal survey to examine the relevance of social anxiety and past experiences to the psychosocial consequences of disfigurement caused by psoriasis. They found that patients whose condition was visible on the face and hands reported a high fear of being perceived negatively by others in society. Gupta and Gupta (2003) suggested that psychological co-morbidity, in some instances, is the most important feature of this disorder. They proposed the use of psychosocial model, which takes into account the psychological and social factors in addition to the primary dermatological factors, in the management of patients as the most useful approach for their general well-being.

Some studies of people affected by other conditions, such as a cleft lip have suggested that they achieve a lower status than their peers (Nash, 1995). Salzer and Schallreuter (1995) reported that 75% of patients attending a vitiligo clinic found their disfigurement moderately or severely intolerable. Papadopoulos, Bor and Legg's (1999b) study of vitiligo sufferers suggested that there was a high frequency of appearance related negative thoughts in this population. Some people with a disfigurement reported that revealing the disfigurement to others or being seen without makeup can also be very stressful (Rumsey et al., 2002). Other instances such as posing for a photograph, laughing, smiling, eating or drinking in public, or unexpectedly catching sight of their own disfigurement in the mirror or shop window is described as distressing by people with a visible disfigurement. Dermatology

patients often try to avoid situations or activities where their skin may be 'on show', such as swimming, or enjoying beaches (Jowett and Ryan, 1985). It is likely that they may develop fear of going to new places and encounter problems associated with negative feelings about the self (Bradbury, 1996).

It seems evident from the above studies that appearance, which changes due to disfiguring skin condition, can impact on the emotional well-being of the sufferer. This is because the individual with a disfigurement believes that other people will appraise him or her negatively and form opinions about his or her personality due to more generally held perceptions regarding attractiveness (Barankin and DeKoven, 2002). Reactions of other people have a major impact on the psycho-social development and on the emotional well-being of the person with a disfigurement.

Various negative emotions associated with, and felt by people with visible disfigurement, have been identified in the literature. Among these the most common ones are negative self-image and low self-esteem. Many visibly different people feel ashamed, embarrassed or guilty about their appearance and have reported feeling stigmatised or flawed. Feelings of shame and embarrassment were reported in 89% of a sample of psoriasis patients (Ginsburg and Link, 1989). Avoidance is a common behaviour associated with anxiety and shame and may be associated with fear of negative evaluation by others (Leary, Rapp, Herbst, Exum, & Feldman 1998). Situations involving encounters with strangers are regarded as the most difficult by people with visible facial disfigurement (MacGregor, 1990). Problems are particularly apparent at times of transition or change, for example moving to new areas, a new school, or a new job. Bradbury (1996) stated that lowered self-esteem and negative feelings of self-worth may result in people with a facial disfigurement

settling for inappropriate friendships and less than ideal partners in longer term relationships. Anecdotal evidence also suggests that people with visible differences may have more trouble than their non-disfigured counterparts in obtaining the kind of employment that they would like. Many visibly disfigured people allude to a lack of privacy, resulting from pointing, whispering, staring, hurtful comments and intrusive, and unsolicited questions about the disfigurement (Robinson et al, 1996). Any change in appearance can be devastating and, where psychosocial needs are not addressed, people may withdraw completely from social contact and the activities of everyday life (Rumsey et al., 2002).

Research on demographic characteristics, so far, has been of little help in understanding the adjustment process, since it lacks clarity. Some studies have found that women suffering from disfigurement have greater psychological problems when compared with men who also have some form of disfigurement (Smithard, Glazebrook and Williams, 2001; Issacs, 1996), whereas others have found no such differences (Robinson et al., 1996). The reason for this disparity could be due to sampling procedures or the choice of measures used in the studies. Another reason could be that there are genuine gender differences in the meaning that disfigurement has for males and females and in the type of coping strategies that are used by them (Brown, Roberts, & Browne, 1988).

To conclude, research studies of people with facial disfigurements have mostly used adults as participants. Only some studies such as those of Bradbury (1996), Nash (1995) and Demellweek et al. (1997) have included children as participants. Moreover, the majority of studies have looked at the subjective experience of the patients. Very few have taken into account the perception of onlookers, especially

those of children in the normal population. Most research studies have explored facial disfigurement due to cleft lip and/or palate and due to burns rather than the more commonly occurring skin conditions. It is not clear how children in the normal population perceive disfigurement at different stages of development, and how these perceptions influence their behaviour or reactions towards their peers who may suffer from facial disfigurement caused by commonly occurring skin disorders such as eczema, acne, psoriasis, atopic dermatitis or port wine stain. Only Demellweek et al. (1997) used children as participants from the normal population and explored their perceptions of their peers who suffered from facial disfigurement due to port wine stain. Research into an appreciation of the effects of sex, age and location of the lesions are also important factors to be considered for future work, since it may enable the physicians to effectively manage the psychological components of their younger patients' dermatological conditions (Thompson and Kent, 2001; Smith, 2001).

The present study, therefore, set out to explore differences in the perceptions of children and adolescents in the normal, non-clinical population towards skin conditions that affected children on the face. It examined whether these perceptions differed in three age groups and, also examined differences in perceptions between the two genders in response to these commonly occurring skin conditions.

The following main hypotheses were put forward:

1) All participants will rate the photographs of children without skin conditions more favourably.
2) Children's perceptions regarding other children with disfiguring skin conditions will change with increasing age, and 16 year olds will rate

photographs of children with a skin condition more favourably compared to younger children, due to maturity and increased awareness of societal norms.

3) There will be a difference between the two genders regarding children's disfiguring skin conditions, where females will rate photographs of children without skin conditions more favourably, as some research suggests that females become more concerned about appearance with age (Cash and Pruzinsky, 2002)

The null hypotheses were that presence of skin condition will have no effect on the ratings of the photographs of children with and without skin conditions, and, the age and gender of participants will also have no effect on the ratings.

Research on attractiveness has indicated that self-perception is influenced by the way people behave towards others in social encounters (Cash and Pruzinsky, 2002; Jackson, 2002). This influences the development of their self-worth, which in turn, affects the way that people perceive themselves and behave towards others.

To investigate this issue, a secondary hypothesis was also put forward:

4) Participants' scores on global self worth (calculated by Harter's Self Perception Profile), if high, will influence their responses favourably towards the photographs of children with a skin condition.

Method

The study was approved by Southampton University Ethics Committee and approval was sought in writing (see Appendix C for a copy of the approval letter).

Design

A 3 (age groups 8, 12, 16) x 2 (photographs with and without a skin condition) cross-sectional design was used. The dependent variables were the responses/ratings of the participants to the questions or statements regarding the photographs. The independent variables were the presence or absence of skin condition in the photographs, age of participants and gender of participants.

Participants

A total of sixty children took part in the study. Participants were school-going children aged eight, twelve and sixteen years. There were three groups with twenty participants, ten boys and ten girls, in each group. The participants were recruited from two separate schools. The eight and twelve year olds were from the same school, whereas the sixteen year olds came from another school. The consent of parents and guardians was sought before embarking on the study.

Materials and Measures

An information sheet and consent form (Appendix D) were provided to all participants' parents/guardians before commencing the study. The stimuli for the study comprised coloured photographs of twelve children between the ages of eight and sixteen years. Six of them had a skin condition affecting their face and six of them had no skin disorder (Appendix E). The photographs of children with normal skin were provided voluntarily by their parents after gaining written consent (Appendix F). The photographs of the children with skin disorders were taken from two books on dermatology (Harper, 1990; Hurwitz 1981) provided by North Hampshire Hospital Library.

The photographs were randomly presented to each participant and then they were asked a series of twelve questions about the photographs from two questionnaires, 1 and 2. The participants answers to these two questionnaires were organised into three subscales. Two of these sub-scales measured sociability and helpfulness of participants towards children in the photographs, and the third sub-scale measured participants ratings of attractiveness of children in the photographs. The details of these three sub-scales are as follows:

Sociability and Helpfulness sub-scale 1 : comprised six questions (1,2,3,4,5,6) from questionnaire 1 (Appendix G) that were used to capture participants' responses on sociability and helpfulness towards the photographs of children with and without skin condition. The questions on this sub-scale were answered with a 'Y' for yes and 'N' for

no.

- Would you be friendly towards this person? (1)
- Would you have this person come over to your house or let your brother or sister invite them for tea? (2)
- Would you like to share your sweets, toys or books with this person? (3)
- Would you like to sit next to this person in a bus or a train? (4)
- If this person went to your school and you saw him/her outside school would you say hello to him/her? (5)
- Would you shake hands with this person? (6)

The responses (yes or no) of each participant were then recorded on the response sheet provided (See Appendix H).

Participants were then given questionnaire 2 (Appendix I) where the participants' responses were recorded on a Likert scale.

Sociability and Helpfulness sub-scale II : comprised five questions (7,8,9,11,12) from questionnaire 2. These statements also measured participants' responses to various aspects of sociability and helpfulness towards photographs of children with and without skin conditions.

- If this person was in your school and you saw them in a shop would you say Hello? (7)
- If you had a packet of crisps would you like to share with this person? (8)
- If this person needed help in the school on their first day would you like to offer help? (9)
- If this person dropped their books would you like to offer help? (11)
- Would you like to play on the same team as this person? (12)

Attractiveness sub-scale III : comprised one question (10) from questionnaire 2. It was used to measure participants' view of how attractive they found the children in the photographs.

- How attractive do you think this person is? (10)

On the Sociability and Helpfulness sub-scale II and Attractiveness subscale III, each participant had to record his or her response on a five-point likert scale, where 1 = 'yes definitely', 3 = 'don't mind', and 5 = 'not at all'.

Scores of participants: The same twelve questions/statements were asked about each of the twelve photographs. All 'yes' responses on Sociability and Helpfulness I sub-scale (questions 1-6), were scored as '1' and all the 'no' responses were scored as '0'.

These were then added together such that scores for each participant ranged from 0 (not favourable) to 6 (most favourable). On the likert Scale, however, a higher score suggested less favourable and lower score indicated a more favourable response. So, for Sociability and Helpfulness sub-scale II (questions 7, 8, 9,11,12) scores ranged between 5 (favourable) to 25 (not favourable), and for Attractiveness sub-scale III (questions 10) scores ranged from 1 (favourable) to 5 (not favourable).

A further sheet was given to all participant on which they recorded any experience or knowledge they had, through friends or relatives, of any of the skin conditions shown in the pictures (Appendix J). This was to ascertain the level of exposure of all the participants to the various skin conditions shown in the photographs.

Participants were also given a standardised questionnaire called Harter's Self Perception Profile (Harter, 1995). It comprised of six sub-scales or categories that included scholastic competence, social acceptance, athletic competence, physical appearance, behaviour/conduct and global self worth. The reliability of this scale was high (overall alpha = .80). The alpha scores for sub-categories were not available. However, the manual for HSPP (Harter, 1995) reported that consistency was low for behavioural conduct. Sixteen year olds were given the Adolescent version of the questionnaire and the twelve and eight year olds were given the children's version of this questionnaire. Scores on only one of the subscales, global self-worth (gsw), were used for each participant in this study. This was done to observe any differences in the answers provided by participants regarding the children with and without skin condition, related to their scores on global self-worth.

Procedure

A pilot study was undertaken beforehand to assess any problems associated with the materials used in the study. The pilot established the time required to complete the tasks with each participant. Six children participated in the pilot study. There were three boys and three girls aged eight, twelve and sixteen. After the pilot, some changes were made to the materials. This included reducing the total number of questions from Sociability and Helpfulness subscale I, to avoid early fatigue and boredom for participants, and its effect on participants' responses. After piloting only six questions (1-6) were selected for Sociability and Helpfulness sub-scale 1 for the final study.

The main study was conducted in the two schools that had agreed to participate in the study. The photographs were shown one at a time and their presentation was counterbalanced by randomly changing their order before showing them to each child. After looking at each photograph for 2 minutes, participants answered the questions from questionnaires one and two.

A separate sheet (Appendix K) was also provided to assess whether participants had had any exposure to skin disorders or skin conditions similar to those shown in the photographs. This data was collected for information purposes only and was not coded or used for any analysis in the study.

At the end of the experiment, participants completed Harter's Self Perception Profile.

Results

Data Analysis

The data were analysed using 2 (presence/absence of skin condition in the photographs) x 3 (age group 8,12 and 16) repeated measures ANOVAs to explore the effects of the independent variables (presence or absence of skin condition and age) on the dependent variables (participants' ratings of pictures of children with and without skin condition) and 2 (skin conditions)x 2 (gender) repeated measures ANOVA to explore the effect of gender.

The effect of Age on 'sociability and helpfulness' (sub-scale I)

There was a significant main effect of skin condition on ratings of sociability and helpfulness, $F(1,57) = 38.41$, $p = .001$. There was also a significant effect of age on these ratings, $F(2,57) = 7.22$, $p = .002$. The condition by age interaction was not significant, but there was a trend towards an interaction, $F(2,57) = 2.86$, $p = .065$. Analysis of variance summary is presented in Table 1.

The main effect of age reflects the fact that older children gave more positive answers than younger children generally, and the main effect of skin condition was due to the fact that the pictures of children without skin condition received more positive ratings than the pictures of children with skin condition.

The Error bar graph illustrates that there was a trend towards sixteen year olds' judgements being less influenced by the skin condition than younger children.

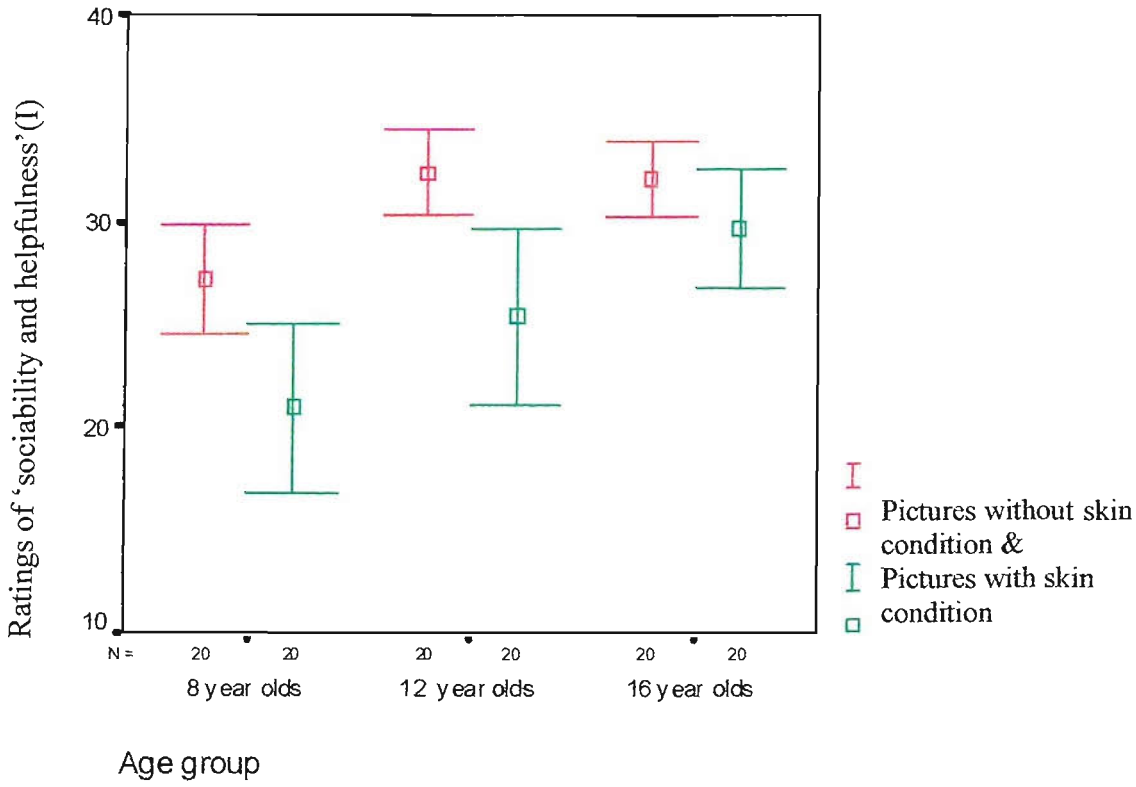

Figure 1 Age Related Ratings on 'sociability and helpfulness' (sub-scale I) for Pictures With Skin Condition and Without Skin Condition

The effect of Gender on 'sociability and helpfulness' (sub-scale I)

There was a significant main effect of skin condition on ratings of sociability and helpfulness, $F(1,58) = 37.03$, $p = .001$. No significant effect of gender on ratings was observed, $F(1,58) = 1.89$, $p = .175$. The condition by gender interaction was not significant, $F(1,58) = 2.48$, $p = .121$. Analysis of variance summary is presented in Table 2.

The Error bar graph shows that the main effect of skin condition was due to the pictures of children without skin conditions receiving more positive ratings than pictures of children with skin conditions by both male and female participants

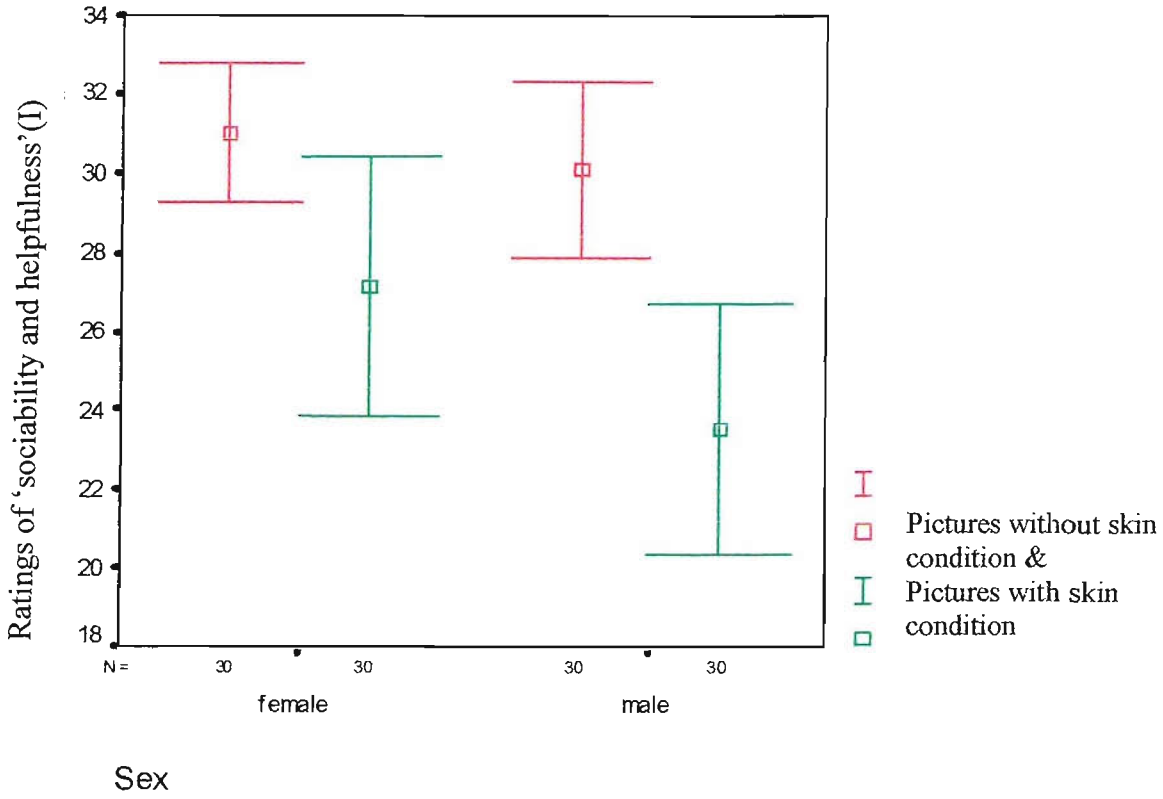

Figure 2 Gender Related Ratings on 'sociability and helpfulness' (sub-scale I) for Pictures With Skin Condition and Without Skin Condition

The effect of Age on 'sociability and helpfulness' (sub-scale II)

There was a significant main effect of skin condition on ratings of sociability and helpfulness, $F(1,57) = 23.97$, $p = .001$. There was no significant effect of age on ratings, but a trend towards this effect was observed, $F(2,57) = 2.90$, $p = .063$. The condition by age interaction was not significant, $F(2,57) = 1.55$, $p = .220$. Analysis of variance summary is presented in Table 3.

The main effect of skin condition was due to the pictures of children without skin conditions receiving more positive ratings than the pictures of children with skin conditions.

The Error bar graphs indicates the trend towards sixteen year olds giving

more positive answers than the twelve and eight year olds, which suggests a trend towards their judgement on sociability and helpfulness being less influenced by the skin condition of the child in the photograph.

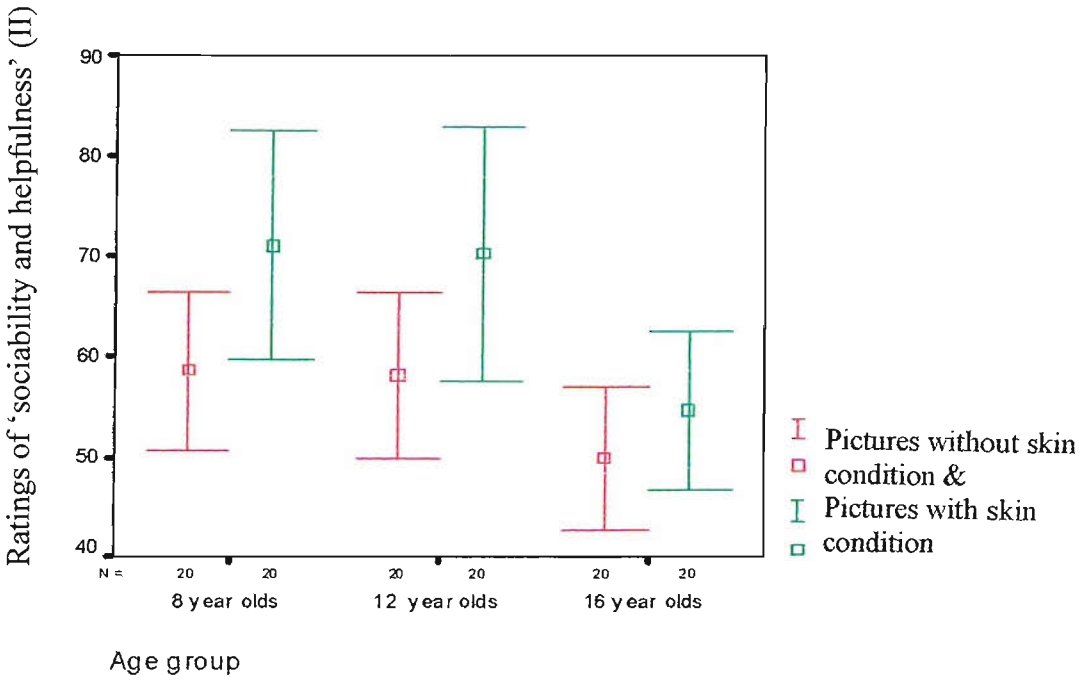

Figure 3 Age Related Ratings on 'sociability and helpfulness' (sub-scale II) for Pictures With Skin Condition and Without Skin Condition

The effect of Gender on 'sociability and helpfulness' (sub-scale II)

There was a significant main effect of skin condition on ratings of sociability and helpfulness, $F(1,58) = 23.13$, $p = .001$. No significant effect of gender on ratings was observed, $F(1,58) = .53$, $p = .469$. The condition by gender interaction was not significant, $F(1,58) = .004$, $p = .948$. Analysis of variance summary is presented in Table 4.

The Error bar graph shows that the main effect of skin condition was due to the photographs of children without skin conditions receiving more positive ratings than

the photographs of children with skin condition by both male and female participants

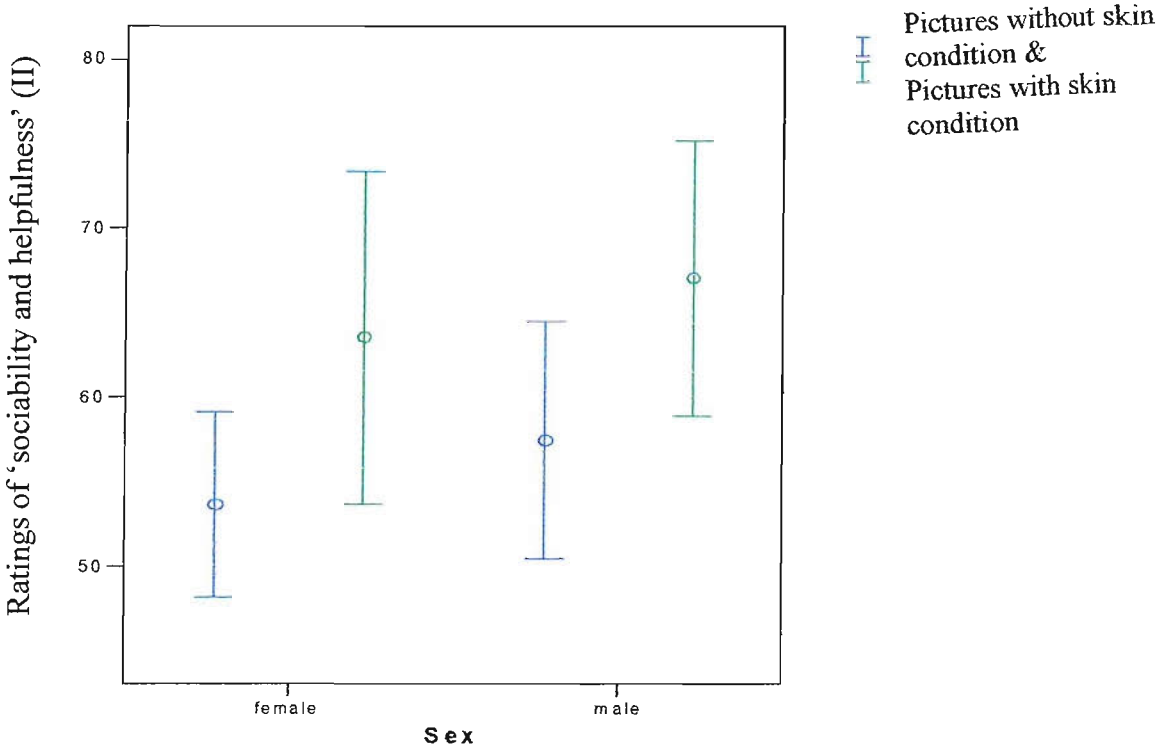

Figure 4 Gender Related Ratings on 'sociability and helpfulness' (sub-scale II) for Pictures With Skin Condition and Without Skin Condition

The effect of Age on 'attractiveness' (sub-scale III)

There was a significant main effect of skin condition on ratings of attractiveness, F (1,57) = 33.78, p = .001. There was no significant effect of age on ratings, F (2,57) = .09, p = .910. The condition by age interaction was not significant, F (2,57) = 1.60, p = .210. Analysis of variance summary is presented in Table 5.

The Error bar graph shows that main effect of skin condition was due to the fact that pictures of children without skin conditions received more positive ratings than the pictures of children with skin conditions, especially from sixteen year olds.

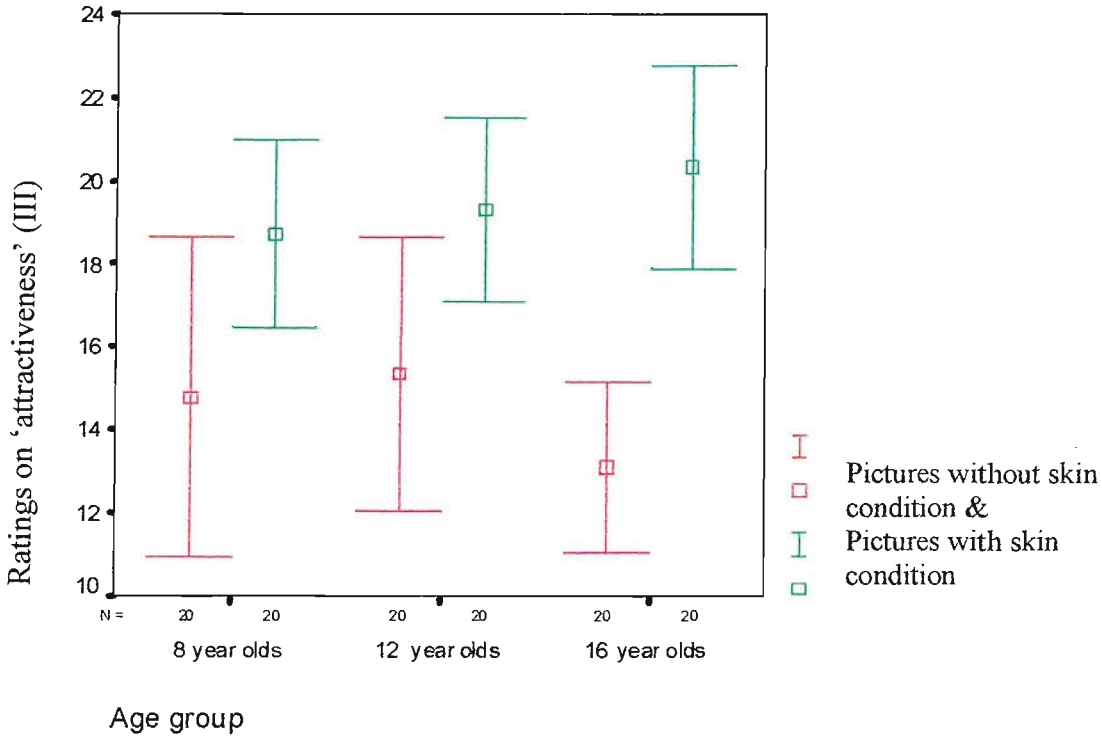

Figure 5 Age Related Ratings on 'Attractiveness' (sub-scale III) for Pictures With Skin Condition and Without Skin Condition

The effect of Gender on 'attractiveness' (sub-scale III)

There was a significant main effect of skin condition on ratings of attractiveness, F (1,58) = 32.65, p = .001. No significant effect of gender on ratings was observed, F (1,58) = 1.09, p = .301. The effect of condition by gender interaction was not significant, F (1,58) = .18, p = .666. Analysis of variance summary is presented in Table 6.

The Error bar graph shows that the main effect of skin condition was due to the pictures of children without skin conditions receiving more positive ratings than pictures of children with skin condition by both male and female participants.

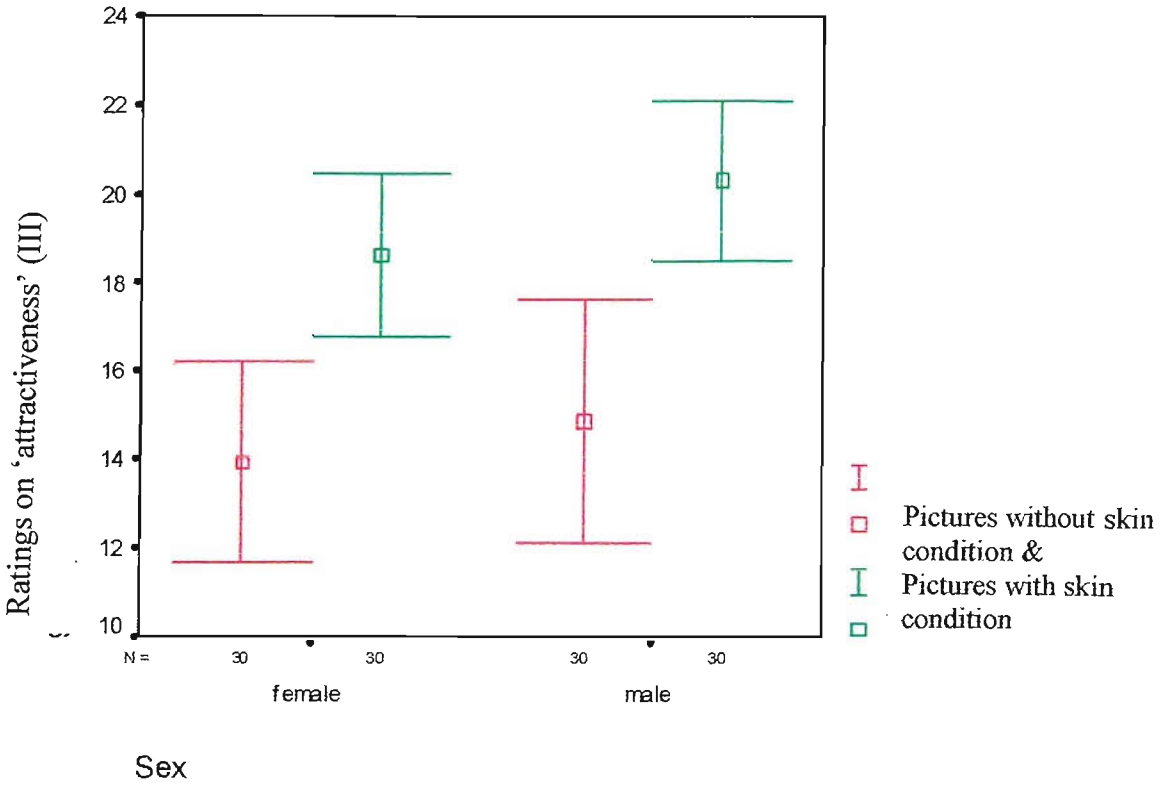

Figure 6 Gender Related Ratings on 'attractiveness' (sub-scale III) for Pictures With Skin Condition and Without Skin Condition

Prior exposure

The current study used an information sheet to assess if participants had any exposure to skin disorders or skin conditions similar to those shown in the photographs. It was found that 9 participants out of a total of 60 knew someone who suffered from any of the skin disorders shown in the pictures. The effect of previous exposure on participants' responses was not explored in the present study. The data collected was not used for any analysis. It was used for information only.

The effect of self-perception on responses to children with disfiguring skin conditions

In order to investigate the relationship between an individual's self-perception and his

or her reaction to pictures of children with a facial disfigurement, a difference score was calculated for each of the three sub-scales (I, II, III). This score was computed by subtracting ratings made of pictures with skin conditions from pictures without skin conditions. This produced a difference score for each scale (SH_1diff, SH_2diff, Attractdiff).

As mentioned before, on 'Sociability and Helpfulness sub-scale I' scores for each participant ranged from 0 (not favourable) to 6 (most favourable). Therefore, a high score on this sub-scale indicated a favourable response. 'Sociability and Helpfulness sub-scale II' (questions 7, 8, 9,11,12) and 'Attractiveness sub-scale III (questions10) were on a likert scale, where a high score indicated a less favourable response and a lower score indicated a more favourable response. Scores on 'Sociability and Helpfulness sub-scale II' ranged from 5 (favourable) to 25 (not favourable), and on 'Attractiveness sub-scale III' it ranged from 1 (favourable) to 5 (not favourable).

The relationship between SH_1 diff, SH_2 diff, Attract diff and global self-worth was explored using Pearson product-moment correlation co-effecients. The summary of results is presented in Table 7.

There was no significant relationship between the variables global self-worth and SH_1 diff, $r = .15$, $p = .231$; or SH_2 diff, $r = -.19$, $p = .146$; or between global self-worth and Attract diff, $r = .03$, $p = .800$.

Figure 7 shows the Scatter plot for the correlation between the 'sociability and helpfulness I' scores and global self-worth.

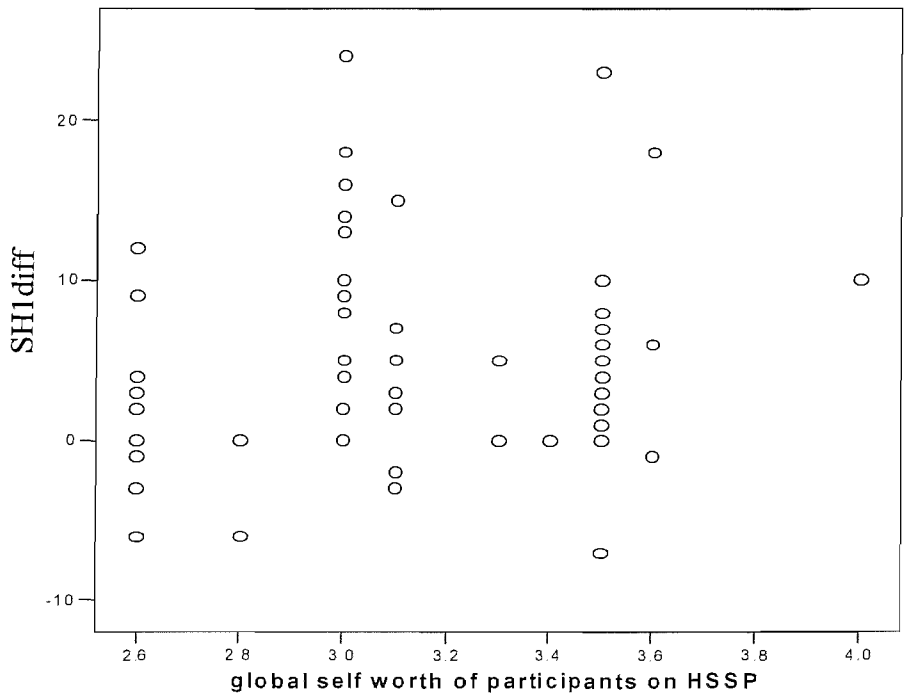

Figure 7 Correlation between SH_1 diff and gsw (global self-worth)

The bulk of the scores on global self-worth were high, between 3 and 3.5. The scores on SH_1diff were positive and in the high range, indicating an overall preference of participants for photographs without skin condition.

Figure 8 shows the Scatter plot for the correlation between the 'sociability and helpfulness II' scores and global self-worth.

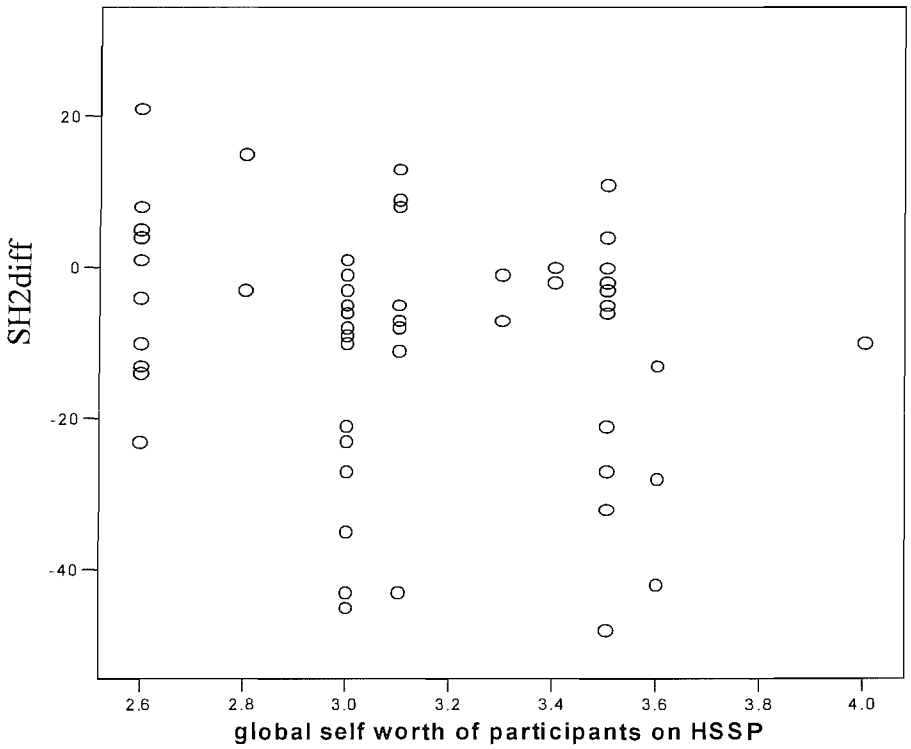

Figure 8 Correlation between SH_2diff and gsw (global self-worth)

The bulk of the score on global self-worth were high, between 3 and 3.6. The scores on SH_2 diff were mostly scattered in the negative range indicating an overall preference of participants for photographs without skin condition.

Figure 9 shows the Scatter plot for the correlation between 'Attractiveness' scores and global self-worth.

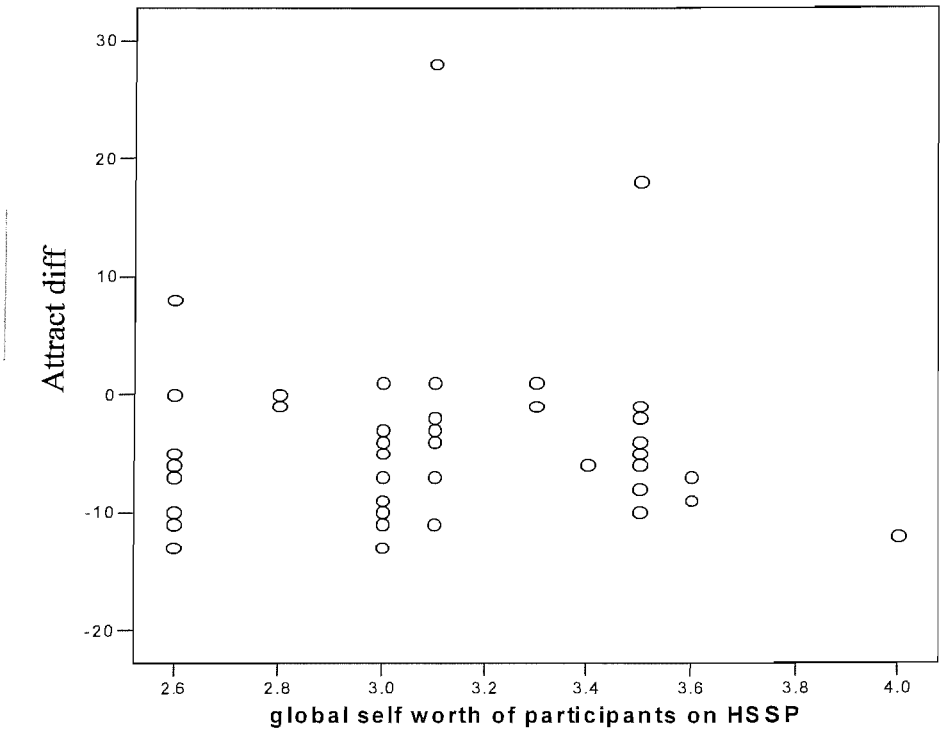

Figure 9 Correlation Between Attract.diff and gsw (global self-worth)

The bulk of scores on global self-worth were high, between 3 and 3.6. The scores on Attract diff were all in the negative range, except a few, indicating participants' preference for photographs without skin condition.

Discussion

This study set out to explore the differences in the perceptions of children and adolescents in the normal population towards skin conditions that affected other children on the face. It examined whether these perceptions changed with growing age of the participants and also whether there were differences between boys and girls

in their perception of children with skin disorders.

The results of the present study showed an effect of condition across the ages and for both genders. All participants rated photographs of children without a skin condition more favourably. Ratings on the first sociability and helpfulness sub-scale indicated a significant effect of age, which showed that participants in all three age groups showed preference for photographs of children without a skin condition, and a trend towards condition by age interaction. However, no other significant results were found, on either the second sociability and helpfulness sub-scale or on the attractiveness sub-scale, for the effects of age or gender, and there were no significant interactions on these subscales between age and the skin condition or between gender and the skin condition. Therefore, the null hypotheses could not be rejected for these variables.

The data from the questionnaires were organised into three sub-scales. Questions on the first sub-scale measured the sociability and friendliness of participants towards other children with or without a skin condition, as presented in the photographs. The participants responded by either 'yes' or 'no' where yes = 1 and no = 0. Therefore, a higher score or rating indicated a favourable response. All participants across the age range (8,12,16 years) gave an overall higher rating for pictures of children without skin conditions as compared to pictures of children with skin conditions. This finding was consistent for both genders as well i.e. both male and female participants indicated a preference for pictures of children without skin conditions.

By comparison, the responses on the second sub-scale were recorded on a five point likert scale, which also measured the sociability and friendliness of participants towards photographs of children with or without skin conditions. However, unlike the

previous sub-scale, here a lower rating on the scale indicated a more favourable response. All participants across the age range (8,12,16 years) gave overall lower and, therefore, more favourable ratings for pictures of children without skin conditions as compared to pictures of children with skin conditions. It was also noted that both male and female participants indicated a preference for photographs of children without skin conditions.

The responses from all participants on question 10, which made up the third sub-scale (attractiveness sub-scale), were also recorded on a five point likert scale, where a smaller rating on the scale indicated a favourable response. Question on this sub-scale measured how attractive participants found the children in the photographs, whether they had a skin condition or not. All participants across the age range (8,12,16 years) gave an overall lower and, therefore, more favourable rating for pictures of children without skin condition compared to pictures of children with skin condition. This finding was also consistent for both male and female participants, indicating a preference for pictures of children without skin disorder. These results appear to be consistent with previous research findings in the field of disfigurement, which have indicated that people generally show a bias towards people without facial disfigurement (Stevenage and McKay, 1999; Bull and Rumsey, 1988; Kent, 2000). This bias can develop as a result of cultural influences and through parental modelling and peer feedback (Cash and Pruzinsky, 2002). According to social learning theory (Bandura, 1977), parents are important agents of socialisation who can influence their children's perception through feedback and instructions. In Western culture appearance-esteem seems to be substantially correlated with global self-worth. According to Bradbury (1996), feedback on physical appearance may

elevate concerns about appearance during adolescence and may influence how children and young people feel about themselves and others. In other words, the influence of peer groups, especially during adolescence, can be paramount in the development of perceptions about self and in particular, in the development of self-esteem.

The three sub-scales, 'sociability and helpfulness I' and 'sociability and helpfulness II' and 'Attractiveness' sub-scale III, used different scoring methods to measure participants' responses to pictures with and without skin conditions. Responses to questions on sub-scale I, could only be either 'yes' or 'no'. So participants were providing a direct answer, whereas for the sub-scale II and III, participants answered on a likert scale ranging from 1-5 so instead of giving a direct answer, they were provided with a range of options. The forced choice provided by the first sub-scale might have pushed responses in one direction whereas the likert scale used in the second and third subscales might have allowed finer gradations of responses. Using one method of measurement for all three sub-scales may have produced different results for the study, but on the other hand, it may not have not been able to capture the depth and richness of participants' responses. A trend towards an interaction between the age and the presence of skin condition was also observed using sub-scale I, but not sub-scales II or III. Perhaps asking participants for direct answers gave more information due to clarity of responses, rather than when they were given choices, which may have added some ambiguity to their responses. These points require clarification for guiding studies in the area of disfigurement in the future.

The results of the present study also revealed that there were no differences between the responses of male and female participants to facial disfigurement. This finding

appears to be in the opposite direction to previous research studies (Smithard et al., 2001; and Isaacs, 1996), which report that gender has an impact on how people respond to disfigurement. Brown et al. (1988) point out that there are gender differences in the meaning that disfigurement holds for males and females, that is, females are generally more concerned bout appearance and tend to rate less attractive or disfigured individuals more negatively. However, in this study, both males and females participants rated photographs without skin conditions more positively and further research is required to explore these gender issues in more detail.

There was another interesting finding in this study regarding the differences between the ratings of 8, 12 and 16 year olds on the sociability and helpfulness sub-scale I. The questions in this scale tapped into the sociability and friendliness of participants towards photographs of children with and without skin conditions. The younger participants (8 and 12 year olds) rated children without skin conditions more favourably (higher ratings) as compared to the ones with a skin condition, i.e. they seemed to prefer to socialise with children without a skin condition. Sixteen year olds also rated favourably for children without a skin condition. However, the overall difference between their ratings for children with a skin condition and without skin condition was not as much as the younger participants. There could be many reasons for this finding. One explanation for this is that some of the children in the photographs with skin conditions were looking away from the camera, whereas the children without skin conditions were looking straight at the camera. The direction of gaze may have given an impression of them being shy or unfriendly. This may have, in turn, affected the responses of younger participants, and they may have given a lower rating to children with a skin condition who were looking away. It may have helped to compare responses if the pictures of the children without skin conditions

were also looking away from the camera. Despite every care taken to control for all the possible variables regarding the pictures used for the study, it was not possible to control for every variable since photographs of different children were used in both conditions. Another reason could be that the age of participants affected their responses. So it is possible that the younger participants identified more with children similar to their age who did not have a skin condition and rated those photographs more favourably, whereas, the older participants felt more compassionate towards the younger children with a skin condition as compared to other participants. This may have affected the responses of sixteen year olds and they did not give a very low rating to photographs of younger children with a skin condition. Another possible reason could also be that sixteen year-old participants felt more reluctant to openly show their prejudice against children with skin conditions on sub-scale I. According to Gething (1991) and Siller (1986), people generally appear reluctant to admit to feelings of prejudice against individuals with a disability or a disfigurement due to the fear of how they will be perceived by others as a result.

In this study, differences in the perceptions of children across various ages were explored. In future, comparisons could also be made between the perceptions teenagers hold regarding disfiguring skin conditions with those of adults. It may help to find out if age, through physical development, experience and knowledge of societal norms, can confer more tolerance towards people who suffer with disfigurement of some kind.

On question 10 (Attractiveness sub-scale III), which explored the 'attractiveness' of the person in the picture, 8, 12 and 16 year olds gave a more favourable rating towards the photographs of children without a skin condition. This finding is not

consistent with Demellweek et al.'s (1997) study, which evaluated children's perception of and attitude towards unfamiliar peers with facial port wine stain (PWS). Participants in their study were between the age of 8 and 11 years and the result of the study indicated that the facial condition of the children in the video clip did not significantly affect participants' assessment of their attractiveness. The findings of the present study provides some tentative support for the notion that attractiveness and appearance does matter to individuals during adolescence (Walters, 1997).

The discussion above indicates that there are a number of variables that influence the way in which individuals perceive other people in every day life, and that the presence of any disfigurement, however small, can potentially complicate this process. It is important, therefore, to fully understand the role of these factors in the development of other people's perceptions regarding disfigurement. Future research needs to take into account of these diverse variables, so that they can be fully understood.

Research on attractiveness has indicated that self-perception is influenced by the way in which people behave towards others in social encounters. When strangers show preferential treatment towards attractive people it affects their self-perception. Therefore, attractive people tend to have high self-worth and they, in turn, display positive behaviours towards others (Jackson, 2002). In this study an assumption was made that if the participants' self-worth was higher, then they would react more positively towards photographs of children with skin condition. Harter's self perception profile (HSPP) is a standardised measure that was used in this study to measure the self-worth of participants in order to evaluate its influence on their responses regarding disfigurement caused by skin disorders. Therefore, it was

assumed that if the participants' self-worth was higher, then they would react positively towards photographs of children with skin condition. Most of the participants had scores that reflected high self-esteem but the correlation between self-esteem or self-worth and the differences in perceptions between the two types of pictures found no relationship between self-worth and more favourable ratings of the children with a disfigurement. The reason for this could be that since participants' scores on global self-worth were in the normal to high range, there was not sufficient variability of scores to show different reactions towards children who had a skin condition. Although everyone preferred the children without skin conditions, the ratings of the children with skin conditions might have been worse if the study had included children with lower self-worth/self-esteem.

In future, it may be advisable to use Harter's Self perception Profile before conducting the study so that participants' scores on global self-worth can be obtained prior to commencing the study. This would help to place participants in two groups, one with low scores and the other with high scores on self-worth, which may help to evaluate the effect of participants' self-worth on their perception and resultant reactions or responses towards others who may suffer from disfiguring skin disorders.

Besides self-worth, Harter's self perception profile questionnaire also taps into other constructs such as scholastic competence, social acceptance, athletic competence, physical appearance, and behaviour/conduct. It would be interesting in future studies to explore whether these aspects of self-perception influence the children's perceptions of other people rather than relying on global self-worth. For example, it may be useful to explore whether adolescents place more value on appearance rather than scholastic or athletic competence, when compared to eight or twelve year-old

pre-adolescents.

There were also some limitations to the present study. For example, this study used a cross sectional design. Participants were grouped into three age groups 8,12, and 16. Differences between the three age groups in their perception of skin disorders in other children were explored. A longitudinal design would have been more helpful in providing useful information regarding the changes that may occur in the perception of children as they grow up, as maturity confers rationality of thinking and people become more aware of the norms of the society.

Three sub-scales, 'sociability and helpfulness I, 'sociability and helpfulness II, and 'attractiveness, were used in the study. All of these sub-scales had a number of questions or statements. However, the number of questions on each of the scales was not equal. Sub-scale I comprised of six questions, sub-scale II comprised of five statements and sub-scale III had only one statement. Using the same number of questions might have produced a more balanced instrument. It may have also provided more richness to the information collected, which may have affected the result of the study differently.

The current study collected data from all participants regarding their prior experience of any skin conditions such as those shown in the photographs. It found that nine out of a total of sixty participants actually knew someone who was affected by the skin conditions presented in the stimulus pictures. The data collected in this study was used for information purposes only. However, analysing this data may have helped to provide more useful information about the effects of the exposure on the perceptions people hold regarding facial disfigurement, thereby, adding to the richness of the

present study. The reason why the data collected was not used in this study was because it was mainly exploratory in nature and wanted to examine the effects of age and gender and their interaction with the skin condition. It was envisaged that looking at the effects of exposure to skin conditions on participants' responses would add another variable and may make it more complicated than required.

In future studies, it might be useful to compare the ratings of people who have been exposed to disfiguring skin conditions with people who have had no exposure and to explore whether prior exposure influences the participants' perceptions of disfigurement. The responses of participants could also be used for qualitative analysis in future studies to find out whether factors such as duration of exposure, severity of disfigurement or the person's relationship with the disfigured person, influences the way that they perceive disfigurement. This could be done by categorising the responses of participants and analysing them qualitatively, which would help to add richness to the information regarding perceptions that others hold regarding disfigurement and its influence on self-perception of disfigured people.

Use of, or adapting items from, standardised measures in the present study, as done by Demellweek et al., (1997), would also have been helpful. The measures from which the researchers adapted items for their study were Chedoke-McMaster Attitudes Towards Children with Handicaps scale (CATCH; Rosenbaum et al., 1986), and Interactions with Disabled Persons scale (IDP; Gething, 1991). This strategy may have helped to provide more validity to the data collected, thus adding to the reliability of the results obtained. However, there is a scarcity of such measures and they are not readily available.

After the experiment ended, a debriefing session was arranged. All participants were

given a chance to comment on their experience of this study and to ask any questions that might need answering. Generally, twelve and sixteen year olds felt that it was difficult to give a response to various questions because they did not know the person in the picture. They felt that not knowing the person made it difficult to like or dislike them. Most of them stated that it would have been easier if they knew the person. According to 12 and 16 year old participants, when someone has a nice personality, then it does not matter what they look like. However, this did not seem to be the case for the eight year-olds. This suggested that for 12 and 16 year olds friendship is based on factors other than looks. Support for this proposal comes from Riggio and Friedman (1986) who suggested that attractiveness, although important initially, was less influential in the longer term than expressive facial behaviour, speech and gestural fluency. However, this was not formally measured in the present study.

It appears that the responses of people can be influenced by how much they know a person. So, it is possible that the responses of participants in this study were not a true reflection of how they would perceive a child with a disfigurement whom they knew. It can also be assumed that perceptions about disfigurement can be changed by the behaviour of a person who has a disfigurement. Support for this notion comes from the 'SCARED' model put forward by Partridge (1997), which proposes that people with a disfigurement, to a certain extent, can have control over how others behave towards them. This can be determined by how they conduct themselves in social encounters.

However, the present study was trying to explore people's first impressions of facial disfigurement, especially when children of varying ages encounter someone who is disfigured in some way. Comparing reactions of people to other disfigured people

whom they know, with strangers who may have a facial disfigurement may be another interesting issue to explore in future work.

Conclusion

The present study was exploratory in nature. It set out to examine issues regarding the reactions of young people towards children, at similar developmental level, who had a visible facial disfigurement. From the results of the present study, it can be concluded that children prefer, or show a bias towards, other children who do not have disfigurement. However, it may be possible that first impressions can be changed depending upon the level of acquaintance with the person who may have a disfigurement and, to some extent, on the quality of social interaction that may occur between people. According to research, the experience of disfigurement is multifaceted, invoking individual and societal factors (Thompson and Kent, 2001).

The inability of this study to get significant results regarding the interactions could be due to a variety of reasons. Firstly, it could be the lack of use of more standardised measures. The results from these measures may have helped in making valid conclusions. However, there seems to be a lack of such measures, especially those which can be used with the normal population. So, recommendations are made that more statistically valid measures are developed through research in the area of disfigurement. These may help not only to guide research in the normal population, but also aid in addressing issues and difficulties faced by people with disfigurements. Secondly, the failure to get significant results (regarding the interactions) could also be due to the fact that the three sub-scales derived from the questionnaires had unequal numbers of questions, which may have affected the results obtained. Thirdly,

questions on the first sub-scale required a direct 'yes' or 'no' response, whereas responses on other two sub-scales were on a five point likert scale. These variabilities in stimulus material are important to bear in mind since they may have affected the outcome of the study. Lastly, it could also be that individuals who participated in the study were not a true representative sample.

It is imperative that research in the field of disfigurement undertakes qualitative research on both clinical and non-clinical populations in order to fully understand the impact of facial disfigurement. Through such studies, it may be possible to guide interventions by directly using the experiences of people with disfigurement and giving them a chance to, more pro-actively, contribute towards reducing the stigma prevalent in the society towards facial disfigurement. Partridge (1996) presented 'SCARED' model which proposed that understanding their own behaviour will help people with disfigurements to understand the reactions of others, and may also help them to take more responsibility for the way they choose to interact with others. Therefore, it is important that work in the future continues both on clinical and non-clinical population so that models, such as the one mentioned above, can be brought to the fore.

It is also important to raise more awareness of issues that affect children with facial disfigurement at different developmental levels. There is evidence that education can help reduce stigma (Frances, 2004; Stevenage and Mc Kay, 1999). Future work would, therefore, benefit by liaising with organisations such as 'Changing Faces' who provide training and education to raise general awareness to difficulties faced by people with facial disfigurement.

REFERENCES

Adam, G. (1977). Physical attractiveness research: toward a developmental social psychology of beauty. *Human Development, 20,* 217-225.

American Psychological Association (2001). *Publication Manual of the American Psychological Association, Fifth Edition,* Wasington DC: American Psychological Association.

Baker, C. (1992). Factors associated with rehabilitation in head and neck cancer. *Cancer Nursing, 15,* 395-400.

Bandura, A. (1977). *Social Learning Theory.* NJ: Prentice Hall.

Barankin, D., & DeKoven, J. (2002). Psychosocial effect of common skin diseases. *Canadian Family Physician, 48,* 712-716.

Ben-Tovim, D., & Walker, M. K. (1995). Body image, disfigurement and disability. *Journal of Psychosomatic Research, 39,* 283-291.

Bradbury, E. (1996). *Counselling people with disfigurement.* Leicester: British Psychological Society.

Brown, B., Roberts, J., & Browne, G. (1988). Gender differences in variables associated with psychosocial adjustment to a burn injury. *Research in Nursing*

Health, 11, 23-30.

Bull, R., & Rumsey, N. (1988). *The social psychology of facial appearance.* New York: Springer.

Cash, T. F., & Labarge, A. (1996). Development of the appearance schemas inventory: a new cognitive body-image assessment. *Cognitive therapy and Research, 20,* 37-50.

Cash, T. F., & Pruzinsky, T. (2002). *Body Image: A Handbook of Theory, Research, and Clinical Practice.* New York: The Guildford Press.

Choi, J., & Koo, J. Y. (2003). Quality of life in psoriasis. *Journal of American Academy of Dermatology, 49,* S57-61.

Demellweek, C., Humphris, G. M., Hare, M., & Brown, J. (1997). Children's perception of, and attitude towards, unfamiliar peers with facial port-wine stain. *Journal of Pediatric Psychology, 22,* 471-485.

Dion, K. (1972).). Physical attractiveness and evaluation of children's transgression. *Journal of Personality and Social Psychology, 24, 2,* 207-213.

Dion, K., & Berscheid, E. (1971). *Physical attractiveness and sociometric choice in young children.* University of Minnesota.

Dion, K., Berscheid, E. & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology, 24, 5,* 285-290.

Eagley, A., Ashmore, R., Makhijani, M., & Longo, L. (1991). What is beautiful is good but....A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin, 111,* 109-128.

Erikson, E. (1982). *The life cycle completed.* New York: Norton.

Feingold, A. (1992). Good looking people are not what we think. *Psychological Bulletin, 111,* 304-341.

Frances, J. (2004). *Educating children with facial disfigurement – creating inclusive school communities.* London: RoutledgeFalmer.

Gething, L. (1991). Interaction with disabled persons scale: Manual and kit. Sydney:University of Sydney.

Ginsburg, I., & Link, B. (1989). Feelings of stigmatisation in patients with psoriasis. *Journal of the American Academy of Dermatology, 20,* 53-63.

Gupta, M. A., & Gupta, A. K. (1998). Depression and suicidal ideation in dermatology patients with acne, alopecia areata, atopic dermatitis and psoriasis. British Journal of Dermatology, 139, 846-850.

Gupta, M. A., & Gupta, A. K. (2003). Psychiatric and psychological co-morbidity in patients with dermatological disorders: epidemiology and management. *American Journal of Clinical Dermatology, 4,* 833-842.

Harper, J. (1990). *Handbook of Paediatric Dermatology (2nd edition).* London : Butterworth-Heinemann.

Harris, D. (1997). Types, causes and physical treatment of visible differences. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.). *Visibly Different: Coping with disfigurement, pp 79-90.* Oxford: Butterworth Heinemann.

Harter, S (1995). Manual for the self perception profile for children. University of Denver.

Hashiro, M., & Okumura, M. (1997). Anxiety, depression and psychosomatic symptoms in patients with atopic dermatitis: comparison with controls and among groups of different degrees of severity. *Journal of Dermatological Science, 14,* 63-67.

Holmes, J. (1997). Attachment, autonomy, intimacy: some clinical implications of attachment theory. *British Journal of Medical Psychology, 70,* 231-248.

Hurwitz, S. (1981). *Clinical Pediatric Dermatology: a textbook of skin disorders of childhood and adolescence.* Philadelphia: W.B Saunders Company.

Issacs, J. (1996). *An investigation of predictive factors of psychological morbidity in*

burn injured patients three months post burn. UK: University of Manchester.

Jackson, L., A. (2002). Physical attractiveness: A socio-cultural perspective. In T.F. Cash and T. Pruzinsky (Eds). *Body Image: A Handbook of Theory, Research, and Clinical Practice, pp 13-21.* New York: The Guildford Press.

Jowett, S., & Ryan, T. (1985). Skin disease and handicap: an analysis of the impact of skin conditions. *Social Science and Medicine, 20,* 425-429.

Kent, G. (2000). Understanding experiences of people with disfigurements: an integration of four models of social and psychological functioning. *Psyhcology, Health and Medicine, 5,* 117-129.

Kent, G., & Keohane, S. (2001). Social anxiety and disfigurement: The outstanding effects of fear of negative evaluation and past experience. *British Journal of Clinical Psychology, 40,* 23-34.

Knudson-Cooper, M. (1981). Adjustment to visible stigma: the case of the severely burned child. *Social Science and Medicine, 15,* 31-44.

Kolb, L. (1959). Disturbances of body image. In S.Arieti (Eds). *American Handbook of Psychiatry.* New York: Basic Books.

Lansdown, R., Lloyd, J. & Hunter, J. (1991). Facial deformity in childhood: Severity and psychological adjustment. *Child: Care, Health and Development, 17,* 165-171.

Lansdown, R., Rumsey, N., Bradbury, E., Carr, T., & Partridge, J. (1997). *Visibly Different: coping with disfigurement.* Oxford: Butterworth-Heinemann.

Leary, M., Rapp, S., Herbst, K., Exum, M., & Feldman, S. (1998). Interpersonal concerns and psychological difficulties of psoriasis patients: effects of disease severity and fear of negative evaluation. *Health Psychology, 17,* 1-7.

MacGregor, F. (1990). Facial disfigurement: problems and management of social interaction and implications for mental health. *Aesthetic Plastic Surgery, 14,* 249-257.

Marlow, C. M., Schneider, S. L., & Nelson, C. E. (1996). Gender and attractiveness biases in hiring decisions: Are more experienced managers less biased? *Journal of Applied Psychology, 81, 1,* 11-21.

Nash, P. (1995). *Living with Disfigurement: Psychosocial implications of being born with a cleft lip and palate.* Aldershot: Avebury.

Palant, J. (2003). *SPSS Survival Manual: A step by step guide to data analysis.* Buckingham, Philadelphia: Open University Press.

Papadopolous, L., Bor, R., & Legg, C. (1999b). Coping with the disfiguring effects of vitiligo: a preliminary investigation into the effects of Cognitive Behaviour Therapy. *British Journal of Medical Psychology, 10,* 11-12.

Partridge, J. (1997). Living visibly different: a summary. In R. Lansdown , N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.) (Ed.). *Visibly Different: Coping with disfigurement (Chap. 12)*. Oxford: Butterworth: Heinemann.

Patzer, G. l. (1996). Understanding the causal relationship between physical attractiveness and self-esteem. *Journal of Esthetic Dentistry, 8,* 144-147.

Patzer, G. L. (1997). Improving self-esteem by improving physical attractiveness. *Journal of Esthetic Dentistry,9,* 44-46.

Pertschuk, M., & Whittaker, L. (1982). Social and psychological effects of cranio-facial deformity and surgical reconstruction. *Clinics in Plastic Surgery, 9,* 297-306.

Riggio, R. & Friedman, B. (1986). Impression formation: The role of expressive behaviour. *Journal of personal Social Psychology, 50,* 421-427.

Robinson, E. (1997). Psychological research on visible differences in adults. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.), *Visibly Different:Coping with disfigurement, pp 102-111*. Oxford: Butterworth Heinemann.

Robinson, E., Rumsey, N., & Partridge, J. (1996). An evaluation of the impact of social interaction skills training for facially disfigured people. *British Journal of Plastic Surgery, 49,* 281-289.

Rosenbaum, P. L., Armstrong, R. W., & King, S. M. (1986). Children's attitudes

toward disabled peers: A self-report measure. *Journal of Pediatric Psychology, 11,* 517-530.

Rumsey, N. (1997). Historical and anthropological perspectives on appearance. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.), *Visibly Different: Coping with disfigurement (Chap. 15).* Oxford: Butterworth Heinemann.

Rumsey, N., Clarke, A., & Musa, M. (2002). Altered body image: the psychosocial needs of patients. *British Journal of Community Nursing, 7,* 563-566

Salzer, B., & Schallreuter, K. (1995). Investigation of the personality structure in patients with vitiligo and a possible association with catecholamine metabolism. *Dermatology, 190,* 109-115.

Siller, J. (1986). The measurement of attitudes towards physically disabled persons. In C.P. Herman, M. P. Zanna and E. T. Higgins (Eds.). *Physical appearance, Stigma and Social behaviour, pp 245-290.* Hillsdale, NJ: Erlbaum.

Smith, J. A. (2001). The impact of skin disease on the quality of life of adolescents. *Adolescent Medicine State of the Art Reviews, 12,* 343, 353.

Smithard, A., Glazebrook, C., & Williams, H. C. (2001). Acne prevalence and psychological morbidity in mid-adolescence: a community-based study. *British Journal of Dermatology, 145,* 274-279.

Smolak, L. (2002). Body image development in children. In T.F. Cash and T. Pruzinsky (Eds). *Body Image: A Handbook of Theory, Research, and Clinical Practice, pp 65-73.* New York: The Guildford Press.

Stevenage, S. V., & McKay, Y. (1999). Model applicants: The effect of facial appearance on recruitment decisions. *British Journal of Psychology, 90,* 221-234.

Thompson, A., & Kent, G. (2001). Adjusting to disfigurement: processes involved in dealing with being visibly different. *Clinical Psychology Review, 21,* 663-682.

Walters, E. (1997). Problems faced by children and families living with visible difference. In R. Lansdown, N. Rumsey, E. Bradbury, T. Carr & J. Partridge (Eds.), *Visibly Different: Coping with disfigurement, pp112-120.* Oxford: Butterworth Heinemann.

APPENDIX C

A Copy of University of Southampton Ethics Committee

Approval Letter

University of Southampton

School of Psychology

University of Southampton
Highfield Southampton
SO17 1BJ United Kingdom

Tel +44 (0)23 8059 3995
Fax +44 (0)23 8059 4597

1 November 2004

Mahwash Asim Gaba
15 Brown Croft
Hook
Hampshire
RG27 9SY

Dear Mahwash,

Re: A Study Investigating Age Related Changes in Children's Perception of Skin Disorders

I am writing to confirm that the above titled ethics application was approved by the School of Psychology Ethical Committee on 3 September 2003.

Should you require any further information, please do not hesitate in contacting me on 023 8059 3995.

Please quote approval reference number CLIN/03/15.

Yours sincerely,

Kathryn Smith
Secretary to the Ethics Committee

APPENDIX D

Information Sheet and Consent Form for Participating in the Study

30 May 2003

PARTICIPANT INFORMATION SHEET
(To be read by parent or teacher)

A study investigating age related changes in children's perception of skin disorders

Your child is being asked to take part in a research study. Before you decide to give consent it is important for you to understand why the research is being done and what will it involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish your child to take part.

I will be happy to discuss any feelings that may result from taking part in this study.

Thank you for reading this.

What is the purpose of the study?

This study is trying to find out how children perceive other children with chronic skin disorders such as eczema, psoriasis or acne. It is hoped that, through this study, we may be able to know how best to support children who suffer from such disorders.

Why is my child chosen?

Participants from three different age groups will take part to explore the effect of increasing age and development on the perception of chronic skin conditions. About 60 - 90 children, aged 8, 12 and 16 years will be chosen for this study, because we need to sample a range of children of different ages. Your child has been chosen as she/he falls into one of these age bands.

Does my child have to take part?

It is up to you to decide whether or not your child may take part. If you do decide that they can take part you will be given this information sheet to keep and also a consent form. Please sign the consent form, and send the signed form back in the envelope within one week.

Even if you decide for them to take part you are still free to withdraw your child at any time and without giving a reason. It is also up to your child whether or not they take part. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you and children receive.

What will happen to children taking part?

The purpose of the study will be explained to the children when I meet them. This study requires the children to answer questions regarding 11 photographs showing children similar to their age and also some children younger than them and some older than them, who may or may not have a chronic skin condition. They will also be asked to rate the photograph for friendliness, attractiveness or pleasantness of face etc. and to answer some questions on a form which will help us to know if they know someone with any skin condition. This will take no more than 15 to 20 minutes. Children who suffer from a skin condition themselves will not be asked to participate in the study to avoid causing unnecessary distress to them.

What are the disadvantages?

Every care will be taken not to cause any distress to any participants, but if at any point during the study a child feels distressed, all they have to do is to let me know and I will stop the session immediately.

What are the possible benefits?

There are no direct benefits for you or the children participating in the research study. However, we hope this study will help us to find better ways to help children suffering from chronic skin conditions.

Will information from children taking part in this study be kept confidential?

Our conversation and any other information collected during the course of the study will be kept strictly confidential and children will not be identifiable. The data produced will be used for the purpose of research only.

Being a Trainee Clinical Psychologist, my research is supervised by Professor Jim Stevenson, Psychology Department, University of Southampton, and by a NHS Clinical Psychologist, Dr James Murray. My supervisors will keep any information I need to discuss with them entirely confidential.

What will happen to the results of the research study?

Results will be written up in a report, a summary of which will be made available to the parents on request.

Who is organising and funding the research?

I am a second year trainee at the University of Southampton, Doctoral Programme in Clinical Psychology. This study is being conducted as part of my training.

Who has reviewed the study?

The study has been approved by the ~~require~~ University of Southampton, Department of Psychology Ethics Committee.

If you have any questions about children's rights as a participant in this research or you feel that you or any participant has been placed at risk, you may contact

Doctoral Programme in Clinical Psychology
Department of Psychology
Building 44 (Shackleton Building)
Highfield
University of Southampton, SO17 1BJ

Contact for further information

If you have any questions then please contact me at the following:

Mahwash A Gaba, Department of Clinical Psychology, University of Southampton, SO17 1PN

Tel: 023 8059 5321 e-mail: mag101@soton.ac.uk

Thank you for reading this information and for your help.

Participant Identification :

CONSENT FORM
(For all participants – To be read by the consenting adult)

Title of Project: **A study investigating age related changes in children's perception of skin disorders.**

Name of Researcher: Mahwash A Gaba

Please initial box

1. I confirm that I have read and understand the information sheet of the above study. ☐
2. I understand that participation is voluntary and that the child is free to withdraw at any time, without giving any reason, without their medical care or legal rights being affected. ☐
3. I agree for the child to take part in the above study. ☐

Age and Sex of the participant	Date	Signature
Name of the parent (Teacher) giving consent	Date	Signature
Researcher	Date	Signature

APPENDIX E

Photographs of Children With and Without a Skin Condition

Age	Photographs without skin conditions	
	Female	Male
8 years		
12 years		
16 years		

Source:

Issued by permission of parents – to be used by author of this dissertation only

Age	Photographs with skin conditions	
	Female	Male
8 years		
12 years		
16 years		

Source:

Harper, J. (1990). *Handbook of Paediatric Dermatology (2nd edition).* London: Butterworth-Heinemann

Hurwitz, S. (1981). *Clinical Paediatric Dermatology: a textbook of skin disorders of childhood and adolescence.* Philadelphia: W. B. Saunders Company

APPENDIX F

Consent Form for Parents for Use of Photographs of Children in Without Condition in the Study

CONSENT FORM FOR PARENTS

(For using their children's photographs as part of stimulus material for the study)

Project Title: **A study investigating age related changes in children's perception of skin disorder**

Name of Researcher: Mahwash A Gaba

1. I confirm that I have been explained that my children's photographs will be used as part of stimulus material for the above research project. ☐

2. I understand this fully and am happy to provide these for this purpose. ☐

Name of the parent giving consent	Date	Signature
Researcher	Date	Signature

APPENDIX G

Questionnaire 1 - For all Participants

Questions For All Participants

(To be read out to all participants- To be used with photographs of children with and without skin conditions)

1) Would you be friendly towards this person?

2) Would you have this person come over to your house or let your brother or sister invite him/her for tea?

3) Would you like to share your sweets, toys or books with this person?

4) Would you sit next to this person in a bus or a train?

5) If this person went to your school and you saw him/her outside school somewhere, would you say hello to this person?

6) Would you shake hands with this person?

APPENDIX H

Response Sheet to be used with Questionnaire 1

RESPONSE SHEET

Response to photographs
(Y/N)

Photographs (enter code under numbers)

Ques. No	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												

Age of participant: 8 12 16

Gender of participant: M F

Participant No:

APPENDIX I

Questionnaire 2 – Five point Likert Scale

Participant No:

LIKERT SCALE (for each photograph –12 per participant)

If this person was in your school and you saw them in a shop would you say hello

1	2	3	4	5
Yes definitely		Don't Mind/May be		I would rather not

If you had a packet of crisps, would you share it with this person

1	2	3	4	5
Yes definitely		Don't mind/May be		I would rather not

If this person needed help in the school on their first day would you like to offer help?

1	2	3	4	5
Yes definitely		Don't mind/May be		I would rather not

How attractive do you think this person is

1	2	3	4	5
Very attractive		Not very		Not at all

If this person dropped their books would you like to offer help?

1	2	3	4	5
Yes definitely		Don't mind/May be		I would rather not

Would you like to play on the same team as this person

1	2	3	4	5
Yes definitely		Don't mind/May be		I would rather not

APPENDIX J

Final Sheet

(For gathering information regarding prior exposure of participants to skin disorders)

Participant No:

Final Questionnaire

Please place a tick (√) or a cross (x) in the right column

	Tick	Cross
➢ Did you find the experiment interesting?		
➢ Was it hard?		
➢ Do you know anyone who may have the skin conditions shown in the photographs?		
➢ If yes, are these people? Your friend Your family		
➢ How old are they? Baby – 6 years old 7 years to 12 years old 13 years to 18 years old Adult		

Thank you for your help

Tables

Table 1

Analysis of variance for 'Sociability and Helpfulness sub-scale I' (Age)

Effect	df	F	p
Effect of condition	1.00	38.41	.001
Effect of age	2.00	7.22	.002
Effect of condition by age interaction	2.00	2.86	.065
Error	57.00		

Table 2

Analysis of variance for 'Sociability and Helpfulness sub-scale I' (Gender)

Effect	df	F	p
Effect of condition	1.00	37.03	.001
Effect of gender	1.00	1.89	.175
Effect of condition by gender interaction	1.00	2.48	.121
Error	58.00		

Table 3

Analysis of variance for 'Sociability and Helpfulness sub-scale II' (Age)

Effect	df	F	p
Effect of condition	1.00	23.97	.001
Effect of age	2.00	2.90	.063
Effect of condition by age interaction	2.00	1.55	.220
Error	57.00		

Table 4

Analysis of variance for 'Sociability and Helpfulness sub-scale II' (Gender)

Effect	df	F	p
Effect of condition	1.00	23.13	.001
Effect of gender	1.00	.532	.469
Effect of condition by gender interaction	1.00	.004	.948
Error	58		

Table 5

Analysis of variance for 'Attractiveness sub-scale III' (Age)

Effect	df	F	p
Effect of condition	1.00	33.78	.001
Effect of age	2.00	.095	.910
Effect of condition by age interaction	2.00	1.60	.210
Error	57.00		

Table 6

Analysis of variance for 'Attractiveness sub-scale III' (Gender)

Effect	df	F	p
Effect of condition	1.00	32.65	.001
Effect of gender	1.00	1.09	.301
Effect of condition by gender interaction	1.00	.188	.666
Error	58		

Table 7

Pearson Product-Moment Correlations (r) Between SH_1diff , SH_2 diff, Attract diff and global self worth (gsw)

	Global self worth (gsw) of participants on Harter's self perception profile
SH_1diff	.15
SH_2 diff	-.19
Attract diff	.03