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Is it #Gramworthy? An investigation of self-concept clarity, social media and body related issues and how this relates to teenage self presentation on Instagram

A thesis submitted in partial fulfilment of the requirements for the degree of Masters of Science in Psychology

Massey University

Teigan Stafford-Bush

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#### **Abstract**

The media/body image relationship has been studied extensively for the better part of a decade. However, with the rise of social media in the last five years, it is necessary to consider body image variables in the context of social media.

The relationships between self-concept clarity, social comparison and social physique anxiety have not been extensively examined in relation to adolescent female body image. Some of these factors have been examined intensively in relation to body image, however there has been little exploration into the impact of individual difference variables such as the self-concept and how this may influence body image in adolescent girls as well as how it may influence self-presentation online (Campbell, Trapnell, Heine, Katz & Lavallee, 1996, Krayer, Ingledew & Iphofen, 2008 & Vartanian, 2009).

A group of 12 adolescent girls participated in this research. Data was collected over a 16-week period, with questionnaires being administered online through direct links between two social media sites.

The questionnaires consisted of demographic information, and were assessing Instagram activity, self-concept clarity, social comparison, social physique anxiety. A content analysis followed the questionnaire phase and examined the online profile content of participants in terms of photo composition, features, makeup, clothing and feedback.

All measures were psychometrically evaluated and generated respectable levels of internal consistency and reliability. Correlational analyses established relationships between self-concept clarity and impression management, and between self-concept clarity, self-enhancement and self-deception. This suggested that a higher level of self-concept clarity among adolescent females corresponded to a greater sense of entitlement and narcissistic

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behaviour on their online profiles. Limitations and recommendations for future research are discussed.

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This project has been reviewed and approved by the Massey University Human Ethics

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#### 1. Introduction to Current Research

Maintaining an attractive online image has become a routine task for the modern-day

adolescent. Current figures show that adolescents are utilising social networking sites (SNS) than any other demographic (Lenhart, 2015). Current statistics show that 95% of teenagers aged between 12 and 17 years have at least one social media profile, and 92% reporting daily activity on major social media platforms like Facebook, Instagram and Snapchat (Sterling, 2016). Comparable statistics affirm that teenage girls are more avid social media users than boys, Lenhart (2015) also distinguishing that girls are more likely to engage in visual forums. Since 2010, visual based social media sites like Instagram and Snapchat have garnered much acclaim from adolescent users for their proficiency in turning the mundane image into a masterpiece. Using filters, shades and tints, raw images can be enhanced and beautified before uploading. Thus, the single self-image or "selfie" has become a social trademark, representing one's self-defining moments and experiences among the Instagram universe. While some scholars have defended teenage social media practices, regarding them as necessary in the maintaining social connections and friendships, exploring and seeking new experiences (Burke, Marlow & Lento, 2010), more recent studies have identified that image centred social networking sites are becoming increasingly popular platforms for expression, self-regulation, negotiating identities, and coming of age (Gabriel, 2014). Several studies highlighted the detriments of image centred SNS about how they negotiate interactions between teenage self-presentations and reinstating millennial beauty standards within online platforms (Meier & Gray, 2014 & Chua & Chang, 2015). Chua and Chang (2015) also expressed concern over the affordances of such sites in encouraging young users

to represent a highly stylised online image. Chua and Chang (2015) identified that girls'

feelings of low self-esteem and insecurity offline, prompted their efforts in edited self-

presentation and their quest for peer acknowledgement. Peers appeared to play multiple roles in shaping girl's self-perceptions and their presentation of beauty. Mascheroni, Vincent and Jimenez (2015) expanded that girls' self-presentations were used to demonstrate adherence to beauty ideals, with their self-worth often based on the favourable impressions their photos made on others.

Of further concern is the psychological impact social media activity is having on young teenagers in terms of their body image and psychological wellbeing. Negative body image is known to be particularly endemic among adolescent females causing marked emotional distress, appearance rumination, social anxiety, and highly distorted views of self (Stice & Whitenton, 2002 & Croll, 2005). This combination of factors is known to contribute to a greater body dissatisfaction among young women, often presenting significant risks to the development of depression, eating disorders and low self-esteem (Agliata & Tantleff-Dunn, 2004; Holmstrom, 2004; Lew, Mann, Myers, Taylor & Bower, 2007).

Given the high incidence of body related issues occurring among teenage females, researchers have determined that adolescence amplifies body image concerns (Kostanski & Gullone, 1998, Thompson & Heinberg, 1999 & Croll, 2005). Croll (2005) indicated the early pubertal maturation can enhance dissatisfaction for girls. Rapid development in teenage girls is also alleged to present issues for the establishment of identity. Deficiencies in one's physical self-concept presents significant detriment to overall global self-esteem and self-worth. Tiggemann (2004) stressed that low self-esteem grossly inhibits the strength of one's self concept and the formation of identity. It is also suggested that low self-esteem and a weak sense of self may make one more susceptible to media internalization, furthermore, may predispose some to developing greater body dissatisfaction than others (Kostanski & Gullone, 1998; Ricciardelli & McCabe, 2000; Tiggemann, 2004 & Lew, Mann, Myers, Taylor & Bower, 2007).

Extant literature has often cited the impact of the media and the sociocultural standards of attractiveness in derogating young girls' perceptions of their body, creating a disparity between the actual body and the ideal physique (Hargreaves & Tiggemann, 2003 & Carlson-Jones, 2004). Further studies have also acknowledged that female body issues are often exacerbated through comparisons with peers (Carlson-Jones, 2001).

Thompson and Heinberg (1999) noted that peers, friends and parents can be particularly influential in determining negative body outcomes. It has been reported that the social context changes in adolescence with an increased awareness of the body and its changes being appraised not only individually, with the perceptions of others also considered. The pressure to live up to familial and peer perception presents risks to social rank, familial relationships, self-esteem and the resultant view of self (Ata, Bryant-Ludden & Lally, 2006). Friends and peers are often used as sources of social comparison, with targets sought on the basis of physical appearance and social aptitude and these attributes are judged in relation to one's own (Krayer, Ingledew & Iphofen, 2008). Comparing oneself to peers and siblings has been identified as having detrimental impacts to self-esteem (Sands & Wardle, 2003). Failure to emulate desirable social and physical traits portrayed by close friends and peers, exposes an individual to potential social exclusion and isolation.

Contemporary research is yet to fully explore the tensions between offline body and appearance concerns and online behaviours, and whether body image issues are articulated or expressed on personal social media accounts. A benefit to existing literature would be exploring if millennial body image influences as body mass, age and social comparison still present relevant concern for teenage girls, and further, whether intrapersonal characteristics such as self-concept and self-esteem influence girls' self-presentation decisions online. It would also be of benefit to explore whether these intrapersonal characteristics are embodied in their online photo content. Additional benefits can be observed through understanding how

and why teenage girls use Instagram to present themselves, and whether self-presentations on SNS increases or diminish body dissatisfaction in young girls. Therefore, the aims of the present research are to examine the constructs of self-concept, social comparison and social physique anxiety as potential influences of body image distress, and appraise whether these intrapersonal characteristics are represented on teenage girls' Instagram profile.

#### 2. Literature Review

#### 2.1 Adolescence and the student body

There is strong academic consensus that body image struggles typically manifest during adolescence. Adolescence marks a time of intense physical, social and emotional upheaval when the body is especially vulnerable to critique. Historical research has identified that teenage girls body dissatisfaction rapidly increases during puberty, and the effects of dissatisfaction are more prolonged than those of their male counterparts (Ricciardelli & McCabe, 2001). Indeed, the developmental changes occurring in female adolescence have been identified as factors that may influence body dissatisfaction and its subsequent beliefs and behaviours. The factors of actual body weight, age and pubertal onset have frequently received attention and as potential determinants of body dissatisfaction. It is important to evaluate these factors independently to gauge their effects on body dissatisfaction, thus, determining their viability as moderators or mediators when compared with social-cultural variables.

#### 2.1.1 The vulnerabilities of age and developmental changes

Bearman, Presnell, Martinez and Stice (2006) found that age was a significant predictor of body dissatisfaction in teenage girls more so than in boys. As teenage girls aged, an increase in body dissatisfaction was observed. At age 13, there remained no significant dissatisfaction for boys and girls however, by 14 years of age, girls body dissatisfaction increased, the effect remaining past the ages of 15 and 16 (Bearman et al., 2006). Similar results were found in Tiggemann (2003) who established increasing body dissatisfaction from early adolescence, observing its effects over a two-year period. These findings mirror those discovered by Jones (2004), in that older adolescent girls reported more significant body dissatisfaction than younger girls. High school girls were found to experience greater body dissatisfaction than younger girls who attended middle school. Strauss and colleagues (2015) found that grade groupings within school environments induced more negative body experiences in younger students educated alongside older peers. Their results demonstrated that girls as young as 10 and 11 who attended middle and extended middle schools with older girls (13 and 14 years), experienced greater body dissatisfaction, a drive for thinness, and increased body surveillance and body shame (Strauss, Sullivan, Sul Wittenberg, 2015).

Interestingly, girls who attended schools with more stratified grade groupings experienced more positive body image, the authors suggesting that girls who remain in elementary schools until the age of 13, are offered a protective advantage from developing body related issues prematurely. Strauss and associates (2015) also forewarned that the cushioning effects of grade constant schools offer a temporary respite for girls, results showing the absence of an association between grade grouping and girls in the eighth grade (aged 13 years).

The study by van den Berg and colleagues (2010) contended that body dissatisfaction remained relatively stable across time and age did not predict any intensified dissatisfaction among girls. This reported stability has also been found in earlier works, claiming that female body dissatisfaction remains uninterrupted from 13-18 years (Stice & Whitenton, 2002). A possible explanation comes from Stice and Whitenton (2002) who surmised that early pubertal development advances body discontent due to the marked increase in adipose tissue that occurs during puberty. The earlier the onset of menarche, the less time girls have to adjust to physical changes and become accustomed to imminent weight gain. Emotions and cognitive processing during this phase often place girls at risk for bodily shame and negative feeling, as the maturing body is seen to be a major deviation from current beauty standards (Stice & Whitenton, 2002). Croll (2005) interposed that early development for girls presents the greatest challenges for healthy body image. She also contends that going through puberty earlier than peers can significantly impact one's body image, psychological health and adjustment. Siegel and affiliates (1999) highlighted that being very early or very late to mature is less desirable, as negotiating changes at the same time as peers may be less psychologically challenging. They argued that girls who mature earlier than expected or ahead of their peer group, feel out of synch, these feelings easily contributable to increased dissatisfaction with their bodies (Siegel, Yancey, Aneshensel & Schuler, 1999). Sisk and Zehr (2005) noted the risks of early puberty in altering one's social experiences, teasing and ridicule by peers found to carry significant potential for the development of depression and the onset of eating disorders. There is ongoing debate as to the underlying causes of this increased risk to early developing females (Attie & Brooks-Gunn, 1989 & Levine & Smolak, 1992). Coupled with insignificant correlations and null effects observed in several studies, it is appropriate to conclude that early pubertal progression may invoke initial concern among adolescent girls due to its abrupt and rapid onset, however prolonged dissatisfaction may be

in response to continued socialisation with the same peer group. Sisk and Zehr (2005) emphasised that differences in pubertal timing expose females to a greater risk of psychopathology, however persistence of depressive symptoms surpassing early pubertal onset, cannot be attributed to early maturation alone. Sisk and Zehr (2005) concluded that individual differences play a significant role in determining the degree of dissatisfaction experienced. They also surmised that individual differences in behaviour and psychopathology risk may influence how body issues are experienced and controlled. Taken together, it is therefore appropriate to assume with the lack of causal evidence, that pubertal timing is not a significant predictor of any long-term body dissatisfaction (Smolak, Levine & Gralen, 1993, Siegel, Yancey, Aneshensel & Schuler, 1999; Stice & Shaw, 2002; Stice & Whitenton, 2002 & Sisk & Zehr, 2005).

#### 2.1.2 The tensions with body mass

Body mass has received sporadic attention as a potential determinant of body image disturbance in adolescent girls. Past knowledge has proposed links between body weight, weight related body image, depressive symptomology, weight control efforts, and body dissatisfaction (Rierdan & Koff, 1997). Some studies (McCabe & Ricciardelli, 2001, Presnell, Bearman & Stice, 2003 & Wardle & Cooke, 2005) willingly attribute displeasure with body weight to normal pubertal development whereby girls acquire a significant increase in adiposity, observing subsequent changes in weight status. Consequently, actual body weight is believed to be a considerable determinant of body dissatisfaction.

Elevated body mass was found to produce increases in body dissatisfaction in adolescent girls in several studies. Stice and Whitenton (2002) found significant effects among their study of girls in the early to mid-teenage years attending public schools. Dyer and Tiggemann (1996) also demonstrated continuity in these findings when comparing the body weights of teenage

girls from single sex and coeducation schools. Although girls from the co-education school weighed significantly more than the girls from single sex schools, both groups perceived their current shape as being the same size. They also found that girls from single sex schools were far less satisfied with their bodies despite weighing less than their co-educated counterparts (Dyer & Tiggemann, 1996)

A recent study confirmed that girls who were already overweight were more dissatisfied, experiencing negative regard for their bodies and a desire to change their weight status (van Berg, Mond, Eisenberg, Ackard & Neumark-Sztainer, 2010). Additionally, they noted substantial effects of weight status on the body dissatisfaction and self-esteem of girls in average, overweight and obese categories. It was also discovered that underweight girls experienced less overall dissatisfaction and reported higher self-esteem than other participants. Makinen and associates (2012) experienced similar results with underweight girls in that, girls with lower body weight reported greater body satisfaction. Their findings mirror those explicated in van Berg et al. (2010) in that, overweight and normal weight girls were less positive about their bodies, experienced more dissatisfaction, lower self-esteem and engaged in abnormal eating patterns (Makinen, Puuko-Viertomies, Lindberg, Simes & Aalberg, 2012). Wardle and Cooke (2005) also showed support for this finding in their work explaining that girls with higher body mass indexes (BMI) experienced higher levels of dissatisfaction and lower esteem, with body discontent increasing with age and following pubertal progression.

Pesa, Syre and Jones (2000) found that the role of actual body weight in predicting body dissatisfaction is arbitrary. Their study sought to determine whether weight status was indeed a trigger of body image problems for adolescents. They also aimed to discover whether overweight adolescents differed from underweight counterparts in terms of psychological factors, namely depression and self-esteem.

The results demonstrated that perceived body image dissatisfaction (PBID) was a more significant predictor of negative body outcomes than actual body weight. Pesa and colleagues (2000) also noted that psychological factors played a significant role in predicting negative body outcomes, supporting evidence suggesting that self-esteem was more strongly associated with perceived body image dissatisfaction than actual body weight (Kostanski & Gullone, 1998). Collegial findings reveal support for these claims, with results showing actual body mass and psychological variables like self-esteem and depression to be independent of each other, however both significantly correlated with perceived body image dissatisfaction (Cachelin, Streigel-More & Brownell, 1998 & Wadden, Foster, Stunkard & Linowitz, 1989). Pesa and associates (2000) also determined dieting to be a response to perceived higher than ideal body weight, rather than actual body weight.

Dyer and Tiggemann (1996) highlighted the possibility that weight control endeavours were not in response to a distaste with their own size, but their size in relation to the extreme thinness observed on model bodies.

Dyer and Tiggemann (1996) noted this motivation to be particularly prevalent among adolescent girls attending a single sex school. Dyer and Tiggemann (2006) cited that achievement for young girls especially is equal to the attainment of a thin body. Pesa and colleagues (2000) also surmised that perceived disparities between ideal figures and one's own body may trigger dissatisfaction and personal despair. From these results, Pesa et al. (2000) also contributed that the fact of just being overweight is not a significant cause of psychological and social problems. They instead proffered that women engage in ongoing attempts to reduce weight, in order to conform to societal beauty standards is the likely trigger for despair (Pesa, Syre & Jones, 2000). Pesa et al. (2000) concluded as a result, that psychological variables such as low self-esteem and depressive symptomology typically manifested following repeated failures in attempting to lose or change weight status.

Due to the evidence dictating the widespread prevalence of body dissatisfaction, eating disorder and depressive symptomology among all weight categories, it is fair to assume that body mass and greater fat depository during adolescence, cannot solely account for these increases in the rates negative body image experienced among young women. Substantial findings in Rierdan and Koff (1997) clarified that objective BMI did not significantly predict depressive symptomology in adolescent girls. In addition, Rierdan & Koff (1997) implied that psychological variables of body image were more likely to contribute to the development of eating disorders and depression, not the biological factor of body fat, validating the findings explained by Pesa, Syre and Jones (2000). Taken together, Rierdan and Koff (1997) acknowledged that many factors should be considered when seeking to identify the predictors of body dissatisfaction. They recognize that biological, psychological and socio-cultural factors must be considered to accurately explain body dissatisfaction among adolescent girls, and by extension, illuminate possibilities that may underpin girls' prolific use of social media.

#### 2.2 Social Comparison

# 2.2.1 Social comparison theory

In general, social comparison theory dictates that individuals possess a drive to gain accurate self evaluations (Festinger, 1954). The theory contends that individuals evaluate their own opinions and attributes, by comparing themselves to others. Comparisons are usually made to similar, attractive others, and are a means of determining social and self-worth. In recent times, social comparisons are also believed to foster self-explorations and help to establish identity among adolescents.

For adolescent girls, especially, it appears that peers and friends are more significant transmitters of socio-cultural standards than the media. Sands and Wardle (2003) found

media exposure to play a non-significant part in the development of body dissatisfaction. They attributed this result to the lack of personal significance when interacting with media images. They contended that girls may attach more personal significance to achieving thin ideal in the presence of significant others, than when confronted with images of women with no personal significance.

Krayer, Ingledew and Iphofen (2008) identified peers to play a significant role in understanding and making sense of media images, as well as serving as comparison targets themselves. Similar findings were explicated in Jones (2001) who discovered that although same sex peers and celebrity/models served as comparison targets for physical attributes, comparisons on personal or social attributes were more directed towards same sex peers. Nevertheless, Jones (2001) advocated that comparisons to either target resulted in more negative body image for girls and boys. Jones' (2001) findings showed that girls engage more frequently in social comparisons, results highlighting a greater percentage of variance in body dissatisfaction recognized by social comparison. She therefore implied that girls are entrenched in a more negative mindset whether they look to the media or to their peers in their daily lives.

In contrast, Krayer et al. (2008) discovered that only a few individuals engaged in physical comparisons to peers. Interestingly, these authors found that most adolescents also turned to friends and peers to shield and protect them from making comparisons to media ideals, and thus, cushioning any negative effects. Likewise, Wertheim, Paxton and Schutz (1997) argued the impact of friends and peers could be supportive, in that friends could dissuade others from engaging in social comparisons, and subsequent weight control and dieting efforts. Girls also described close friendship groups as safe places to discuss body issues, and peer influences were also found to encourage body acceptance and healthy choices about eating (Wertheim, Paxton, Schutz & Muir, 1997). Wertheim et al. (1997) also forewarned that despite fostering

support and group affiliation, engaging in body and "fat talk" with friends increases the potential for self-evaluations to take place in response to others' admissions. They also argued the coincidence of thinness standards finding reinforcement within friendship groups is highly probable (Wertheim, Paxton & Schutz & Muir, 1997 & Krayer, Ingledew & Iphofen, 2008).

Lastly, Krayer and associates (2008) found that girls who tended to make more evaluative comparisons to media ideals did so at a time when their mood and confidence was low. In accordance with the studies above, participants who expressed a greater focus on physical attributes and regarded attractiveness standards as significant, declared more negative feelings when comparing themselves to media and peer others. Similarly, respondents who seemed to struggle with peer acceptance, experienced greater negative outcomes.

Once again, friends and peers emerged as popular comparisons targets and sources of distress for girls (Jones, 2001). To this end, Krayer et al. (2008) validated this assumption with friend opinions often being sought in reference of what to do when encountering sociocultural ideals. Internalization of media ideals was found to be more significant when attractiveness standards were transmitted by parents, friends and peers as opposed to traditional media channels. It appears from the studies reviewed here, that an awareness of societal standards also precedes social comparisons with researchers suggesting that an awareness of ideals or idyllic peers informs the comparison motivation instead (Hargreaves & Tiggemann, 2004 & Krayer et al., 2008).

Consistent with the general hypotheses, most studies found that girls typically invoked a self- evaluative or self-improvement comparison whilst viewing media images. This commonly resulted in girls experiencing negative mood, lower self-esteem and body dissatisfaction (Cattarin, Thompson, Thomas & Williams, 2000, Hargreaves & Tiggemann,

2004, Tiggemann & Slater, 2004 & Krayer, Ingledew & Iphofen, 2008) Contrary findings revealed that girls also employed self-enhancement comparisons which served to protect themselves against any negative mood or appearance distress (Krayer et al., 2008 & Eyal & Te'eni-Harari, 2013). Accounts for these differences in comparison motivation outline the potential for individual characteristics to confound media effects and their relationship with body image, a possibility that may occur in social media environments.

From these discoveries, it is clear to see that social comparison presents a valid mechanism for the transmission of media effects and body related concerns. Possible explanations seek to reinstate Cusumano and Thompson's (1997) supposition that media's bombardment of ideal images depicting extremely thin figures for the better part of a decade, has fostered a desensitization among adult women (Posavac, Posavac & Posavac, 1998), a trickle-down effect now reaching the younger female generation, with girls now attributing their body image issues to attractive others as opposed to idealized model bodies.

Another intriguing prospect is the potential impact intrapersonal characteristics have on how one interacts and appraises sociocultural information and standards. Krayer and partners (2008) supported this notion advocating that individual characteristics could determine why different comparison appraisals are administered, and by extension why some individuals are more susceptible to sociocultural effects than others.

#### 2.3 Social Physique Anxiety

An important consideration when appraising the potential influences of adolescent female body image is Social Physique Anxiety (SPA). Specifically, it considers that the consequences of the changing body may leave one vulnerable as they come to terms with the disparity between their physical self and the socially accepted figure. Moreover, Dacey and

Kenny (1994) extended that the heightened awareness to these discrepancies are exacerbated as young girls confront their social context, and the prospect of having their bodies perceived and evaluated by others (Dacey & Kenny, 1998). It is suggested that a combination of these factors cause teenage girls to experience high levels of social anxiety. First proposed by Hart, Leary and Rejeski (1989), SPA is a type of social anxiety that occurs as a result of the prospect or presence of interpersonal evaluation involving one's physique (Hart, Leary & Rejeski, 1989 as cited in). SPA has often been linked to all domains of body image. Cognitive body image which details the discrepancies between one's current physical state and an ideal or their desired state, which tend to result in internalizing ideals represented in the media. The affective body image domain refers to the emotional experiences of one's cognitive evaluations and the internalized standards of attractiveness in specific contexts, the media and social contexts predominantly (Cash & Pruzinsky, 2002). Body related affect typically involves measures of emotional consequences such as anxiety or shame. Thirdly, behavioural body image concerns the actions that occur in reaction to appearance and body perceptions. As mentioned by Cash (1994), behavioural consequences may observe one seeking to manage and enhance their physical characteristics.

Historically, SPA has been attributed to health-related variables, such as sport participation, avoidance and dietary restraint. The study by Sabiston and Chandler (2010) found that after viewing model-focused fitness advertising, female participants experienced heightened levels of SPA. These participants appeared to elicit a cognitive response to the fitness models, and thus, inspired them to engage in more physical exercise. These findings appear similar to the findings of Frederick and Morrison (1996) who found participants with higher levels of SPA were more motivated to exercise and also reported more frequent exercise than those with lower levels of SPA.

Later studies have concentrated on whether individual difference variables may have an impact on the level of social physique anxiety experienced among adolescents. As previously discussed, adolescence is known as a time of great distress especially for girls, as they come to terms with their changing physique and social context. It is commonly associated that within these changes, one's emotionality and perception of self presents significant challenge to one's self esteem. As mentioned, low self-esteem is known to be considerable predictor of body image disturbance in young girls (Davison & McCabe, 2006). The study by Brunet and partners (2010) explored whether the level of self-esteem may lead to increased levels of social physique anxiety, which in turn, would influence the drive for thinness in adolescent girls.

The results found that girls with lower self-esteem correspondingly experienced higher SPA. A higher SPA among girls was also linked to a greater drive for thinness. Interestingly, although more common in the male cohort of the study, it was found that a higher level of self-esteem corresponded to a lower level of SPA experienced. This finding also dignifies that possibility that individual differences in variables such as self-esteem can influence the degree one experiences negative body outcomes.

A separate study by Hagger and colleagues (2011) aimed to distinguish whether the differences in the physical self-concept would produce varying effects on one's level of social physique anxiety in relation to health related physical activity. It was anticipated that those with a higher physical self-concept (one's global view of their physical self) will be more willing to participate in physical activity, as they view it as a means to further experience and exercise their competence. On the other hand, it was hypothesized that individuals with high levels of social physique anxiety may be motivated to avoid situations in where aspects of physical competence like appearance are considered to be under evaluation by others.

The study subsequently found that physical self-concept was positively correlated to physical activity and social physique anxiety was negatively correlated to physical activity. Hagger and associates (2011) also revealed that due to physical activity involving the presentation of the physique within evaluative environments, therefore, a positive view of the self in physical contexts could be a driving force behind this behaviour and their need to further their competence (Hagger, Hein & Chatzisarantis, 2011).

Hagger and associates (2011) also found that social physique anxiety did not have any effect on physical activity behaviours in their model. Hagger and colleagues (2011) attributed this lack of result to the dominance of the self-concept in the association. The authors suggest that possibly the self-concept takes priority regarding concerns about the presentation of the physique when it comes to participating in physical activity. In other words, girls with higher self-concept put a greater focus in mastering the physical challenge than worrying about how they appear.

Collectively, the study concluded that SPA was unrelated to mastery approach goals, however was positively associated with avoidance goals, a finding in congruence with earlier reports.

Similar reports have also stated that young girls suffering high levels of SPA also take a number of approaches in reducing their anxiety. The qualitative study conducted by Sabiston and associates (2007) examined teenage SPA experiences and what coping strategies they employed to alleviate their negative perceptions. Using the coping-motivational-relational (CMR) framework pioneered by Lazarus (1999), they proposed that adolescent girls follow a similar pathway in dealing with negative body issues. The model outlines that the convergence of personal and environmental variables directly influence the meaning one

constructs, the perceived threat of the situation, and the way one deals with the situation (Sabiston, Sedgwick, Crocker, Kowalski & Mack, 2007).

The authors assumed that participants would engage in three types of coping styles, most informing either a cognitive or behavioural approach. The first considered an active coping style which involves problem solving and looking at ways to change their situation, appraisal, and their emotional reactions. Secondly, accommodative coping concerns one's effort at managing the situation and includes strategies such as acceptance, cognitive restructuring and distraction. Lastly and most expected of adolescents is avoidance coping. Observed in the above studies, this approach encompasses efforts to disengage cognitively and behaviourally from the source of stress, cognitive appraisal and emotions (Sabiston et al., 2007).

Within this study, female participants also listed a variety of other social contexts in which they felt insecure about their physiques. These included swimming pools, shopping malls and other school environments like the locker rooms, gym class and school dances. Other strong sources of distress were one's peer group and even opposite sex peers, the influence of mothers and the media.

The study submitted an analysis of the various coping styles used by participants. Among the cognitive strategies, girls most regularly in reappraisal, rationalizing their thoughts, journaling their experiences and persuading themselves to think positively. Resembling other findings, participants also engaged in cognitive avoidance, diverting their thoughts, deliberating ignoring the comments of others, and purposeful forgetting.

Interestingly, the behavioural strategies showed that most participants engaged in appearance management to cope with their SPA. This was found to consist of enhancements to their physical appearance, through the use of hair dye, makeup, revealing clothing and the use of high name brands and fashion accessories (Sabiston et al., 2007). The study also provides

brief insight into the mechanisms of SPA and how they are used online. A few participants also reported that the online environment is useful for hiding and avoiding social situations. Participants however expressed that these measures were a "quick fix" and a way to avoid negative feelings about themselves and escape the negative perceptions of others.

This study is particularly poignant as it corroborates not only the environments and contexts of concerns to adolescents, but also identifies the psychological underpinnings of SPA, corroborating once again the impact of peers, and threats of social comparison. It is of interest to the present study as it also illuminates the strategies young girls are employing to alleviate their appearance anxieties, strategies that may also be utilised in online environments.

### 2.4 Self-Concept Clarity

### 2.4.1 The Self-Concept

Self-concept is best conceptualized by Gecas (1982) who described the self-concept as an organized structure containing various identities and attributes, and their evaluations, developed from an individual's reflexive, social, and symbolic activities. The self-concept functions to make sense of our experiences, focus attention on one's goals, and protect one's sense of self-worth (Oyserman, Elmore & Smith, 2012).

This cognitive component of the self-concept is believed to give one's "self" or particular identity stability. This is mainly obtained by the self-schemas one holds. Known to establish themselves in early childhood, and develop in complexity throughout adolescence, self-schemas are a long-standing and stable set of memories that encapsulate an individuals' beliefs, experiences, and generalizations about the self. Self-schemas are heavily influenced by past experiences, upbringing, society and culture, and inform our actions settings or environments (Crisp & Turner, 2012). The stability of one's self schemas or identities are

shaped by one's social relationships, with one's self-view or identity claim amended, based on the feedback received from others (DeLamater & Myers, 2011).

Furthermore, early scholars attributed that self-concepts also undergo significant self-evaluation where the one's schemas are viewed as objects for evaluation (Gecas, 1982). Best described by Campbell (1990), the evaluative component of the self-concept consists of one's opinions and evaluations of themselves. The evaluative self-concept is subjected to global self-evaluation where aspects of oneself are viewed as an attitude object and often reviewed in comparison to others (Campbell, 1990). Historical research has often assumed that this dynamic interaction contributes to the self-system always being in search of enhancement and improvement (Epstein, 1973, Marsh, 1986 & Oyserman, 2001). Due to this, many contemporary researchers have noted that an individual can have many self-concepts, and that these can differ in how they are structured, and exist with varying complexity. Oyserman and associates (2012) highlighted that the complexity and stability of one's self-concept is heavily influenced by which content domains and schemas are grouped together, as well as how positive and negative information is stored, and the level of self-esteem accompanying each conception.

The cognitive component of the self-concept has been routinely studied, with findings suggesting that it is particularly beneficial in adolescence. As young people seek to define a solid identity, they often draw on confident schemas derived from common content domains such as race, gender, age, weight and academic standing (Oyserman, Elmore & Smith, 2012). Similarly, Oyserman (2001) noted that drawing on familiar scripts allows one to quickly refute ideas or beliefs that conflict with their intrinsic standards and as such, are able to define themselves more efficiently through these realms. Self-concept researchers have also noted that the strength of one's self schemas contribute to a clarity of the self, and that this

level of clarity is beneficial in maintaining high levels of self-esteem and protecting one's self-worth (Campbell, 1990).

# 2.4.2 Self-concept clarity

Campbell and associates (1996) introduced self-concept clarity (SCC) to determine the extent to which individuals demonstrate a stable, coherent sense of self through resisting any conflicting information that may differ from their own self view (Markus & Kunda, 1986 & Campbell, Trapnell, Heine, Katz, Lavallee & Lehman, 1996). It is proposed that individual differences in self-concept may also predispose one to be more susceptible to media internalization, and exhibit a greater tendency to compare themselves to significant social and media others. Alternately, there have been inquiries into whether the stability of one's self-concept could serve as a protective factor against internalization of the thin ideal and also, appearance related social comparisons.

A (2007) study acknowledged that certain psychological traits may predispose individuals to emotionally react to idealized figures. They hypothesised that those who suffered from trait identity confusion or an uncertainty of self and diminished trait self-esteem would be associated with negative emotional reactions to idealized bodies (Cahill & Mussap, 2007). They found that women who displayed an unclear self-concept experienced greater depressive symptoms and eating aversions following exposure to thin ideal imagery. Secondly, they admitted that unstable self evaluations made by women following exposure to ultra slender prototypes, resulted in women engaging in disordered eating practices (Cahill & Mussap, 2007).

Trait self-esteem was also highlighted as a mediator in the relationship between state depression, a drive for thinness, and eating disorder symptomology (Cahill & Mussap, 2007). Self-esteem has been recognised as a mediating force in regards to its association with body

dissatisfaction, as well as a determinant of internalization of societal attractiveness standards (Abell & Richards, 1996 & Vartanian, 2009), however it's concomitance with self-concept clarity may help to explain the findings demarcated here. Campbell and Lavallee (1993) found that self-concept clarity and self-esteem share a convergent association meaning that both constructs inform each other and will exhibit equitable levels when examined.

Cahill and Mussap (2007) highlighted that self-esteem reflects an individual's self-evaluation, which suggested that individuals with low self-esteem and corresponding weaker self-concepts, attempted to increase their self-worth through striving to attain ideal beauty standards, in an effort to gain social acceptance. Stice (1994) also demonstrated support for this claim with his finding that low self-esteem and an uncertain self-concept increase the likelihood of internalization of both social and media pressures. A recent study by Vartanian and colleagues (2016) similarly corroborated that low self-concept clarity individuals may be more at risk of internalizing thin ideal imagery to define the self, and consequently suffer body dissatisfaction.

A (2013) study also reported that a lower self-concept clarity might also contribute to body image problems in young women. Vartanian and Dey's (2013) study attempted to clarify the associations among SCC, thin ideal internalization, appearance comparison tendency and how these constructs in turn predict body issues in young women. Building upon previous findings, Vartanian and Dey (2013) also examined whether SCC would affect the extent to which participants internalized societal beauty standards, and the degree to which they exhibited appearance related social comparison tendencies.

They found continuity with the previous findings that a lower self-concept clarity score will predict a higher internalization of media effects. They also established that low self-concept clarity women will be more likely to engage in appearance related social comparisons.

Furthermore, Vartanian and Dey (2013) found that women with low self-concept clarity will actively seek out external sources to help in defining their identity, a finding supported by earlier studies (Vartanian, 2009).

Although the studies by Vartanian (2009) established similar findings regarding the behaviours and tendencies pertaining to individuals with low self-concept clarity, it is the findings of Study 2 that are of the most interest to the present study.

The findings of study 2 highlighted that effects of SCC were mediated by a general tendency to conform. Twamley and Davis (1999) also highlighted that women who exhibited high SCC displayed a lower propensity to conform, or were generally nonconformist, and were less likely to internalize societal ideals. This finding gives more weight to claims of intrapersonal differences, and how these trait characteristics influence how one reacts to social cultural pressures. Vartanian's (2009) research findings also support the idea that individual trait characteristics like SCC, may serve as a buffer or protective factor against internalization of ideal beauty standards and subsequent negative body image outcomes.

A further study also indicated within their correlational analyses that a higher level of self-concept clarity was related to a lower frequency of general and upward comparisons (Butzer & Kuiper, 2006). They also identified self-concept clarity acts as mediator for both depression and social comparison motives, a finding in support to the suppositions made by Krayer and partners (2008) who anticipated the influences of individual difference characteristics in determining the type of comparison one makes in relation to a perceived target.

Conversely, the results of a (2003) study also demonstrated that psychological well-being factors like self-esteem could also present a barrier to adverse body outcomes in young girls. In their study, Neumark-Sztainer, Wall, Haines, Story, Sherwood and van den Berg (2007)

found that a higher level of self-esteem was protective against all problematic weight-related outcomes in girls. This of interest to the present theory given the strong association observed between self-esteem and self-concept clarity (Campbell & Lavallee, 1993).

#### 2.5 Social Media

Modern media technologies largely encompass the Internet and websites, with more recent additions being social media sites such as Facebook, Twitter, Instagram and Pinterest. These sites facilitate the rapid creation and sharing of user-produced content, as well as providing a swift interlink to other users on an array of different hand-held devices.

Early research has been quick to examine whether effects of traditional media could be replicated within social media. Like Perloff (2014), these studies conveyed that continued exposure to ideal bodies and physical features on social media sites, would highlight body inaccuracies; a dissatisfaction with weight, and a drive for thinness hypothesised as the likely results from these encounters.

Two primary studies identified that frequent use on social media sites corresponded to users experiencing greater weight dissatisfaction, internalization of the thin ideal and a drive for thinness (Tiggemann & Miller, 2010 & Tiggemann & Slater, 2013). Both studies found that girls spent between 1 and a half and 2 hours per day on social media sites. Both studies identified that the more time spent on Myspace and Facebook was associated with a greater drive for thinness. Moreover, time spent on Facebook also fostered greater thin ideal internalization, body surveillance, dieting and lower body esteem among female adolescents. Interestingly, Tiggemann and Miller (2010) found that the effect of Internet appearance exposure on drive for thinness was only partially mediated by internalization and appearance

comparison, specifically, they established a direct effect of Internet appearance exposure and drive for thinness.

Perloff (2014) distinguished that expressions for thinness and a heightened attention to physical appearance are more exacerbated on social media sites than traditional media. He contended that the affordances of current SNS enable users to illustrate and articulate themselves in their own fashion, using pictures, videos and text. In his review, he denoted that one's social media profile typically consisted of photos of themselves, their online friends, and also the inclusion of models or celebrities embodying thinness standards for inspiration. It was also impressed that social networking sites (SNS) are operative 24/7, meaning that new content, edits and views are occurring on any device, anywhere, at any time. Perloff (2014) expressed that these capacities are allowing significantly more opportunities for social comparisons, moreover, a detrimental surveillance of pictures of detested body parts are now commonplace, and in more prolific numbers now than were ever available within conventional mass media (Perloff, 2014).

Akin to Perloff's (2014) analysis, researchers attributed these effects to the accessibility of the Internet and the relative unsupervised access granted to young girls, especially those examined in Tiggemann and Slater's (2013) study. Tiggemann and Miller (2010) expanded that the Internet permits greater participation by the user, allowing them to control, find and share information of interest to them. Similarly, both studies highlighted that these features enable users access privately, and whenever they wish, increasing the propensity for engagement on appearance related websites, and the dangerous possibility of crossing paths with pages that celebrate and encourage eating disorders (Tiggemann & Miller & Tiggemann & Slater, 2013).

Perloff (2014) conjectured that the early studies examining social media effects on body image suffered from the typical limitations common within experimental media research, such as brief exposure conditions, short term effects, and most importantly, a casual overlook of the real-world contexts in which media influences occur. Perloff (2014) instigated that social media is a multifaceted phenomenon that cannot be fully understood through simple exposure procedures and orchestrated social comparisons with attractive peers (Ferguson, Munoz, Catreras & Velasquez, 2011 & Perloff, 2014). Similarly, he argued that research demonstrating correlations between Internet exposure and thin ideal internalization devalue the bi-directional nature of media influences, and also neglect the role that individual susceptibility characteristics play in the media effects process (Perloff, 2014).

The following studies support the inferences made by Perloff (2014). These articles demonstrated that the amount of social media information one engages with or attends to, is not always conducive to body image effects. A (2011) report revealed that the amount of media one is exposed to, regardless of medium (magazine, television, music video or the Internet) did not predict body and appearance dissatisfaction (Bell & Dittmar, 2011). They concluded that the presence of the body perfect ideal, not the way it is presented, incites momentary increases in body and appearance dissatisfaction, yet this effect was only evident among girls who identified with the model form. Bell and Dittmar (2011) further impressed that it is not the type of media exposure that is important in determining girls' susceptibility to negative body image, inferring that it is the extent of girls' identification with media ideals. Also in contrast, Meier and Gray (2014) found that a greater frequency of SNS use did not correlate with greater body image disturbance. Their paper explored how Facebook use may influence teenage girls' body image. Meier and Gray (2014) discovered that it wasn't the amount of time spent of Facebook that contributed to body image issues, rather they inferred that it was the amount of time dedicated to photo activity that was associated with greater thin

ideal internalization, self-objectification, and a drive for thinness (Meier & Gray, 2014).

Furthermore, Meier and Gray (2014) illuminated the prospect of a bidirectional relationship, citing that girls with high thin ideal internalization, and body dissatisfaction were compelled to interact more heavily with photo related applications on Facebook, and make more appearance comparisons than non-users. This finding shows support for the inferences made by Bell and Dittmar (2011), suggesting that one's identification with models may be due to an innate individual tendency to internalize or value societal standards, prior to exposure.

More poignantly, it was implied that rigorous appearance-related activity acts to strengthen and exacerbate existing body image concerns (Meier & Gray, 2014).

More recent literature has supported Perloff's (2014) call for a more nuanced approach when examining social media. Current scholarship articulated the need to assess which social media activities induce negative body image outcomes, and through which mechanisms. It is also necessary to explore in which situations, and among which adolescents, the effects of SNS on body image may be most liable (De Vries, Peter, de Graaf & Nikken, 2016).

#### 2.5.1 Self-presentation and social media

Perloff (2014) highlighted the potential of social media outlets as avenues for self-disclosure and self-presentation. Social media capabilities also allow users to illustrate and articulate themselves in their own fashion, using photos, videos and text.

Self presentations typically involve individuals communicating information and images about themselves to others. It is widely acknowledged that people are motivated to maintain particular beliefs about themselves and as such, seek to please and validate themselves through the evaluations of others, and through their own self-knowledge (Baumeister & Hutton, 1987). Moreover, the theory by Goffman (1959) articulates that in the presence of others, individuals engage in ongoing, selective self presentations intended to control the

definition of the situation, and the impressions made on those present. Simply, self presentations are strategies employed by individuals to manage the impressions of others and their responses and a means to maintain control, by putting on a "face" (Goffman, 1959 & Mascheroni, Vincent & Jimenez, 2015).

Many researchers have attributed Goffman's (1959) analogy to SNS, depicting media outlets as the "face" of modern day adolescents. Scholars have revealed that when adolescents use SNS forums for self-definition, they tend to represent themselves in a highly selective fashion. Several studies have highlighted that teenager's representations online are marked by a series of self-images (Gabriel, 2014, Chua & Chang, 2015 & Mascheroni, Vincent & Jimenez, 2015). Photos are regarded by teenagers as an easy medium by which to convey their feelings, inspirations, and ideas of beauty (Chua & Chang, 2015). Moreover, photos are fast becoming one's social trademark and claims of identity, viewed and assessed by friends and others with profiles on the site.

The current tensions among the literature centre on the use of modern media technologies in helping users attain a highly stylised image. Similarly, other studies have established that the dictates of online profiles demand routine maintenance and updating, with girls often reporting daily usage figures to be 2 hours or more (Meier & Gray, 2014).

The study by Meier and Gray (2014) also emphasised that most of the SNS activity was on the production and posting of photos, and that such attention to visual representation on social media sites is causing greater thin ideal internalization, body consciousness and a drive for thinness (Meier & Gray, 2014).

Accompanying research indicates that the process of crafting online depictions will likely increase one's preoccupation with their appearance, ensuing a process of management, body consciousness, surveillance, and body shame. A (2012) report established that the more

adolescent girls observed images of body related content on their Facebook profile newsfeed, the more they endorsed modern beauty standards, prioritized appearance in their self-worth, and engaged in body surveillance and monitoring (Fandangos & Eggermont, 2012) Likewise, Stefanone and colleagues (2011) found that photo posting and sharing on Facebook was correlated to a greater emphasis in appearance for self-worth in young women. These authors extended that women who dedicated time and attention to publishing photos of themselves on Facebook, ranked external appearances highly in their sense of self (Stefanone, Lackaff & Rosen, 2011). Findings in a (2015) study also showed that the younger people became active on social media, and endorsed social networking activity as part of their lives, the more frequently they engaged in body surveillance online. (Manago, Ward, Lemm, Reed & Seabrook, 2015).

What also appears of crucial importance to female SNS users is the validation and attention received on social media sites upon posting new images. Manago and associates (2008) cited that physical attractive, and overtly sexual images on SNS garner more attention and affirmation through public comments, likes and shares. They therefore imposed that such knowledge may be employed by young women when they showcase attractive images on social media profiles, they may be seeking the same validation for their representation of current physical standards (Manago, Graham, Greenfield & Salimkhan, 2008).

Mascheroni and colleagues (2015) addressed the sexual double standard in their work. They constructed that girls are negotiating a fine line between appearing seductive, gaining likes and validation, yet still conveying a "good girl" image and gaining social legitimation from peers. References to gendered specific SNS activities were revealed with boys insisting that visual representations, photo posting and selfies was a feminine domain. Female reports indicated the pressure felt to remain "perfect" online, and often attributed more provocative pictures as the tools to becoming more popular and socially accepted by male peers and

female peers. Interestingly, girls also inferred that their chronic attention to photo editing and posting was necessary in order to preclude social exclusion and marginalization (Mascheroni, Vincent & Jimenez, 2015). Chua and Chang (2015) comparably suggested that girls' online self presentation attempts stem from a deeper desire to get to know themselves and self-define. They also suggested that the tools available on SNS to like or contribute an emotive response to an image are likely contributors to girls' continued pursuit of physical perfection, as well as tangible moderators of one's self esteem, insecurity and self-worth (Chua & Chang, 2015).

The studies explicated here collectively suggest that self presentations online are a source of great tension for young girls. Compelled by an innate desire to gain favourable impressions and represent oneself in a way that pleases their audience, SNS appear to be the appropriate channel to accomplish identity and broadcast self-defining moments. From the literature, Chua and Chang (2015) and Mascheroni and colleagues (2015) both argued that once teenagers establish themselves on social media sites, they may achieve their individual status, however they unknowingly become part of a larger community, intermingled with friends, peers and other unknown site users. Another pitfall of online presentations was the relentless production of photos that mirror societal attractiveness ideals, and girls' conformity to it.

Most alarming, were the revelations that not posting alluring or attractive pictures put one at risk of social exclusion (Mascheroni et al., 2015).

## 2.5.2 Self-concept and social media

Online self presentations have also been linked to the exploration of one's identity.

Typically regarded as an autonomous and fundamental process of development, it appears that SNS are becoming popular spaces for identity exploration (Vaulkenberg & Peter, 2008).

The allure of social networking sites for identity announcements incorporates a strong social and relational element, as well as the enhancement features and techniques offered by social media. Recent studies have contemplated that online self presentations provide a convenient and rapid way of attaining one's ideal self or identity. Markus and Nurius (1986) identified ideal selves as the version of ourselves we would most like to become. These ideal selves often include the successful self, the rich self, and the thin self, and are described as the cognitive manifestations of our enduring goals, aspirations, fears and threats.

Mehdizadeh (2010) argued that the ability to control identity statements are resulting in the creation of socially desirable identities. Furthermore, she argued that the cultivation of anonymous online worlds are contributing to a rise in narcissism and impression management among young social media consumers. Other researchers have recognised that the pursuit of online perfection is also contributing to a lack of self-knowledge among teenagers putting them at risk of realising their true self, an integral part of self-concept and motivation (Markus & Nurius, 1986 & Mehdizadeh, 2010).

In her (2010) work, Mehdizadeh examined the effects of narcissism and self-esteem on online social activity and their association with self-promotional content online. The results confirmed that narcissism was found to be correlated with more frequent and prolonged use of Facebook. Narcissistic participants were also found to favour photos instead of writing a short biography about themselves. Two further studies found similar effects for narcissistic participants and high impression managers, with their use of "show" versus "tell", surmising that the showcasing of photos may have helped to conceal narcissistic tendencies to garner more attention, likes, and further friendship connections (Collins & Stukas, 2008 & Zhao, Grasmuck & Martin, 2008). Participants with low self-esteem were also found to project more self-promotional content on their profiles, spent more time online, and had a greater number of logins per day. In accordance, main photos of participants found to have low self-

esteem were highly stylised and self-promoting, leading to the assumption that those with low self-esteem seek to mask their shyness and undesirable features in order to access their hoped-for possible selves.

Mehdizadeh (2010) also anticipated that self-promotional effects may be further enhanced in anonymous online worlds as opposed to nonymous ones. For her study, Mehdizadeh (2010) differentiated that sites like Facebook, represent a "nonymous" online environment where relationships are established through a virtual mutual agreement, through institutions, residence and communal friends. The strong possibility of offline friends being included in one's online social network places constraints on the freedom of an individual's identity claims, as the potential for comment, critique and exposure by friends and peers is more likely (Mehdizadeh, 2010). Similarly, Zhao, Grasmuck and Martin (2008) extended this knowledge claiming that nonymous SNS like Facebook do seem to make people more "realistic and honest", however like anonymous online environments in an effort to project a socially desirable image, users tended to "stretch the truth" (Zhao, Grasmuck & Martin, 2008).

Further consultations have revealed that self presentations online may be tactical and identity announcements are not reflective of the true self, rather the 'self' embedded in peer contexts. The study by Livingstone (2008) found through interviews with early adolescents that online self displays were tactical and there to be seen by peers and friends. Livingstone (2008) vehemently distinguishes that although, among younger teenagers, online presentations are elaborate and highly stylised, this doesn't infer any aspect of narcissism on the part of the user. It instead serves to satisfy the self, known to the peer group. The (1934) theory by Mead suggests that the twin aspects of self, the "I" and the "Me" are interchangeable, the "Me" is the more sociable, reliable and predictable self, with the "I" consisting of the purer form of self (Mead, 1934). Taking this logic, Livingstone (2008) suggested that true selves are never

really accessed within self displays, self-presentations are instead constrained by the norms and practices of the peer group, and secondly, by the technological affordances of social networking sites.

# 2.5.3 Social media and the peer context

With appearance emerging as a significant condition of peer acceptance on social media sites, it is necessary to evaluate social media use within peer contexts. SNS have been identified as significant portals for teenagers to socialize, keep up to date with happenings among friends, monitor peer norms, and build and extend a virtual community (Boyd, 2014 & Chua & Chang, 2015). Recent research has indicated that these affordances have cultivated an environment for peer comparison, endorsed the practice of appearance related feedback, facilitated more routine appearance related discussions within peer groups, and more pervasively, made physical attractiveness a condition of social acceptance.

Early research indicated that appearance related information is often disseminated within friendship and peer groups, with ideal figures, aspirations and anxieties, and weight control efforts often discussed (Krayer et al. 2008). Whilst one study suggested that friends may offer a protective advantage to the onslaught of negative body issues, an adjacent study acknowledged the potential for appearance media to become a routine feature of adolescent discussions through repeated mention by one or more group members (Wertheim et al., 1997) More recent scholarship demonstrated that social media displays elicit more appearance related feedback from peers, and that the more frequent use of SNS also impacted the degree of appearance focus in peer exchanges online (Meier & Gray, 2014 & De Vries, Peter, de Graff & Nikken, 2016). De Vries and associates (2016) found that SNS use predicted a more regular reception of peer appearance-related feedback. Conversely, peer appearance-related feedback did not predict body dissatisfaction.

The recent literature has dedicated much inquiry to the role of peers as comparison targets on social media profiles. Fardouly and Vartanian (2015) showed a small to moderate positive association between the frequency of Facebook use and negative body image, namely greater body dissatisfaction and a drive for thinness. In congruence with Perloff (2014), Fardouly & Vartanian (2015) found that the relationship between frequency of Facebook use and body image issues was mediated by appearance comparisons in general. Due to Facebook presenting plentiful opportunities to compare to a variety of targets, the study also examined the comparison frequency and direction varied by target groups. A secondary aim was to examine whether comparisons to these specific target groups mediated the relationship between Facebook usage and body image distresses (Fardouly & Vartanian, 2015). Results indicated that participants compared their online appearance most frequently to distant peers, just as often as to close friends and celebrities, yet compared themselves less to family members. With regards to the direction of comparisons, participants appraised their bodies as worse than celebrities, slightly worse than all peers (close friends and distant peers), and the same as family members. These results also formulate a consensus in that participants typically engaged in evaluative comparison motivations, with targets appearing to be significant sources of upward social comparisons. Furthermore, the researchers demonstrated that it was the frequency of comparisons to peers, that mediated the connection between Facebook usage and body image concerns (Fardouly & Vartanian, 2015).

# 2.5.4 Social Anxiety and Social Media

As peer feedback continues to persist as a strong predictor of tension and social comparison online, it is necessary to evaluate how social media impacts individuals who are more socially anxious both in themselves and regarding their appearance.

Earlier research demonstrated that individuals who suffer from SPA use the internet to hide away from the happenings in their civic environments (Sabiston et al., 2007). The current hypothesis supports this, claiming that high social anxiety individuals prefer the internet in facilitating their social interactions. As indicated by self-presentation theory, Leary (1983) described that in order to increase their perceived self-presentation efficacy, socially anxious individuals are more motivated to seek low-risk communicative encounters. Furthermore, Leary (1983) posited that to reduce perceived social risks within their self-presentation, more cautious individuals will restrict their self-presentation behaviours to situations that appear to be "relatively safe bets" and will convey self-images that carry little risk and won't jeopardize their images (Leary, 1983).

Applying this logic to their (2006) study, Caplan (2006) anticipated that highly anxious individuals will correspondingly have greater internet use. The results showed that social anxiety was a stronger predictor of problematic internet use than loneliness. Caplan's (2006) also contributed that due to these results, socially anxious people may develop a preference for online social interaction and self-presentation given the advances in internet technologies. A more recent study generated similar results however assessed social anxiety in relation to multitasking across various social media modalities. Becker, Alzahabi and Hopwood (2013) examined participants' overall media usage and media multitasking to assess which aspects of media use were associated with depression and social anxiety. The results revealed that multitasking on a variety of sites was predictive of higher social anxiety. It was also found that individuals who possessed neurotic or extraversion personality traits were more likely to experience social anxiety.

These findings further corroborate Perloff's (2014) initial suppositions of the dangers of social media, and the high rates of connectivity and accessibility to more than one site at a

time. They also suggest the possibility that social anxiety may increase because of media multitasking, but holds the potential to be source of media multitasking in future research (Becker, Alzahabi & Hopwood, 2013).

In accordance, a (2016) study has similarly suggested that overall social media use is also related to social anxiety. Woods and Scott (2016) found that greater social media use was related to greater social anxiety. Like Becker and associates (2013) these authors attributed participants' anxiety to potential neuroticism, initiating that those more neurotic in terms of their lives and appearance prefer to use social media to communicate. Woods and Scott (2016) also articulated that the relationship between social anxiety and social media use could be due to the emotional investment teenagers put into their social media sites, with anxiety at the prospect of isolation and exclusion when they are not connected to social media.

Taken together, it appears that both individual difference characteristics and body image concerns are greatly expressed online. The review has outlined the potential of individual characteristics in not only how they impact the perceptions and view of the adolescent body, but also how these individual differences in self-concept, and body related issues may be managed within online profiles.

# 2.6 The purpose of the present study

The purpose of the present study is to examine the relationship between self-concept, social media and body related issues. As outlined, current literature has yet to fully examine the impact of individual characteristics such as self-concept on how it may affect social media activity among young girls. The second component of this study seeks to examine whether the relationships between these constructs are evident in one's self-presentation on Instagram.

## 2.7 Research Questions

- 1. What is the relationship between self-concept and one's social media presentation?
- 2. What is the nature of the relationship between self-concept and social physique anxiety and the presentation of self on social media?
- **3.** What is the nature of the relationship between self-concept and social comparison and the presentation of self on social media?
- **4.** What is the effect of self-concept clarity in terms of its protective advantage to social media effects?

## 2.8 Hypotheses for the present study

The aim of this thesis is to explore the relationships between self-concept, self-esteem, social comparison, social physique anxiety and social media; and how these effects are represented in a teenager's online space through their selection of photos and comments.

Hypotheses one and two pertain to the strength of an individual's self-concept clarity predicting subsequent social physique and self-esteem outcomes.

**Hypothesis One:** Girls who exhibit high self-concept clarity will have low social physique anxiety outcomes (Hagger, Hein & Chatzisarantis, 2011)

Hypothesis Two: Girls who exhibit high self-concept clarity will also have high self-esteem (Campbell, 1990)

The following set of hypotheses concern the correlation between self-concept clarity and social comparison motivations

**Hypothesis three:** Girls who demonstrate a strong self-concept will make less social comparisons (Cahill & Mussap, 2007)

Hypothesis four: Girls who demonstrate a strong self-concept will invoke more self enhancement techniques (Krayer, Ingledew & Iphofen, 2008)

**Hypothesis five**: Girls who demonstrate a strong self-concept will invoke more self-deception comparisons (Zhao, Grasmuck & Martin, 2008)

The third set of hypotheses refer to an individual's self-concept clarity and how this will inform the nature of content portrayed on an individual's Instagram profile.

**Hypothesis six:** Girls with high self-concept clarity will exhibit more photo material showcasing their bodies (Vaulkenberg & Peter, 2008)

**Hypothesis seven:** Girls with high concept clarity will use more make up in their photos (Chua & Chang, 2015)

### 2.9 Method

### 2.9.1 Participants

The population of interest in this study was adolescent females. Girls between the ages of 14-18 years of age (16.45, SD=1.213) were recruited for this research. Rationale for including participants under the age of 15 years was discussed with the Massey University Human Ethics Committee: Northern and approval was obtained. As part of the inclusion criteria, participants also had to have an Instagram profile that had been active for at least 6 months, including regular daily use (30 minutes or more per day) prior to recruitment. This stipulation was to ensure enough data could be obtained during the content analysis phase.

#### 2.9.2 Measures

# Instagram Questionnaire

The Instagram questionnaire was included to gather information on participants

Instagram use and activity. The first section consisted of 12 questions, the first 6 questions

examined how frequently participants used Instagram features. Participants were asked to

answer the following question: "When on Instagram, how frequently do you? with the option

varying on each question. The options included in these questions were: post pictures, look at

friends/followers' pages, comment on friends/followers' photos, like friends/followers'

photos, change your profile picture, search celebrity or product pages (i.e. hair, makeup,

exercise/workout). Participants were asked to rate their answer on a 6-point scale ranging

from 1 being rarely to 6 being always.

The second set of six questions concerned what participants initially located or accessed whilst they were on Instagram. Participants were asked to respond to the following question: "When on Instagram, what do you usually locate or access?" in relation to the options given. In this questions the options consisted of: photos, friends/follower profiles, their own profile, hashtag or hashtag searches, celebrity profiles, or other. Participants who selected the other option were asked to give examples. Participants were once again asked to indicate their answer on a 6-point scale with responses ranging from 1-rarely to 6 being always.

## Open ended questions

Participants were asked to provide short answers to 8 interview questions pertaining to their experiences on Instagram. Questions consisted of: "Why did you choose to create an

Instagram account?" and "How do you choose which photos to put on Instagram?' and "How do you think your Instagram profile has influenced the way you feel about your body/appearance?" A thematic analysis will be used to examine this qualitative component. Thematic analysis is a qualitative method that identifies and analyses themes within the data. It also allows a rich and detailed description of small data sets and is therefore appropriate for interpreting participants experiences on Instagram (Braun & Clarke, 2006).

# Self Concept Clarity

The self-concept clarity scale (SCC) is a self-report measure which assesses the extent to which an individual has a well-defined, clear and stable sense of self. The scale includes such items as: "In general, I have a clear sense of who I am". Items are rated on a 5 point Likert scale (1=strongly disagree to 5=strongly agree). Higher scores on the scale indicate a greater and more coherent self-concept. Cronbach's alpha sits at a respectable .90 reliability coefficient (Vartanian, 2009).

### Self Esteem

The Rosenberg Self Esteem Scale (RSE) is the most widely used measure in examining self- esteem. Comprising of 10 items, the RSE assesses global self-esteem (e.g.: "On the whole. I am satisfied with myself"). Items are measured on a 5 point Likert scale ranging from 1 (not very true of me) to 5 (very true of me). Higher scores on the measure are suggestive of high self-esteem. Scores between 15 and 25 are of normal range, with scores lower than 15 indicative of low self-esteem. Alpha reliabilities for the RSE reflect decent coefficients with .72 to .90 recorded across several assessments (Robins, Hendin & Trzesniewski, 2001). Gray-Little and colleagues (1997) recommend the use of the RSE due to

its stability as a reliable and valid measure of global self-esteem (Gray-Little, Williams & Hancock, 1997).

# Social Comparison

The Iowa Netherlands Comparison Orientation scale (INCOM) is a self-report measure of social comparison. The scale consists of 11 items and assess how often people compare themselves with others ("I often compare myself with others with respect to what I have accomplished in life"). Items are arranged on a 5 point Likert scales and pertain to how much an individual agrees or disagrees with the statement, 1 (I disagree strongly) to 5 (I agree strongly). It is also stipulated that people with higher scores on the INCOM will have more comparison orientation behaviors than those with a lower score. Typical reliabilities for the INCOM scale are around .83 (Gibbons & Buunk, 1999).

# Social Physique Anxiety

The Social Physique Anxiety 7-Item scale (SPAS-7) was used to measure the degree of anxiety people felt experience when they evaluate their bodies (Hart, Leary & Rejeski, 1989). The 7-Item scale was chosen in this instance, for its brevity and validity in measuring social physique anxiety, as its predecessors experienced errors in scoring with the positively and negatively worded items (Scott, Burke, Joyner & Brand, 2004). The 7-Item scale was found to produce tight cross validity and factorial invariance across both genders (Motl & Conroy, 2001). The measure includes statements on a scale such as: "I wish I wasn't so uptight about my physique or figure". Respondents are asked to indicate whether the statement is 1(not characteristic of me) with options ranging to 5(extremely characteristic of me). In previous studies, the Social Physique Anxiety scale has demonstrated a respectable reliability over .70 (Motl & Conroy, 2001 & Saenz-Alvarez, Gonzalez-Cutre & Ferriz, 2013).

### Self Deception and Impression Management

To examine self-deception and impression management, the present study used the Balanced Inventory of Desirable Responding (BIDR). The self-deception subscale (SDE) is used to identify exaggerated claims of positive attributes, identifying one's overconfidence in their judgement or rationality (Paulhus, 1988). The self-deception scale encompasses 20 items and concentrates on how individuals identify with the statement, presented by indicating on a scale of 1 to 7, 1 being not true and 7 being very true, with 4 marking responses for somewhat true. The SDE claims a usual reliability of .67-.77. The impression management scale (IM) was developed on the assumption that some respondents tend to overrate their aptitude on a range of desirable behaviors, and subsequently tend to underreport undesirable ones. The scale is constructed to catch respondents in a conscious lie through statements that highlight obvious behaviors ("I always pick up my litter"). Cronbach's alpha for the IM scale sits proudly at .77-.85. Furthermore, when all items are summed, Cronbach's alpha for the 40 item Socially Desirable Responding scale is .83 (Paulhus, 1988). The scoring key for both measures is balanced. Both scales have negatively keyed items as they are both attempting to indicate socially desirable respondents. On both scales, one point is added for every "6" and every "7". For the SDE scale, one point is added for every 5, and on the IM scale one point is added for every 4 or 5. Total scores therefore can range from 0 to 20. This type of scoring ensures that high scores are only obtained by subject's who give exaggerated and socially desirable responses (Paulhus, 1991).

### 2.9.3 Procedure

Participants were enlisted through a snowball sampling technique online through advertisements and a study information page created for both Instagram and Facebook.

Facebook and Instagram were appropriate platforms to advertise as they account for 85% of

daily social media use among students under the age of 24 and report a larger percentage of female users (54%) than male users (46%) (Pelea, 2015). Snowball sampling is an advantageous method in this study as it advocates the use of social networking as a means of association and the location of a specific population. Referrals made by mutual association also encourage online friends and acquaintances, building a strong reputation thus, increasing the number of participants (Morgan, 2008).

The online pages were updated daily with details of the study and invitations to participate circulated to the target population. Participant information sheets regarding the specific recruitment criteria details, free support networks such as Youthline and Netsafe NZ, and specifications for participation were uploaded to the adjacent Facebook and Instagram pages. Additionally, images relating to body image concerns, self-esteem, self-confidence, body weight and body/appearance concealment were overlaid with captions and status updates inspired by popular hashtags used to characterize photo content within the teenage population. Hashtags allow photo and video content to be organized and categorized aiding in the process of content discovery and the optimization of a profile (Sprung, 2013).

An initial Internet search of popular hashtags identified the top 25 hashtags. Top hashtags like #girl, #selfie, #follow4 follow, and #instagood were used to gain followers on Instagram and the project was categorized under the hashtag: #thechangingfacesstudy. This made the project locatable on Instagram and Facebook and could be found interchangeably on either site.

GramFeed is an Instagram search engine enabling users to browse for relatable content, source photo and video content taken from a location, or to search other Instagram users.

Prospective participants were located using this engine with search filters refined to detect female Instagram users who were within the target demographic. These users were

approached through the Instagram study page through a mutual like on their photo in return for a #follow on the study page. Interested individuals would then be able to source information about the study as a follower of the study page on Instagram.

Participants were directed to the survey via an online link posted on the Instagram and Facebook advertisement pages. They were encouraged to read the information sheet which included the obligations of the study, specifically, the inclusion of their Instagram account name for the purpose of review for the content analysis phase (see appendices). Participation in the study was voluntary, with the opportunity to withdraw available before the submission of the questionnaire. Participants who agreed to these conditions and completed the online consent forms were invited to partake in the survey (see appendices). Those participants who did not agree to the study terms were asked not to participate further.

Respondents completed questionnaires assessing self-concept clarity, social comparison orientation, social physique anxiety, self-esteem and self-deception. These measures were used to determine the strength of clarity about themselves, one's evaluative process when looking at their body, the extent to which they compared their bodies to others, their anxiety levels regarding these comparisons, and finally, their individual feelings about their body. Measures were included to evaluate the inconsistencies within participant statements and to detect social desirability in two distinct forms: impression management and self-deception. After the survey phase, participants were thanked for their time and asked if they would like to enter a prize draw to win a \$50 Itunes gift card. Those who expressed interest in entering were asked to provide an email address for contact following the result of the draw.

Following the commencement of the study, participants were randomly selected for the content analysis phase. A random sampling method ensures that the selection is fair and removes the potential for researcher bias (Gravetter & Forzano, 2011). In this case, the random sample selection for the content analysis phase was aided by Excel. Content analyses on social media profiles have witnessed a recent surge in popularity due to the various personal revelations displayed daily by SNS users. Further, Egan and Moreno (2011) highlight Facebook as a justifiable source for content analysis due to its capabilities in permitting the viewer to see body revelations, but also consents one to view the frequency of appearance related disclosures that the profile owner elects to display (Egan & Moreno, 2011).

### 2.9.4 Codebook construction

A codebook was constructed to assess the prevalence of photos and captions, likes, hashtag use and follower comments that disclose or reference feelings regarding the body. Instagram is a photo-sharing website with status updates and disclosures of behavior or feelings concealed within photographs and captions with limited text space. Therefore, an emphasis on photo structure, angle and position were considered regarding the display of the body, a focus on certain body or facial characteristics, body parts or poses readily adopted. Appearance features were also assessed. Makeup and clothing made considerable mention in the literature as means of enhancing photos and gaining more social recognition. A general interest search on Instagram similarly indicated that makeup, clothing and celebrities were readily adopted or referred to in hashtags as credits to the look portrayed. Alternatively, it has also been expressed that makeup and clothing is also used on social media for reasons other than accentuating one's features and receiving likes. The findings by Sabiston and colleagues

(2007) suggested that teenagers use make-up and clothes as strategies to conceal their anxiety.

Categories were then formed on the basis of this search. The subject's positon in the photo, the structure of the photo, the features displayed, the subject's use of make-up and clothing and celebrity endorsement or references were all examined. Furthermore, photo reception was also assessed, the number of likes given to a single photo were recorded to gauge if different subject matters (e.g. a body shot versus a clothed picture) would yield more support than others. Subsequently, appearance related comments or feedback upon one's appearance in the photo by friends or other online acquaintances were counted and recorded. Use of hashtags to describe or characterize one's photo were also recorded (see appendices). Codebook categories were then assigned numerical values informing a scale from 1 to 4.1 corresponded to the least degree of exposure in the photo, with 3 pertaining to the most exposure. The number of hearts received on each photo and hashtags used were counted and recorded. For ease of analysis, follower comments were appraised on inspection of the photo and assigned a numerical value pertaining to whether most comments were positive, neutral or negative. Numerical values of (1) were given if the comments were positive or neutral, with negative comments receiving a (2). The use of hashtags were marked with a (1) corresponding to yes and a (2) indicating no hashtags were used. Number of hashtags used were recorded. (see appendices).

### 3.0 Analyses

The data in this study was analysed using IBM SPSS for Windows, version 22.0.

Descriptive statistics were calculated (means, standard deviations, kurtosis) for the Instagram

questionnaire. Means and standard deviations for the Instagram frequency of use, and the Instagram activity questionnaires were conducted separately.

Means and standard deviations were also conducted on individual participant scores across the codebook categories. There was a lack of evidence for the use of hashtags and hashtag numbers with the majority of participants not using any. The inclusion of this data would have yielded an average of the same value, and so it was decided to remove both items from the analysis. Descriptive statistics for the overall scores for the codebook categories were also conducted. The internal consistency of the codebook was established with the help of a research assistant. 90% comparativeness was reached on the final pilot test suggesting a high level of consistency of the results had been achieved.

Many of the survey scales included reverse coded items. Prior to conducting descriptive and reliability analyses. Self-concept clarity, social comparison, and the balanced inventory for desirable responding scales were all found to have reverse coded items. Using the instructions included prior to analysis, negatively or positively worded items and items marked with an asterix were recoded and numerical values exchanged using SPSS.

Reliability analyses were then conducted on all survey scales. Cronbach's alpha was used to assess reliability on each scale. It was also selected due to its ability to identify and delete items that were impacting on the level of consistency in the scales. Two items in the BIDR IM were negatively worded and thus were decreasing the level of consistency. Items 22 and 34 were subsequently removed and the analyses were administered again. Reliability analyses were then included in the descriptive statistics for the raw and average scores of participants across all survey measures (SCC, SCO, BIDR, BIDR SDE, BIDR IM and SPA).

To examine the findings of the Instagram questionnaire further, the distribution of scores for both Instagram frequency of use and the features most commonly accessed were conducted. The level of skewness was graphed to show where the bulk of participants scores lay, giving an indication as to what features most teenage girls readily engaged with or accessed.

Correlational analyses were conducted using the Pearson product moment correlation coefficient. This was used to measure the strength of an association between two quantitative variables and to determine the size of the relationship. With the exception of hashtags and hashtag use, all other variables were correlated with each other to clarify relationships.

### 3.1 Results

## 3.1.1 Descriptive Statistics

**Table 1**. Average scores of the 12 participants across all survey measures

Scales	N	Mean	Standard Deviation	Kurtosis	Cronbach's alpha
Rosenberg Self Esteem Scale	12	20.66	4.206	1.232	.830
Social Comparison Orientation	12	38.25	6.340	1.232	.830
Social Comparison Abilities subscale	12	20.25	4.158	1.232	.822
Social Comparison Opinions subscale	12	18.00	2.730	1.232	.511
Balanced Inventory of Desirable Responding Scale	12	10.00	4.824	1.232	.739
BIDR Self Deception subscale	12	5.08	3.342	1.232	.714
BIDR Impression Management subscale	11	4.72	2.831	1.279	.672
Social Physique Anxiety 7 Item Scale	11	22.45	6.137	1.279	.823
Self Concept Clarity Scale	11	44.00	6.30	1.279	.788

Means and standard deviations are shown across all survey measures are explicated in Table 1. The mean score of the Rosenberg Self Esteem scale (20.66, SD=4.206) is slightly higher in the range of possible scores with the scale ranging from 0 to 30. The mean score however falls within the normal range for self-esteem (15 and 25). The mean score for the Balanced Inventory of Desirable Responding (10.00, SD=4.824) is towards the lower end of the range of scores, with the scale encompassing a range of scores from 0 to 40. The BIDR subscales both had mean scores (Self Deception, 5.08, SD=3.342 and Impression Management, (4.72, SD=2.831) sit on the lower end of the scale, with the range of scores for Self Deception between 0 and 20, and for the Impression Management scale 0 to 18. The Social Physique Anxiety Scale 7 Item scale generated a mean score (22.45, SD=6.137) which indicates that most girls expressed lower levels of social physique anxiety, with the range of possible scores of 7 to 49. The Social Comparison Orientation scale generated a mean score (38.25, SD=6.341) which sits a little higher than mid-range when considered next to the possible scores of 11 to 55 for this scale. The Self-Concept Clarity scale demonstrated a mean score (44.00, SD=6.309) which is higher on the scale with possible scores occurring between 12 and 60. This result shows that the female participants in this study have high self-concept clarity.

**Table 2.** Descriptive Statistics for Instagram frequency of use

Instagram Frequency of use	N	Mean	Standard Deviation	Kurtosis
Post pictures	12	3.58	1.564	-4.60
Look at friend's pages	12	4.83	1.115	-8.72
Comment on friend's photos	12	3.42	1.379	-8.28
Like friend's photos	12	5.50	.798	1.50
Change your profile picture	12	3.00	1.907	-1.698
Search celebrity or product pages	12	5.08	1.084	.676

use for looking at friend's pages established a mean score (4.83, SD=1.115) which demonstrates a score close to the top of the range, indicating that most participants use Instagram most frequently to look at friends' pages. Mean scores on the frequency of Instagram use in liking friends' photos (5.50, SD=.798) and the use of Instagram to search celebrities, and look at makeup, hair and body endorsements and product pages (5.08, SD=1.084) were also toward the top end of the range of possible scores. Mean scores for frequency of Instagram use for comments on friends' photos (3.42, SD=1.379) reflected a mid-range score. Mean scores for the time spent on Instagram that was dedicated to changing profile pictures (3.00, SD=1.907) lies in the middle of the range of scores. Overall, the mean scores showed that when on Instagram, participants most frequently looked at and liked friends' photos, searched celebrities and looked at makeup, hair and body endorsement or product pages.

**Table 3.** Descriptive Statistics for Instagram activity

Instagram Activity	N	Mean	Standard Deviation	Kurtosis
Photos	12	4.33	1.557	6.02
Friends profiles	12	4.08	1.311	-9.72
Own profile	12	4.08	1.505	-1.463
Hashtags or hashtag searches	12	2.33	1.371	-5.12
Celebrities	12	3.25	1.913	-1.500
Other	4	3.75	1.893	2.615

Means and standard deviations for Instagram activity are shown in Table 3. Mean scores and standard deviations for Instagram activity pertaining to what participants usually located or accessed was also calculated. Mean scores for photos (4.33, SD=1.557) revealed a score on the higher end of potential scores, which ranged from 1 to 6. Friends profiles and participant's own profiles recorded the same mean scores (4.03) with standard deviations of

(SD=1.311) and (SD=1.505). Mean scores for hashtag use (2.33, SD=1.371) was the lowest mean score found. Mean scores for celebrities (3.25, SD=1.913) fell in the middle of the range of possible scores. Mean scores were also accounted for possible answers outside the options provided. The category of other included only three responses which revealed a mean score (3.75, SD=1.893) approximately in the middle of the range of scores. Funny or motivational quotes, makeup and places to visit were listed as other searches participants engaged in whilst on Instagram.

### 3.1.2 Skewness

The following graphs (*see appendices*) show the distribution of scores/skewness on each of the questions for Instagram frequency of use. Considering the small number of participants in this study, the graphs are likely to exhibit exaggerated skewness.

Graph 1. displays a relatively normal distribution (-.356) with scores for posting pictures most frequently on Instagram to be evenly distributed across the range of possible scores. Graph 2. indicates a positive skew (-.560) showing that the majority of scores were towards the higher end of the range. Graph 3. also, shows a slight positive skew (.582) toward the higher range. Graph 4. signals a strong positive skew (-1.289) with the bulk of scores occurring towards the top end of the scale. Graph 5. exhibits a normal distribution (.283) with a slight positive skew which shows that the abundance of scores were close to the mean. Graph 6. resembles a leptokurtic distribution (-1.221) with most participant responses on the higher end of the range.

The second set of graphs show the skewness for each of the questions for Instagram features that are most commonly accessed by participants (*See appendices*). Graph 1a. demonstrates a negative skew (-1.188) which shows that participant responses were more inclined towards the lower end of the scale. Graph 2a. shows a normal distribution (-4.71) with participants

recording a varying degree of access to friend's profiles. Graph 3a. displays the access of their own profile exhibits a similar distribution (.024) showing an even dissemination of scores. Graph 4a. also shows that scores (.800) were bunched towards the lower end of the scale. Graph 5a indicates a normal distribution (.228) of scores across the range. Graph 6a. shows the bulk of scores (-1.659) gathered at the positive end of the range.

## Descriptive Statistics for participant scores across measures and codebook categories

Table 4. Total raw scores of participants across all measures

Participants	RSE	SCO	BIDR	BIDR	BIDR	SCCS	SPAS
			SDE	IM			
Participant1	17.00	29.00	11.00	8.00	19.00	53.00	7.00
Participant2	16.00	43.00	4.00	3.00	7.00	42.00	22.00
Participant3	23.00	33.00	.00	2.00	2.00	39.00	25.00
Participant4	21.00	47.00	2.00	5.00	7.00	39.00	28.00
Participant5	16.00	44.00	2.00	8.00	10.00	41.00	24.00
Participant6	21.00	35.00	7.00		7.00		-
Participant7	23.00	32.00	5.00	8.00	13.00	54.00	22.00
Participant8	28.00	43.00	5.00	8.00	13.00	44.00	16.00
Participant9	25.00	44.00	2.00	3.00	5.00	45.00	24.00
Participant10	25.00	40.00	10.00	6.00	16.00	51.00	27.00
Participant11	17.00	40.00	7.00	2.00	9.00	42.00	24.00
Participant12	16.00	29.00	6.00	6.00	12.00	34.00	28.00

Table 4. shows the raw scores of participants across all measures.

Table 5. Averages of participant scores for codebook categories

Participants	Positioning	Makeup	Features	Clothing	Likes	Comments
			shown			
Participant1	1.30	2.20	1.90	2.80	107.90	1.00
Participant2	1.30	2.20	2.40	2.90	240.30	1.00
Participant3	1.00	2.10	2.40	3.00	178.40	1.00
Participant4	1.50	1.00	2.40	2.30	142.40	1.00
Participant5	1.40	1.00	2.60	2.20	87.30	1.00
Participant6	1.20	2.00	1.90	3.00	15.80	1.00
Participant7	-	-	-	-	-	-
Participant8	1.60	1.80	2.40	3.00	50.40	1.00
Participant9	1.40	1.80	1.70	3.00	53.60	1.00
Participant10	1.00	1.00	1.30	2.30	75.77	1.00
Participant11	1.10	1.20	2.00	2.60	146.80	1.00
Participant12	1.00	1.00	1.25	2.25	11.20	1.00

Table 5. shows the averages of participants scores for all the codebook categories.

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Table 6. Averages	of overall	scores for	codebook	categories

Codebook Categories	N	Mean	Standard Deviation	Kurtosis
Positioning	11	1.254	.2114	1.279
Makeup	11	1.572	.5293	1.279
Features shown	11	2.022	.4644	1.279
Clothing	11	2.668	.3437	1.279
Likes	11	100.89	70.858	1.279
Comments	11	1.00	0.000	-

The codebook was validated and tested for reliability with the aid of a research assistant. Initial reliability tests indicated that researchers and assistant were 60% comparative. Seeking to improve this, further inspection of the codebook revealed that the positioning, photo composition and physical features categories were the most disparate. These categories included too many items and encompassed far more photo configuration possibilities than were being utilized within the profiles. It was also agreed that the two photo structure categories could be refined to one encompassing the subject's placement in the photo; either being close-up or far away. It was deemed that the distance between the camera and the subject could convey the confidence of the person and, that angling and positioning of the photo could be better determined by the number of physical features shown, this a more indicative sign of potential body concealment than positioning.

It was also decided to refine the possibilities for the physical features that could be shown. Preliminary codes included specific body parts such as legs, torso, arms and back as independent features that may be showcased. Discussions with the research assistant noted that the specificity of some items presented issues when a section of the body including the one item was displayed. The initial pilot study revealed that women's photos rarely included references to singular body parts, in particular, arms, legs, and back. Furthermore, disputes about what constituted a full body image also found inconsistencies, with photos

incorporating half the legs being appraised as a full body. It was subsequently decided that body shots including the majority of the legs, or to the knee, were counted as a full body image. The physical features category was thus refined to include: face (1) face and arms and face and torso (2) and full body (3). Subsequently, a second analysis was conducted. Five profiles were sourced from GramFeed using the hashtag #gorgeous. The first five photos were once again examined under each category. In this analysis, the codes demonstrated 90% comparativeness. The final codebook consisted of 8 categories: positioning, use of makeup, physical features shown, amount of clothing, likes, follower comments, hashtag use and number of hashtags (see appendices).

Table 6. shows the overall averages of participant scores from the codebook. Average scores for positioning (1.254, SD=.2114) show that participants used more close-up shots than shots taken further away. The average score for the use of makeup in photos (1.572, SD=.5293) was in the middle of the possible range of scores indicating that participants used makeup in their photos, however the degree to which it was used was light. Scores for features shown (2.022, SD=.4644) revealed that participants were more comfortable showing more of their bodies with the average indicating that participants typically showcased features from their head to their torso. Average scores for clothing (2.688, SD=.3437) showed that participants appeared in full outfits than in bikinis. The mean scores (100.89, SD=70.858) for the number of likes showed that girls in this sample were widely popular and had a strong social network. Mean scores (1.00, SD=0.000) for the type of comments received on photos show that girls in this study only received positive or neutral comments.

## 3.1.3 Correlational analyses

The bivariate correlations displayed in Table 7. show the correlation coefficients for each of the variables in this study.

Table 7. Table of correlations

		SCO tot	BIDR SDE tot	BIDR tot	Self-Con tot	SPA Stot	imtot2	makeup	Features shown	clothing	likes
SCO tot	Pearson Correlation	1	421	-342	200	.311	233	404	.435	161	.140
	Sig. (2-tailed)		.172	.277	.555	.352	.490	.246	.209	.656	.699
	N	12	12	12	11	11	11	10	10	10	10
BIDR SDE tot	Pearson Correlation	421	1	.817**	.565	470	.376	.040	585	089	295
	Sig. (2-tailed)	.172		.001	.070	.144	.254	.912	.076	.807	.407
	N	12	12	12	11	11	11	10	10	10	10
BIDR tot	Pearson Correlation	342	.817**	1	.610*	546	.753**	118	367	306	274
	Sig. (2-tailed)	.277	.001		.046	.082	.007	.746	.297	.390	.444
	N	12	12	12	11	11	11	10	10	10	10
Self-Con tot	Pearson Correlation	200	.565	.610*	1	550	.437	.381	186	.259	.016
	Sig. (2-tailed)	.555	.070	.046		.080.	.179	.312	.632	.501	.966
	N	11	11	11	11	11	11	9	9	9	9
SPAS tot	Pearson Correlation	.311	470	546	550	1	355	703*	171	501	.005
	Sig. (2-tailed)	.352	.144	.082	.080		.285	.035	.661	.170	.989
	N	11	11	11	11	11	11	9	9	9	9
imtot2	Pearson Correlation	233	.376	.753**	.437	355	1	101	063	262	645
	Sig. (2-tailed)	.490	.254	.007	.179	.285		.796	.872	.495	.061
	N	11	11	11	11	11	11	9	9	9	9
makeup	Pearson Correlation	404	.040	118	.381	703*	101	1	.173	.914**	.041
	Sig. (2-tailed)	.246	.912	.746	.312	.035	.796		.633	.000	.911
	N	10	10	10	9	9	9	10	10	10	10
Features shown	Pearson Correlation	.435	585	367	186	171	063	.173	1	.173	.516
	Sig. (2-tailed)	.209	.076	.297	.632	.661	.872	.633		.633	.126
	N	10	10	10	9	9	9	10	10	10	10
clothing	Pearson Correlation	161	089	306	.259	501	262	.914**	.173	1	014
	Sig. (2-tailed)	.656	.807	.390	.501	.170	.495	.000	.633		.969
	N	10	10	10	9	9	9	10	10	10	10
likes	Pearson Correlation	.140	295	-274	.016	.005	645	.041	.516	014	1
	Sig. (2-tailed)	.699	.407	.444	.966	.989	.061	.911	.126	.969	
	N	10	10	10	9	9	9	10	10	10	10

The sample size of the study largely inhibits the possibility for statistical significance among these correlations. Correlation results are however encouraging as they do indicate that a number of relationships are trending with correlations approaching significance, especially within the self-concept clarity variable. Results are discussed in relation to the study's hypotheses.

Hypothesis One: Girls who exhibit high self-concept clarity will have low social physique anxiety outcomes (Hagger & Hein, 2011). The relationship between self-concept clarity and social physique anxiety (-.550, n=11, p<0.05) showed a strong negative correlation. These results provide tentative support for hypothesis one. It can be interpreted that the higher participants' self-concept clarity is, the less they will experience anxiety regarding their appearance, and, the less concerned they will be over the presentation of self in social media contexts.

Hypothesis Two: Girls who exhibit high self-concept clarity will also have high self-esteem (Campbell, 1990). The connection between self-concept clarity and self-esteem shows a reasonable correlation (.320, n=11, p<0.05). This finding provides encouragement for hypothesis two, as the results indicate that participants with high self-concept clarity were also high in self-esteem.

Hypothesis Three: Girls who demonstrate a strong self-concept will make less social comparisons (Cahill & Mussap, 2007). The association between self-concept clarity and social comparison (-.200, n=11, p<0.05) is statistically insignificant, however shows the correlation moving in a negative direction. This result generates support for this hypothesis, interpreting that participants with high self-concept clarity, exhibit a lesser tendency to compare themselves with others, and engage in less comparative type behaviors.

Hypothesis four: Girls who demonstrate a high self-concept will invoke more self enhancement techniques (Krayer, Ingledew & Iphofen, 2008). The link between self-concept clarity and impression management (.437, n=11, p<0.05) shows a moderate correlation. It can be speculated that girls' self-concept is highly influential in determining the

type of presentation decisions they make online. The observed relationship with impression management suggest that girls' own self confidence is further benefitted by the desire to maintain favorable impressions, which could result in a tendency to overplay themselves within their online portrayals.

Hypothesis five: Girls who demonstrate a strong self-concept will invoke more self-deceptive comparisons (Zhao, Grasmuck & Martin, 2008). Associations between self-concept clarity and self-deception (.565, n=11, p<0.05) and self-concept and social desirability (.610, n=11, p<0.05) found no significant correlations. The direction of these correlations contend that participants with high self-concept clarity in this sample, also have a tendency to give deceptive and socially desirable responses.

Hypothesis six: Girls with high self-concept clarity will exhibit more photo material showcasing their bodies (Vaulkenberg & Peter, 2008).

Several correlations were conducted to test this hypothesis. Table 5. shows the relationship between self-concept clarity and photo likes (0.16, n=9, p<0.05) to be a reasonable correlation. The association between features shown and photo likes (.516, n=10, p<0.05) also shows a moderate correlation. Similarly, the negative correlation between likes and clothing (-.014, n=10, p<0.05), suggests that photo likes may also be dependent on the amount of clothing worn in the photos. Taken together, these findings collectively suggest that participants with high self-concept clarity are more confident within themselves, and therefore are more comfortable appearing in their photos in varying degrees of clothing. The associations between physical features and photo likes can be interpreted that girls who showcase more physical features and the less clothes they wear in their profile pictures, are

more likely to receive more photo likes than girls who show less physical features in their photos.

Hypothesis seven: Girls with high concept clarity will use more make up in their photos (Chua & Chang, 2015).

The relationship between self-concept clarity and makeup (.381, n=9, p<0.05) was insignificant yet the direction of effects suggests the relationship is approaching significance. This finding also provisionally supports this hypothesis. These results infer that participants with high self-concept clarity care about their physical appearance, and will use more makeup to accentuate their physical features in their photos.

# 3.1.4 Qualitative analyses

The following thematic analysis was conducted on participants' responses to eight short answer questions. The aim was to identify what having a profile on Instagram represented for participants, and whether distinctions could be made between participants' survey answers and their responses to questions pertaining to their feelings about their Instagram profile.

Four themes were found in this analysis. These were: social unity, reciprocity, self-expression and lack of conformity/independence. Themes are discussed in depth below with participant quotes included in support.

### Social Unity

Instagram was often regarded as a means for establishing online bonds between friends in conjunction to the relationships they had already formed offline. This practice was often

reinforced through the sharing and dissemination of pictures, and was used to remind, reminisce, and strengthen friendships.

"To share photos with my friends" (Participant 2)

"To share my moments with others" (Participant 6)

"To share with friends and family what I get up to and my life goals" (Participant 10)

In a similar sense, Instagram was also viewed as means of inclusion and validation with several participants highlighting the importance of consulting friends before they uploaded an image.

"Whatever one gets the most approval from friends" (Participant 2)

"I ask friends for their opinions" (Participant 8)

Commenting on or liking one's photo displays was used not only to validate the quality of the picture, but also to extend support and reassure the subject of their bond. This was achieved through leaving positive or complimentary comments. Inside jokes were also mentioned as a way of reminding close friends of the moments they had shared at the time of the photo. Through engaging friends in inside jokes, it allowed them to stay connected and reaffirm their attachment to the subject, displacing comments from other less familiar followers and peers.

"We normally joke around, and have inside jokes in the comments" (Participant 12)

Within this, the minor theme of reciprocity developed. There was a strong understanding among participant responses that commenting and validating photo displays went both ways.

Responses often listed similar practices in leaving positive comments, compliments,

<sup>&</sup>quot;Best friends" (Participant 6)

<sup>&</sup>quot;Friendly, inside jokes" (Participant 8)

<sup>&</sup>quot;Funny or complimentary comments" (Participant 11)

expressing gratitude for their friendship in return. This lighthearted repartee is conveyed in the following responses.

"Just normally something to do with the photo they posted" (Participant 4)

"OMG that was so fun, you look so good, goals" (Participant 5)

"Love you, you're so cute" (Participant 2)

"I appreciate you and everything you do for me" or "thank-you for always being there for me, much love" (Participant 10)

"To make them feel good and acknowledge their post" (Participant 2)

"Something fun happened and I acknowledge that they were there" (Participant 12)

It appears certain that there is a social etiquette among friends that deflects any negative internal emotions or feelings. An expectation for saying nothing also emerges as a tactical response if one's opinion on the photo isn't favorable. This appeared to be a routine practice upheld by these participants as a few distinct responses delineate between saying something nice or positive, and saying nothing at all. Another clear reply by Participant 11 stresses that feedback to or from friends is never bad.

"Aww cute Jen, or nothing" (Participant 5)

"© Pretty" (Participant 7)

"That appreciate me or just thank me" (Participant 10)

"Positive, never bad, only if they're joking" (Participant 11)

### Self Expression

Self-expression was a consistent theme featuring throughout the questions. 50% of participants regularly referred to their Instagram as a way of expressing themselves and posting pictures they found attractive or interesting. There was a strong sense among these responses that posting pictures conveyed a sense of individuality, and a way to differentiate

themselves from their friends and peer group. A few participants also stipulated their photos were uploaded on the condition that they felt they looked attractive.

"Ones I like" (Participant 3)

"I choose the ones that are nice and special to me" (Participant 9)

"What photos I love the most!" (Participant 11)

"I just randomly pick the best one that I like" (Participant 1)

"I post basically what's on my mind and what catches my eye" (Participant 10)

"I don't think, I just do it" (Participant 12)

For several participants, Instagram was viewed as a platform for self-promotion. Several accounts recognized Instagram as a way of enhancing their appearance, and a way of showcasing themselves on a visual based social network.

"to post pictures for others to see" (Participant 1)

"to post pictures" (Participant 7)

"Because I'm a photogenic person" (Participant 10)

"To express myself" (Participant 11)

## Independence and Lack of Conformity

These ideas found further reinforcement under the theme of independence and lack of conformity. Indicative through 50% of participant responses, was a disregard for social connection and the bolstering of friend relationships, as the main intentions for creating an Instagram profile. There was a strong emphasis on self-promotion, posting pictures of themselves for the benefit of others, an evident lack of engagement on follower's profiles, and a nonchalance about responding to follower comments. A few participants directly reference this in their responses.

"I don't post any" (Participant 1)

"I don't really comment on friend's posts" (Participant 12)

"I don't post on my friend's pages" (Participant 1)

"I hardly do, unless I'm responding to their caption" (Participant 8)

A similar division was also observed when participants were asked how their Instagram profile influences how they feel about their body/appearance. Some responses regarded Instagram as a positive feature in their lives, and that having an Instagram profile has had a positive influence, boosting their self-esteem and enhancing their self-confidence.

"I think it makes me more confident" (Participant 2)

"It has slightly boosted my self-esteem" (Participant 8)

"I feel that it does make me feel more confident. If I post a photo by myself or in a bikini and I get quite a few likes, it makes me feel good about myself, only for a little while and then I get over it. It doesn't influence me too much" (Participant 5)

"It's helped me a lot by building up my confidence, and helped me to take risks" (Participant 10)

Two participants mentioned that Instagram has negatively influenced the way they feel about their bodies. One response cited the pressure of seeing idealized body types on Instagram is a source of dissatisfaction for her.

"Bad" (Participant 3)

"Sometimes it negatively affects me because all the models on Instagram are really skinny and perfect because of photoshop. It gives negative and unrealistic expectations of what I should look like" (Participant 4)

Four participants mentioned that having an Instagram profile yielded no significant distress for them.

"It hasn't influenced me at all" (Participant 1)

"It doesn't" (Participant 6)

"Hasn't changed. I don't follow things like that" (Participant 9)

"Not too much influence, I don't think what others feel is a huge matter" (Participant 11)

From the analysis of these themes, there is a distinct division in what Instagram represents for teenage girls, these findings suggesting that motivations for self-presentations on Instagram don't naturally assume a social purpose for all girls.

The results identified two distinct approaches used by participants to represent themselves online. 7 out of the 12 participants identified that their Instagram profile was created for sharing information with family and friends. This approach was highly regarded as social, fun and affirmative yet from participant accounts, a desire for social connection could be anticipated. 5 out of the 12 participants took a more independent approach. These participants disclosed that their profile decisions and online representation was to express themselves and highlight their individuality. Participant accounts also highlighted a lack of conformity to the social aspects of Instagram such as engagement with friends and followers, showing a disinterest in the reciprocity observed by most respondents.

## 3.1.5 Comparative analyses

To explore these statements in greater detail, participants were assigned to one of two groups consistent with their social media approach: social connectors and self-promoters. The self-concept clarity (SCC) scores of each group were then examined. Further analyses cross referenced the self-concept clarity, social comparison orientation (SCO), and the social physique anxiety (SPA) scores of the two groups. Averages for each of the codebook categories were then shown to further distinguish the differences between the groups, and to highlight whether girls' online presentation decisions were reflective of their motivations for

creating and maintaining their Instagram profile. Participants 6 and 7 were not included in this analysis as their data sets were incomplete.

# Self-promoters group

Participants 1, 3, 8, 9 and 11's self-concept clarity scores were examined. Participant 1's self-concept clarity score was extremely high (53.00) indicating that she has a strong sense of self and a clear understanding of who she is. Participant 8's SCC (44.00) was toward the high end of the range of scores identifying a very strong and clear self-concept. Participants 3 and 9 demonstrated reasonably high self-concept clarity scores (39.00) and (45.00) showing that they both have stable self views. Participant 11's score (42.00) also indicated quite high self-concept clarity, confirming a strong and stable self-concept.

With a self-concept clarity score of (53.00), Participant 1's SCO score was (29.00) and her SPA score was (7.00) showing that her regard for others and their opinions is low. Her results demonstrate that her likelihood to engage in comparison behaviors with others is relatively low. Participant 3 also demonstrated a lesser tendency to compare to others with her social comparison score (33.00), similar to the score of Participant 1. Her SPA score was in the midrange (25.00) of possible scores, indicating that she is wary of others evaluations. Participant 8's SCO (43.00) was just below her SCC (44.00) indicating that she does more readily make comparisons to others, however her SPA (16.00) is comparative to Participant 1 in that she does not exhibit much anxiety at the prospect of showing her body, and having it evaluated by others. Participants 9 and 11 both had high SCC scores (45.00) and (42.00) and their SCO scores (44.00) and (40.00) respectively, indicated a higher comparison tendency, with their social physique anxiety scores (24.00) and (24.00) both revealing a lower concern for how their bodies are appraised whilst on display.

## Social connectors group

Participants 2,4, 5, 10 and 12's self-concept clarity were explored. They too showed reasonably stable self-concepts. Participants 2 and 5 demonstrated scores comparative to those in the self-promoting group with scores (41.00 to 42.00). Showing the lowest self-concept clarity scores, Participants 4 and 12' scores (39.00 and 34.00), indicate that these girls similarly, have a clear sense of who they are. Participant 10 had the highest SCC of this group showing a score of (51.00).

When cross referencing SCC scores with social comparison and social physique anxiety, it was found that the social connectors had slightly higher social comparison and social physique anxiety than those in the self-promoter group. Exhibiting a score of (42.00) for selfconcept clarity, Participant 2's scores for the SCO (43.00) was slightly higher, and the SPA (22.00) indicated a lower level of concern at the prospect of others evaluations of her appearance. Participant 4 also showed significantly high SCO with a score of (47.00), with a higher SPA score (28.00) recorded also. Participant 5's SCO score (44.00) was higher than her SCC score, indicating that she engages in more comparative type behaviors. Her SPA score (24.00) also infers the possibility of some anxiety around other's evaluations of her body/appearance. Although having a high SCC score, Participant 10 exhibited high SCO (40.00) and SPA (27.00) contending that she is more likely to compare herself to others, and become nervous at the prospect of having her body on display. Participant 12 exhibited a selfconcept clarity score of (34.00). Her SCO score (29.00) was comparative to others, specifying that she doesn't readily engage in social comparisons nor exhibit a strong tendency to compare herself with others. Her SPA score (28.00) is equivalent to Participant 4, which shows that she expresses a higher level of concern when her body is on display.

# Comparisons across codebook categories

The final analysis sought to determine whether photo content assessed in the content analysis, would be different across both self-promoter and social validator groups. The members of each group all had an average score for each of the codebook categories as shown in Table 5. Participants in both the self-promoter, and social validator groups average scores were then taken and examined to find a group average for each codebook category.

In general, all girls were found to favor close-up shots on their profiles. They were also found to all use make-up, however those who primarily used their profiles to connect with friends, on average wore less. Equally, girls were found to exhibit more of their bodies, and were often observed wearing varying degrees of clothing, often, the profiles contained one or more shots of the girls in bikinis. This is particularly interesting as it appears in line with the study's hypotheses in relation to over-exposure and confidence online. Interestingly it does also suggest when comparing makeup scores, that girls may be choosing to emphasize their bodies more, than choosing concealment features like makeup and clothing, as was suggested by Sabiston and colleagues (2007). This may suggest that girls, whether it be social connectors or self promoters, know what features to accentuate and outfits to wear to gain more likes, and as such tailor their self-images to evoke a certain response.

#### 3.2 Discussion

# **3.2.1** *Summary*

The study found that all participants displayed relatively strong self-concepts. This meant that the participants had a strong sense of who they were, and this assurance was evident through their online self-presentation. Consistent with hypotheses 6 and 7, it was proposed that girls who display a higher self-concept will use more makeup, and will show more physical features in their photos. It was found that high self-concept clarity corresponded to a greater use of make-up in photos, a confidence to display more physical features, and to appear in less clothing.

It was discovered that high self-concept clarity also prompted participants to manage their impressions more closely, and engage in more enhancement techniques (Krayer, Ingledew & Iphofen, 2008). Maintaining a strong self view was regarded as critical for participants with associations between SCC and self-deception showing that girls with high self-concepts tended to be more deceptive. Associations between SCC and self enhancement indicated an alarming potential with those results suggesting that to maintain their self-view, and positive impressions, girls would overemphasize themselves in their online portrayals.

There were no significant relationships between self-concept and social comparison orientation. The direction of the effects however implies that those with high self-concepts will be less inclined to make social comparisons to others. When looking for a relationship between self-concept and social physique anxiety, no significant relationship was found. The direction of these results contend that those with high self-concept clarity will express less anxiety over how their body appears to others. When seeking to support hypothesis 2, the relationship between self-concept and self-esteem was investigated. No significant

relationship was found. However, the moderate correlation (.320) insinuates that high self-concept is contingent upon high self-esteem, a suggestion in support of previous research by Campbell and colleagues (1996) who argued that self-concept and self-esteem are concomitant, meaning that those who are high in self esteem are also high in self-concept and vice versa. These results tentatively support hypotheses 1, 2 and 3, however the strength of these relationships could be largely inhibited by the small sample size, hence the assumptions of these findings are cautious.

Findings from the Instagram questionnaire showed that participants used Instagram most frequently to look at friend's pages, like friend's photos, and look at makeup, hair and body trends. It was also found that participants most commonly accessed photos, with an equal division of their time on Instagram spent accessing their friend's profiles and attending to their own. Qualitative findings observed that Instagram represented a platform for self-expression, social connection, and validation. For half the participants, their use of Instagram was to facilitate and strengthen friendships, share life's moments, and to reminisce on particular memories and events. Of equal importance to this group was gaining feedback or validation on their photos, in the same way it was imparted on their friends' and follower's profiles. For the other half, Instagram represented a means for self-promotion. Photos were considered to be independent statements, individually chosen based on how they appeared and more importantly, how they valued it. The theme of social connection and validation was still present among these participants however validation was not reliant on close friends, with photo displays being posted to engage the non-specific other.

The marginal differences within the content analyses present several implications for further research. The high levels of SCC in relation to comparison tendencies and social physique

anxiety suggests that participants may look upon social comparisons as a caution, not as a threat, contrary to previous studies (Polivy & Herman, 2002 & Carlson-Jones, 2004). The low levels of social-physique anxiety also lend support to the Hagger and colleagues' theory that the self-concept may be a more predominant construct, and therefore, social physique anxiety appears weak in comparison (Hagger, Hein & Chatzisarantis, 2011). Alternatively, it could also be suggested that in the same way as with social comparisons, girls with stronger self-concepts operate with more awareness, than anxiety around situations where their bodies could be displayed, but don't perceive the same level of threat, instead looking upon these situations as opportunities to strengthen peer bonds.

# 3.2.1 Findings

The results of the present study suggest that girls higher in self-concept clarity elect to engage in bolder, more stylized online presentations, a finding to the expectation of previous studies (Chua & Chang, 2015 & Mascheroni, Vincent & Jimenez, 2015). Indications of this were observed within participants use of make-up, clothing, and their exposure of greater portions of their body on their profiles. Highly stylized online portrayals have become a recent phenomenon among adolescent girls, literature citing the allure of self-production features on certain sites are allowing girls to cultivate themselves in a way that showcases their positive features and disguises their flaws (Meier & Gray, 2014 & Chua & Chang, 2015) Current understanding of self-presentational processes inform that individuals seek to cultivate their online image in an attempt to actualize a hoped for possible self, to bolster friendship connections, or to elevate self-esteem (Markus & Nurius, 1986, Ellison, Steinfeld & Lampe, 2007 & Mehdizadeh, 2010) The current findings present new issue, suggesting that for high self-concept individuals, their indulgence in their online presentations may be self-

serving, egotistical, and more directed towards fulfilling narcissistic tendencies. These findings address the first research question.

In earlier sections, it was identified that certain characteristics of a strong self-concept elevate one's confidence in self, self-esteem and positive affect, and this ultimately contributes to a greater sense of control within the individual (Campbell, 1990). In this instance, it appears possible that this combination of characteristics may be motivating our participants' desire to engage in online self-presentations more overtly, due to the elevations observed within their self-esteem, positive affect and sense of control.

Baumgardner (1990) highlighted a similar potential within the characteristics of the self-concept. She demonstrated that one's self-certainty may be used to exert control in different situations and environments, often to the advantage of the individual. She described that the self-certain individual is always looking for contexts in which they can maximise their attributes, yet are also aware of environments in which their attributes are not at a level suitable to maximise their outcomes (Baumgardner, 1990). It is supposed that if the situation precludes the maximisation of one's attributes, one uses their self-confidence to exert control over the situation. With regards to the present study, it is likely that participants perceived Instagram as a context in which they could exploit their attributes, and through their self-confidence, were able to maximise their desired outcomes.

The exploitation of one's attributes for online social and emotional gain is an issue briefly attended by the studies of Meier and Gray (2014) and Chua and Chang (2015). Collectively, they argued that the affordances of social media sites in terms of photo editing are enabling young users the opportunity to cultivate highly stylised images of themselves, using these images to gain social approval, popularity, and power. What remains unconsidered by current research is that the combination of social media affordances and self-certainty characteristics might be cultivating more narcissistic qualities among young girls, as currently through these

channels, adolescent females can achieve their self-presentational desires with little effort, and even less risk, and in return reap high social and emotional rewards.

Indications of narcissistic behaviour can also be equivalated through the association between high self-concept clarity and impression management. Specifically, because of their high levels of clarity, participants correspondingly sought to manage their impressions more closely. It is logical to assume that the self-concept characteristics of high self-esteem and positive affect, sustained by one' confidence in self, may be stimulating one's affiliation towards their impression due to the positive emotions they elicit and subsequently reinforce. In support of this, later claims by Baumgardner (1990) ascertained that increases in self-certainty leads to increases in positive self-affect and egotism within the individual. It is also alleged that once positive affect has been achieved, individuals strategically take advantage of this knowledge, and seek to maintain self-certainty and control to experience positive self-affect (Trope, 1983 & Baumgardner, 1990). Considering the present findings, it appears plausible that participants' high impression management may be sign of control over their impression, and their attempt to preserve the positive self-affect associated with their self-presentation.

As for the relationships between clarity and self-enhancement, and self-concept clarity and self-deception, it is probable to suggest that these associations are also a function of similar narcissistic type behaviours. Prior studies have highlighted that individual differences in certain characteristics could dictate the level and way individuals engage in self-enhancement processes. Of relevance, studies by (Baumgardner, Kaufman & Levy, 1989) and (John & Robins, 1994) found that individuals with higher self-esteem often overestimate consensus for perceived deficiencies, engage in compensatory self-enhancement following negative feedback, and tend to derogate sources of negative feedback. The high levels of self-esteem in conjunction with high self-concept clarity observed within this study, indicate that

participants may have been adhering to more defensive self-enhancement processes, particularly in matters concerning both their impressions and online presentations. With regards to impression management, it is possible that participants were deliberately over-accentuating themselves to maintain control and to continue to experience positive self-affect. The continued pursuit of admiration has been described by Mehdizadeh (2010) as a known indicator of online narcissism as it is often associated with positive self-views of agentic traits such as physical attractiveness.

Of equal possibility, it appears logical that participants could have used Instagram to over enhance themselves to conceal perceived deficiencies (Campbell, 1986). The findings of Collins and Stukas and Zhao, Grasmuck and Martin (2008) also appear in line with this supposition as they found that on their social media profiles, narcissistic participants and high impression managers adopt a "show" versus "tell" method. It was surmised that the predominant use of photos may be an attempt to conceal narcissistic tendencies to garner more attention, likes, and to further pursue new social connections (Collins & Stukas, 2008 & Zhao, Grasmuck & Martin, 2008).

In addition, it was also found that high self-concept clarity resulted in participants making more self-deceptive statements. As noted in prior sections, the self-concept is known to be attuned to the situational structure of an environment, and aids in helping one to adjust and formulate an impression, suiting the demands of the environment. However, it has also been represented that when individuals are unlikely to be found out, they are prone to exaggerate their attributes more positively than usual (Baumeister, 1982 & Leary & Kowalski, 1990). It is possible that participants perceived the present study's anonymous structure as an environment suitable for an over exaggeration of positive attributes, in much the same way as has been found on anonymous social media sites that request no personal information. Recent studies have found that social media users tend to be more reliable and honest on sites in

which their identity and name are known, than sites in which you can enter an account under a pseudonym (Mehdizadeh, 2010). Given the anonymity of the study and the profile of an anonymous site, Instagram, it appears that participants were less fearful about overexaggerating themselves and engaging in self-deception as they were unlikely to be exposed by friends or followers, receive comment or critique.

The results showed no significant relationship between self-concept clarity and social comparison. In addition, no significant relationship was found between self-concept clarity and social physique anxiety. It was anticipated from prior literature, that individuals with stronger self-concepts may mediate the extent to which they engaged in appearance related social comparisons (Cahill & Mussap, 2007 & Vartanian & Dey, 2013). Similar acknowledgements had been made in studies stating that self-concept clarity may offer a protective advantage to media and body image effects in young women (Twamley & Davis, 1999 & Vartanian, 2009). To date, little recent evidence exists in establishing this proposition, with supporting studies failing to capitalise on earlier findings. The direct of effects observed between these associations does show the relationships heading in a negative direction (see Table 7.). Although speculative, this may suggest that a higher level of clarity is resulting in lower levels of social comparison and social physique anxiety in adolescent women. Also, conceivable, and when considering that a significant level of clarity was found among all participants, this could also be interpreted to mean that possibly, within this data set, girls may not be as prone to experiencing body image distresses from the same sociocultural sources as previous generations. Of further impact, may have been the crucial differences in sample size observed between the present study and supporting research. In validating their claims, all studies had considerably larger sample sizes than the present study, increasing the likelihood of correlational analyses reaching statistical significance. It is likely that the lack of significance observed in this aspect of the present study may be a result of a small sample size.

#### 3.2.3 Limitations

There are a few limitations to account for when considering the findings of the present research.

The first is an issue of sample size. The study had 80 participants however only 12 complete data sets were retained for analyses. The lack of survey data heavily impacted the strength of correlational analyses, with associations not reaching significance. It is believed these issues could be alleviated with a larger sample.

A second limitation that may have impacted the volume of complete responses could have been the survey length. Following the eligibility questionnaire, participants were asked to complete phases assessing Instagram use and activity, qualitative questions, and then a series of body image questionnaires. It is possible that the attrition rates could have been a result of the amount of information requested by the study. Future research seeking to work with a teenage sample should be aware of survey length, and restrict survey components to improve survey completion.

# 3.2.3 Implications of research findings

The present study hold some implications for future research, especially pertaining to self-concept, social comparison, social physique anxiety and social media.

The present study had two primary aims. The first was to examine the function of the self-concept both in relation to other body image variables, social comparison and social physique anxiety in the context of social media. The second was to investigate whether self-concept clarity would influence one's self-presentation on Instagram. The inquiry generated some

interesting results, however the failure to substantiate significant relationships between selfconcept clarity, social comparison and social physique anxiety has not allowed all the research questions to be adequately examined.

Consequently, the lack of solid evidence pertaining to these relationships inhibits the expansion of the issues discussed in section 2. and within the current literature. Despite this, the tentative relationships between self-concept clarity and social comparison, and social physique anxiety have some intriguing implications. These relationships incite that girls with higher self-concept clarity may be less likely to make social comparisons to others, engage in comparative type behaviours, or experience anxiety about having their bodies viewed and evaluated by others. In relation, details from content analyses similarly suggest that girls may be aware of social comparison and evaluative targets such as friends and peers, but are not expressing the same levels of distress as their millennial predecessors. If this is the case, it would appear that modern teenage girls might not be affected by the same socio-cultural influences, nor to the same extent as previous generations.

This indicates two possible avenues for future research to consider. First, that social media sites may be having a positive impact on teenagers in terms of enhancing social capital and connectedness, and secondly, that a stronger self-concept may be allowing girls to refute modern beauty ideals as unrealistic. To provide certain evidence for these speculations, it may be worth investigating social comparison and social physique anxiety as determinants of adolescent body image in a separate study.

With respect to the limitations of the study, subsequent research should aim for a larger sample size, and focus on a distinctly quantitative methodology to better ascertain the nature of the relationships between self-concept, social comparison and social physique anxiety variables. The addition of a measure of body image distress in conjunction with these

constructs may also observe, whether Generation Z teenagers still experience body image issues to the same extent as their forerunners, and further, examine the protective advantage of the self-concept when at high levels of clarity.

A high self-concept clarity resulted in participants becoming more elaborate in their online displays, more cautious over their impressions, and more defensive in protecting their online image. The reason for this could be that girls with more self-confidence viewed Instagram as an environment in which to actualize their ambitions, and play out their hoped for possible self. Inkeeping with the theory of the self-concept, it is encouraged that future research considers the possibility that teenagers' over enhanced online displays may be an experimentation with possible selves, and not the actual or true self.

A further implication concerns the high level of self-concept clarity found in all participants. This appears insightful as it contends that all participants were more self-assured and confident in themselves and their abilities, further insinuating the potential for the theory that socio-cultural influences may not be having the same effect on today's teenagers. In substantiating this, goals for future research should also aim to distinguish between offline and online worlds to understand how teenagers are managing this difference.

The online behaviours of high self-concept clarity individuals were found to be similar to the activities of online narcissists. In particular, participants were highly controlling over their images, sought admiration from followers, posted more images, and relied less on written descriptions. As an aside, other studies have found that similar online narcissistic behaviours have been found in high self-esteem individuals. Given the strong convergent association between self-concept clarity and self-esteem, it would also be valuable to assess whether self-concept clarity influences the relationship between social media and narcissism in the same way high self-esteem has been found to.

#### 3.3 Conclusion

The aims of this research were to investigate self-concept clarity in relation to other body image variables in the context of social media, and to examine its potential as a possible defence to media and body image effects among adolescent girls. By examining the strength of individual differences in the media/body image relationship, it is hoped that this research will further inspire renewed interest in this unresolved phenomenon as we enter a new generation of media.

It was found that all participants had a relatively high self-concept which meant that they had an assurance of self and were more self-confident. This was especially shown in their online self-presentations. On their profiles, participants often depicted themselves wearing makeup, in varying degrees of clothing and showing greater portions of their bodies. It was also found that higher self-concept individuals were more cautious over their appearance and tended to control their impressions more closely. Consequently, participants were also observed engaging in self-enhancement and self-deception, using these measures to over-exaggerate their attributes online, to conceal and monitor their responses.

No significant relationships were found between self-concept clarity and social comparison and self-concept clarity and social physique anxiety. The possible reasons for this were discussed and avenues for future research were illuminated.

In conclusion, the findings of this study extend current knowledge with respect to the understanding of the media/body relationship in current times. It appears that there is a need

to revisit the scholarship on teenage female body issues and appraise if similar stressors are still evident among modern day teenagers. Of most significance, the study distinguishes the possibility that modern teenagers are more technologically savvy and aware of the pitfalls of social media sites than anticipated, and are able to engage in online worlds without losing their sense of self in reality.

#### 3.4 References

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# 3.8 Appendices

# Appendix A: Participant Information Sheet



# Are you an active Instagram user?

We are researching how teenage girls use their Instagram profile and how this may affect their self-concept and body esteem.

To participate you must be female and between the ages of 14-18 years old. You must also have an Instagram profile that you have been using regularly for at least 6 months or more.

# What to expect

- Full consent forms and an eligibility questionnaire online (approximately 15 minutes)
- An anonymous survey of about 50 questions (approximately 30-60 minutes) about your self-concept and social comparison style.
- Acknowledgement of participation and time

# To register your interest or to complete the questionnaire please visit the following websites:

teiganthesismassey@instagram.com

# teiganthesismassey@facebook.com

For more information please contact the researcher or supervisor at:

student researcher teiganthesismassey@gmail.com r.b.fletcher@massey.ac.nz

This project has been reviewed and approved by the Massay University Human Ethics Committee: Northern, Application \_15\_/052\_\_ (https://doi.org/10.1000/10.1000). If you have any concerns about the conduct of this research, plassic contact Or Andrew Chrystell, Chair, Massay University Human Ethics Committee: Northern, telephone 09 414 0600 x43317, email humanothics north@massay.ac.nc.

# Appendix B. Participant Consent Forms



# **Project Title**

An investigation of the body/appearance on Instagram and its effects on self-concept, social comparison and social physique anxiety in teenage female users in New Zealand

# **Participant Consent Form**

# <u>Individual</u>

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to full participation in both phases of this study

I agree/do not agree to allow my Instagram profile to be open for review as required as part of the requirements of this study

I agree/do not agree to provide my Instagram account name for the purposes of review as required as part of the requirements of this study

I wish/do not wish to have data placed in an official archive

Full Name-printed\_\_\_\_\_

I wish/do not wish to refuse the use of my data in future academic research

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: \_\_\_\_\_\_ Date: \_\_\_\_\_\_

Appendix C. Eligibility Questionnaire



# **Participant No:**

**Demographic Information:** 

# **Eligibility Questionnaire:**

	<del> </del>
Instagra	m Account Name:
Age:	
Sex:	
<u>Instagra</u>	m Account and Use:
1. D	o you have an active Instagram account?
Yes	No
2. H	ave you been an active Instagram user for 6-12 months or more?
Yes	No
	ow many times in the last week, approximately do you spend on stagram? (please circle)
	less than 10 minutes per day
II.	10-30 minutes per day
III.	30-60 minutes per day
IV.	1-2 hours per day
٧.	More than 2 hours per day

<u>Instagram Active Use:</u> please indicate your response on the continuum (1-being rarely) and (6 being always)

- 4. When on Instagram, how frequently do you?
- I. Post pictures

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

II. Look at friend's pages

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

III. Comment on friend's photos

1-rarely 2-not often 3-sometimes 4-often 5-reguarly 6-always

IV. Like friend's photos

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

V. Comment on friend's photos

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

VI. Change your profile picture

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

VII. Search celebrity or other (make-up, hair, body products) pages?

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

Please indicate your response on the continuum below (1-being rarely to 6-being always) When on Instagram, what do you usually locate or access?

I. Photos

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

	C	
	Friance	nratilae
II.	I HEHUS	profiles

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

# III. My own profile

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

# IV. Hashtags or Hashtag searches

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

# V. Celebrities

1-rarely 2-not often 3-sometimes 4-often 5-regularly 6-always

VI. Other (please indicate) \_\_\_\_\_

# Appendix D. Facebook and Instagram Advertisements











# Initial Codebook

	Position/angle (1-5)	Use of screen (1-4)	Main features (1-7)	What is missing?	Hearts	Follower comments (1-5)	Hashtags examples
Gym/sport	Positioning: Is the subject? front on (1) side on (2) looking upward (3) downward (4) from behind (5)?	Is the subject close up (1) or far away (2) centered (3) lots of background (4)	main features: Face (1) Face and arms (2) Face, arms and torso (3) Legs (4) Full body (5) Face and back (6) Back (7)	moonig.	How many hearts/likes received on the photo?	Follower comments Mostly +ve (1) Neutral/no comments (2) Mostly -ve (3) Improvement tips (4) Critique (5)	#work #run #s weat #body goals #getfit #fitness #fitins po #nopainnogain #feeltherush
Face	Is the subject front on (1) side on (2) looking upward (3) downward (4) from behind (5)?	Is the subject close up (1) or far away (2)? Is the photo centered(3) lots of background (4)	Face full (1) Eyes (2) Eyebrows (3) Cheekbones/cheeks (4) Lips (5) Hair (6)		How many hearts/likes received on the photo?	mostly +ve (1) neutral/no comments (2) mostly -ve (3) improvement tips (4) critique (5)	#selfie #naturalface #face #natural #naturalbeauty #wakeupface
Body	Is the subject front on (1) side on (2) looking upward (3) downward (4) from behind (5)?	Is the subject close up (1) or far (2)? Is the photo centered (3) lots of background (4)	Face (1) Face and arms (2) Face, arms and torso (3) Legs (4) Full body (5) Face and back (6) Back (7)		How many hearts/likes received on the photo?	Mostly +ve (1) Neutral/no comments (2) Mostly -ve (3) Improvement tips (4) Critique (5)	#bodyenvy #bodyshame #bodypositive #bodyshape #thinbodyplease
Clothing	How are the clothes presented? are they shown modelled (1) laid out (2) racked (3)?	Are they captured close (1) to see detail or far away to see the full effect (2)?	On a specific body part/ full figure? Arms and torso (1) Torso (2) Legs (3) Feet (4) Full body (5)		How many hearts/likes received on the photo?	Mostly +ve (1) Neutral/no comments (2) Mostly -ve (3) Improvement tips (4) Critique (5)	#newdress #shoppingspree #clothesaddict #jeanshighwaist #fashionista #outfitoftheday #shoeselfie
Makeup	How is the makeup shown? Modelled on subject (1) spread out (2) clean out (3) is it taken front on (4) side on (5) upward (6) downward (7)?	Is it captured close up to see detail (1) or far away to see full effect (2)?	Does it focus on certain facial features? Eyes (1) lip (2) brows (3) cheekbones/cheeks (4) Full face (5)		How many hearts/likes received on the photo?	Mostly +ve (1) Neutral/no comments (2) Mostly -ve (3) Improvement tips (4) Critique (5)	#makeupjunkie #makeupoftheday #eyebrowgame #mascaralove #lipstickqueen
Celebrity	Is the subject front on (1) side on (2) looking upward (3) downward (4) from behind (5)?	Is the subject close up (1) far (2) Is the photo centered (3) lots of background (4)	Does it focus on certain facial features?  Eyes (1) lips (2) brows (3) cheekbones/cheeks (4) Full face (5)		How many hearts/likes received on the photo?	Mostly +ve (1) Neutral/no comments (2) Mostly -ve (3) Improvement tips (4) Critique (5)	#celebritycrush #celebrityfitness #celebrityfashion #celebrityhair #kyliejennerchallenge #gigihadidlove

# **Appendix F. Measurement Scales**

# **Self-Concept Clarity Scale (SCCS)**

- 1. My beliefs about myself often conflict with one another.\*
- 2. On one day I might have one opinion of myself and on another day I might have a different opinion.\*
- 3. I spend a lot of time wondering about what kind of person I really am.\*
- 4. Sometimes I feel that I am not really the person that I appear to be.\*
- 5. When I think about the kind of person I have been in the past, I'm not sure what I was really like.\*
- 6. I seldom experience conflict between the different aspects of my personality.
- 7. Sometimes I think I know other people better than I know myself. \*
- 8. My beliefs about myself seem to change very frequently.\*
- 9. If I were asked to describe my personality, my description might end up being different from one day to another day.\*
- 10. Even if I wanted to, I don't think I could tell someone what I'm really like.\*
- 11. In general, I have a clear sense of who I am and what I am.
- 12. It is often hard for me to make up my mind about things because I don't really know what I want.\*

Scale ranges from 1 (strongly disagree) to 5 (strongly agree).

\* Indicates reverse-keyed item.

# Social Comparison Orientation Scale (SCOS)

Response scale for all items

- 1. I disagree strongly
- 2. I disagree
- 3. I neither agree nor disagree
- 4. I agree
- 5. I agree strongly

Most people compare themselves from time to time with others. For example, they may compare the way they feel, their opinions, their abilities, and/or their situation with those of other people. There is nothing particularly 'good' or 'bad' about this type of comparison, and some people do it more than others. We would like to find out how often you compare yourself with other people. To do that we would like to ask you to indicate how much you agree with each statement below.

- 1. I often compare myself with others with respect to what I have accomplished in life
- 2. If I want to learn more about something, I try to find out what others think about it
- 3. I always pay a lot of attention to how I do things compared with how others do things
- 4. I often compare how my loved ones (boy or girlfriend, family members, etc.) are doing with how others are doing
- 5. I always like to know what others in a similar situation would do
- 6. I am not the type of person who compares often with others
- 7. If I want to find out how well I have done something, I compare what I have done with how others have done
- 8. I often try to find out what others think who face similar problems as I face
- 9. I often like to talk with others about mutual opinions and experiences
- 10. I never consider my situation in life relative to that of other people
- 11. I often compare how I am doing socially (e.g., social skills, popularity) with other people

# Rosenberg Self-Esteem Scale (RSE)

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

# 1. On the whole, I am satisfied with myself.

Strongly Agree Agree Disagree Strongly Disagree

2. At times, I think I am no good at all.

Strongly Agree Agree Disagree Strongly Disagree

3. I feel that I have a number of good qualities.

Strongly Agree Agree Disagree Strongly Disagree

4. I am able to do things as well as most other people.

Strongly Agree Agree Disagree Strongly Disagree

5. I feel I do not have much to be proud of.

Strongly Agree Agree Disagree Strongly Disagree

6. I certainly feel useless at times.

Strongly Agree Agree Disagree Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

Strongly Agree Agree Disagree Strongly Disagree

8. I wish I could have more respect for myself.

Strongly Agree Agree Disagree Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

Strongly Agree Agree Disagree Strongly Disagree

# 10. I take a positive attitude toward myself.

Strongly Agree Agree Disagree Strongly Disagree

Scoring: Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

# Social Physique Anxiety 7-Item Scale (SPAS 7-Item)

Instructions: Read each item carefully and indicate how characteristic it is of you according to the following scale.

1 = Not at all characteristic of me 2 = Slightly characteristic of me 3 = Moderately characteristic of me 4 = Very characteristic of me 5 = Extremely characteristic of me

- 1. I wish I wasn't so up-tight about my physique or figure
- 2. There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively
- 3. Unattractive features of my physique or figure make me nervous in certain social settings
- 4. In the presence of others, I feel apprehensive about my physique or figure
- 5. I am comfortable with how fit my body appears to others
- 6. It would make me uncomfortable to know others were evaluating my physique or figure
- 7. When it comes to displaying my physique or figure to others, I am a shy person

**VERY TRUE** 

# Appendix F.

# **Balanced Inventory of Desirable Responding (BIDR)**

SOMEWHAT TRUE

- 1. My first impression of people usually turn out to be right.
- 2. It would be hard for me to break any of my bad habits. \*
- 3. I don't care to know what other people really think of me.
- 4. I have not always been honest with myself. \*
- 5. I always know why I like things.

NOT TRUE

- 6. When my emotions are aroused, it biases my thinking. \*
- 7. Once I've made up my mind, other people can seldom change my opinion.
- 8. I am not a safe driver when I exceed the speed limit. \*
- 9. I am fully in control of my own fate.
- 10. It's hard for me to shut off a disturbing thought. \*
- 11. I never regret my decisions.
- 12. I sometimes lose out on things because I can't make up my mind soon enough. \*
- 13. The reason I vote is because my vote can make a difference.
- 14. My parents were not always fair when they punished me. \*
- 15. I am a completely rational person.
- 16. I rarely appreciate criticism. \*
- 17. I am very confident of my judgements.

- 18. I have sometimes doubted my ability as a lover. \*
- 19. It's all right with me if some people happen to dislike me.
- 20. I don't always know the reasons why I do the things I do. \*
- 21. I sometimes tell lies if I have to. \*
- 22. I never cover up my mistakes.
- 23. There have been occasions when I have taken advantage of someone. \*
- 24. I never swear.
- 25. I sometimes try to get even rather than forgive and forget. \*
- 26. I always obey laws, even if I'm unlikely to get caught.
- 27. I have said something bad about a friend behind his or her back. \*
- 28. When I hear people talking privately, I avoid listening.
- 29. I have received too much change from a salesperson without telling him or her. \*
- 30. I always declare everything at customs.
- 31. When I was young, I sometimes stole things. \*
- 32. I have never dropped litter on the street.
- 33. I sometimes drive faster than the speed limit. \*
- 34. I never read sexy books or magazines.
- 35. I have done things that I don't tell other people about. \*
- 36. I never take things that don't belong to me.
- 37. I have taken sick-leave from work or school even though I wasn't really sick. \*
- 38. I have never damaged a library book or store merchandise without reporting it.
- 39. I have some pretty awful habits. \*
- 40. I don't gossip about other people's business.

Items 1 to 20 assess self-deception (SDE); items 21 to 40 assess impression management (IM). Add one point for every "6" or "7" (minimum= 0, maximum=20). \* Items keyed in the "False" (negative) direction.

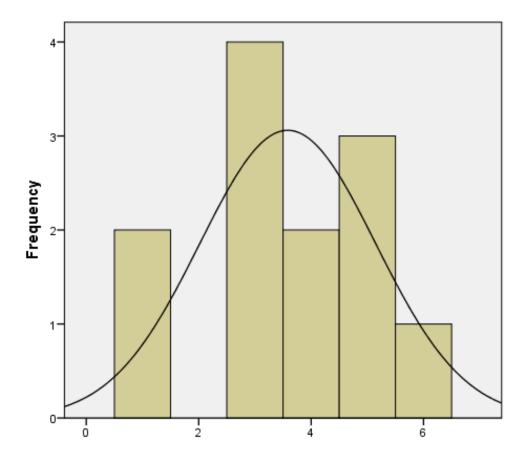
# Opened ended questions

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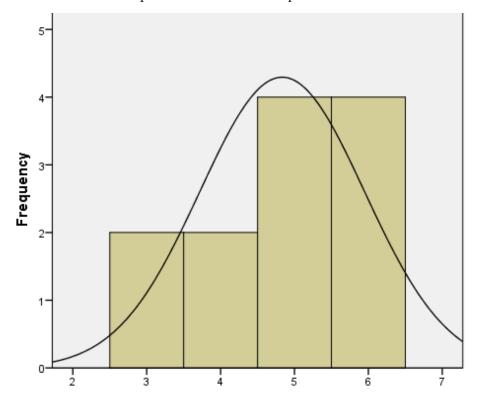
1.	What is the main purpose of your Instagram account?
2.	Why did you choose to create an Instagram account?
3.	How do you choose which photos to put on Instagram?
4.	What sorts of comments/captions do friends post about you on Instagram?
5.	What sorts of comments/captions do you post about friends on Instagram?
6.	How do you feel about friends commenting on your photos?
7.	What is the main reason you post on your friends pages?
8.	How do you think your Instagram profile has influenced how you feel about your body/appearance?

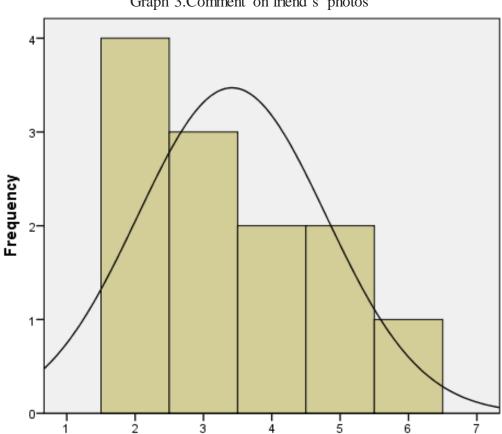
# Appendix G. Graphs showing skewness

Graph 1. Post Pictures



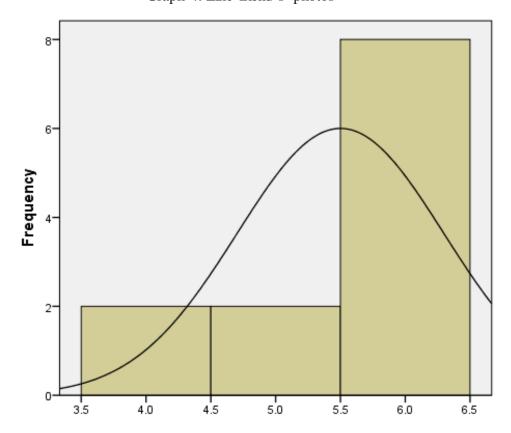
Graph 2. Look at Friend's photos

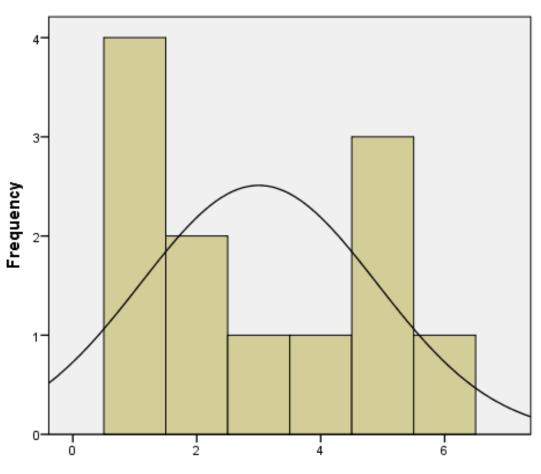




Graph 3.Comment on friend's photos

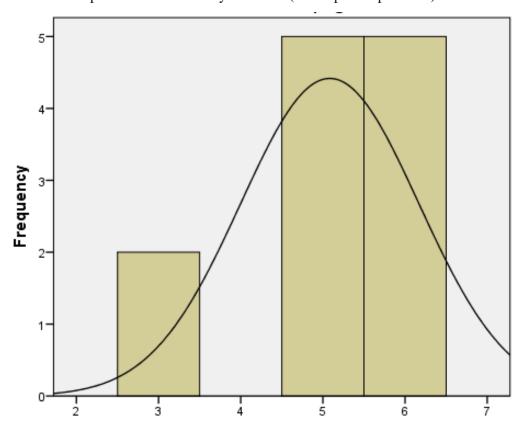
Graph 4. Like friend's photos





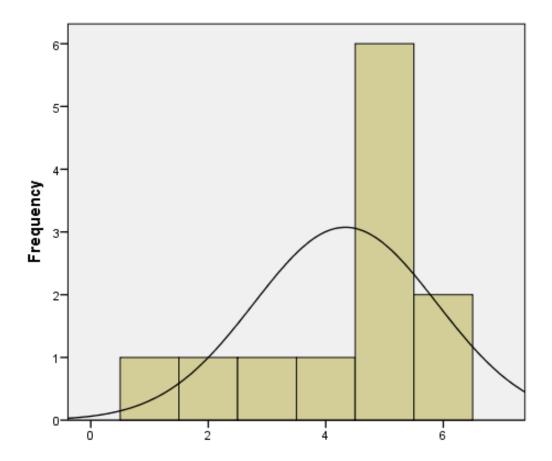
Graph 5. Change your profile picture

Graph 6. Search celebrity or other (makeup/hair products)

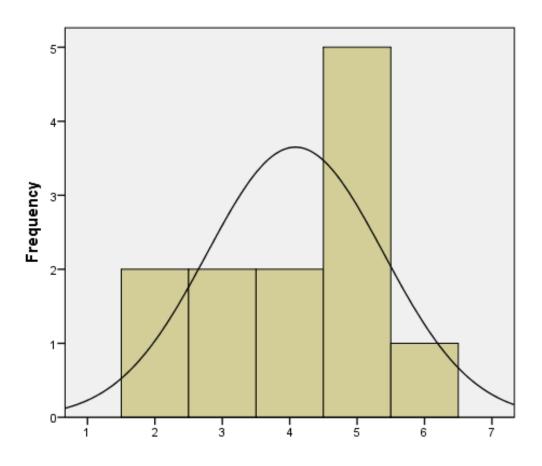


Histograms showing the skewness of scores for Instagram features most commonly accessed

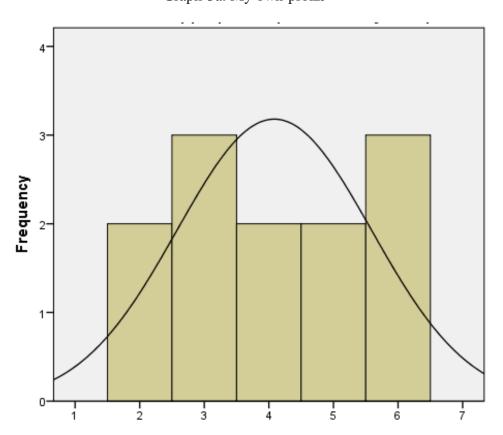
Graph 1a. photos

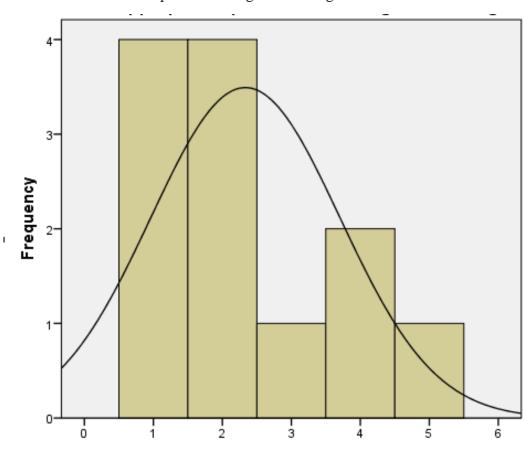


# Graph 2a. Friends profiles



Graph 3a. My own profile





Graph 4a. Hashtags or Hashtag searches

