

**An Exploration into Artificial Tanning Behaviours and whether self Esteem and Body Image
are affected by this behaviour**

By

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LIST OF ABBREVIATIONS

DHA	- dihydroxyacetone
UVA	- Ultraviolet rays
SPF	-Sun Protection Factor
UVB	- ultraviolet B rays
MBSRQ	- Multidimensional body-Self Relations Questionnaire
PC	- Practical care
SATAQ	- Socio-cultural Attitudes towards Appearance Scale
T	- Artificial Tanners
NT	- Non-tanners
TV	- Television
BMI	- Body Mass Index

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ABSTRACT

Purpose: To investigate the artificial tanning behaviours of adolescent girls and investigate if body image and self esteem affect this behaviour. This was completed by assessing the reasons participants use artificial tanning devices/products and assessing if there was a significant difference between body image scores and self esteem scores between the participants.

Rationale: There is little research in the area of artificial tanning while also focusing on self esteem and body image. The artificial tanning industry is estimated to be worth \$5 billion in the United States and Northern Europe (Levine et al., 2005). This shows the popularity of the artificial tanning industry in these areas.

Method: Data was collected using three validated questionnaires and an additional questionnaire on artificial tanning designed by the researcher. Data was gathered in Scoil Muire, Carrick-on-Suir, Co. Tipperary from fourth and fifth year students. 104 participants were included in the study; all adolescent girls aged 16 and 17 years.

Results: This study found that a large number of participants use artificial tanning devices/products (n=94). No significant difference was found between artificial tanning and self esteem while also no significant difference was found between artificial tanning and body image.

Conclusion: It was concluded that artificial tanning was popular among the population group and that appearance based factors greatly affect the use of artificial tan. Body image and self esteem did not differ statistically between the two groups.

INTRODUCTION

Artificial tanning is the process of wanting a tan and obtaining this through artificial processes (WHO, 2012). The World Health Organisation states that the tanning industry is widely popular in western countries where the population generally has a pale complexion. The artificial tanning industry began in the 1970's, with the first tanning beds and tanning salons coming on the scene (Balk & Geller, 2008). Nowadays, it is estimated in the United States that over twenty-eight million people visit 50,000 tanning salons every year. While it has also been found that artificial tanning is trendy among adolescence and in particular adolescent girls. Balk and Geller (2008) state that 70% of those visiting artificial tanning salons are females between the ages of 16 and 59 years with artificial tanning behaviours doubling between the ages of fourteen and fifteen. Artificial tanning is extremely common in races with a pale complexion.

Brooks et al. (2006) found that artificial tanners are predominantly females and young and that users of artificial tanning products do not protect their skin with sun-cream when in the sun. It is clear from what has been stated previously that artificial tanning is popular among adolescent girls. This is due to a number of reasons and a number of influences. Appearance factors is one such reason as Heckman et al. (2009) found this as a reason for adolescent girls to become involved in the artificial tanning behaviour. In a study undertaken by Sahn et al. (2012) it was found that participants used artificial tanning products to increase attractiveness and to feel better about themselves and a tan had this effect on them. The media also plays a strong role in the reason why adolescent girls use artificial tan. Adolescent girls acknowledge that being thin is the ideal body shape and as the media (celebrities) promote this thin ideal, artificial tanning behaviours are used as a tan has been described to make an individual feel thinner (Mousa et al., 2010).

Self esteem and body image become extremely evident in adolescents. Female adolescents have a lower self esteem than male adolescents (Puskar et al., 2010). Having a low self esteem has been found to increase unhealthy lifestyle behaviours and artificial tanning could be one of these behaviours if a tanning bed is used to acquire a tan (Babington & Kelley, 2009). This behaviour may subsequently increase self esteem. Body image is important to discuss when talking about artificial tanning and adolescent girls. Body image is generally increased when an individual is tanned as they feel better about themselves and they feel more attractive in comparison to when they do not have a tan (Chung et al., 2010). Therefore both self esteem and body image can be affected by artificial tanning behaviours.

The purpose of this study as a result is to explore the artificial tanning behaviours of adolescent girls and to determine if body image and self esteem are affected by artificial tanning use. There is a lack of research available regarding the artificial tanning behaviours of adolescent girls and if self esteem and body image are affected between people who use and do not use artificial tanning devices/products. Consequently, this study aims to evaluate if body image and self esteem levels differ between artificial tanning users and non-users.

LITERATURE REVIEW

Introduction

Artificial tanning is becoming increasingly popular among teenagers and artificial tanning increases with age (Balk & Geller, 2007). It has been found that 70% of tanning salon users are between the ages of seventeen years and forty-nine years (Balk & Geller, 2007). This shows the popularity of tanning salons and the artificial tanning industry. Artificial tanning products are advised as a safe option to tanning beds however they do not provide any protection to the sun (Pagota et al., 2009). This literature review gives a detailed description of artificial tanning while also discussing self esteem and body image in relation to this.

What is Artificial Tanning?

The tanning industry began in the latter years of the 1970's in the United States and Europe with the introduction of tanning equipment (Lazovich & Forster, 2005). Artificial tanning is the acquirement of a tan without exposure to the rays of the sun (Skin Cancer Foundation 2011). Pagota et al. (2009) stated that tanning can easily occur due to the staining of skin by self tanning lotions, gels, mousses and sprays. This is deemed a more responsible way of tanning as there is no exposure to UV (ultra violet) rays from the sun. According to Pagota et al. (2009), artificial tanners contain DHA (dihydroxyacetone) which is a sugar taken from vegetables which works with the dead cells on the epidermis to cause a tan colour to form on the top layer of the skin. Therefore, this leads to a temporary tan that will fade after a period of time unless more self tanner is applied over this.

Tanning pills are another form of artificial tanning, although highly illegal. Fu et al. (2004) described tanning pills as comprising of a carotenoid known as canthaxanthin which is generated in a number of plants e.g. mushrooms, bacteria, etc. The canthaxanthin gathers in the top layer of the skin, the epidermis, and turns the skin a brown colour thus a tan is created. Although a tan is a result of using the pills, it is not permitted to be used as a skin tanner due to the fact that the consumption of large amounts of canthaxanthin has been linked to 'hepatitis, aplasmic anaemia and urticaria' (Fu et al., 2004).

Tanning beds are also used to obtain a tan without the exposure to the sun's rays (Spencer & Amonette, 1998). Tanning beds use UVA (ultra violet rays) bulbs which helps the individual to tan. This is known as 'safe tanning,' however the UVA bulbs

emit a high amount of rays in a short period of time. Also, tanning beds are believed to be safer than outdoor tanning as there is 'no' UVB rays, another form of ultraviolet rays, although tanning beds emit some doses of UVB rays, which is extremely harmful to the skin. It is noted that tanning beds can give out a higher amount of UVA than that from the sun. It is said to be 10 times stronger (Zeller et al., 2006). These rays cause skin cancer, particularly melanoma (Bagdasarov et al., 2008). The tanning industry is fast growing and it is approximated that indoor tanning is valued at over \$5 billion in the United States and Northern Europe (Levine et al., 2005). This shows the popularity of indoor tanning in these areas.

Who uses Artificial Tanning Mechanisms?

A large quantity of research states that females use artificial tanning mechanisms more often than males (Hoerster et al., 2007). It was found in this study that adolescent girls are expected to use indoor tanning facilities 5.3 times more often than adolescent boys. Robinson et al. (2008) conducted a study from 1988-2007 and found that there has been an increase of people using indoor tanning facilities, especially young adults. This is due to the fact that the tanning industry has grown over the last 10 years (Borner, Schutz & Wiedemann, 2009). Again Borner et al. (2009) found that more females than males use artificial tanning devices in comparison to males and younger females (14-18 years) use artificial tanning devices more frequently. This study was based in Germany and results show a comparison to results found in the United States. Furthermore, another study undertaken in Germany found very similar results in that a higher proportion of women use indoor tanning facilities in comparison to males and the majority of sun bed users were under the age of 29 (Dissel et al., 2009). This data shows the popularity of artificial tanning use among young females in Germany.

While using a tanning bed, it is presumed that up to 100% of the body is exposed to the rays in comparison to 50% exposed during outdoor tanning (Berwick, 2008). This in turn puts the body at greater risk as the exposure level is higher.

In a study undertaken by Brooks et al. (2006) found that 22% of participants had used artificial tanning lotions in the past 12 months and a further 22% would contemplate using them in the near future. It was also found that users of tanning products were more likely to have incidence of sun burn because the tanning products contains none or very little SPF (sun protection factor).

Reasons for Using Artificial Tanning Devices/Products

Appearance is known as the most common reason for young adolescent girl to use artificial tanning devices (Heckman et al., 2009; Cafri et al., 2006). Appearance factors are the main motivators for young people to acquire a tan. The main reason for this is mainly due to attractiveness and the want to be attractive. Cafri et al. (2006) discusses the role the media has on artificial tanning behaviours. The media will mould the attitudes young people have towards artificial tanning. Television is one such media outlet that enhances the tanned body image. Poorsattar and Hornung (2008) describe the glamorisation of tanning and the attractiveness a tanned body portrays. This article looks at a programme featured on 'E!', an extremely popular channel for young girls, called 'Sunset Tan' which shows the popularity of tan but it also depicts the negative aspects of artificial tanning. Popular celebrities are seen in the programme endorsing tanning salons, with their own tanned glow. These programmes highlight the appeal to obtain a 'sun kissed tan.' In doing so, the adolescents compare themselves to the famous role models and thus an unhealthy risk factor is generated.

Additionally, peers and family can influence an adolescent girl to use artificial tanning devices. Hoerster et al. (2007) found that adolescents with a parent, who had previously used a tanning bed, were more likely to use a tanning bed. This shows the influence a parent has on their child; this is known as the modelling effect. Also parents who perceive tanned people to be more attractive than pale people, their children were at a greater risk of using a sun bed. Plus, adolescents were more likely to use a tanning bed if their parents were not concerned about them using these beds to obtain a tan. In relation to peer influence on artificial tanning behaviours, it was found that if friends liked to be tanned this led to an increased chance of indoor tanning in the previous 12 months. It was found that 79.6% of participants reported that their friends preferred to be tanned and this encouraged them to be tanned. These results show the significance of peer and family influence. Geller et al. (2002) also found a definite connection between indoor tanning and peer influence. It was also found in this study that the reason adolescents tan was due to the fact that they favour a tanned glow over a pale complexion.

Adolescent years are generally seen as the risk taking years and as possessing a tan is deemed as being attractive, it is also deemed as a risky behaviour due to the health risks that come along with it. Sjoberg (2004) observes that artificial tanning among

adolescent girls is a risk factor and it is mainly due to social pressures to fit in and to ultimately look attractive. Again it was found that girls had a greater acceptance to tanning and when it came to artificial tanning, girls took a greater risk than boys while also not seeing the risk associated with tanning. Yoo and Kim (2011) look at the socio-cultural attitudes towards appearance to identify outdoor and more importantly indoor tanning amongst adolescent girls. Yoo and Kim (2011) note that individuals feel thinner when they are tanned, which puts a great emphasis on appearance factors. It was also recorded that adolescent girls who use tanning beds are more likely to have a greater concern about weight and dieting. Adolescent girls are more likely to engage in indoor tanning to obtain an accepted appearance and due to this are willing to take greater risks in acquiring this socially accepted appearance.

Yoo and Kim (2011) found a significant result in support of this research. It was found that overweight girls avoid tanning outdoors as they find it socially uncomfortable so tanning beds are opted for. This highlights the dissatisfaction young adolescent girls have about their bodies. Self esteem and body image come into play.

Body Image

Body image refers to an individual's attitude and perception of their body which is influenced by environment, society, personal factors and experience (Jackson, Reel & Thackeray, 2011). An individual can possess a positive or negative body image depending on his/her attitudes. A coping mechanism to deal with a negative body image perception is appearance fixing, (Jackson et al., 2011). This is the process of 'fixing' a problem area which the individual deems unsatisfactory. Artificial tanning can be used 'to fix' a problem by covering the body and giving a perception of feeling thinner (Chung et al., 2010). A tan also gives a feeling of attractiveness and it is a generalised perception that possessing a tan leads to individual's feeling better about their bodies. It has been found that women of all ages have the desire to be thin (Dohnt & Tiggeman, 2006). As adolescence is a time of change, many influential factors affect an adolescent's body image. Body image is affected by peer influences, media influences and self esteem (Dohnt & Tiggeman, 2006). The media promotes an image of being thin and attractive and adolescent girls generally acknowledge that being thin is the ideal body shape for females (Mousa et al., 2010). A thin frame is seen as socially acceptable among adolescent girls and this will be attained through unrealistic eating habits and artificially tanning which is known to make individuals feel thinner.

Adolescent girls generally compare their bodies and appearance to that of their friends, celebrities etc. and this comparison may lead to unhealthy risky habits (Richardson & Paxton, 2010). This study evaluated a body image intervention in adolescent girls. The intervention group received the 'Happy Being Me Programme' which focuses on body image, weight and appearance. The participants received a 3 session programmes while the control group did not. This intervention was introduced into two girl's schools and it was administered to Grade 7. It was found that the body image intervention had a positive effect on body image among the participants in the intervention group. The success of this intervention demonstrates the effects such interventions can have on adolescent girls and thus the decisions they make regarding unhealthy or risky behaviours.

At the beginning of puberty, a girl's body starts to change and body image can be effective leading to girls wanting to fit in with peers and society (Stice & Bearman, 2001). This pressure to fit in and other social pressures to look a certain way encourage young adolescent girls to use artificial tanning products and equipment. In today's society the media portrays that being overweight is unacceptable in society and puts a huge emphasise on appearance and additionally places an enormous pressure on adolescent girls to be thin. In relation to this and from information stated previously, a tan, whether real or fake, promotes a healthy and slender body shape to females. The slender figure is therefore idealised by adolescent girls and if overweight a tan leads to the perception of thinness. This can be seen clearly in Lazovich and Forster (2005) as a tan was found to be attractive and healthy in the opinions of adolescent girls.

Self Esteem

Self esteem in its broadest terms can be defined as a positive or negative attitude towards oneself (Puskar et al., 2010). This study looked at adolescents, aged 14-18 years, from a rural background. The researcher assessed self esteem using the Rosenberg self-esteem scale. It was found that the female adolescents had a lower self esteem in comparison to their male counterparts. These findings suggest that the adolescent females will be susceptible to negative lifestyle behaviours e.g. artificial tanning.

Low self esteem can be characterised to individuals who have little to no self confidence, overly criticising themselves, extremely wanting to be perfect and afraid of judgement (Dorak, 2011). Unhealthy lifestyle behaviours may lead to risks been taken

to obtain happiness or acceptance within themselves (Babington & Kelley, 2009). A high level of self esteem encourages a healthy relationship within the individual and decision making is deemed a lot easier and risky decisions are avoided. Again this study undertaken by Babington and Kelley (2009) concluded that males had a slightly higher self esteem in comparison to females. One of the major findings in this study is there is an increase in the number of risky behaviours undertaken by adolescents with a lower self esteem and also a link between low self esteem and depression was established.

It has been found that a female's body dissatisfaction is increased when presented with a thin attractive woman in the media and thus this affects self esteem (Heinburg & Thompson, 1995). Negative feelings are generated as the individual compares herself to the media image and in turn puts herself under pressure to fit in. Also, adolescence is a time of stress and it is considered one of the toughest times in an individual's life (Schraml et al., 2011). It was found that female adolescents are more stressed than males. The average age of participants was sixteen years with 45.9% of adolescent girls noted being stressed. Those considered to be stressed were more likely to feel they have little control, no social support and demands were high on them. Furthermore this study found that adolescent girls were a lot more sensitive about the opinions other people had on them, therefore self esteem levels changed depending on opinions shared. Another finding from this study is adolescent girls have a huge pressure placed on their appearance and this affects self esteem levels and as a result stress levels are increased as well.

On the other hand an individual with a high level of self esteem is able to handle criticism, is deemed to be optimistic and respectful to other people's differences (Dorak, 2011). Knox et al. (1998) studied 127 female adolescents and 85 male adolescents and distinguished between their self esteem. The majority of participants were Caucasian and the mean age was 16.4 years. The results from this study found a correlation between physical appearance and self esteem. Physical appearance and attractiveness were found to be very important for girls and the more comfortable they were with these aspects, the higher the level of self esteem tended to be. The adolescent girls rated this more important in comparison to their male counterparts as appearance was expressed as very important in maintaining a high self esteem. Another study undertaken by Moksnes et al. (2010) focused on stress and self esteem. It was found that girls tended to be more stressed and displayed feelings of depression and anxiety more than males. This was due to the fact that the females were more worried about the opinions others

(their peers) had about them and this affected their self esteem on a whole. It was also found that adolescent girls are more self-conscious and this in turn makes them more vulnerable to others and are affected by a number of external factors e.g. friends, family, media etc. These findings suggest that female adolescents are more stressed than male adolescents and this is due to external influences and the need to fit in. These two studies illustrate the clear correlation between the level of self esteem and appearance related factors and other opinions.

Measures of Body Image and Self Esteem

There are numerous ways to measure body image although measuring body image is deemed to be quite hard (Cash, Phillips, Santos & Hrabosky, 2004). This is due to the fact that individuals may not like a certain aspect about themselves e.g. shape and if this is not targeted within questionnaire, interview etc., it may be perceived that the individual has a better body image than what they have. It is essential that the measurement targets a number of factors to ensure all aspects are covered and a true answer is found. One such questionnaire that focuses on a number of aspects is 'The Body Image States Scale' (Cash, Fleming, Alindogen, Steadman & Whitehead, 2002). This is a 6 item scale that measures an individual's physical appearance. This is measured on a likert scale and focuses on different areas such as body satisfaction, physical appearance, weight and attractiveness. It can be seen from these areas that a range of topics are covered and can be a useful guide into measuring the body image of an individual.

Another scale which is used is the 'Multidimensional Body-Self Relations Questionnaire (MBSRQ)' (Hubley & Quinlan, 2003). This is a 10 item subscale that centres on the evaluation of appearance, under a number of topics, with a higher score indicating a better body image. Hubley and Quinlan (2003) used the MBSRQ in a study on men and women aged 20-80 years. From this scale, it was established that women put a greater emphasis on appearance and in general had a lower body image score than the male participants. It was also found that women place a greater emphasis than males on skin complexion, weight, hair and facial features.

In comparison to the body image scales/questionnaires, assessing self esteem is difficult because there are few validated self esteem scales/questionnaires. One study that used a self esteem scale was undertaken by Button, Sonuga-Barke, Davies and Thompson (1996). The questionnaire used was known as the 'Self Esteem Questionnaire' and it

made up of the Rosenberg scale (Rosenberg, 1965) and a further five questions relating to status of health, weight concerns, relationships, problems at school and feelings. It was found that participants who had feelings of been fat had a lower self esteem and are more likely to diet, in later years as a result. This is mainly due to body dissatisfaction. Also, 'The Feelings of Inadequacy Scale' was established in 1959. It focuses on an individual's feelings towards themselves and this is done through 23 statements and the individual must answer the statement by the level of agreement i.e. very to not at all (Robinson, Shaver & Wrightsman, 1991). This scale highlights the negative feelings felt by the individual. It is discussed by Robinson et al. (1991) that the scale has been revised over the years and now it can be found with a total of 33 statements that focus on previous criteria and some additional criteria e.g. physical appearance, physical ability etc. Rosenberg Self-Esteem Scale (1965), The Body Silhouette Scale (Thompson & Altabe, 1991) and The Socio-cultural Attitudes towards Appearance Scale (Heinberg & Thompson, 1995) are the three scales that are of the greatest benefit to this study. They measure self esteem and body image under many aspects and give a detailed insight into these areas.

Conclusion

There is minimal research present regarding artificial tanning behaviours amongst adolescent girls and the influence self esteem and body image have on this behaviour or vice versa. The majority of research available focuses on sun bed use and the risk of melanoma caused by this behaviour. The research regarding to self esteem and body image supports the hypothesis that self esteem and body image is lower in female adolescence in comparison to male adolescence as adolescent girls have more pressures and stress put on them from other influences e.g. friends, family, media etc but there is minimal research on the artificial tanning behaviours of adolescent girls and the relationship self esteem and body image have on this behaviour.

Rationale

The purpose of this study is to assess artificial tanning behaviours among adolescent girls and if self esteem and body image is affected by this. This area is of interest because in the United States and Northern Europe indoor tanning as a yearly income of over \$5 billion (Levine, Sorace, Spencer & Siegel 2005). Thus, this shows the popularity of artificial tanning and therefore the relevance for this research. The population chosen is of interest as more and more young females are using artificial

tanning methods to obtain a golden tan. 2.9 million 13-19 year old adolescent girls in the United States used artificial tanning facilities at least once in their lives (Balk & Geller, 2008). Adolescence is a time of change and risk taking and therefore the need to fit in is generated (Sjoberg, 2004). Also, it has been found that adolescent girls prefer tanned skin and it is more acceptable to have a tanned complexion instead of the pale complexion that Irish people possess (Geller et al., 2002). Also, it has been found that body image and self esteem are lower among adolescent girls and this can be due to appearance based factors (Huanget al., 2007). Body image and self esteem are closely linked as a change in body image can affect self esteem while a change in self esteem can affect body image (Teenshealth, 1995). This can have a positive or negative aspect depending on external factors or influences. Therefore the proposed research questions are as followed:

Research Questions

- What are the reasons why adolescent girls use tanning equipment/products?
- Is there a difference between use of tanning equipment/products and self-esteem among adolescent girls?
- Is there a difference between use of tanning equipment/products and body image among adolescent girls?

METHODOLOGY

Aim

The overall aim of this study is to investigate the use of artificial tanning equipment/products among adolescent girls and to explore its relationship with body image and self esteem.

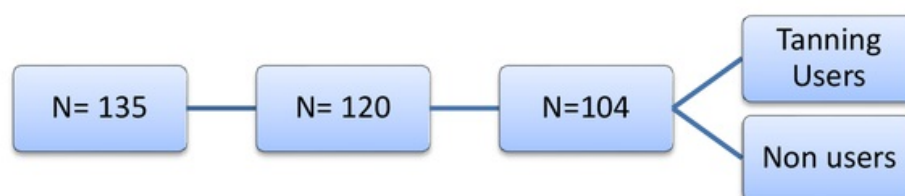
Research Design

A quasi-cross sectional research design was used and this quantitative data was gathered using a questionnaire.

Study Population

The population of interest in this study were adolescent girls from Scoil Mhuire Carrick-on-Suir. The sample was gathered from 4th and 5th year class groups. Letters of request/invitations and consent forms (appendix 2) were circulated to 135 parents inviting their daughters to participate in the study. Once consent was received, 135 girls were then asked if they would like to participate. In total, from those who agreed 120 adolescent girls were selected to participate. In total, 104 questionnaires were filled out and handed back to the researcher (See Figure 1). Artificial tanners and non-tanners were established by asking the initial question “Do you use artificial tanning devices/products?”

Figure 1- Participant Breakdown



Sampling Strategy

The participants were selected on a probability, random sampling method. This type of probability sampling is appropriate to ensure every student has the chance to be selected. Of the 135 letters of consent administered, a total of 135 parents gave their consent for their daughter to participate in the study. The students with consent were assembled during PC (practical care) time in the morning and told about the study and what would be required of them. The students who decided to take part in the study were randomly selected by selecting every second name on the role cards. This was repeated until the 120 participants were selected. This ensured no selection bias occurred.

Data Collection Procedure

Permission was granted from the Principal of Scoil Mhuire Carrick-on-Suir, Mary O'Keeffe. The researcher explained the questionnaire and answered any questions the participants may have had. Participants filled out the questionnaire at that time and the questionnaires were collected back straight away. However, if participants were not finished in the time provided, a collection box was set up in the main office and participants had the opportunity to leave their filled out questionnaire here. This was a sealed box and only the researcher had access to the contents of the box, to ensure confidentiality. See appendix for a copy of consent form

Data Collection Tools

Questionnaires (See appendix 3 for copy of questionnaire) were used as the collection tool. There were 6 sections to the questionnaire.

Section 1- This section focused on basic demographics of the participant.

Three validated questionnaires were used to explore self esteem and body image.

Section 2- The Body Silhouette Test (Thompson & Altabe, 1991) is a nine figure silhouette scale in which participants choose a silhouette image which they perceive themselves to look like and secondly a silhouette indicating what would they like to look like. The comparison of the two silhouettes will measure the participant's level of satisfaction with their body. The silhouette ranges in a scale from 1 (underweight) to 8 (very overweight) with each silhouette meaning a different weight.

Table 1- Meaning of Silhouettes

Silhouette	
1 and 2	Underweight
2 and 3	Appropriate Weight
5	Slightly Overweight
6 and 7	Moderately Overweight
8	Very Overweight

The two answers will be compared to determine the satisfaction level with their body. This will be determined by assessing the change in silhouette from what they think they look like to what they want to look like. The change in silhouette will be reported by the change in shape i.e. an increase in silhouette by one silhouette will be noted as minus one. Whereas if a participant wanted to decrease their silhouette size this would be noted as one and so on depending on silhouette change (See table 2).

Table 2- Changes in Silhouettes

-1	Increase in silhouette
0	No change
1	Decrease by 1 silhouette
2	Decrease by 2 silhouettes
3	Decrease by 3 silhouettes
4	Decrease by 4 silhouettes
5	Decrease by 5 silhouettes

Section 3- Rosenberg (1965) validated self esteem scale was used to determine a self esteem score. This questionnaire contained a 10 question likert scale. A range of 10 statements are given and participants were asked to score the statement from strongly agree to strongly disagree. The scale deals with statements regarding one's feelings. The scale was scored using the score guide supplied by Rosenberg. Each answer is scored with a scale from 0-3 with a reverse scale from 3-0 for particular questions (Reverse scoring- 2, 5, 6, 8, 9). The highest score obtained from the scale is 30, which portrays a person with good self esteem. This self esteem scale was obtained from Rosenberg (1965). A score of below fifteen is described as being a low self esteem. A score

between fifteen and twenty-five is considered average and a score of above twenty-five is regarded as high self esteem (See table 3). This was the most appropriate scale to measure self esteem as it deals with the relevant topic and has been used in a large number of other research. (See Appendix)

Table 3- Scoring of Self Esteem

>15	Low Self Esteem
Between 15-25	Average Self Esteem
<15	High Self Esteem

Section 4- The Socio-cultural Attitudes towards Appearance Scale (SATAQ) (Heinburg & Thompson 1995) was used to determine a score for the participant's body image. This section was acquired from Heinburg and Thompson (1995) and deals with influences on body image and one's own perception. This scale consists of 30 statements and is measured on a likert scale. It focuses on pressures on individuals to change appearance through different influences i.e. television, media, sport stars and movie stars. This scale is scored in a similar way to the self esteem scale. The statements are ranked by the participant in terms of agreement (See table 4). Fig. represents the scoring guide of the scale. Reverse coding is also evident in this scale in statements 3, 6, 9, 12, 13, 19, 27 and 28.

Table 4- Level of Agreement

0	Neither
1	Strongly Disagree
2	Disagree
3	Agree
4	Strongly Agree

The lower the score, the poorer the body image perception that participant has. Also within the SATAQ, there are statements dealing directly with pressures imposed on individuals. The statements of interest here are statements 2, 6, 10, 14, 18, 22 and 26. These statements deal directly with pressures imposed on individuals to diet, to exercise, to change appearance, to have a perfect body and to look pretty by television

and magazines. These scores will be used to reveal the amount of pressure put on participants to change and the influence television and magazines have on this.

Section 5- This section explored the artificial tanning behaviours of adolescent girls. This section also investigated the reasons why adolescent girls may or may not use artificial tanning behaviours “I use artificial tanning devices/products because I look healthier with a tan.....Yes/No.” Additionally, a number of questions aimed to distinguish the mentality surrounding artificial tanning e.g. “Do you need a tan to be attractive?” and “Do you like your natural skin tone?” These questions aimed to acquire a greater insight into why the participants use artificial tan.

Data Analysis Procedure

Descriptive stats were used to assess the average number of users of artificial tanning devices/products and non-users. Also, frequencies were used to measure the percentage of the most popular form of artificial tanning. Furthermore, cross tabulations were used to compare the results of artificial tanners and non-tanners in relation to self esteem scores and body image scores. Cross tabulations were used to show the difference in silhouettes between the two groups. Furthermore, descriptive statistics were used to measure the reasons why the artificial tanning group, use tan and the knowledge all participants have surrounding the effects. Two Mann Whitney U tests were used to investigate if there was a difference in body image and self esteem scores among participants. These non-parametric test were used as the independent variable was ‘use artificial tanning devices/products’ and the dependent variables were ‘self esteem score’ and ‘body image score’ and these dependant variables are ordinal data thus a non-parametric test was chosen.

Ethical Approval

An informed consent was provided to all parents of 4th and 5th year students, which supplied all the necessary information needed for the study and what was required of the participants. The participants were given the opportunity to withdraw from the study at any stage. Questionnaires were kept in a secure place and only the researcher and supervisor had access to the answered questionnaires. This maintained the confidentiality of the results. Although names were asked for in the basic demographics section, no names were used in the results section this again ensures the privacy of the participant.

RESULTS

Introduction

This chapter examines the results acquired from the questionnaires. The results will be presented in graph, table and figure form. The results aim to answer three main areas. Firstly, this chapter intends to answer the reasons why participants use tan. Secondly, the difference in self esteem between artificial tanners and non-tanners will be examined. Finally, this chapter seeks to examine the difference in body image between artificial tanners and non-tanners.

Section 1- General Demographic

Figure 2- Participants

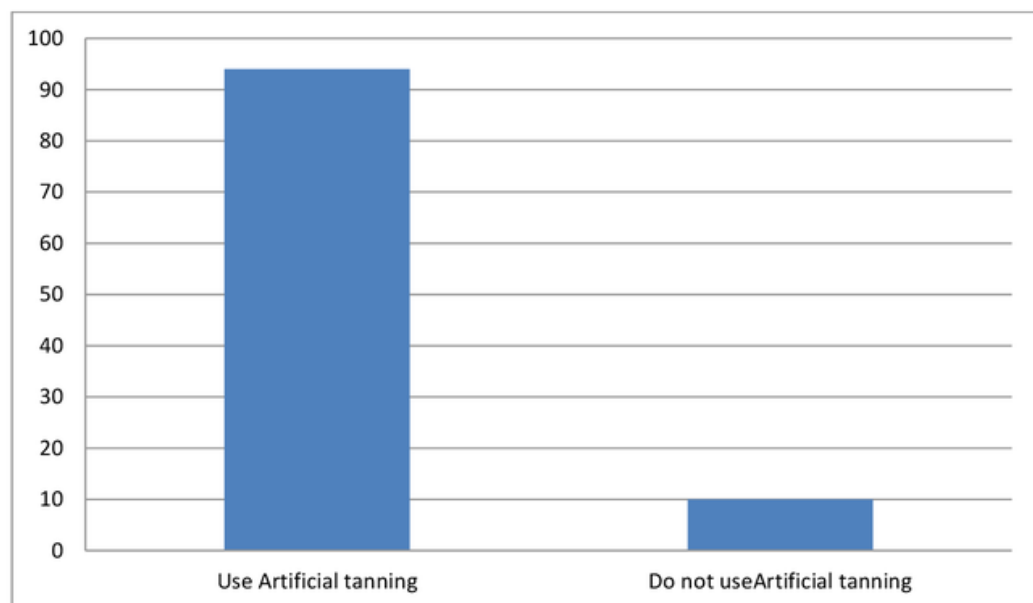


Figure 2 illustrates that 104 adolescent girls took part in the study (94 tanners, 10 non-tanners).

Section 2- The Body Silhouette Test

The Body Silhouette Scale illustrates 8 figures ranging from underweight to overweight. Participants selected a silhouette in which they think they look like and thus what they want to look like.

Figure 3- Body Silhouettes

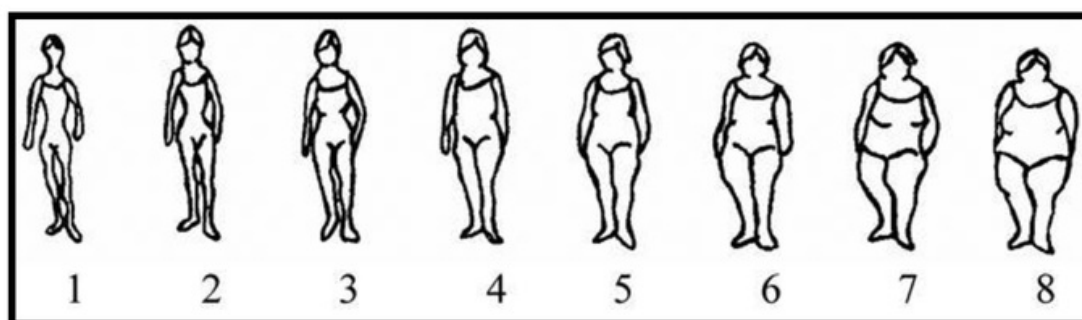


Figure 3 presents 8 female silhouettes which vary from very thin (1) to very obese (8). Each number between these describes a different shape. Silhouettes 1 and 2 are considered to be underweight, silhouettes 3 and 4 are noted as being an appropriate weight, silhouette 5 describes an individual who is slightly overweight, silhouettes 6 and 7 are moderately overweight with silhouette 8 being very overweight.

Table 5- Current Silhouette

Silhouette	Tanners	Non-Tanners	Total
1	0	0	
2	13 (13.8%)	4 (44.5%)	17
3	42 (44.7%)	3 (33.3%)	45
4	26 (27.7%)	1 (11.1%)	27
5	10 (10.6%)	0	10
6	3 (3.2%)	1 (11.1%)	4
7	0	0	
8	0	0	
Total	94(100%)	9(100%)	103

Table 5 represents the silhouettes which participants think they look like and this is compared between artificial tanning users and non-users. From the table it can be seen that no participant described their body as being more than a silhouette of 6 or less than 2. Also, the most popular answers were silhouette 3(42(44.7%) for tanners and silhouette 2(44.5%) for non-tanners).

Table 6- Body Ideal

Silhouette	Tanners	Non- Tanners	Total
1	6 (6.4%)	1 (11.1%)	7
2	41 (43.6%)	2 (22.2%)	43
3	37 (39.4%)	5 (55.6%)	42
4	10 (10.4%)	1 (11.1%)	11
5	0	0	
6	0	0	
7	0	0	
8	0	0	
Total	94 (100%)	9(100%)	103

Table 6 relates to the silhouette which participants wanted to look like. It is clear from this table that no participant wanted to be any bigger than the silhouette of 4. The most popular answers were silhouettes 2 and 3. Silhouettes 1 and 2 are described as being underweight with a majority of participants choosing these silhouettes (n=50). 103 participants filled out this question as 1 participant in the non-tanners group opting not to fill this section out.

Table 7- Difference in Silhouette

Difference	Participants	Percentage
-1	4	3.8%
0	35	33.7%
1	43	41.3%
2	16	15.4%
3	6	5.8%
Total	104	100%

Table 7 shows the change in silhouettes between what participants think and want to look like. The negative figure -1 represents the participants who would like to go up a size. In total, 35 participants would like to go down by 1 size (1= decrease one size), 16 participants would like to go down by 2 sizes (2= decrease in 2 sizes) and 6 participants would like to go down by 3 sizes (3= decreases by 3 sizes). 35 participants (33.7) are content with their shape (0= no change) leaving 66.3% of participants being dissatisfied with their shape.

Table 8- Comparison in Silhouette

	-1	0	1	2	3	Total
Tanners	3 (2.9%)	29 (27.9%)	41 (39.4%)	16 (25%)	5 (4.8%)	94 (100%)
Non-Tanners	1 (33.3%)	6 (66.7%)	1 (33.3%)	0 (0%)	1 (33.3%)	9 (100%)

Table 8 shows the difference between artificial tanners and non-tanners and changes in silhouette. It can be seen from this table that the majority of non-tanners (n= 6) are satisfied with their body shape. Therefore, non-tanners are more satisfied with their body than artificial tanners. Also, 69.2% of artificial tanners would like to decrease their size by 1, 2 or 3 silhouette shapes. Although 66.6% of non-tanners would like to change by 1, 2 or 3 silhouette shapes.

Section 3- Rosenberg Self Esteem Scale

Table 9- Self Esteem Breakdown

Participants	Min >15	Average between 15-25 (Mean 19.75)	Max <25	Total
Tanners	10	83	1	94
Non- Tanners	1	8	1	10

Participants could score a top score of 30 in the self esteem test. This score would describe a participant with excellent self esteem. Table 9 shows the mean score obtained by participants was 19.75 and is within the normal range (15-25). A score below 15 is regarded as being low and describes an individual with a low self esteem (N= 11). A score over 25 is described as high with 2 participants showing high self esteem, a relatively low number in comparison to the 104 participants taking part.

Section 4- Socio-Cultural Attitudes towards Appearance Scale

Table 10- Body Image Scores

Participants	Min >40	Average 40-80 (Mean 60.61)	Max <80	Total
Tanners	4	87	3	94
Non- Tanners	0	9	1	10

The max score that could have been obtained from this test was 120. The highest score obtained by a participant was 100 which would describe a very good body image score. Table 10 shows a mean score of 60.61, this is believed to be a relatively average body image within normal range. The minimum score obtained was 31 and is considered to be low and depicts a poor body image as it is >40. From table 10 it can be seen that no participant in the non-tanners group had a body image score below 40 whereas 4 artificial tanners are in this category.

Table 11- Influences

	Strongly Agree		Agree		Neither		Disagree		Strongly Disagree	
	T	NT	T	NT	T	NT	T	NT	T	NT
Pressure from TV to lose weight	9	0	43	4	4	1	34	2	4	3
No pressure from magazines to look pretty	4	0	25	4	6	3	45	3	14	0
Pressure to be thin from TV	18	2	42	3	6	0	24	4	4	1
Pressure to have perfect body	23	1	38	2	11	1	19	4	3	2
Pressure from TV to exercise	21	0	37	3	10	2	24	4	2	1
Pressure from TV to diet	27	0	37	3	9	1	20	4	1	2
Pressure from TV to change appearance	13	1	39	4	9	2	32	1	1	2

T= Tanners, NT= Non-Tanners

Focusing on the pressure questions, it can be seen from the results presented in table 12 that participants are put under a lot of pressure from the media to diet, exercise and change appearance. The highlighted answers for both tanners and non-tanners are represented in table 11 which emphasises the most popular answer which consequently emphasises the pressure (46, 48, 45, 40, 40, 40, and 44). It is observed that tanners exert more pressure on themselves than non-tanners as non-tanners find less pressure from TV to diet, exercise and be thin and also to change their body.

Section 5- Artificial Tanning

Table 12- Tanning Methods Used

	Tanning Beds	Tanning Lotions	Tanning Pills	Tanning Creams	Spray Tan
Age 17	3	38	0	40	42
Age 16	1	33	0	21	25

Table 12 shows the most popular method of obtaining an artificial tan. This was completed by comparing age as only the artificial tanning group answered this question as it was not necessary for non-tanners to answer this question. The most popular tanning method is the tanning products with the majority of participants choosing these, although, 4 participants (4.3%) had previously used a tanning bed. This results shows the over whelming popularity for artificial tanning products. This question allowed participants to choose multiple answers as some participants may use more than one artificial tanning behaviour. Furthermore, tanning gels (4 participants), tanning moisturisers (2), tanning moose (5), tanning milk (1) and tanning wipes (1) were mentioned as other forms of artificial tanning methods. Participants could choose multiple answers for this question.

Table 13- Knowledge regarding Artificial Tanning

	Yes		No	
	T	NT	T	NT
Are tanning beds bad for health?	94	7		
Are tanning lotions bad for health?	6	0	88	7
Are tanning pills bad for health?	94	7		
Are spray tans bad for health?			94	7
Are tanning creams bad for health	1		93	7

Note: 3 participants did not answer this question

Knowledge surrounding artificial tanning is similar between both groups of tanners and non-tanners. All participants answered yes that tanning beds and tanning pills are bad for health (N= 104). The results within the non-tanners group seems to be more consistent as there was no variation in answers.

Figure 4- Occasions when Devices/Products are used

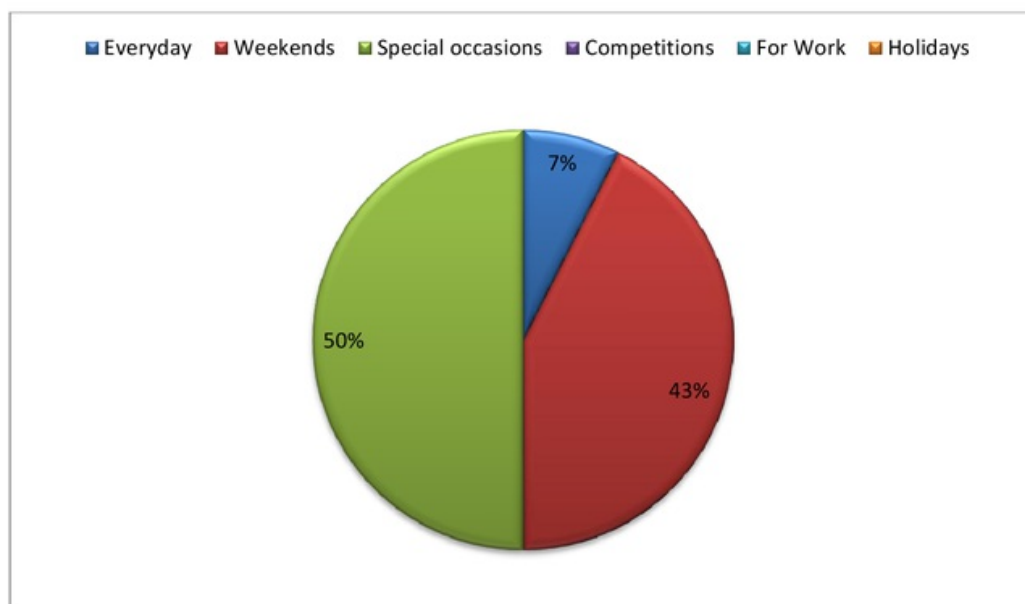


Figure 4 indicates the times in which the artificial tanning devices/products were used. It can be found from this result that artificial tanning devices/products are used on a regular basis with weekends and special occasions the most popular times of use. No participant chose competition, for work or for holidays.

Table 14- Opinions on Attractiveness

	Tan is Attractive		Need tan to be/feel attractive		Like their Natural skin Colour	
	Yes	No	Yes	No	Yes	No
Tanners	94		36	58	37	57
Non-tanners	6	4		10	5	5

Table 14 illustrates the opinions on tanning and attractiveness. A total of 100 participants described having a tan as being attractive with 36 participants needing a tan to be attractive. However, 42 participants do not like their natural skin colour while 62 participants like their natural skin colour. Of the 10 non-tanners, 6 participants think a tan is attractive although they do not use any artificial tanning devices/products. Also, 5 participants do not like their natural skin tone which may affect body image and self esteem because they do not wear tan to cover this up. As well 37 artificial tanners like their natural skin colour but still use artificial tanning devices/products.

Figure 5- Appearance Reasons

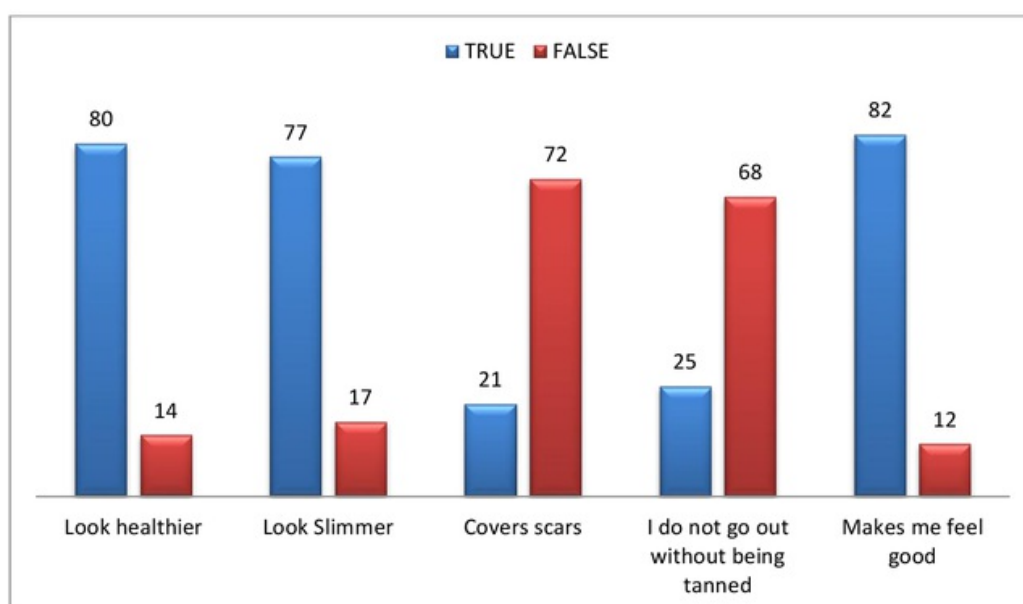


Figure 5 represents the reasons why participants use artificial tanning devices/products. The most popular answers were “makes me feel good” (n= 82) and “to look healthier” (n= 80). “To cover scars” was the least popular answer among participants (n= 72).

Figure 6- Reasons for Using Artificial Tanning Devices/Products

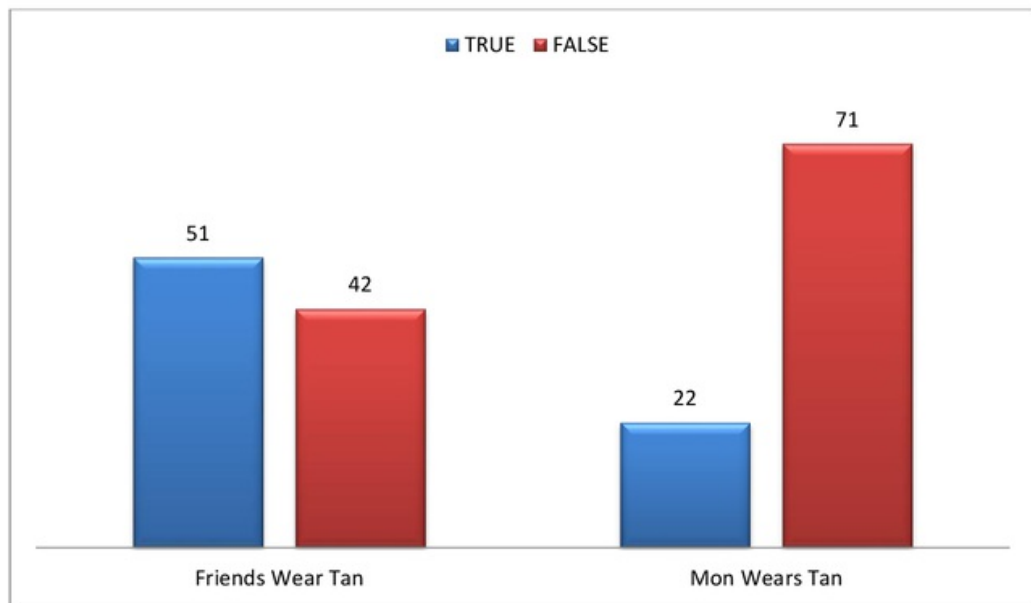


Figure 6 represent the reasons participants use artificial tanning devices/products in relation to peer and family pressure. Results show that 51 participants use artificial tanning devices/products because their friends do. On the other hand, 42 participants do not use artificial tanning devices/products because their friends do. There is very little difference between the two answers. Also, 71 participants do not use artificial tanning devices/products because their mom does and 22 participants use artificial tanning devices because their mom does.

Figure 7- Influences on Tanning Behaviours

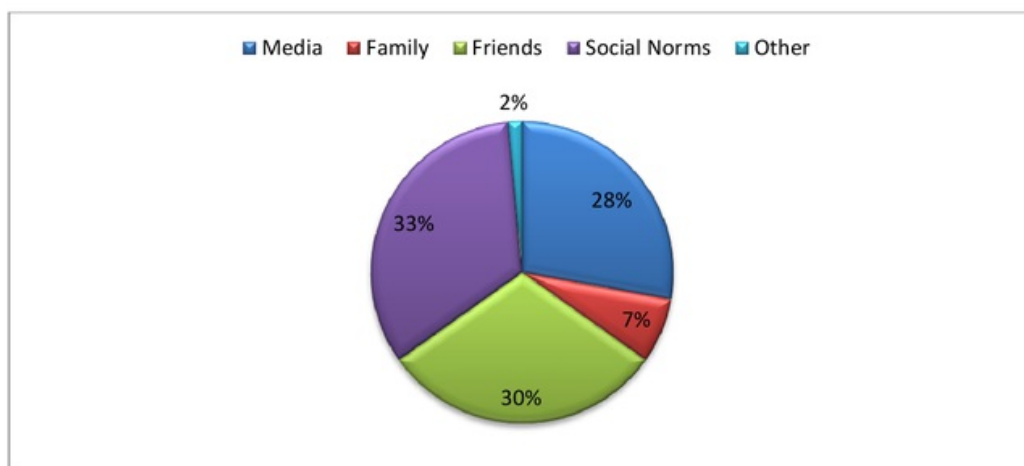


Figure 7 illustrates the influences put on participants to use artificial tanning devices/products. Social norms was the most popular answer (33%) followed closely by friends tanning behaviours (30%). Other reasons participants used artificial tanning behaviour was “seeing other girls tanned.

Section 6- Difference between Artificial Tanning use and Self Esteem

Table 15- Difference in Self Esteem

Mann Whitney U Test	Total Self Esteem Score	
	T	NT
Mean	51.48	62.10
Sig. (2 tailed)	0.287	

There was no significant difference found between artificial tanning and self esteem scores ($0.287 > 0.05$)

Section 7- Difference between Artificial Tanning use and Body Image Scores

Table 16-Difference in Body Image

Mann Whitney U Test	Total Body Image Score	
	T	NT
Mean	51.66	60.40
Sig. (2 tailed)	0.383	

There was no significant difference found between artificial tanning and body image ($0.383 > 0.05$)

Summary

The results in this chapter aimed to answer the three research questions mentioned previous. The results stated previously focus on body image, self esteem and artificial tanning behaviours. The two groups compared in the results are artificial tanners and non-tanners and in some questions where only the artificial tanners group were used, age was compared to ensure accurate results were obtained. It was found that there were more artificial tanners to non-tanners. Also no significant difference was found between artificial tanning use and self esteem while there was no significant difference found between artificial tanning and body image. Knowledge surrounding artificial tanning was consistent between the groups. Appearance factors were the main reasons participants used artificial tanning devices/products.

Overall, these results provide an insight into the artificial tanning behaviours of adolescence girls while also assessing their self esteem and body image and these are documented previous.

DISCUSSION

Introduction

The purpose of this study was to look at artificial tanning behaviours in adolescent girls and to determine if body image and self esteem affect this behaviour. Also, this study aimed to assess the reasons in which adolescent girls use artificial tanning devices and/or products. The results from the previous chapter will be explored in greater detail to distinguish the results of the research questions.

In total, 104 adolescent girls participated in the study (94 artificial tanners, 10 non-artificial tanners). In relation to this, 63 sixteen year olds and 9 seventeen year olds participated. Furthermore, 2 participants did not provide an age for the study and therefore this result was recorded as being missing.

Body Silhouette Test

The body silhouette test was used to determine the difference into how the participants perceived themselves to look like and how they wanted to look like. The purpose of this test was to distinguish the participant's body satisfaction or dissatisfaction. Participants rated their silhouettes on a scale of 1-8 with each silhouette determining a different level of satisfaction or dissatisfaction. The results illustrate that 66.3% of participants would change their silhouette by increases or decreasing in shape with only 3.8% of the 66.3% of participants wanting to increase by one silhouette. This result shows the body dissatisfaction among the participants as only 33.7% of participants were satisfied with their silhouette and did not want to change it. Jones and Carlson (2001) found that body shape and weight were highly associated with body dissatisfaction among adolescent girls. This supports the results found in this study as 66.3% of participants were not satisfied with their silhouette. Stice and Whitenton (2002) found that an increase in body mass greatly influences the level of body dissatisfaction among adolescent girls. Adolescent girls generally become more dissatisfied with their body during adolescents as puberty leads them from their thin ideal (Bearman et al., 2006). This supports the results found in this study as 62.5% of participants wanted to decrease their size by one, two or three silhouette shapes.

Silhouettes 3 and 4 are determined as an appropriate (healthy) weight with 50% of artificial tanners wanting to look like these figures and 66.7% of non-tanners wanting to look like these silhouettes. This leaves a large proportion of participants (50% of

artificial tanners, 33.3% of non-tanners) wanting to look like silhouettes 1 and 2 which are found to be underweight. This portrays an image which is very thin and represents the body ideal of participants. This is due to the fact that adolescent girls acknowledge that a thin frame is socially acceptable (Mousa et al., 2010). This result represents the participant's want to be thin as no participant wanted to be a silhouette over the silhouette 4. These results prove that participants have a clear want to be smaller with a large number of participants wanting to be a silhouette that portrays a low body weight and thus a BMI below normal. These results support the Dohnt and Tiggemann (2006) who found that women of all ages have a desire/want to be thinner than the shape that they are.

Rosenberg Self Esteem Scale

Rosenberg's Self Esteem Scale aimed to find a score for participants self esteem through a ten item scale which was scored between zero and three. The best possible score that could be obtained in this scale was 30. The mean score in this scale was 19.75. This describes participants with a normal self esteem as it is within the range of 15 to 25 (83 artificial tanners, 8 non-tanners). A score below 15 is deemed as a low self esteem and the lowest score scored by a participant was nine is within this range. A total of eleven participants had a low self esteem score (10 artificial tanners, 1 non-tanner). However, the highest self esteem score obtained by a participant was twenty-seven, a high self esteem score. One participant from the artificial tanners group and one participant from the non-tanners group had a self esteem score above 25, a good self esteem. Participants scored between nine and 27, a wide range in scores. These results are consistent with results found by Mulen and McGabhainn (2002) who studied an Irish group of teenagers surrounding their self esteem. It was found in this study that Irish adolescents have a healthy self esteem with only a small few showing signs of a low self esteem. Also, it has been found that self esteem increases over adolescence and generally develops as adolescence progresses (Erol &Orth, 2011). The participants were 16 and 17 year old adolescent girls, mid-adolescence, and as it has been found that self esteem increases during adolescence, it can be assumed for this reason, the majority of participants were within the average self esteem range. Also, self esteem scores may change on different occasions as Schraml et al. (2011) found that self esteem levels change depending on opinions other people had on them. Therefore, the self esteem of an individual may change from day to day depending on feelings about themselves and pressures imposed on them.

Socio-Cultural Attitudes towards Appearance Scale (SATAQ)

The SATAQ focuses on the body image of the participant. The majority of participants were within the normal range which describes an individual with average body image (87 artificial tanners, 9 non-tanners). With a mean of 60.61 for all participants, body image scores are average among participants. Of the 94 artificial tanners, 87 were within the average range. Chung et al. (2010) found that artificial tan can cover the body and give a perception of being thinner therefore increasing the body image of an individual. Also, it was stated that a tan, whether real or artificial, increases the feelings attractiveness and on a whole, makes a person feel better about their appearance and overall feel better in themselves (Chung et al., 2010).

Within the SATAQ, the researcher singled out the pressure statements to assess the pressures inflicted upon the participants. It has been established that adolescents, especially girls, are influenced by friends, family and the media to change different aspects of their appearance to fit in to a certain category (Dohnt & Tiggemann, 2006).

The pressure statements focus primarily on television influence on participants. This study confirmed that adolescent girls are influenced by television to diet, change appearance entirely and to exercise. On the other hand, distinguishing between artificial tanners and non-tanners, there seems to be no difference. As the results display a high number of participants were under pressure e.g. "pressure from TV to be thin" 60 artificial tanners strongly agreed or agreed with this statement while five non-tanners strongly agreed or agreed with this statement. The results presented state that adolescent girls are under huge pressure to change to fit into norms.

Artificial Tanning

Nolan, Taylor, Liguori and Feldman (2009) stated that tanning bed use is extremely common among adolescence. Nevertheless this study found very few artificial tanners used tanning beds (9.6%). This is a reasonably small number thus proving tanning bed use was extremely low among participants. This result counteracts the results found in this study. The most popular forms of artificial tanning were tanning lotions (75%) and spray tans (71%). It is clear from these results that tanning products are more popular than tanning beds. Tanning products can be used in the home and there is a wide variety available, ranging in price. Also, participants could choose multiple answers and this again shows the popularity of artificial tanning as the majority of artificial tanners chose more than one answer. Some other tanning products were mentioned in the methods

used. A wide variety of products were mentioned, again showing the popularity and the wide variety of products available to acquire an artificial tan.

Knowledge regarding the effects of tanning was assessed to determine the level of knowledge participants had surrounding the behaviour. Although artificial tanners may be aware of the effects of using tanning beds, the drive to have a tanned appearance becomes more important and therefore the harmful effects are put to one side (Nolan et al., 2009). Knowledge surrounding artificial tanning was consistent in this study. Non-tanners had a majority answer in all cases indicating tanning beds and tanning pills were bad for health. Artificial tanners also had a majority answer for these. However, 4 artificial tanners had previously used tanning beds although all 94 artificial tanners answered tanning beds being bad for health. It has been found that the drive to increase appearance exceeds the harmful effects of the behaviour. Sjoberg (2004) found that adolescent girls had a greater acceptance of artificial tanning and this outweighed the risks associated with it. This is due to the fact that girls feel a social pressure to be tanned (Yoo and Kim, 2011) and having a tan gives a feeling of thinness. The main reasons found that participants use artificial tanning devices/products is 'to make me feel better,' 'to look healthier' and 'to look slimmer.' These results can be supported by Heckman et al. (2009) as to increase appearance is the main reason adolescent girls use artificial tanning mechanisms. This is mainly due to increasing attractiveness and being socially accepted among peers. The main reasons for using artificial tanning devices/products, given in this study, were all appearance based factor. Friends played a role in the reasons participants used artificial tanning mechanisms. Hoerster et al. (2007) found that peer influence was a main reason for participants to use artificial tanning. This was the case in this study as 46% of participants did not see their friends tanning behaviours as a reason for them to use artificial tanning behaviours with the remaining 56% saw their friends tanning behaviours as a reason for them to use artificial tanning devices/products. Also, a mother's artificial tanning behaviour played a small role in the reasons why adolescents use artificial tanning devices/products as only 22 participants were influenced by their mom's artificial tanning behaviour. Hoerster et al. (2007) found that adolescent had a greater chance of using a tanning bed if their parents had previously used it as it is seen more acceptable to use it if a parent had engaged in the behaviour previous.

The researcher aimed to distinguish the influences on tanning behaviours of participants. Social norms were the most popular answer (33%). Social norms can be defined as beliefs others have about something and what other people deem as

important (Kulik, Buther, Gerrard, Gibbons & Mahler, 2008). Sjoberg (2004) can add to the strength of this finding as it was found in this study that artificial tanning occurs directly as a cause of social pressures to fit into society as having a tan is deemed socially acceptable. Adolescence seek acceptance and therefore use artificial tanning as a way of doing this. Friends played an influence on artificial tanning behaviours with 30% of artificial tanners choosing friends as an influence. This adds support to the previous results regarding friends influence on artificial tanning behaviour. Friends therefore play a role in the tanning behaviours. Artificial tanners perceive friends to be a great influence on their artificial tanning behaviour. This could be due to peer pressure and the want to fit in among peers. Media influence was acknowledged by 28% of artificial tanners. The media such as television have the ability to form attitudes of its viewer (Cafri et al., 2006). Therefore the media holds great power in forming attitudes and behaviours of viewers. The media shows the appeal of having a tan and shows famous celebrities looking tanned and 'perfect.' Consequently adolescents want to look like this and engage in behaviours to achieve a level of perfection. Family did not have a huge influence on artificial tanners to use artificial tanning devices/products (7%). It can be noted from this result that there are greater influences enforced on adolescence e.g. social norms, media and friends. Participants had the opportunity to supply other influences for their artificial tanning behaviours. The main reason that came up was 'seeing other girl's tanned.' This ties in with social norms as tanned skin is deemed socially acceptable among society, as stated previously.

Difference between Artificial Tanning Use and Self Esteem/Body Image

There was no significant difference found between artificial tanning and self esteem ($p=0.287$). Self esteem scores were similar between both groups and this may have occurred as all participants presented common feelings towards themselves. Rosenberg's Self Esteem Scale (1965) focuses entirely on feelings about oneself. Also, there was no significant difference found between artificial tanning use and body image scores ($p=0.383$). However, Knox et al. (1998) found that if an adolescent girl is content with her body appearance and attractiveness then this leads to the girl having good self esteem as she feels happy in her body. Applying this theory to this study, it can be evaluated that those who use artificial tanning devices/products are content in with their body and have a good body image and are happy with their appearance, then this increases the positive feelings about themselves and therefore both self esteem and body image are high. On the other hand, those who do not wear tan do not give into

social norms to fit in and are not influenced by external factors. They are satisfied with their appearance, without the need of a tan and yet again feel happy within their bodies and positive feelings about themselves are generated.

However, this result can be contradicted within the artificial tanning section of the results. When asked is a tan attractive the majority answered 'yes' in the artificial tanners group (94) while six participants in the non-tanners answered 'yes.' Secondly, the participants were asked if they need a tan to be attractive. The majority of the non-tanners group answered 'no' (n=10) but within the artificial tanning group, results varied (36= yes, 58= no). If the 58 artificial tanners do not need a tan to be attractive then it could be assumed that they should feel happy in their natural skin and be attractive without tan but they still take part in this behaviour. This may relate back to social pressures and peer pressure and the want to fit in. Adolescence, especially for girls, is a time of vulnerability and a fear of what others think of them take over (Moksnes et al., 2010). Furthermore, when asked about liking their natural skin tone, five non-tanners answered 'no.' this result does not support the result found previously as if they do not like their natural skin tone, it could be assumed that their body image and self esteem be affected by not being happy about their appearance.

Limitations

There are some limitations apparent within this study.

- A major limitation to this study sample size as the difference in the number of artificial tanners and non-tanners was immense (94- artificial tanners, 10 non-tanners). This meant comparing the two groups was difficult.
- Participants were also only selected from one secondary school and therefore may not be representative of all adolescent girls within this age bracket.
- Using only questionnaire gave restricted results as no qualitative data was collected.
- As self esteem and body image are sensitive topics, participants may have resisted in answering honestly.
- Body image and self esteem scores are subject to change, so these results may have been different if the data was collected at a different time e.g. closer to results.
- A major limitation for this study was the minimal research on artificial tanning available. This made comparing and contrasting the results very difficult.

Conclusion

It can be concluded that the number of adolescence using artificial tanning devices/products are greater than those who do not partake in this behaviour. In addition to this, there are a wide variety of tanning products available and more than what the researcher had found previously to the study taking place. Also, knowledge regarding tanning is consistent between both groups. This result shows the knowledge of participant in relation to this behaviour.

Self esteem scores were similar between artificial tanners and non-tanners with a mean score of 19.75. This result reports that self esteem among participants was average with only a few participants falling into the low self esteem bracket (n= 11). The higher the level of self esteem the more happy individuals are with their appearance and attractiveness and results show that the majority of participants have a normal to high self esteem (Moksnes et al., 2010)

Body image scores were similar between both groups with no significant difference found. Only four participants fell into the low body image category with the remaining participants having an average to high body image score. However, these results can vary as self esteem and body image can change due to experiences and pressures imposed on the individual.

The Body Silhouette Test provided very interesting results. It was found that 50% of artificial tanners had a body ideal of silhouettes one and two which are described as being underweight. This result is quiet worrying as a distorted image of a healthy weight is generated. This could be due to the fact that all women regarding of age have a desire to be thin (Dohnt & Tiggeman, 2006). In comparison, 66.7% of non-tanners had a body ideal of silhouettes three and four which are described as an appropriate weight. Also, 69.2% of artificial tanners want to decrease their shape by one, two and three silhouettes with the remainder being happy and wanting to increase in shape. In comparison, 66.6% of non-tanners wanted to increase their size by one, two or three silhouette. These numbers are extremely high for participants who have an average to good self esteem and body image score.

In conclusion, it is hoped that the results from this study will inspire further research in this area.

Recommendations

- A recommendation for future studies is to include a larger sample size to determine if results from this study can be transferred to the wider population of adolescent girls. In relation to sample size, a clear recommendation became apparent and that is to have an equal number of artificial tanners to non-tanners. This equality in numbers among the groups will lead to the results stronger although the small numbers of non-tanners shows the popularity of artificial tanning.
- Also, another recommendation is to include qualitative data into the study. This will give more detailed answers and a greater insight into the topic area. This qualitative data could be gathered through interviews, focus groups or a more detailed questionnaire.
- In addition, another recommendation found by the researcher is to include male participants in the study and get their views on artificial tanning from a male's perspective.
- A further recommendation for future research search is to measure BMI of the participants and compare this to silhouette of what they think they look like and what they want to look like. This will in turn show distorted images they may have and a greater insight to their body image.
- Another recommendation is to record body image and self esteem scores from the artificial tanners before and after they use artificial tanning devices/products to assess any change in body image and self esteem scores pre and post.

REFERENCE LIST

- Babington, L. M., & Kelley, B. R. (2009). Self-esteem and risk behaviours of Dominican adolescents. *Comprehensive Paediatric Nursing*, 32, 131-144
- Bagdasarov, Z., Banerjee, S., Greene, K., & Campo, S. (2008). Indoor tanning and problem behaviour. *Journal of American College Health*, 56(5), 555-561
- Balk, S. J., & Geller, A. C. (2008). Teenagers and artificial tanning. *Official Journal of the American Academy of Pediatrics*, 121(5), 1040-1042
- Bearman, S. K., Presnell, K., Martinez, E., & Stice, E. (2006). The skinny on body dissatisfaction: a longitudinal study on adolescent girls and boys. *Journal of Youth and Adolescence*, 35(2), 229-241
- Berwick, M. (2008). Are tanning beds "safe"? human studies of melanoma. *Journal Complication*, 21, 517-519
- Borner, F. U., Schutz, H., & Wiedmann, P. (2009). A population based survey on tanning bed use in Germany. *Biomed Central Dermatology*, 9(6), 1-8
- Brooks, K., Brooks, D., Dajani, Z., Swetter, M. S., Powers, E., Pagoto, S., & Geller, A. C. (2006). Use of adolescent tanning products among young adolescents. *Journal of American Academy of Dermatology*, 54(6), 1060-1066
- Brooks, K., Brooks, D., Dajani, Z., Swetter, S. M., Powers, E., Pagota, S., & Geller, A. C., (2006). Use of artificial tanning products among young adults. *Journal of American Academy of Dermatology*, 54(6), 1060-1066
- Button, E. J., Sonuga-Barke, J. S. E., Davies, J., & Thompson, M. (1996). A prospective study of self-esteem in the prediction of eating problems in adolescent schoolgirls: questionnaire findings. *British Journal of Clinical Psychology*, 35, 193-203
- Cafri, G., Thompson, K. J., & Jacobsen, P. B. (2006). Investigating the role of appearance based factors in predicting sun bathing and tanning salon use. *Journal of Behavioural Medicine*, 32, 532-544
- Cash, T. F., Fleming, E. C., Alindogen, J., Steadman, L., & Whitehead, A. (2002). Beyond body image as a trait: the development and the validation of the body image states scale. *The Journal of Eating and Prevention*, 10, 103-113

- Cash, T. F., Phillips, K. A., Santos, M. T., & Hrabosky, J. I. (2004). Measuring 'negative body image': validation of the body image disturbance questionnaire in a nonclinical population. *Body Image*, 363-372
- Chung, V. Q., Gordon, J. S., Veledar, E., & Chen, S. C. (2010). Hot or not- evaluating the effects of artificial tanning on the public perception of attractiveness. *American Society for Dermatologic Surgery*, 36, 1651-1655
- Dissel, M., Rotterdam, S., Altmeyer, P., & Gambichler, T. (2009). Indoor tanning in North Rhine-Westphalia Germany: a self-reported survey. *Journal Compilation*, 25, 94-100
- Dohnt, H., & Tiggemann, M. (2006). The contribution of peer and media influences to the development of body satisfaction and self esteem in young girls: a prospective study. *Developmental Psychology*, 42(5), 929-936
- Dohnt, H. K., & Tiggemann, M. (2006). Body image concerns in young girls: the role of peers and media prior to adolescence. *Journal of Youth and Adolescence*, 35(2), 141-151
- Dorak, F. (2011). Self-esteem and body image of Turkish adolescent girls. *Social Behaviour and Personality*, 39(4), 553-562
- Erol, R. Y., & Orth, U. (2011). Self-esteem development from age 14 to 30 years: a longitudinal study. *Journal of Personality and Social Psychology*, 101(3), 607-619
- Fu, J. M., Dusza, S. W., & Halpern, A. C. (2004). Sunless tanning. *Journal of American Academy of Dermatology*, 50(5), 706-713
- Geller, A. C., Colditz, G., Oliveria, S., Emmons, K., Jorgensen, C., Aweh, G. N., & Frazier, A. L. (2002). Use of sunscreen, sunburning rates, and tanning bed use among more than 10,000 US children and adolescents. *Pediatrics*, 109(6), 1009-1014
- Heckman, C. J., Wilson, D. B., & Ingersoll, K. S. (2009). The influence of appearance, health, and future orientations on tanning behaviour. *American Journal of Health Behaviour*, 33(3), 238-243
- Heinburg, I. H., & Thompson, J. K. (1995). Body image and televised images of thinness and attractiveness: a controlled laboratory investigation. *Journal of Social and Clinical Psychology*, 14, 325-338

- Hoerster, K. D., Mayer, J. A., Woodruff, S. I., Malcarne, V., Roesch, S. C., & Clapp, E. (2007). The influence of parents and peers on adolescent indoor tanning behaviours: findings from a multi city sample. *Journal of American Academy of Dermatology*, 57(6), 990-997
- Huang, J. S., Norman, G. J., Zabinski, M. F., Calfas, K., & Patrick, K. (2007). Body image and self esteem among adolescent undergoing an intervention targeting dietary and physical activity behaviours. *Journal of Adolescent Health*, 40(3), 245-251
- Hubley, A. M., & Quinlan, L. (2003). Body image in men and women across the adult life span. *European Congress of Psychology*
- Jackson, T. S., Reel, J. J., & Thackeray, R. (2011). Coping with “bad body image days”: strategies from first year young adult college women. *Body Image*, 8, 335-342
- Jones, D. C. (2001). Social comparison and body image: attractiveness comparisons to models and peers among adolescent girls and boys. *Sex Roles*, 45(9/10), 645-664
- Knox, M., Kunk, J., Elliott, R., & Bush, E. G. (1998). Adolescents’ possible selves and their relationship to global self esteem. *Sex Roles*, 39(1/2), 61-80
- Kulik, J. A., Butler, H., Gerrard, M., Gibbons, F. X., & Maher, H. (2008). Social norms information enhances the efficacy of an appearance-based sun protection intervention. *Social Science Medicine*, 67(2), 3210329
- Lazovich, D., & Forster, J. (2005). Indoor tanning by adolescents: prevalence, practices and policies. *European Journal of Cancer*, 41, 20-27
- Levine, J. A., Sorace, M., Spencer, J., & Siegal, D. M. (2005). The indoor UV industry: a review of skin cancer risk, health benefit claims, and regulation. *Journal of American Academy of Dermatology*, 53(6), 1038-1043
- Moksnes, U. K., Moljord, I. E., Espnes, G. A., & Byrne, D. G. (2010). The association between stress and emotional states in adolescents: the role of gender of self esteem. *Personality and Individual Difference*, 49, 3430-435
- Mousa, T. Y., Mashal, R. H., Al-Domi, H. A., & Jibril, M. A. (2010). Body image dissatisfaction among adolescent school girls in Jordan. *Body Image*, 7, 46-50

- Mullan, E., & NicGabhainn, S. (2002). Self-esteem and health-risk behaviours: is there a link? *The Irish Journal of Psychology* 23(1/2), 27-36
- Nolan, B. V., Taylor, S. J., Liguori, A., & Feldman, S. R. (2009). Tanning as an addictive behaviour: a literature review. *Journal Compilation*, 25, 12-19
- Pagota, S. L., Schneider, K. L., Oleski, J., Bodenlos, J. S., Merriam, P., & Ma, Y. (2009). Design and methods for a cluster randomised trial of the sunless study: a skin cancer prevention intervention promoting sunless tanning among beach visitor. *Public Health*, 50(9), 1-8
- Poorsatter, S. P., & Hornung, R. L. (2008). Television turing more teens toward tanning? *Journal of American Academy of Dermatology*, 171-172
- Puskar, K. R., Bernardo, L. M., Ren, D., Haley, T. M., Tark, K. H., Switala, J., & Siemon, L. (2010). Self-esteem and optimism in rural youth: gender difference. *Contemporary Nurse*, 34(2), 190-198
- Richardson, S. M., & Paxton, S. J. (2010). An evaluation of a body mage intervention based on risk factors for body dissatisfaction: a controlled study with adolescent girls. *International Journal of Eating Disorders*, 43(2), 112-122.
- Robinson, J. K., Kim, J., Rosebaum, S., & Ortiz, S. (2008). Indoor tanning knowledge, attitudes, and behaviour among young adults from 1988-2007. *American Medical Association*, 144(4), 484-488
- Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). Measures of personality and social psychological attitudes. San Diego, California : Academic Press
- Rosenburg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press
- Sahn, R. E., Mcilwain, M. J., Magee, K. H., Veledar, E., & Chen., S. C. (2012). A cross-sectional study examining the correlation between sunless tanning product use and tanning beliefs and behaviours. *Archives of Dermatology*, 148(4), 448-454
- Schraml, K., Perski, A., Grossi, G., & Simonsson-Sarnecki, M. (2011). Sress symptoms among adolescents: the role of subjective psychosocial conditions, lifestyle, and self esteem. *Journal of Adolescence*, 34, 987-996

Sjoberg, L., Holm, L. E., Ullen, H., & Brandberg, Y. (2004). Tanning and risk perception in adolescents. *Health, Risk and Society*,6(1),81-94

Skin Cancer Foundation. (2011). Tanning. Retrieved 2nd November, 2011 from <http://www.skincancer.org/Search?q=Tanning>

Spencer, J. M., & Amonette, R. (1998). Tanning beds and skin cancer: artificial sun + old sol = real risk. *Clinic of Dermatology*,16,487-501

Stice, E., & Bearman, S. K. (2001). Body-image and eating disturbances prospectively predict increases in depressive symptoms in adolescent girls: a growth curve analysis. *Developmental Psychology*,37(5),597-607

Teenshealth. (1995). Body image and self esteem. Retrieved 14th September, 2011 from http://kidshealth.org/teen/your_mind/body_image/body_image.html

Thompson, J. K., & Altabe, M. N. (1991). Psychometric properties of the figure rating scale. *International Journal of Eating Disorders*,10, 15-19

World Health Organisation. (2012). Artificial tanning sunbeds. Retrieved 24th-April-2012 from <http://www.who.int/uv/intersunprogramme/activities/uvartsunbeds/en/>

Yoo, J. J., & Kim, H. Y. (2011). Adolescents' body-tanning behaviours: influence of gender, body mass index, sociocultural attitudes towards appearance and body satisfaction. *International Journal of Consumer Studies*,1-7

Zeller, S., Lazovich, D., Forster, J., & Widome, R., (2006). Do adolescent indoor tanners exhibit dependency. *Journal of American Academy of Dermatology*,54(4),589-596



Waterford Institute of Technology
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

Hi,

My name is Lorna Ryan and I am a 4th Year student in Health Promotion in Waterford Institute of Technology. As part of my dissertation I am conducting a study on the artificial tanning behaviours of adolescent girls and if body image and self esteem affect this behaviour. I would like your daughter to answer a questionnaire relating to her artificial tanning behaviours. Please do not feel obliged to allow your daughter to partake in this study as participation is completely voluntary. These results will be kept completely confidential.

☐ I allow my daughter to take part.

☐ I do not allow my daughterto take part.

Signature

Contact details:



Thank you for taking the time out to read this and I look forward to hearing from you.

Yours faithfully,

Lorna Ryan



Waterford Institute of Technology

Hi,

My name is Lorna Ryan and I am a 4th Year Health Promotion student in Waterford Institute of Technology. As part of my dissertation, I am conducting a study on artificial tanning use among adolescent girls and how body image and self esteem play a role in this behaviour. I would like you to complete a questionnaire in relation to this. Please do not feel obliged to take part as participation is completely voluntary. These results will be kept completely confidential.

For any further inquiries, please find contact details below.

Contact details:



Thank you for taking the time out to partake in my study.

Yours faithfully,

Lorna Ryan



Waterford Institute of Technology

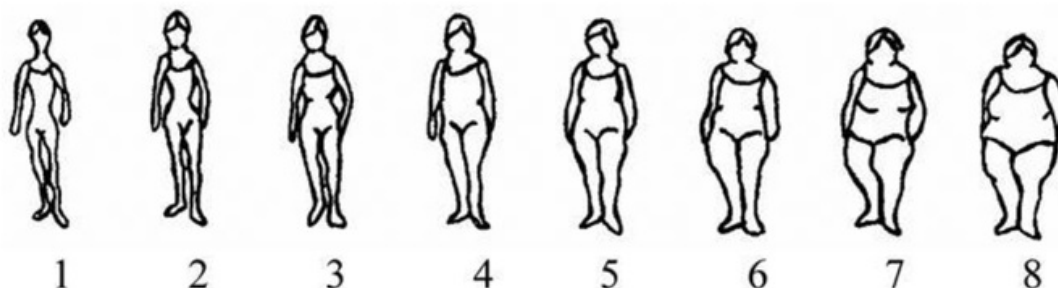
Date: _____

Name: _____

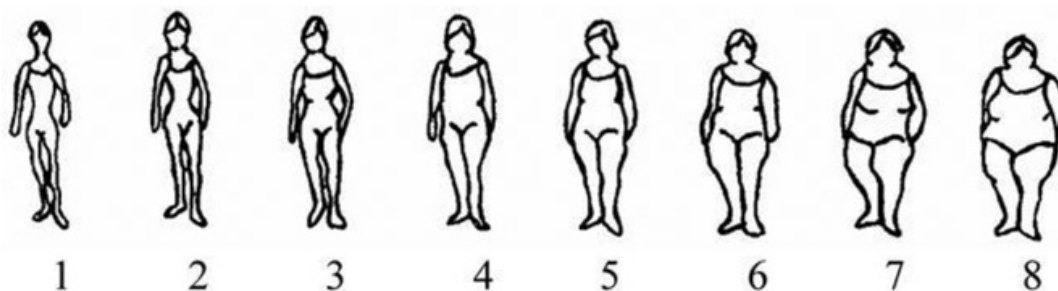
Age: _____

Section 1-Body Silhouette Scale

Instructions: Please circle **one** number under the images which best describes your figure in each of the cases below



Which body image do you **THINK** you look like? Please circle the number



Which body image do you **WANT** to look like? Please circle the number

Section 2-Rosenberg Self Esteem Test

Below please find a list of statements regarding feelings about self. Please TICK the box which best describes your answer to each statement where **Strongly Agree (SA)**, **Agree (A)**, **Disagree (D)**, **Strongly Disagree (SD)**

SA A D SD

a) On a whole, I am satisfied with myself.				
b) At times, I think I am no good at all.				
c) I feel that I have a number of good qualities.				
d) I am able to do things as well as most other people.				
e) I feel I do not have much to be proud of.				
f) I certainly feel useless at times.				
g) I feel that I'm a person of worth, at least on an equal plane with others.				
h) I wish I could have more. respect for myself				
i) All in all, I am inclined to feel that I am a failure.				
j) I take a positive attitude towards myself.				

**Section 3- SOCIOCULTURAL ATTITUDES TOWARDS
APPEARANCE SCALE**

Below please find a list of statements regarding attitudes towards self. Please TICK the box which best describes your answer to each statement where **Strongly Agree(SA)**, **Agree(A)**, **Neither(N)**, **Disagree(D)**, **Strongly Disagree(SD)**

	SA	A	N	D	SD
TV programs are an important source of information about fashion and "being attractive."					
I've felt pressure from TV or magazine to lose weight.					
I <u>do not</u> care if my body looks like the body of people who are on TV.					
I compare my body to the bodies of people who are on TV.					
TV commercials are an important source of information about fashion and "being attractive."					
I <u>do not</u> feel pressure for TV or magazines to look pretty.					
I would like my body to look like the models who appear in magazines.					
I compare my appearance to the appearance of TV and movie stars.					
Music videos on TV are <u>not</u> an important source of information about fashion and "being attractive."					
I've felt pressure from TV and magazines to be thin.					
I would like my body to look like the bodies of people who appear in movies.					
I <u>do not</u> compare my body to the bodies of people who appear in magazine.					
Magazine articles are <u>not</u> an important. Source of information about fashion and "being attractive."					

I've felt pressure from TV or magazines to have a perfect body.					
I wish I looked like the models in music videos.					
I compare my appearance to the appearance of people in magazines.					
Magazine advertisements are an important source of information about fashion and "being attractive."					
I've felt pressure from TV or magazines to diet.					
I <u>do not</u> wish to look as athletic as the people in magazines.					
I compare my body to that of people in "good shape."					
Pictures in magazines are an important source of information about fashion and "being attractive."					
I've felt pressure from TV or magazines to exercise.					
I wish I looked as athletic as sports stars.					
I compare my body to that of people who are athletic.					
Movies are an important source of information about fashion and "being attractive."					
I've felt pressure from TV or magazines to change my appearance.					
I <u>do not</u> try to look like the people on TV.					
Movie stars are <u>not</u> an important source of information about fashion and "being attractive"					
Famous people are an important source of information about fashion and "being attractive."					
I try to look like sports athletes.					

Section 4-Use of Tanning Equipment

1. Do you use any artificial tanning devices or products ?(e.g. tanning beds, tanning lotions, sprays, creams, pills) to get a tan

Yes

☐

No

☐

If no, please go to question 3

If yes, what methods do you use? Please tick **ALL** that apply

Tanning Beds

☐

Tanning lotions

☐

Spray Tan

☐

Tanning Pills

☐

Tanning Creams

☐

Other

☐

Please Specify _____

2. When do you use artificial tanning devices/products? Please circle ONE answer

Every day

For Competitions

Only on Weekends

To Work

On Special Occasions

Before Holidays

Other(specify)

3. Do you think a tan is attractive?

Yes

☐

No

☐

4. Do **YOU NEED** to have a tan to look attractive?

Yes

☐

No

☐

5. Do you like your natural skin tone?

Yes

☐

No

☐

6. In your opinion, do you think that tanning behaviours (using artificial tanning devices/products) are BAD for your health?

	YES	No
Tanning Beds		
Tanning lotions		
Tanning Pills		
Spray Tans		
Tanning Creams		

Section 5-Reasons for Using Artificial Tanning Devices/Products

This section does not apply to those who do not use artificial devices/products.

Thank you for your participation.

7. I use tanning devices/products because....Please TICK all answer that apply to you

True

False

It makes me feel good.		
I look healthier with a tan.		
It makes me feel slimmer.		
I do not go out without tan on.		
I wear tan for special occasions.		
My friends wear tan.		
My Mom wears tan.		
To cover up birth marks/scars		

8. What/Who influences your artificial tanning behaviours? Please Tick

Media

☐

Friends

☐

Other

☐

Specify _____

Family

☐

Social Norms

☐

Social norms-what is expected of you in everyday life

Thank you for your participation!