Relationships among Selfie-Posting, Narcissism, Body Dissatisfaction, and Gender

Pattaraporn Changyod (5537583638)

Napassaporn Chaikrongkit (5537564738)

Faculty of Psychology

Joint-International Psychology Program (JIPP)

Chulalongkorn University

| Senior Project Title | RELATIONSHIPS AMONG SELFIE-POSTING, NARCISSISM, BODY DISSATISFACTION, AND GENDER |
|---|---|
| Author(s) | 1. Pattaraporn Changyod |
| | 2. Napassaporn Chaikrongkit |
| Field of Study | Psychological Science |
| Senior Project Advisor | Assistant Professor Dr. Kullaya Pisitsungkagarn |

This senior project is accepted by the Faculty of Psychology, Chulalongkorn University in partial fulfillment of the requirements for the Bachelor of Science Degree (Psychological Science).

……………………………….. Dean of the Faculty of Psychology

(Assistant Professor Kakanang Maneesri, Ph.D)

Senior project committee

........................................................Chairperson
(Assistant Professor Dr. Apitchaya Chaiwutikornwanich)

........................................................Advisor
(Assistant Professor Dr. Kullaya Pisitsungkagarn)

........................................................ Committee
(Dr. Supalak Luadlai)

# # 5537564738, 5537583638 : BACHELOR OF SCIENCE

NAPASSAPORN CHAIKRONGKIT, PATTARAPORN CHANGYOD : RELATIONSHIPS AMONG SELFIE-POSTING, NARCISSISM, BODY DISSATISFACTION, AND GENDER, ADVISOR : ASSIST. PROF. DR. KULLAYA PISITSUNGKAGARN, Ph.D., 37 pp.

**Abstract**

This study aimed to investigate whether narcissism, body dissatisfaction, and gender could predict online selfie posting. We hypothesized that narcissism, body dissatisfaction, and gender would be positively with selfie-positing behavior. One hundred participants were asked to complete a set of 30-item questionnaires assessing the aforementioned three constructs. The data was processed and analyzed by using descriptive statistics. Then correlational analyses of the relationships among study variables and a multiple regression analysis were conducted via SPSS software version 20. Our finding revealed that narcissism and body dissatisfaction were positively correlated with selfie-posting. However, no significant positive relationship was found for gender variable.

**Field of study: Psychology**          **Student's Signature……………………….**

**Academic Year: 2017**          **Student's Signature………………………..**


**Advisor's Signature:.............................................**

Acknowledgement

First and foremost, we have to thank and show our sincerest gratitude to our research supervisor, Dr. Kullaya Pisitsungkagarn. Without her assistance and dedicated involvement in guiding us through every step of the process, this paper would have never been accomplished.

We would also like to thank you Mr. Karin Valivorn, and all the senior project committee members at the Faculty of Psychology for giving us the opportunity to conduct this research in our area of interest to further expand our knowledge. We sincerely thank all of the participants who sacrificed their time to volunteer and participate in this research. And finally, last but no means least, our deepest love and special word of thanks goes to our families, Chaikrongkit and Changyod family, and friends who have always been there for us since the very first day in Chulalongkorn University. Thank you for your continuous support, love, and encouragement as we could not have done this without them.

Table of Contents

Chapter 1

**Introduction**

**Rationale**

The trend of capturing ones own images has become a phenomenon of the society as posts in the form of images with human faces are increasing in the online world. New phenomenon of the self-portrait, or commonly known as the 'Selfie', has been trending throughout social media, and can be classified as the new medium for self-expression and self-representation (Souza et al., 2015). To date, the advance in technologies provides us with many different social media platforms for photo sharing, which tremendously captivates the young minds such as Facebook, Instagram and Twitter. They enable individuals to identify themselves socially with other people through photos. Also, they allow users to take photos, transform them in the extent of altering photos using program like Photoshop, and share them to peers.

Previous studies have widely examined behaviors on social networking sites (hereafter SNS), rather than looking at a particular new phenomenon of the self-portrait, selfie. Researchers recently have become interested in studying and examining as the trend of selfies was so widespread in 2013 that Oxford English Dictionary announced it as the international 'Word of the Year' (Brumfield, 2013). According to Meeker (2014), out of the two billion photos uploaded everyday to social media sites (i.e., Facebook, Instagram, Flickr, and Snapchat), millions of them are selfies, or self-portraits. Furthermore, ZocialRank, a social network ranking service, reported that there are 187,261 active Instagram users in Thailand with more than 11 million photos uploaded and shared. As might be expected, taking selfies and sharing them on social media sites have become a daily habit for many people and one of the most popular entertaining activities among Internet users (Hunt, Lin, & Atkin, 2014).

After it has become rapidly popularized in the society following increasing large amount of selfies being uploaded on to different social media platforms, it has been the new intriguing scope for researchers. There are many different kinds of photos such as selfies taken by oneself, groupfie taken by oneself, self-portrait taken by others, group-portrait taken by others, photos establishing locations not human faces, and candid photos, etc. According to Adamkolo and Elmi-nur (2015), there are also other types of selfies. For example, 'helfie' a photo of one's own hair, 'belfie' a snapshot of one's own backside, and 'welfie' a selfie taken while working out, etc. However, selfies have the ability to convey a vast detail of individual's information, and are the perfect mean for portraying to the society one's subjective image so they are able to represent individuals' messages and feelings to a high extent ( Guntuku et al., 2015; Souza et al., 2015). On the other hand, people take selfies due to different underlying reasons, it could be the mean of self-exploration, and others might be due to self-embellishment. Different parties may also criticize selfies to be highly related attention-seeking personality, others discussed to have psychological issues in relation to addiction and psychological health and well-being.

Although selfies culture has increasingly become popular, there is also a downside such that it is linked to various mental health problems and researchers have found that it highly involve issues with individuals self-image, self-confidence and self-esteem  (Adamkolo & Elmi-Nur, 2015). For instance, Steele (2014) stated that increases in sharing photos online predicted decreases in life satisfaction. Several studies also found that posting selfies are related to unhealthy behaviors such as narcissism and attention seeking (Fox & Rooney, 2015; Sorokowski et al., 2015; Weiser, 2015). Moreover, psychologists suggest that selfie is a symptom of body dysmorphic disorder (BDD) which perpetuates insecurities and high self-consciousness. This occurs when an individual constantly checks his or her appearance and attempts to achieve

perfect photos to impress others. Likewise, posting selfies online has also been related to self-objectification, which is when people view their bodies as an object based on its sexual value, and tend to derive your sense of self-worth from appearance. Moreover, it was found that women tend to post more photos online if they base self-worth on physical appearances, and could affect their body image if they spend excessive amount of time browsing through other people's photos due to insecurities. Nevertheless, not all of the attention on selfies have been negative. Some researchers argued that the benefits of taking and posting of selfies could encourage positive effect on their psychological and emotional states (Chen, Mark, & Ali, 2016). It is also a healthy form of self-exploration, and allowing individuals to express themselves or to boost their confidences (Rutledge, 2013).

In spite of the fact that there are different purposes behind selfie behavior, the aim of this present study is to examine narcissism, body dissatisfaction, and gender as predictors of selfie-posting behavior. Based on previous studies and empirical evidences, we have chosen narcissism as a variables of interest as it has been previously found to be significantly associated with selfies. Furthermore, this study also focuses on body dissatisfaction as one of the main variables because it has also been found to be significantly associated with selfies. However, there is still scarcity of literature in the scope of selfies and selfies posting behavior directly (Adamkolo & Elmi-Nur, 2015). There are various purposes for this research. First, it is important to note that there is limited research in Eastern context as the majority of them were conducted in the Western countries on Caucasian participants. Considering the cultural and sociodemographic differences in selfie posting behavior and SNS use indicated in several studies (Nadkarni & Hofmann, 2012). We therefore believe that the lack of research concerning selfie-posting behavior on SNSs, especially in a Thai context, needs to be addressed. Second, it refines the

existing studies on the impact of narcissism and body dissatisfaction on selfie posting behavior, in which the results are still uncertain. Finally, it is an attempt to add to the body of research an in-depth investigation of motivation for posting self-portrait on social media platforms in relation to personality trait and self-perception.

**Literature Review**

**Selfies.** Selfie, derivative of the English noun 'self', is a self-portrait photograph of oneself taken with a camera or a camera phone held at arm's length or pointed at a mirror, which can be taken by individuals themselves, or with a selfie stick. The photograph could be unedited, photoshopped, or edited using any photo editor applications. One's face must be visible, and/or include any part of the body to the waist area (Tajuddin, Hassan, & Ahmad, 2015; Sorokowski et al., 2015). There are several styles of selfie, for example, groufie (group selfie) which refers to photos a person takes of himself or herself with other people (Limjuco & Bautista, 2016). The term 'selfie' has been used for quite a period of time, but has become very popular in the society generally among young people, and it has been linked to mental health disorders, self-image, self-confidence, and self-esteem. However, selfies have emerged in becoming very popular in 2013, where various social networking sites spotted millions of selfies. Statistical analysis on selfies indicates that it has increased by 900 times from the year 2012-2014, initiate 1.1 – 3.2 times more comments and likes than other forms of individuals' posts on the popular mobile photo-sharing application, Instagram. Different social media websites allow individuals to express themselves in many forms of posting behavior such as images, videos, texts, music, etc. However, posts in the form of images with human faces are increasing in the online world because they grab more attention and effectively channel feelings compared to texts (Souza et al., 2015). Selfies, compared to other types of photos, allow more freedom of controlling

individual's face visibility, emotional expression, and camera position. Thus, selfies can be classified as the new medium for self-expression and self-representation, and further grant the possibility of examining one's personality based on individual's selfie (Guntuku et al., 2015; Sorokowski et al., 2015).

Sharing of photos is the act of one publishing or posting his or her digital photos online. With the recent rapid increase of photo-sharing SNS platforms, such as Instagram or Pinterest, photo-posting and sharing activities on SNSs have gained immense popularity, making them a unique and fast-emerging phenomenon in digital environment (Kim, Lee, Sung, & Choi., 2016). Among the countless photos shared on social networks, posting of selfies are becoming a widespread phenomenon. Selfie posting offers a new opportunity for people to express themselves via images visible to friends or strangers, depending on their social media setting. Selfies might help people express their identity and portray their perceived self or "true self" to the world saying "Look at me. This is who I am" (Steele, 2015).

To date, there is no widely used measurement for selfie posting behavior, and no direct report of its reliability and validity yet. The most commonly used form of measurement is self-report. Recently published studies (Fox & Rooney, 2015; Sorokowski et al., 2015) relied on participants' self-report social media posts (i.e., posting of selfies). They assessed with one item inquiring how many pictures they had taken of themselves and posted on SNSs in the past week (Fox & Rooney, 2015) and past month (Sorokowski et at., 2015). They also asked how many other pictures they had taken and posted on SNSs and considered this as a control variable in relevant analyses. On the other hand, Weiser (2015) assessed selfie posting frequency by using 9-point Likert scale, asking "How often would you say that you share selfies on photo sharing or

social networking sites?" Response options consisted of: "less than once a year;" to "more than once a day."

**Narcissism**

Narcissism has been defined in various aspects of social/personality and clinical psychology. However, the concept of narcissism as characterized by Buffardi and Campbell (2008) is best in integrating it into our current study. They refer narcissism as a personality trait that is set apart by an inflated positive self-view and grandiose self-presentation, particularly on one's physical appearance, status, and social popularity. To maintain their inflated self-views, narcissists take part in a scope of self-regulatory strategies such as seeking admiration and attention from others, bragging, and displaying material goods (Campbell, Rudich, & Sedikides., 2002).

To better understand the causes and consequences of narcissism, the "self-verification theory" by Swann (1983) could be used as an explanation. This theory assumed that people seek confirmation of existing self-views because we prefer others to see us according to how we perceived ourselves (Swann, 1983). By obtaining self-verification, individuals feel that their firmly held beliefs about the self are practical and thus, they can prepare for and exercise some control over their lives outcomes (Chen, 2006). Getting self-verifying feedback also provides people the power to facilitate social interactions through guiding action and advising others of what to expect from others (Swann, 1983). Likewise, receiving self-verifying evaluation within a group helps promote feelings of acceptance and belonging among ingroup members, leading to an increase in worth-based self-esteem (Burke & Jan, 1999). This theory links directly to narcissism and the trend of posting selfies because some of the people who share selfies on social media do that as a way to earn self-verification from positive feedbacks. Getting more likes or

followers makes them feel better about themselves and help boost their confidences (Grabmeier,

2015). Additionally, people with narcissistic tendencies may become highly invested in

maintaining their unrealistic self-views by craving for more and more self-verifying information.

In social and personality psychology, the widely used measurement to capture narcissism

as a personality trait is known as Narcissistic Personality Inventory (NPI) (Cain, Piscus, &

Ansell, 2008). Raskin and Terry (1988) developed the NPI as a measure of subclinical narcissism

that uses to assess nonpathological narcissism (Miller & Campbell, 2008). They initially came up

with a list of 220 items but resulted in a 40-item final version with 7 subscales (i.e. authority,

superiority, self-sufficiency, exploitativeness, exhibitionism, entitlement, and vanity) after

conducting a series of validation studies on students (Raskin & Terry, 1988).

Nevertheless, there might be time when encountering situations where respondents might

not be willing to complete the longer inventories (e.g., respondent exhaustion). Thus, Ames,

Rose, and Anderson (2006) developed the 16-item Narcissistic Personality Inventory (NPI-16) as

a shorter version of the NPI-40. The NPI-16 had shown to have meaningful face, internal,

discriminant, and predictive validity ($\alpha = 0.72$). Moreover, this brief version correlated with the

original NPI-40 at $r = .90$. As it is a reliable and valid measure of narcissism, it could serve as an

alternative measure of subclinical narcissism. Thus, this present study will use NPI-16.

 Social media inherently involves self-promoting behavior (e.g., posting photos of oneself

and updating status) and feedbacks from other people (Buffadi & Campbell, 2008). Hence, there

has been an increasing amount of studies on the issues of narcissism and social networking sites,

especially in young adults (Fox & Rooney, 2015; Mehdizadeh, 2010; Buffari & Campbell,

2008).  Narcissistic individuals are also driven by a desire to seek approval and affirmation from

others (DeWall et al., 2011). To satisfy their narcissism, they also enjoy posting attractive and

perfect selfies on SNSs to achieve self-verified in forms of likes and positive comments (Barry et al., 2015). This is evident from the fact that users will remove photos that did not reach the desired amount of 'likes' on their profiles, meaning that there are narcissistic or low self-esteem behaviours occurring due to this result (Madden, Lenhart, Cortesi, Gasser, Duggan, & Smith, 2013). Because narcissists are generally very concerned about their physical appearances (Bleske-Rechek, Remiker, & Baker, 2008).

They like to dress and adorn themselves in provocative, attention-grabbing ways and overestimate their attractiveness in the eyes of others (Vazire, Naumann, Rentfrow, & Gosling, 2008). Hence, most selfies are flattering image of oneself and the unflattering photos will be removed or de-tagged to create the illusion of flawless existence.

Moreover, narcissistic individuals tend to inflate or create certain character traits that they believe is attractive to the general public and construct a self in relation to other and then display the unrealistic persona on social networking platforms (Alloway, Runac, Qureshi, & Kemp, 2014). This is a way to manipulate others' impressions about them and to increase the positive feeds as a mean of maintaining unrealistic self-views. This could be done each one has total control of their profile content. Therefore, due to the benefits of social media that allow individuals to promote oneself in the desired light or create an idealistic lifestyle (Blachnio et al., 2014), SNSs has been one of the most ideal platforms for narcissists to construct and maintain their distorted self-images that they wish to portray (Morf & Rhodewalt, 2001).

As narcissism is related to the use of SNSs as a strategic means for self-promoting, self-verification, and impression management within social media environment; thus, it is reasonable for us to expect that narcissistic individuals are more inclined to generate self-promoting content, that is posting of own selfies. This notion could be supported by recent research which

demonstrated the linkage between selfies and narcissism. For instance, Fox and Roone (2015)

initially found a strong correlation between narcissism and the number of selfie posted. The

researchers asked 1,000 American men between the age 18 to 40 to complete personality

questionnaires assessing the three dark traits (i.e., narcissism, psychopathy, and

machiavellianism), as well as the number of selfies they had posted on SNSs. They were asked to

rate how often they use a filter or retouching tools to enhance their looks and attractiveness (e.g.,

skin tones, face shape, and skin blemishes). The findings showed that both higher narcissism and

editing photos were associated with posting more selfies. This could mean that self-obsessed

narcissists are more inclined to show off with selfies and present themselves in a perfect way as

possible. However, it should be noted that women were not included in the samples.

Likewise, Sorokowski et. al. (2015) replicated and expanded Fox and Rooney's (2015)

findings by conducting a study on both men and women, which consisted of 1296 participants

(aged between 14 to 47 years old) from Poland. The results indicated that women posted more

selfies than men. The study also found a significant correlation between narcissism and selfie

posting, especially among men. Moreover, Weiser (2015) discovered a strong positive

connection between the  frequency of selfie-posting and two sub-dimension of narcissism (i.e.,

Leadership/Authority and Grandiose Exhibitionism) among women. Similarly, Barry et al.,

(2015) found that individuals who scored high on narcissistic traits post more selfies on

Instagram, an online mobile photo-sharing site; however, they did not find a significant

association between self-esteem levels and frequency of selfie posts. In addition, further research

proved a generational increases in narcissism (Twenge et al., 2008). This suggests that

millennials are the most narcissistic, entitled generation of all time due to the rise of social media

and its new modern trend the 'selfie'(Barry et al., 2015; Wickel, 2015; Twenge, Campbell & Freeman, 2012).

As previously mentioned, social networking sites has had a vast amount of efforts on psychological behaviors such as narcissism (Barry et al., 2015). However, the use of social media has also had an effect on a person's body image. There has been great emphasis on the negative effects of media portraying body images to young adolescents and how it is decreasing their self esteem and creating body dissatisfaction (Amauza, 2014).

**Body Dissatisfaction**

Body dissatisfaction refers to a discontentment with the shape and size of one's body and appearance. It is the experience of negative thoughts about one's body. This includes judgements about size, shape, muscle tone, and generally involves a discrepancy between one's own body type and an ideal body type. (Klein, 2013; Mutale, Dunn, Stiller, & Larkin, 2016). Body dissatisfaction is the main source of discomfort among women of all ages as it can lead to the possibility of criticizing rather than accepting one's body as it is (Albertson, Neff, & Dill-Shackleford, 2014). According to The Oxford Handbook of the Psychology of Appearance, body dissatisfaction was so widespread that in the past it was labelled 'normative discontent' such that it is normal to feel dissatisfied about one's appearance as many people, especially women, feel that way (Klien, 2013).

When there is a high prevalence of body dissatisfaction, women have a higher chance of suffering a wide range of physical and mental health problems. Literatures have confirmed that in the Western societies body dissatisfaction is a significant problem as many people tend to struggle by paying too much attention on how they look affecting their self-esteem, which develop among children since early childhood as young as seven years old. Approximately 50%

of undergraduate women report being dissatisfied with their bodies (Grabe, Ward, & Hyde, 2008).

It has been confirmed that the media has a significant effect on how women perceive themselves. It was stated that media exposure is linked to general body dissatisfaction among women, but there are still a lack in literature in the scope of how social media is altering body dissatisfaction. Excessive amount of media exposure could lead to upward social comparison, which occurs when individuals compare themselves to someone who appear better than them. Thus, it can generate feelings of jealousy and dissatisfaction with their own appearances. The use of technology to digitally modify photos of models escalated resulting in an unrealistic standard set for women trying to mimic other women in advertisements or the online world. Hence, these unrealistic standards that cause upward comparison could increase the level of body dissatisfaction and low self-esteem.  Excessive amount of social media use could lead individual to have mixed perception between the online world and reality, which referred to as Cultivation Theory. Due to high usage of social media, it provides a constant repetition of particular forms, which the more media individuals use the more they are to mixed those images as their reality (Klein, 2013). Thus, when they think what they perceive is real, this may lead to social comparisons.

According to Festinger's Social Comparison theory, individuals assess their thoughts and abilities by comparing them with those of others. They also judge how they feel about themselves based on what is happening around them in both online and in real life. As for females, up to 80% of them make upward comparisons if they are already dissatisfied with their appearances in hopes of reaching the "ideal" appearance.  As previously outlined, most women are conditioned to care about their body appearances more than their physical capabilities or

internal emotional states (McKinley & Hyde, 1996). Thus, women engage in self-objectify behaviour such that they internalized how other people view their physical appearances.

Self-objectification is when body monitoring involves perceiving oneself through other people as in a third person perspective with constant judgement. According to Behan (2015), Objectification theory was originally developed by Fredrickson and Roberts in 1997. It states that sometimes women considered themselves as objects that need to be assessed by other people's opinions, which could lead to mental health problems. It can create feelings of discontentment towards one's body and reduce self-esteem as physical appearance becomes a crucial part for one's self-concept. Furthermore, Self-objectification can have negative effects such as anxiety towards one's physical appearance, increase the need of self-disclose with more feedback from other people, feeling of worthlessness or to the extent of self-harm behaviour (Erchull, Liss, & Lichiello, 2013). This could be one of the reasons why during developing adulthood stage, women make crucial decision of what cultural models to follow, and how to scheme an image that further maintain objectification and their sense of self-worth through selfies posting behaviour (Tajuddin, Hassan, & Ahmad, 2015).

Although, different social media means allow ones to express themselves in many forms of posting behaviour, but posts in the form of photos with human faces are increasing. As mentioned, selfies have an ability to affect one's body dissatisfaction to a certain extent. In particular, selfies has become very popular that it could be classified as the new medium for self-expression, which is the assertion of one's own personality. Also, self-representation, which is how we perceive ourselves and who we are developed through one's experience of the world, that could interfere with body dissatisfaction towards oneself (Souza et al., 2015). Selfies may cause adolescents to get diverted between their real and perceived body image. Unrealistic

expectations along with pressure from the surrounding environment could lead them to fixate on the idea that they must look in the way society wants them to look rather than how they genuinely are (Gupta, 2011).

According to Tajuddin, Hassan and Ahmad (2015), women who spend a lot of time on social media browsing through pictures of friends could become insecure about their body image. The more women are exposed to selfies or other photos on social media, the more they tend to compare themselves negatively. However, there is still scarcity of literature revolving around the area of how selfies posting behavior affect body dissatisfaction. A study by Wagner, Aguirre, and Sumner (2016) examined the connections between selfies, actual body size (BMI), and body dissatisfaction. An open-ended questionnaire was used to ask participants how many selfies were posted in a month, participants' actual body size was assessed in the form of their body mass index (BMI), and body dissatisfaction was assessed using the Body Image Assessment Scale-Body Dimensions (BIAS-BD). Consequently, women who has higher body dissatisfaction tend to take more selfies per month as this could be due to the desire of women, with negative body image, to use selfies as a way to satisfy their ideal self by taking the perfect picture to make them think that they are beautiful. Moreover, a study by McLean, Paxton, Wertheim, and Masters (2015) investigated the relationship between social media use, specifically selfies posting behaviour, and the overvaluation of shape, weight, and body dissatisfaction. Body dissatisfaction was measured with the 10-item Body Dissatisfaction subscale of the Eating Disorders Inventory 3. Cronbach's was 0.92. Items such as "I feel satisfied with the shape of my body" were rated on a 6-point scale ranging from 0 (never) to 5 (always), which higher scores show higher body dissatisfaction. The result shows that the more participants engage in self-photo activities such that female who regularly engage in selfie taking

and posting behaviour, and manipulation of photos for posting them on social media have higher body-related concerns. Moreover, those who share more selfies reported significant higher overvaluation of body dissatisfaction.

**Gender**

To date, latest selfie research has reported that both females and males use selfies for self-presentation reasons and for the identification of gender (Katz & Crocker, 2015). Nevertheless, there are sex differences in presenting oneself through selfies. For instance, Sorokowski et al. (2015) discovered that females tended to report posting more selfies and group selfies than did men. Another research also revealed women tend to take and post more selfies than men (Manovich et al., 2014). This is consistent with previous literature on online self-presentation, since women tend to present themselves as attractive and part of a social group (Manago, Graham, Greenfield, & Salimkhan, 2008). As selfie is highly related to self-expression and self-representation, gender does play an important role. For example, a study by Tajuddin, Hassan, & Ahmad (2015) examined the relationship between negative and positive impacts of selfie among genders by using self-developed questionnaire through convenience sampling from university students. Some of the positive impacts of selfie are learning about self, improve self, positive perception, compliments, and increase confidence. Some of the negative impacts of selfie are feeling superior, addiction, waste of time, cyber bullying, and lost of confidence. It was concluded that positive impacts of selfie affecting both gender were the increase in perception and confidence. Negative impacts of selfie affecting both gender was the waste of time editing photos. Due to the limitation of gender in previous studies of posting selfies (Sorokowski et al., 2015; Barry et al., 2015), this current study will also examine gender differences across narcissism and body dissatisfaction variables.

**Current study**

      Apart from gender, this study also aims to examine the relationship of narcissism and body image on self posting among undergraduates, given the popularity of selfies among college-attending young adults (Katz & Crocker, 2015) and adolescents (Kiprin, 2013; Senft & Baym, 2015). This age group was selected given past reports that 96 percent of young adults (aged 20-23 years) had taken a selfie in the past (Katz & Crocker, 2015). Likewise, 30 percent of the total photos shared on different SNS are in fact selfies posted by adolescents (Locateadoc.com, 2014). Moreover, Moreau (2014) also found that young individuals are more inclined to engage in the selfie trend than older people age between 35 years old and above. Plausible reason stated was that younger ones (aged between 18 and 34 years old) use social media more heavily than older people. Likewise, Tifentale and Manovich (2014) investigated the trend of taking selfies by conducting a study in Bangkok, Berlin, Moscow, New York, and Sao Paulo. The findings indicated that taking and posting selfies on social media is a young people's sport (Manovich et al, 2014). Therefore, we expect to see a distinct relationship between the four key variables amongst this age group.

**Research Objective**

      To examine whether narcissism, body dissatisfaction, and gender are correlated to selfie posting behavior among Thai undergraduates.

**Research Scope**

Independent variables: Narcissism, Body Dissatisfaction, and Gender

Dependent variable: Selfie-posting

**Research Framework**
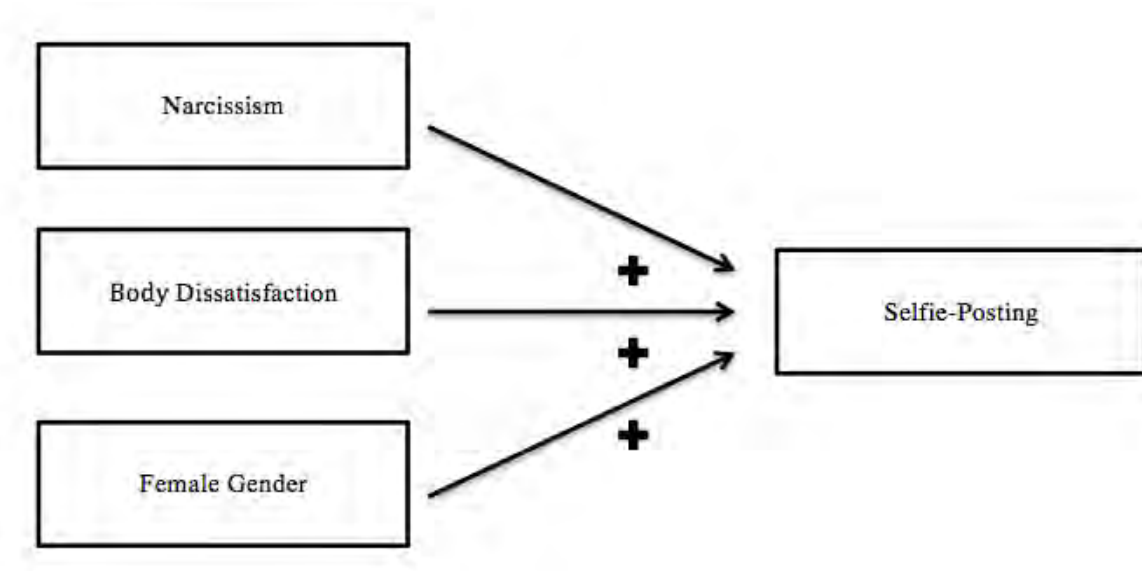


*Table 1.* A model of the research framework according to the hypotheses

**Research Hypotheses**

1. Narcissism has a significant positive correlation with selfie-posting.

2. Body dissatisfaction has a significant positive correlation with posting selfies.

3. Gender has a significant positive correlation with posting selfie.

4. Narcissism, body dissatisfaction, and gender, all together, significantly predict selfie-posting behavior.

**Anticipated Contribution**

**Theoretical contribution.** Further advancement of the understanding among factors contributing to selfie-posting.

**Practical contribution.** Acquire knowledge about selfie-posting to the extend of obtaining it within the optimum level.

Chapter 2

**Method**

**Participants**

Participants in the current study were International program undergraduate students at Chulalongkorn University (Faculty of Architecture, Arts, Commerce and Accountancy, Communication Arts, Economics, Engineering, Psychology, and Science), given past reports of high prevalence and impact of selfie-posting in adolescents (Katz & Crocker, 2015; Kiprin, 2013; Senft & Baym, 2015). The number of the participants were calculated referring to Hair, Black, Babin, and Anderson's suggestion (2010) that there should be 20 samples per one independent variable. With the three independent variables (i.e., narcissism, body dissatisfaction, and gender) in the current study, 60 samples are required. Nevertheless, additional 40 participants were included to produce a robust effect and to minimise the effect of missing data. Hence, a total of 100 undergraduate international program students were recruited on a voluntary basis based on convenient sampling to participate in the current study.

**Material and Measures**

**Preliminary Data Analysis.** Preliminary analysis was conducted to ascertain the psychometric property of the measures used. Assessment of psychometric property measure would not be translated into Thai given the international program characteristics. Moreover, internal consistency was assessed for narcissism and body dissatisfaction by Cronbach's alpha and Correlated Item -Total Correlation. Reliability analysis was carried out for selfie-posting (i.e., test-retest reliability).

All of the measures, the self-reported selfie-posting, Narcissism Scale, and Body Dissatisfaction scale were pilot tested in 40 international students. A two-week test re-test

reliability analysis was conducted for selfie-posting scale and revealed a satisfactory reliability of .64. Indices of internal consistency were assessed for narcissism and body dissatisfaction. For narcissism, acceptable indices of internal consistency was .75, as determined by the Kuder-richardson 20. Body dissatisfaction scale has been shown to have high internal consistency with the Cronbach's alpha of .92 and the correlated item-total correlations ranging from 0.53 to 0.82. Only when these psychometric properties were ascertained did the measures were posted as an online survey hosted on Google Drive.

   ***Demographic Information.*** Participants were asked to report their gender, age, and educational status to ensure that they are eligible for the study prior to completing the questionnaires.

   ***Selfie-posting.*** A formal definition of selfie-posting was first provided (i.e. Self-portrait photograph of oneself taken with a camera or a camera phone held at an arm's length or pointed at a mirror, which can be taken by individuals themselves, or with a selfie stick. The photograph could be unedited, photoshopped, or edited using any photo editor applications. One's face must be visible, and/or include any part of the body only to the waist area). Then, participants were inquired "How often do you post a selfie on any social media platforms (e.g. instagram, facebook, twitter) over the past two weeks?". A 5-point Likert scale was provided  ranging from 1 = "None/ A Little Bit often;" to 5 = "Very Often".

   ***Narcissism.*** To avoid respondent exhaustion, the Narcissistic Personality Inventory-16 (NPI-16, Ames, Rose, & Anderson, 2006) was employed to measure narcissism. NPI-16 items were described as drawing from across the dimensions of Raskin and Terry's  original 40-item measure (1988). The scale consisted of 16 questions in a dichotomous scale format. Participants were then asked to select the most appropriate response from the pairs of statements, one

reflecting narcissistic tendencies and the other does not (e.g., "I really like to be the center of attention." vs. "It makes me uncomfortable to be the center of attention."). For each item, the narcissistic statement is scored as 1 whereas its non-narcissistic counterpart is scored as 0. The scores obtained range from 0 to 16, with higher scores indicating greater levels of narcissism. According to Ames et al. (2006), the NPI-16 has been shown to have a acceptable internal consistency of 0.72, whereas the full 40-item scale revealed the alpha variance of 0.84. The correlation between the original 40-item measure and the NPI-16 was 0.71 (Ames et al., 2006). The internal consistency reliability, as determined by the Kuder-richardson 20, upon the data collection for the present study was .61.

     ***Body Dissatisfaction.*** Revised version of The Body Parts Satisfaction Scale by Frederick, Hatfield, Bohrnstedt, and Berscheid (2014) was used to measure body-dissatisfaction. The scale contains 24 items, but was self-revised to contain only 13 items since this study focused specifically on areas that would most likely appear in a selfie, which this study restricted selfie pictures to include only the face down to waist area. Participants were presented with a list of various parts of bodies (e.g., eyes, ears, nose, hand), and items that are below the waist area were cut off because only hand-length selfies were included so that clear face expressions could be examined. Participants will be asked to rate the degree of dissatisfaction for each aspect on a five-point Likert scale ranging from 1 (none/ a little bit dissatisfied) to 5 (very dissatisfied). Hence, higher scores indicate greater dissatisfaction level with self. The Cronbach's α for Body Parts Satisfaction Scale Subscales for the face is .74 in Frederick, Hatfield, Bohrnstedt, and Berscheid's (2014) study. In this present study, the Cronbach's alpha was .91, and was flexible being able to modify items to target only various parts of the body like the mentioned past study.

**Procedure**

       **Data collection.** Link to online questionnaires hosted on Google Drive was distributed to target population of 100 Thai undergraduate international program students. Participants were contacted either in person (e.g., phone calls, face-to-face encounter) or through social media (e.g., Facebook, Line) prior to the online questionnaire distribution.  Upon indicating voluntary agreement to participate in the current study, the participants responded to the questionnaires for approximately 15 minutes.

       **Statistical analysis.** SPSS statistical software version 20  was used to test the hypotheses. This involved the following statistical analysis.

- Descriptive statistic analysis: Frequency, mean, standard deviation, minimum, maximum, and percentage of key variables were calculated

- Inferential statistical analysis: Correlational and Multiple Regression analyses were conducted.

Chapter 3

**Results**

**Descriptive Analysis**

Descriptive statistics were applied to describe demographic characteristics of the 100

respondents. As shown in Table 2, the majority of the sample are 66% female, followed by 34%

of male. Furthermore, the age of respondents varies between 19 and 24, in which the average is

21.68. All of them are studying for a Bachelor's degree at Chulalongkorn University (100%).

Table 2.

*Demographic of respondent*

|  | **Demographic** | **Frequency** | **%** |
|---|---|---|---|
| Gender | Male | 34 | 34.0 |
|  | Female | 66 | 66.0 |
|  |  |  |  |
|  | Total | 100 | 10 |
| Age | 19 | 2 | 2.0 |
|  | 20 | 8 | 8.0 |
|  | 21 | 26 | 26.0 |
|  | 22 | 49 | 49.0 |
|  | 23 | 14 | 14.0 |
|  | 24 | 1 | 1.0 |
|  | Mean ± SD (21.68 ± 0.92) |  |  |
|  | Min – Max (19-24) |  |  |
|  | Total | 100 | 100 |
| Education | Bachelor's degree | 100 | 100 |

The descriptive table below shows the frequency of posting selfie on social media platforms, level of narcissism, and level of body dissatisfaction from 100 respondents.

Table 3

*Mean, standard deviation, minimum, maximum, and range of each measures (n = 100)*

|                      | Mean  | S.D  | Min | Max | Actual Range | Possible Range |
|----------------------|-------|------|-----|-----|--------------|----------------|
| Narcissism (NPI-16)  | 5.02  | 2.76 | 0   | 11  | 11           | 1 - 16         |
| Selfie-Posting       | 1.94  | 1.24 | 1   | 5   | 4            | 1 - 5          |
| Body Dissatisfaction | 24.87 | 9.32 | 12  | 55  | 43           | 1 - 60         |

**Inferential Analysis**

In this section, the outcomes of bivariate correlation and multiple linear regression analyses will be presented. The analyses were conducted to explore the relationships among the studies variables (i.e., selfie-posting. narcissism, body dissatisfaction, and gender) and to examine how the dependent variable (i.e., selfie-posting) was predicted by independent variables (i.e., the remaining three variables). As can be referred from Table 4, as predicted, pearson correlation coefficient revealed a significant positive correlation between selfie-posting ($M = 1.94$, $SD = 1.24$) and narcissism ($M = 5.02$, $SD = 2.76$) ($r = 0.388$, $p < 0.01$), and body dissatisfaction ($M = 24.87$, $SD = 9.32$) ($r = 0.339$, $p < 0.01$). However, different than hypothesized, no significant correlation was found between selfie posting and gender ($r = -0.018$, $p = 0.777$).

Table 4

*Means, Standard Deviations and Bivariate Correlations for study Variables*

| Variable | Selfie-posting | Narcissism | Body dissatisfaction | Gender |
|---|---|---|---|---|
| Selfie-posting | (.779) | | | |
| Narcissism | .388** | (.613) | | |
| Body dissatisfaction | .339** | -138 | (.905) | |
| Gender | -.018 | .-.164 | .049 | - |

**$p < .01$. Correlation is significant at the 0.01 level (1-tailed).

Before proceeding to conducting the regression analyses, assumptions of the analyses were explored. These were relevant to Hair, Black, Babin, and Anderson (2010)'s rule of multicollinearity. To begin with, none of the intercorrelations were higher than the 0.90 threshold. Additionally, the tolerance values need to be greater than .10 and the variance inflation factor (VIF) were lesser than 10. As shown in Tables 3 and 4, all of these assumptions were met.

A standard multiple regression analysis was conducted with selfie-posting as the outcome variable with the three predictors of narcissism, body dissatisfaction, and gender (see Table 5). The three predictor variables significantly explained 21% of the variance in selfie-posting, $F(3, 96) = 9.81$, $p < .001$, $R^2 = .211$. Independently, the result showed that narcissism is an only significant predictor of selfie-posting, such that people high in narcissism tend to post more selfies than people low in narcissism, $\beta = .35$, $p < .001$. With an increase in 1 standardized unit of narcissism, selfie posting increased by .35 unit. Similar prediction was found regarding body dissatisfaction. This variable significantly predicted selfie-posting, such that higher body dissatisfaction indicated greater selfie-posting, $\beta = .29$, $p = .002$, at 0.01 level. With an increase

in 1 standardized unit of body dissatisfaction, selfie posting increased by .29 unit. However, gender was not a significant predictor of selfie-posting, $\beta = .03$, $p = .777$. According to the beta correlation coefficient, it can be suggested that narcissism is the most important predictor of selfie-posting, followed by body dissatisfaction, shown in the regression equation below.

$$Z^{\wedge}_{\text{SELFIE POSTING}} = 0.29\, Z_{\text{CONSTANT}} + 0.03_{\text{GENDER}} + 0.35{***}_{\text{NARC}} + 0.29{**}_{\text{BD}}$$

Table 5.

*Standard Multiple Regression Analysis of Factors Predicting Selfie-posting*

|  | β | S.E | t | sig | Collinearity Tolerance | Statistics VIF |
|---|---|---|---|---|---|---|
| (Constant) | .29 | .079 |  |  |  |  |
| Gender | .03 | .047 | .285 | .777 | .96 | 1.05 |
| Narcissism | .35** | .132 | 3.853 | .000 | .98 | 1.03 |
| Body dissatisfaction | .29** | .144 | 3.201 | .002 | .97 | 1.03 |

*Note.* $R = 0.484$, Adjust $R^2 = 0.211$, $F = 9.81$ ($p = 0.000$)

Based on the information obtained, a regression equation where the three variable predicted selfie posting can be proposed as follows:

|  | Statement | Result |
|---|---|---|
| H1 | Narcissism has a positive correlation with selfie-posting. | Supported |
| H2 | Body dissatisfaction has a positive correlation with posting selfies. | Supported |
| H3 | Gender has a positive correlation with posting selfie. | Not support |
| H4 | Narcissism, body dissatisfaction, and gender, all together, predict selfie-posting behavior. | Partially supported |

Chapter 4

**Discussion**

The purpose of this study was to examine the relationship among selfies posting behaviour, narcissism, body dissatisfaction and genders. As there are numerous factors behind selfie posting behaviour, we would like to particularly examine how body dissatisfaction, narcissism, and gender could influence the amount of selfies posted online.

**Hypotheses and Findings**

Our first hypothesis states that there will be a positive correlation between the numbers of selfies posted on social networking sites and narcissism such that people who have high narcissism tend to post more selfies than individuals with low narcissism. This hypothesis was supported by our present findings as we found a significant positive correlation between selfies posting behaviour and narcissism. Our results are also consistent with the findings of the previous studies as they have identified a strong relationship between narcissism and selfies posting (Barry et al., 2015; Fox & Rooney, 2015; Sorokowski et al., 2015; Weiser, 2015). The increase in the number of selfie posted that accompanies is the increased level of narcissism could be attributed to the need for self-verification and self-promotion. Barry et al. (2015) suggested that individuals with narcissism constantly seek self-verification from others. In an attempt to satisfy this, the individuals might use social media to post selfies and get self-verified from the likes and positive feedbacks from others (Barry et al., 2015). Hence, selfie posting can be viewed as a mean of maintaining their inflated self-views. By doing so, the possibility that they would be accepted and well-liked is likely to increased.

The second hypothesis states that there will be a positive correlation between the number of selfies posted on social networking sites and body dissatisfaction such that increased body

dissatisfaction is associated with more selfies posting on social networking sites,and vice versa. This hypothesis was supported by our present finding as we found a significant positive relationship between selfies posting behaviour and body dissatisfaction. This finding resonates reports by Wagner, Aguirre, and Sumner (2016) who examined the connections between selfies, actual body size (BMI), and body dissatisfaction, and reported that women who have higher body dissatisfaction tend to take more selfies per month. This could be due to the desire of women, with negative body image, to use selfies as a way to satisfy their ideal self by taking the perfect picture. Moreover, a study by McLean, Paxton, Wertheim, and Masters (2015) investigated the relationship between social media use, selfies posting behaviour, and the overvaluation of shape, weight, and body dissatisfaction. The result showed that the more participants with higher body-related concerns engage more in self-photo activities, such as female who regularly engage in selfie taking and posting behaviour, and manipulation of photos for posting them on social media. Moreover, those who share more selfies reported significant higher overvaluation of body dissatisfaction.

The third hypothesis states that there will be a positive correlation between the numbers of selfies posted on social networking sites and gender such that women tend to post more selfies than men. This hypothesis was not supported by our present study, as there was no positive correlation found between selfies posting behaviour and gender. Our finding is inconsistent with the past studies which suggested that women are more inclined to post selfie online than men (McLean, Paxton, Wertheim, & Masters, 2015; Sorokowski et. al., 2015). Frequent posting of selfies by women could be related to their need for physically attractive self-presentation (Weiser, 2015). Thus, the finding should be viewed with the consideration of the relatively limited number of male participants.

The fourth hypothesis states that the combination of narcissism, body dissatisfaction, and gender will have a positive correlation with gender. This prediction was partially supported by our present study as only narcissism and body dissatisfaction resulted in having a significant positive correlation with selfies posting behaviour, but not gender.

**Strengths**

Research topic regarding selfies posting behaviour are still new, as there are very limited amount of research within this area. Thus, the current study on selfies posting behaviour, narcissism, body dissatisfaction, and gender is considered very new, especially within the Thai context. This study could greatly contribute and benefit in the science/psychology field as this could lead to further useful findings to gain more knowledge on human thoughts and behaviours among this area of research.

**Limitations**

Not like other initials studies, there are some drawbacks that could be addressed in the future studies. To begin with, participants in the current study were not diverse enough and data collected were not fully generalised to participants other than those participating in this current study, international students from Chulalongkorn University only. Thus, it is important not to take caution in finding generalization. Furthermore, the equipment used in this present study was solely questionnaires so participants might be subjected to concerns for social desirability. Survey respondents may decide to complete the questionnaires in the manner that deemed positively and favourably towards other people by over reporting the goods and under reporting the bads. Another limitation could be the narcissism scale used in this research as the internal reliability was not so high.

 **Implications**

Implications of the current study can be viewed theoretically in terms of its contribution to a better understanding of selfie posting which has become a very popular activity that has become a daily habit for many individuals, and is one of the most popular activities among Internet users (Hunt, Lin & Atkin, 2014). Findings from the current study should help clarify this phenomenon and shed an initial. Finally, finding from the present study could be adapted into an intervention to reduce negative effects that might be caused from exposure to excessive amount of selfies taking and posting behaviour to the appropriate degree.

**Future Research**

Future studies should focus and consider expanding attempts to understand into other population such as different universities for more effective result to gain more diversity that may provide better representative samples. Also, future study can examine other demographic factor such as drawing participants from wider age range for more generalised result. Questionnaires used in this present study were all in English language, and even though all participants are international students with no language barrier, but future research might consider distributing them out in Thai as well. In addition, the purpose of this study was to examine the relationship between selfies posting behaviour on social networking sites, narcissism, body dissatisfaction, and gender. Hence, future study might modify it into an experiment where participants get primed to be more dissatisfied with their bodies or to have higher narcissism level first before completing all the questionnaires so researchers could examine whether the amount of selfies increase in accordance with other primed factors or not. Future research should also obtain more of an equal balance between genders in order to examine the gender differences more effectively.

References

Adamkolo, M. I., & Elmi-Nur, H. (2015). Communicating 'The Self' through Digital Images:

Gender Bias and Mental Health Risks Associated with Selfie use on Social Network

Sites. *Global Media Journal, 5*(2), 16-35.

Albertson, E. R., & Neff, K. D. (2014). Self-Compassion and Body Dissatisfaction in Women: A

Randomized Controlled Trial of a Brief Meditation Intervention. *Mindfulness*.

doi10.1007/s12671-014-0277-3

Allen, S. N. (2015). Adolescents, Social Media, and the Use of Self- Portraiture in Identity

Formation. *Loyola Marymount University and Loyola Law School Theses and

Dissertations*, 150.

Alloway, T., Runac, R., Quershi, M., & Kemp, G. (2014). Is Facebook linked to selfishness?

Investigating the relationships among social media use, empathy, and narcissism. *Social

Networking*, *3(3)*, 150-158.

Amazue, L. O. (2014). The Contributions of Media, Body Image Concerns and Locality to the

Perceived Self-esteem of Female Nigerian Adolescents. Gender & Behaviour, 12(3),

6113-6124.

Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism.

*Journal of Research in Personality*, *40*(4), 440-450.

Barry, C. T., Doucette, H., Loflin, D. C., Rivera-Hudson, N., & Herrington, L. L. (2017). "Let

me take a selfie": Associations between self-photography, narcissism, and self-esteem.

*Psychology of popular media culture*, *6*(1), 48.

Błachnio, A., Przepiorka, A., & Pantic, I. (2016). Association between Facebook addiction, self-

        esteem and life satisfaction: A cross-sectional study. *Computers in human behavior*, *55*,

        701-705.

Bleske-Rechek, A., Remiker, M. W., & Baker, J. P. (2008). Narcissistic men and women think

        they are so hot–But they are not. *Personality and Individual Differences*, *45*(5), 420-424.

Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking web sites.

        *Personality and Social Psychology Bulletin*, *34*(10), 1303-1314.

Chen, S., English, T., & Peng, K. (2006). Self-verification and contextualized self-views.

        *Personality and Social Psychology Bulletin*, *32*(7), 930-942.

DeWall, C. N., Lambert, N. M., Slotter, E. B., Pond Jr, R. S., Deckman, T., Finkel, E. J., ... &

        Fincham, F. D. (2011). So far away from one's partner, yet so close to romantic

        alternatives: avoidant attachment, interest in alternatives, and infidelity. *Journal of

        Personality and Social psychology*, *101*(6), 1302-1316.

Erchull, M. J., Liss, M., & Lichiello, S. (2013). Extending the Negative Consequences of Media

        Internalization and Self-Objectification to Dissociation and Self-Harm. *Sex Roles, 69*(11),

        583-593. doi: 10.1007/s11199-013-0326-8

Fox, J., & Rooney, M. C. (2015). The dark triad and trait self-objectification as predictors of

        men's use and self-presentation behaviors on social networking sites. *Personality and

        Individual Differences*, *76(2)*, 161-165.

Frederick, D. A., Hatfield, E., Bohrnstedt, G. W., & Berschied, E. (2014). Factor Structure and

        Validity of the *Body Parts Satisfaction Scale*: Results from the 1972 *Psychology Today*

        Survey. *The Body Parts Satisfaction Scale, 2*, 223-243.

Giovannelli, T. S., Cash, T. F., Henson, J. M., & Engle, E. K. (2008). The measurement of body-image dissatisfaction-satisfaction: is rating importance important?. *US NationalLibrary of Medicine National Institutes of Health,* 5(2), 216-23. doi:10.1016/j.bodyim.2008.01.001

Grabe, S., & Hyde, J. S. (2006). Ethnicity and Body Dissatisfaction among Women in the United States: A Meta-Analysis. The American Psychological Association, 132(4), 622-640. doi: 10.1037/0033-2909.132.4.622

Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *The American Psychological Association*, 134(30), 460-476. doi: 10.1037/0033-2909.134.3.460

Guntuku, S. C., Qiu, L., Roy, S., Lin, W., & Jakhetiya, V. (2015). Do others perceive you as you want them to? Modeling Personality based on Selfies. *Research Gate*. doi: http://dx.doi.org/10.1145/2813524.2813528

Gupta, C. (2011). The Relation between Body Image Satisfaction and Self-esteem to Academic Behaviour in Adolescents and Pre-adolescents. *Body Image,* 1-34.

Klein, K. M. (2013). Why Don't I Look Like Her? The Impact of Social Media on Female Body Image. *Claremont McKenna College Senior Theses*, 720.

Limjuco, R. P., & Bautista, V. A. (2016). Students' Behavioral Intentions to Indulge in Selfie and Groufie Activities: A Path Analysis. *Serials Journals*, 14(2), 1219-1235.

Madden, M., Lenhart, A., Cortesi, S., Gasser, U., Duggan, M., Smith, A., & Beaton, M. (2013). Teens, social media, and privacy. *Pew Research Center*, *21*, 2-86.

Mehdizadeh, S. (2010). Self-presentation 2.0: Narcissism and self-esteem on Facebook. *Cyberpsychology, behavior, and social networking*, *13*(4), 357-364.

Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality

      conceptualizations of narcissism. *Journal of Personality*, *76*(3), 449-476.

Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-

      regulatory processing model. *Psychological inquiry*, *12*(4), 177-196.

Nnaemeka, A., & Solomon, A. (2014). Relationship between body image and self-esteem among

      Female Undergraduate Students of Behavioral Sciences. *Journal of humanities and*

      *Social Science,* 19 (1), 01-05.

Perloff, R. M. (2014). Social Media Effects on Young Women's Body Image Concerns:

      Theoretical Perspectives and an Agenda for Research. *Feminist Forum Review Article*.

      doi 10.1007/s11199-014-0384-6.

McLean, S. A., Paxton, S. J., Wertheim, E. H., & Masters, J. (2015). Photoshopping the Selfie:

      Self Photo Editing and Photo Investment are Associated with Body Dissatisfaction in

      Adolescent Girls. *International Journal of Eating Disorders*, 48:8, 1132–1140. doi:

      10.1002/eat.22449

Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality

      Inventory and further evidence of its construct validity. *Journal of personality and social*

      *psychology*, *54*(5), 890.

Rudich, E. A., Sedikides, C., & Campbell, W. K. (2002). Narcissism, self-esteem, and the

      positivity of self-views: Two portraits of self-Love. *Journal of the Acoustical Society of*

      *America*, *73*, 1354-1360.

Sorokowski, P., Sorokowska, A., Oleszkiewicz, A., Frackowiak, T., Huk, A., & Pisanski, K.

      (2015). Selfie posting behaviors are associated with narcissism among men. *Personality*

      *and Individual Differences*, 85, 123-127.

Souza, F., Casas, D. L., Flores, V., Youn, S., Cha, M., Quercia, D., & Almeida, V. (2015). Dawn

of the Selfie Era: The Whos, Wheres, and Hows of Selfies on Instagram. Research Gate.

doi arXiv:1510.05700v1

Swann Jr, W. B. (1983). Self-verification: Bringing social reality into harmony with the self.

*Social psychological perspectives on the self*, *2*, 33-66.

Tajuddin, J. M., Hassan, N. A., & Ahmad, R. (2015). Social Media Usage among University

Students: A Study on Selfie and Its Impacts. *Global Journal of Business and Social

Science Review*, 1(1), 126-134.

Twenge, J. M., Campbell, W. K., & Freeman, E. C. (2012). Generational differences in young

adults' life goals, concern for others, and civic orientation, 1966–2009. *Journal of

personality and social psychology*, *102*(5), 1045.

Twenge, J. M., Konrath, S., Foster, J. D., Keith Campbell, W., & Bushman, B. J. (2008). Egos

inflating over time: a cross   temporal meta   analysis of the Narcissistic Personality

Inventory. *Journal of personality*, *76*(4), 875-902.

Vazire, S., Naumann, L. P., Rentfrow, P. J., & Gosling, S. D. (2008). Portrait of a narcissist:

Manifestations of narcissism in physical appearance. *Journal of Research in Personality*,

*42*(6), 1439-1447.

Wagner, C., Aguirre, E., & Sumner, E. M. (2016). The relationship between Instagram Selfies

and Body Image in Young Adult Women. *Peer-reviewed Journal*, 21(9).

Weiser, E. B. (2015). # Me: Narcissism and its facets as predictors of selfie-posting frequency.

*Personality and Individual Differences*, *86*, 477-481.

Wickel, T. M. (2015). Narcissism and Social Networking Sites: The Act of Taking Selfies. *Elon

Journal of Undergraduate Research in Communications*, *6*(1).

Age: _____          Educational Level: _____
Gender: _____

      Please read the provided question and circle the appropriate number on the given scale regarding your selfie-posting behavior.

---

**Definition of Selfie:**

1.) Self-portrait photograph of oneself taken with a camera or a camera phone held at arm's length or pointed at a mirror.
2.) Can be taken by individuals themselves, or with a selfie stick.
3.) The photograph could be unedited, photoshopped, or edited using any photo editor applications.
4.) One's face must be visible, and/or include any part of the body only to the waist area.

---

**Over the past 2 weeks:**

How often do you post a selfie on any social media platforms (e.g., Instagram, Facebook)?

|  | Non/ A Little Bit Often (1) | Somewhat Often (2) | Moderately Often (3) | Quite Often (4) | Very Often (5) |
|---|---|---|---|---|---|
| Selfie-posting Behavior | 1 | 2 | 3 | 4 | 5 |

**Narcissism Dichotomous Scale**

       Read each pair of statements below and place an "X" by the one that comes closest to describing your feelings and beliefs about yourself.

**For example**

       1.) Example       _____ I like having more power than other people
                                   _____ I don't mind taking orders from other people

       Please put an "X" by the one that most represents you. If you prefer "I like having more power than other people" over "I don't mind taking others from other people" please put an "X" in front of the first statement.

       You may feel that neither statement describes you well, but pick the one that comes closest to you. Please complete all pairs.

1. \_\_\_\_\_ I really like to be the center of attention
   \_\_\_\_\_ It makes me uncomfortable to be the center of attention

2. \_\_\_\_\_ I am no better or no worse than most people
   \_\_\_\_\_ I think I am a special person

3. \_\_\_\_\_ Everybody likes to hear my stories
   \_\_\_\_\_ Sometimes I tell good stories

4. \_\_\_\_\_ I usually get the respect that I deserve
   \_\_\_\_\_ I insist upon getting the respect that is due me

5. \_\_\_\_\_ I don't mind following orders
   \_\_\_\_\_ I like having authority over people

6. \_\_\_\_\_ I am going to be a great person
   \_\_\_\_\_ I hope I am going to be successful

7.\_\_\_\_\_ People sometimes believe what I tell them
   \_\_\_\_\_ I can make anybody believe anything I want them to

8. \_\_\_\_\_ I expect a great deal from other people
   \_\_\_\_\_ I like to do things for other people

9. \_\_\_\_\_ I like to be the center of attention

_____ I prefer to blend in with the crowd

10. _____ I am much like everybody else
    _____ I am an extraordinary person

11. _____ I always know what I am doing
    _____ Sometimes I am not sure of what I am doing

12._____ I don't like it when I find myself manipulating people
    _____ I find it easy to manipulate people

13._____ Being an authority doesn't mean that much to me
    _____ People always seem to recognize my authority

14. _____ I know that I am good because everybody keeps telling me so
    _____ When people compliment me I sometimes get embarrassed

15. _____ I try not to be a show off
    _____ I am apt to show off if I get the chance

16. _____ I am more capable than other people
    _____ There is a lot that I can learn from other people

**Body Dissatisfaction Scale**

Please circle the appropriate number on the given scale that comes closest to how you feel dissatisfied with the specified body part. Please answer all questions.

| None/ A Little Bit Dissatisfied (1) | Somewhat Dissatisfied (2) | Moderately Dissatisfied (3) | Quite Dissatisfied (4) | Very Dissatisfied (5) |
|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Overall Facial Attractiveness | 1 | 2 | 3 | 4 | 5 |
| Hair | 1 | 2 | 3 | 4 | 5 |
| Eyes | 1 | 2 | 3 | 4 | 5 |
| Ears | 1 | 2 | 3 | 4 | 5 |
| Nose | 1 | 2 | 3 | 4 | 5 |
| Mouth | 1 | 2 | 3 | 4 | 5 |
| Teeth | 1 | 2 | 3 | 4 | 5 |
| Chin | 1 | 2 | 3 | 4 | 5 |
| Complexion | 1 | 2 | 3 | 4 | 5 |
| Shoulders | 1 | 2 | 3 | 4 | 5 |
| Arms | 1 | 2 | 3 | 4 | 5 |
| Hands | 1 | 2 | 3 | 4 | 5 |