

**An Investigation into Whether Social Comparison on Social  
Networking Sites Influences Self-Esteem Differently in Gender.**

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## **Abstract**

The power social networking sites has upon a user's self-esteem has been a popular topic with much debate in academic studies over the past number of years. This dissertation intends to use previous scholarly studies to build upon their knowledge to examine if social comparison on internet communication platforms, i.e. social networking sites, has an effect on self-esteem levels and to discover if gender anyway differently impacts this. Both genders have distinctive social roles in particular social situations, different gratification and motivation towards social networking sites usage, and possess different personality traits as well as behaviours, attitudes and interest towards their own physical and mental appearances. These factors may alter the outcomes when analysing self-esteem levels in gender when users social compare on social networking sites.

Positivism, a deductive approach, was used in this study to seek new insights by employing a secondary data method to explore various relating theories. Six hypotheses were made when examining self-esteem, social comparison, social networking site usage and the frequency in gender and thereafter, the primary research instrument of surveys was used to investigate whether these predictions proposed were true. SPSS software version 6 was used to illustrate and interpret the uncovered data and applying statistical tests to ultimately determine if social comparison and self-esteem displays an association with one another and towards various other speculations. The analysis had discovered that social comparison is associated with the frequency of social networking sites usage and self-esteem. It was also shown that females had a higher usage frequency on social networking sites than males. Thus, there is a gender difference in self-esteem when social comparison is executed on social networking sites. Women reflect a more substantial influence on social comparison than males on social networking sites which results in a negative impact on their self-esteem. Although this research had discovered some new substance, further research is needed to limit the effects on self-esteem and subjective well-being initiated by social comparison built on the formation of high social networking sites frequency.

# Submission of Thesis and Dissertation

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## **Abbreviations**

APA- The American Psychological Association

CI- Confidence Interval

H\*- Hypothesis

GDPR- General Data Protection Regulation

NCI- National College of Ireland

RSES- Rosenberg Self-Esteem Scale

SNSs- Social Networking Sites

SPSS- Statistical Package for the Social Sciences

UGC- User Generated Content

UGT- Uses and Gratification Theory

VIF- Variance Inflation Factor

## 1. Introduction

Over the last few decades, technology has simply revolutionised itself and drastically improved and impacted every aspect of our daily lives. It has not only made it easier to gain access to information through the World Wide Web: it has changed the way humans communicate through engaging on social networking sites (SNS). These social networking sites have also opened opportunities for businesses to serve more people worldwide. As it can be clearly seen, the digital revolution has created a new reality with the ever-advancing widespread of high-speed internet bandwidth and the emergence of smart devices. These variables have resulted in more than 4.57 billion of the world population being active internet users (Clement, 2020), which is equivalent to more than half the world's population. Currently, the total world's population stands at 7.8 billion (Worldometer.com, 2020).

With the continuous rise of digital and mobile technology, it is becoming much easier for individuals to interact with one another. Especially on SNSs like Facebook, Instagram and Twitter etc. There are approximately 2.95 billion social media users worldwide as of 2019 and it is continuously increasing with the projection of 3.43 billion by 2023. As a result, it is one of the most popular online activities for anyone who has internet accessibility (Clement, 2018). Social media platforms ultimately permit people to share a variety of information online and many users tend to take this opportunity to express their opinions and try and impress their peers by constructing and presenting their ideal self to appear more desirable. Individuals take this chance to present their unrealistic and best self on their social media platforms by editing their images with beauty altering tools. Hence, SNSs are now filled with users constantly displaying their flawless and perfect lives, which is too often very exaggerated. Today, it is impossible to view SNSs without seeing others projecting themselves in some shape or form. It is human nature to compare oneself to others especially at the stage of self-discovery. Under these circumstances, social comparison has taken place at an unprecedented rate and users who are regularly on these platforms are exposed to images of comparison, causing them to self-evaluate and ultimately tamper with their self-esteem.

This may be a growing concern to many, as online social comparison is known to negatively impact not only user's self-esteem but their overall well-being (Neff, 2011).

SNS's serve different purposes to different users and individuals tend to spend countless hours on these platforms. Previous studies have displayed mixed findings on whether the duration spent on SNSs can influence a user's self-esteem. According to Vogel (2014), a user's self-esteem may be affected by long-term exposure to SNSs in everyday life. However, these outcomes have been conflicting, as some literature has suggested that SNSs usage frequency has seen to express negative outcomes (Berryman, 2018) like depression and a decline in one's self-esteem and overall happiness (Feinstein, 2013; Brooks, 2015; Bettmann, 2020). On the other hand, other studies have found that the usage frequency of SNSs is correlated to positive outcomes, such as social connectedness, self-disclosure, and friendships maintenance (Kraut, 2002; Valkenburg, 2009; Gerson, 2016). For this research, it is suggested that self-esteem is negatively affected when users spend a higher duration of time on SNS hence, they have a higher exposure to social comparison.

Throughout the years, social comparison impacting self-esteem has been heavily examined. However, within this topic, there has been limited research that examined gender as a valuable variable, and those of which included gender expressed an inconsistency in findings. Some indicated females being more vulnerable to social comparison than males (Bergagna, 2018) while others stated both genders have no difference in self-esteem levels towards the trajectory of social comparison on social networking sites. For this reason, the following dissertation will attempt to investigate whether social comparison on social networking sites truly has a different impact on both male and female's self-esteem levels.

## 1.1 Structure

The main elements of this dissertation consist of 7 chapters:

### -Introduction

Within the introduction chapter, the researcher will address what the study will entail, by providing background information into the topic, stating the existing knowledge and findings and highlighting the underlying research gaps and problems and explain why the study is needed to be assessed.

#### -Literature Review

The literature will provide a descriptive synopsis using scholarly knowledge and findings from peer-reviewed books, journals and articles related to the specific topic and research question. Hypotheses will be made based on previous studies and observation.

#### -Research Aims and Objectives

Within this chapter, it will clearly state what the researcher hopes to achieve by the end of this dissertation. It will also clearly express the difference between research aims and objectives and define each of their formulated aims, objective and hypotheses.

#### -Methodology

The methodology section will describe all the existing research methods and designs and why the researcher has selected their specific design choice. Following with the discussion of ethical consideration and limitation towards the study.

#### -Findings & Analysis

The findings and analysis chapter presents all the survey answers in the most logical way by using tables and graphs. Thereafter, the data collected will be put through various statistical tests to examine the hypotheses made.

#### -Discussions & Recommendations

Within this chapter, the researcher will explain what was found within the research and will revert to the literature review and see if there are any relations to the previous studies and knowledge. Thereafter, the researcher will suggest the best course of action for further studies within the field.

#### -Conclusion

The conclusion will provide a summary of what the dissertation has discussed, found and proposed. It will ultimately draw up all remaining arguments for the researcher and reader.

## 2. Literature Review

### 2.0. Introduction

For this section, the literature review aims to help support the researcher's dissertation and to offer the examiner an opportunity to build a comprehensive understanding of the current knowledge, theories, and findings within the key related areas; social networking sites, social comparison, and self-esteem. These topics are mainly found and reviewed in marketing and psychology studies and within each of these areas, they have been heavily examined throughout the years. By exploring each key component and highlighting the gender difference in individual sub-sections, this will allow the examiner an opportunity to identify any gaps within previous research which have not been identified or concluded. Ultimately, it will contribute to the framing of the research question; 'An Investigation into Whether Social Comparison on Social Networking Sites Influences Self-Esteem Differently in Gender'. In addition, it will help assist with the formation of the sub-questions which will be further detailed in chapter 3.

### 2.1. Social Comparison

Festinger (1954) who was an American psychologist, was widely known to be the first academic to put the term "social comparison" into practice and propose a theory behind the concept. To this day, the concept of social comparison has been a focal point in many theoretical studies. Hence, it is crucial to define the primary statement from Festinger. He has stated that social comparison is the "*process of thinking about information about one or more other people in relation to the self*" (Festinger, 1954 p.520). Dijkstra, Buunk & Gibbons, (2010) have also attributed it as an essential characteristic of human social life. Research has suggested that different types of people may be more inclined to compare themselves than others as certain individuals may have a greater sense of uncertainty about their own self, to improve their skills and abilities, or to enhance their self-esteem. Though it has indicated that these individuals are more inclined to participate in social comparison, this may be due to personality traits; self-esteem (Gibbons & Buunk, 1999; Buunk & Gibbons, 2007).

It is suggested that there are two directions which social comparison can take; The upwards and the downward comparison. Upwards comparison occurs when people compare themselves to others who they may think are superior to them with positive characteristics. In contrast to this, downward social comparison occurs when an individual associates

themselves with those who they think is inferior to them (Wills, 1981). Upwards comparison tends to inspire people to become more like their comparative others. However, individuals who have upward compared tend to feel negative and express poorer self-esteem and well-being as a result. Hence, whilst downward comparison may make an individual feel negative at times, it may also result in improved self-esteem and self-evaluation (Vogel, 2014). It has also been proposed that those who have lower self-esteem are more likely to engage in more upward comparison assuming it will improve their own self-esteem (Will, 1981), and create positive emotions and help reduces anxiety (Dijkstra, Buunk & Gibbons, 2007).

Social comparison was traditionally seen in offline environments (Vogel, 2014). However, the process towards social comparison has since increased and has become more relevant in the digital age as SNS's enable more efficient social comparison since individuals can access other people's profile's simply by logging into their own and begin browsing. Therefore, it has provided a greater opportunity for people to interact with SNSs and socially compare passively. Vogel (2014) has also suggested that SNSs are the best platform for people to carefully select and publish content that best represents their ideal self. Hence, the majority of the content within SNSs is seen to be in the direction of upwards comparison. Individuals tend to believe that other users are doing better and have a better life (Lee, 2014), particularly in instances where they do not know the users well offline. Therefore, people start to compare their realistic offline selves to the online best selves of others, which results in damaging their self-esteem and self-evaluations. Despite the fact that most researchers within this area have previously concluded that adverse outcome such as depression, low self-esteem and life satisfaction are consequences which upward social comparison has on one's subjective well-being (Feinstein, 2013; Lee, 2014; Brooks, 2015; Bettmann, 2020) some literature has indicated positive results. Kraut (2002), Valkenburg (2009), and Gerson (2016) have noted that upwards social comparison can give rise to positive outcomes including social connectedness, self-disclosure, and the maintenance of friendships. As past research has not been able to conclude why upward social comparison can result in both positive and/ or negative outcomes, it has been proposed that personality and behaviour may be the influence on the outcome from conducting upwards social comparison (Buunk and Gibbons, 2007; Wang, 2016). Guidmond (2014) has also speculated that the trajectory of the outcome may be influenced by variables such as gender. However, how social comparison may impact genders differently has not been heavily examined to date when examining the social comparison theory (Lee, 2010; Garson, 2016; Kim, 2017). Gender was not a variable

considered in the research of Festinger (1954), in addition, there were only female participants in Vogel's (2015) research. Whilst social comparison and its impact on different genders have not been researched extensively, Guidmond (2014) and Bargagna (2018) have both indicated that there may be a gender difference in social comparison in their research. Academic research which examined whether social comparison differed in gender has found that men and women did not differ significantly in their social comparison scale (Pulford, 2018). However, as Pulford's (2018) research took place in an offline setting its results may differ on SNSs due to a change in environment. As Bargagna (2018) has discussed, women are more susceptible to comparing themselves to others, particularly on the spectrum of physical attributes. As social comparison has not been widely assessed in conjunction with gender difference, the researcher within this study will use the social comparison scale (Allan & Gilbert, 1995) to examine if there is a gender difference when social comparing is carried out on SNSs.

H1. Using the social comparison scale (Allan & Gilbert, 1995), females' respondents will express poorer results than the males. As according to (Bergagna, 2018), females are more susceptible to comparing themselves to others.

## 2.2. Self-Esteem

As mentioned, social comparison can influence an individual's level of self-esteem depending on upwards or downwards social comparison. Hence, the construct of self-esteem will be defined and examined as a main variable. Self-esteem is a widely used concept in the field of psychology. The concept is usually considered as a personal belief and sense of a person's own value or worth (Blascovich & Tomaka, 1991). Rosenberg (1965), who was one of the pioneers in this field, has defined self-esteem as an individual's overall self-evaluation. People tend to judge themselves; this could be either be a positive or negative attitude that an individual has on their own belief about their skills, abilities, and social relationships (Abdel-Khalek, 2016). Self-esteem is closely linked to a person's overall subjective well-being (Neff, 2011) Hence, it is crucial for an individual to form and possess healthy self-esteem as it affects a person's overall happiness.

As self-esteem plays a vital role in an individual's wellbeing, the formation of self-esteem is essential. However, this may be a long process as each person's self-esteem may experience increases or decreases throughout their life. For instance, factors that affect individuals' self-

esteem are age, a change in status, responsibilities, and major transitional periods, specifically, during a person's adolescence, a person in which an individual is going through psychometric changes during this stage (Abdel-Khalek, 2016). The adolescent period is an important stage for self-esteem formation. As such, when examining an individual's self-esteem, scholars have focused on the development of self-esteem during this period (Valkenburg, 2017).

If an individual possesses a low level of self-esteem, they will experience outcomes such as; suffering the feeling of dissatisfaction with life, being emotionally unstable and having an overall negative attitude towards life. In turn, this can lead to depression over time and a significant decrease in subjective well-being (Abdel-Khalek, 2016). Enrol and Orth (2011) have indicated in their research that self-esteem gradually increases during an individual's transition from adolescence into their young adulthood. Therefore, individuals may display outcomes such as greater satisfaction with life (Abdel-Khalek, 2007), a boost in confidence and a positive increase in mental and physical health (Orth, 2012).

In previous literature on gender differences within self-esteem, the trend in research indicates that males typically display higher levels of self-esteem than females specifically in cross-sectional studies (Kling, 1999; Moksnes, 2013; Magee, 2019). Block (1993) found that self-esteem tends to decrease for females from early adolescence to early adulthood, which contrasts to male as their self-esteem increases till the age of 14 and declines during the adolescent years and may see an increase towards their young adulthood. In addition, Baldwin (2002) had noted that males' level of self-esteem is higher than females during both adolescence and early adulthood. Many scholars have tried to offer an explanation for males having higher self-esteem, ranging from the difference in body image ideals, cultural influence (Sliwa, 2016) and the influence of gender roles (Golan, 2015). However, no generally accepted integrative theoretical model exists (Robins, 2005). Similar findings by Chubb (1997) stated that both gender self-esteem levels have no difference during elementary years, however, females' self-esteem declines as they approach adolescence as a result of the onset of puberty. Males' puberty period tends to happen later than females, yet, males' self-esteem levels tend to consistently remain higher than those females through to young adulthood. Sliwa (2016) has attributed to this difference to the tendency for female self-esteem to fluctuate more than male. According to The American Psychological Association (APA), there is a known gender gap since males report higher self-esteem than women from



an early age towards late adulthood. It is believed that this gender gap only narrows in old age (Zeigler-Hill, 2012). However, other studies such those of Erol and Orth (2011) which examined self-esteem in a 14-year longitudinal investigation has found that there is a little to no significant difference in both male and females self-esteem. With the consideration of previous studies, the researcher intends to use the Rosenberg Self-Esteem Scale (RSES) to examine self-esteem and investigate if there is a significant gender difference.

H2. Participants who have previously scored low on the social comparison scale will score low on the RSES which indicates that participants who socially compare on social networking sites influence their self-esteem negatively (Lee, 2014).

H3. Female participants will score a lower mark on the RSES than male, indicating a gender difference in self-esteem (Moksnes, 2013).

H4. Younger age respondents will score lower on the RSES than older respondents in both genders (Erol, 2011). However, males will show higher scores in every age category (Sliva, 2016).

### 2.3. Social Networking Sites (SNS)

According to Patel (2018), SNSs are the fastest growing trend in the world. Since the launch of the first social networking site in 1997, it has captured half the world's population, with an average usage time of 2 hours and 24 minutes per day (Carter, 2018). In today's society, SNSs have undeniably become a necessary activity in individuals' daily lives. It has changed the way society communicates and connects with one another, as SNSs are referred to as a form of electronic communication which enables users to share information, ideas and other content privately and publicly (MerriamWebsterDictionary, 2018).

Prior to the existence of SNSs, most websites contained content which was published by the creator of the domain. Not all visual content was available for users to comment upon, interact with and was not permitted for any of its users to generate content, also known as user-generated content (UGC) (Chen, 2018). Today, SNSs are fundamentally a platform which permits users to stay up to date with each other as users publish real-time information. This real-time information may consist of information/updates about themselves, for example, personality, accomplishments and activities (Vogel, 2015). Although, most SNSs have a different purpose and attract different users. However, all SNSs also display some

similarity, it attracts both genders from all demographic categories, from all over the world. For instance, while LinkedIn may be used for professional networking, Instagram allows users to share images and video and Tik Tok lets users express themselves through videos. These SNSs all contain personal information in some shape or form.

### 2.3.1. Gender Differences in SNS Usage

Uses and Gratification Theory (UGT) developed by Kratz (1973) proposed this framework in order to identify the role of media in people's lives. The approach discusses how people utilise media for their own needs and satisfaction (Luo, 2018). Hence, UGT currently has more relevancy now than ever before as the theory can help gain an understanding on why people seek out SNSs and how individuals use these platforms (Kratz, 1973). The framework has suggested that people use media to satisfy their personal needs and desires and have specific goals and motivation. These needs, desires, motivation and goals can be associated with 7 different gratifications; maintaining existing relationships, meeting new people and socialising, self-expressing or presenting a more popular self, passing time, entertainment, observing others or informational and educational use motives (Katz, 1973). Hence, by examining the UGT framework it has become clear that different genders may have different purposes in utilising SNSs, as SNSs is a form of media.

Whilst all demographics are on SNSs, millennials and generation Z tend to be most active on these platforms (Carter, 2018). In addition, gender usage of SNSs differs as women are more active in SNSs like Facebook, Twitter, Instagram and Pinterest while male are more active on LinkedIn, Google+ and YouTube (QuickSprout, 2019). Past literature has indicated that females are more likely to use SNSs to preserve and retain their social networks than males, specifically through the use of Facebook (Chandiramani, 2018). In McAndrew's (2012) study which focused on the usage of Facebook, women were found to be more passive on SNS as they were more interested in finding out and learning new information about others. Whilst females tend to be more passive on SNS, female also had a greater tendency over its male counterpart in using SNSs to express their feelings, accomplishments and display images of themselves and their physical appearance in order to maintain a good impression (Nesi, 2015). As such, this results in more comparison towards females as more comparison content and activities are shown towards women. As men are less interested in sharing photos, there is less comparison imagery posted on a male to male basis, thus, physical appearance comparison by males is less likely to be seen. Males tend to use SNSs to form new

friendships, for entertainment (Barker, 2009) and to develop new relationships (Nazir, 2012). In addition to this, past literature has suggested that different genders have different motivations and gratifications in their use of SNSs. As SNSs have the ability to provide various amounts of features to ease these motives, it becomes part of the reason why people spend so much time on these platforms. As such, SNSs have since been able to exert both positive and negative influence on society. Given the impact which SNSs can have in individuals and society, the usage frequency of SNSs must be considered in assessing whether its usage may have an impact on social comparison based on gender difference.

### 2.3.2. Social Networking Sites Usage Frequency

As discussed, social media serves different purposes to users and as SNSs are very user friendly, people tend to be very engaged within these platforms. It has been reported by PEW research, women are more frequent SNSs users than male (PEWInternet, 2014). Whilst SNSs have a large influence in our lives and tendency to social compare, there have been mixed findings in current literature on whether the frequency and the duration spent on SNSs can influence a user's self-esteem. Studies have shown that self-esteem is a significant predictor of subjective well-being (Butt, 2009) and SNSs use have seen to express potential negative outcomes (Berryman, 2018), hence, it is important to identify if SNSs frequency is correlated to self-esteem and fundamentally affecting its users' subjective well-being. As according to Vogel (2014), a user's self-esteem may be affected by long-term exposure to SNSs in everyday life. Other research has suggested the same, as high-frequency use of SNSs may lead to depression (Feinstein, 2013; Bettmann, 2020), a decline in one's overall happiness (Brooks, 2015) due to the belief that other users are doing better than themselves (Lee, 2014). These outcomes have been associated to users becoming addicted to the internet or SNSs as they consume too much of these platforms (Bahrainian, 2014; Kalibova, 2016; Marino, Hirst, Murray, Vieno, & Spada, 2017). Although, other studies have also found that the usage frequency of SNSs is correlated to positive outcomes, such as social connectedness (Kraut, 2002), self-disclosure (Gerson, 2016) and friendships maintenance (Valkenburg, 2009). On the other hand, there also have been studies which have found no correlation between the usage frequency of SNSs and user's subjective well-being (Gross, 2004).

This highlights the inconsistent and inconclusive attempts to discover whether SNSs usage has any effects on an individual's well-being. Although, it has been defended that the reasons for the inconsistent findings are due to the change in the use of the internet over the decade,

so this may be a factor in changes of the user's well-being outcomes (Valkenburg, 2009). Contrary to this, an eight-year longitudinal study has also found that the rate of SNSs usage is not related to depression, anxiety or any association in an individual's mental health and has argued that previous studies have only examined the short-term impacts on SNSs towards its users (Coyne, 2020). The researcher has also suggested that further studies within this field should move beyond this point and focus on analysing other potential variables which may have a factor in social networking sites impacting a person's well-being. In fact, rather than investigating the amount of time a user is on SNSs which influences the well-being on individuals, Coyne (2020) longitudinal study has proposed that it may depend on what users do on SNSs. If users stay more active on social media by regularly commenting, posting and interacting with other users content and by asking themselves what their primary motivation is for engaging in social media, rather than being a passive user browsing and reading due to boredom it may prevent users from socially comparing themselves and affecting their self-esteem negatively. Other researchers have highlighted similar discussions, with the consideration of frequency and other relating variables such as motivation and desire towards SNSs usage (indicated in 2.3.1) may have an effect on self-esteem (Buunk & Gibbons 2007). Their SNS behaviour may cause users to engage in social comparison on SNSs and result in feelings of positive or negative consequences (Lee, 2014).

H5. Self-esteem will have a negative correlation with social networking sites usage frequency.

H6. Females who score low on the social comparison scale will use SNSs more frequently than users who score high on the social comparison scale.

## 2.4. Conclusion

From examining previous research and studies, it is clear that the usage of social networking sites is immensely popular across all demographics globally and will witness an exponential rate of growth over the next several years. Whilst SNS users have benefitted from the different features of SNSs, various issues have arisen as these platforms have given users a clear passageway to either purposely or subconsciously socially compare themselves. This has resulted in the growing concern that SNSs usage frequency may have an association towards user's self-esteem level. It has been indicated that most social comparison is made

upwards on SNSs (Vogel, 2014), resulting in either positive or negative consequences, therefore fundamentally affecting the user's self-esteem and their overall well-being. As upwards comparison results in two drastic different directions of outcomes, gender and their difference in SNSs in usage is to be considered as a variable which influences the opposing positive or negative results. As well, past literature has shown that male self-esteem levels tend to be higher than females at every age range, which states there is a gender difference in self-esteem overall. However, little to no research has measured whether gender self-esteem is impacted differently when examining the social comparison theory (Bergagna, 2018). As past research has not included gender as a variable in their examination of social comparison (Festinger, 1954; Gibbons & Buunk, 1999; Vogel, 2015), which may indicate that previous examiners who have investigated this topic have viewed that gender has no relevance towards this area of research or have continued to assume that male and female self-esteem is effectively impacted the same manner by social comparison (Guidmond, 2006), although universally gender self-esteem tends to be different overall.

### 3. Research Aims & Objectives

#### 3.0. Introduction

Based on the research conducted, the researcher has critically reviewed all the theories and findings in the literature review. It has led the researcher to develop hypotheses. These research hypotheses (H#) are only used in quantitative research, as it is the examiners' predictive statement that is testable on a particular variable or the relationship between two or more variables (Lavrakas, 2013). In other words, it is an educated guess based on previous research and is linked to the relevant research objective, which is all detailed below, along with the primary research aim.

#### 3.1. Primary Research Aim

The research aim refers to the main goal of the research. It is usually a statement indicating the purpose of the research investigation (Thomas, 2014).

The main goal of this research is to investigate what influence social comparison on internet communication platforms (SNS) have on self-esteem levels and to discover if gender is anyway differently impacted.

#### 3.2. Research Objectives and Hypotheses

While the research aim can be quite broad, the research objectives highlight the points the research aim is trying to achieve by dissecting the research aim into several parts and addressing it in segments. Hence, After carefully assessing the research and findings in the literature review, it has led the researcher to develop six hypotheses which are clearly outlined within each relevant objective.

##### 3.2.1. Objective 1

**“To examine what relationship gender has with social comparison on social networking sites.”**

H1. Using the social comparison scale (Allan & Gilbert, 1995), females' respondents will score lower than the males. As according to (Bergagna, 2018), females are more susceptible

to comparing themselves to others.

### *3.2.2. Objective 2*

**“To examine what relationship gender self-esteem has on social comparison.”**

H2. Participants who have scored low on the social comparison scale will score low on the RSES which indicates that participants who socially compare on social networking sites influence their self-esteem negatively (Lee, 2014)

H3. Female participants will score a lower mark on the RSES than male, indicating a gender difference in self-esteem (Moksnes, 2013).

H4. Younger age respondents will score lower on the RSES than older respondents in both genders (Erol, 2011). However, males will show higher scores in every age category (Sliva, 2016).

### *3.2.3. Objective 3*

**“To examine whether social networking sites usage frequency, affects gender self-esteem.”**

H5. Self-esteem will have a negative correlation with social networking sites usage frequency.

H6. Females who score low on the social comparison scale will use SNSs more frequently than users who score high on the social comparison scale.

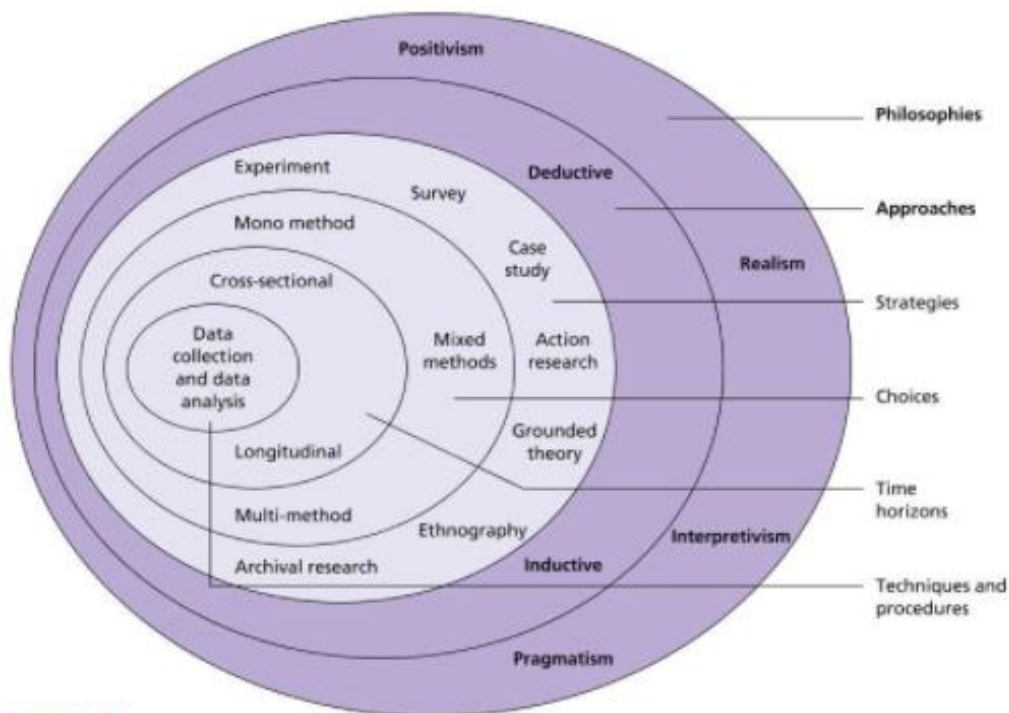
### *3.3. Conclusion*

The purpose of this research is to fulfil the research aims and objectives and the suspected hypotheses, which have arisen when investigating within the specific area of interest. In order to achieve this the research method, approach and design need to be justified and discussed.

## 4. Methodology

### 4.0 Introduction

The purpose of this chapter is to clearly explain the methods used to construct this study, particularly clarifying the appropriate approach to answer the research objectives. To effectively achieve this, the researcher has adopted Saunders et al. (2015) 'Research Onion' framework as seen below in figure 1, into structuring the methodology chapter. By doing this, the researcher will explore all 6 layers; research philosophies, approaches, strategies, choice, time horizon and technique and procedures. Each layer will give a comprehensive justification of the methods selected for the research conducted. In addition, the research limitations and ethical considerations will be discussed.



**Figure 4.1**  
The research 'onion'  
Source: © Mark Saunders, Philip Lewis and Adrian Thornhill 2008

*Figure 1: The Research Onion (Saunders et al. 2008)*

### 4.1 Research Philosophy

Kuhn (1963) was the first known academic to use the term 'paradigms' to indicate a



philosophical way of thinking. For research studies' purposes, the concept of a research paradigm fundamentally reflects the researcher's perspective or worldview, which "*is their beliefs and understanding of the world that s/he lives in and wants to live in*" (Kivunja, 2017, p.26). In other words, it is the beliefs and principles that formulate how a researcher views the world, and how s/he interprets and acts within that world. According to Saunders et al. (2015), there are two forms of paradigms, ontology and epistemology.

Ontology relates to the science of beings or "the study of being" (Crotty, 1998), as it questions the form of reality that exists (Guba & Lincoln, 1994) this could be either singular or multiple realities (Patton, 2002). While epistemology is the study of knowledge (Lever, 2013), there are three basic epistemology questions; What is knowing? What is the known? What is knowledge? (Given, 2008). Thus, it is "*a way of understanding and explaining how I know what I know*" (Crotty, 1998). There are two branches of epistemology; interpretivism and positivism. Positivism relates to the philosophical stance of a natural scientist (Saunders et al., 2008), as social reality can be observed empirically and be analysed logically. Some researchers define positivism as having a single truth and use it to seek relationships from variables (Lather, 1991; Habermas, 1972). Interpretivism relates to the belief that reality is socially constructed (Willis, 2007), as this method makes every effort to understand the viewpoint of the subject being observed, rather than the viewpoint of the observer (Kivunja, 2017). Hence, the interpretive paradigm has multiple truths (Lather, 1991) as different groups of people have different interpretations.

As shown on the outermost layer of the Research Onion (Figure 1), there are four central research paradigms; positivism, realism, interpretivism and pragmatism (Saunders et al. 2008). By indicating which perspective the study takes, it will display how data is collected, analyse and used during the creation of the study. Thus, the research paradigm that this investigation takes is epistemology positivist, as this study seeks to gain new insight into social comparison affecting self-esteem differently in gender on social networking sites by acquiring knowledge by the quantitative research method which indicates it is a scientific method of investigation. The study seeks relationships between the key variables, as well the researcher has used the existing theory to develop hypotheses to be tested and has generated results of statistical analysis (Rehman, 2016). Thus, this can potentially lead to further research and development (Saunders et al., 2008).

## 4.2 Research Approach

There are two research approaches shown on the next layer of the Research Onion (Figure 1)- deductive and inductive. Within this dissertation, the author has taken the deductive approach to investigate whether social comparison on SNSs influences self-esteem differently in gender.

- In deductive research, the investigation is based on the idea of extracting and analysing existing theories and data in order to deduce a hypothesis and subject it to evaluation (Bryman, 2012).
- An inductive approach is where the examiner begins with as few preconceptions as possible, allowing theory to emerge from the data (O'Reilly, 2014).

## 4.3 Research Strategy

There are three main types of research strategy the investigator can adopt on;

- The qualitative research method is a non-numeric data approach which concentrates on understanding the experiences and perspective of the participants involved (Creswell, 2018).
- The quantitative research method is a numeric data approach which Creswell (2002) noted it instigates the process of collecting, analysing, interpreting, and writing the results of a study.
- The mixed methods are a relatively new approach compared to the other two, as it is a strategy in which it combines both quantitative and qualitative research methods into a single study (Creswell, 2009).

### 4.3.1 Quantitative Approach

For this research, the author has taken the quantitative research approach. As stated above (4.3), quantitative research involves numerically analysing the relationship between variables using statistical techniques (Saunders et al. 2015). Previous studies which have examined the social networking sites based social comparison on self-esteem have all based their investigation on quantitative research method. Researchers such as Vogel (2014), Wang, (2017) and Bergagna (2018) have all used the numerical data approach on their cross-sectional research. Quantitative research seems to be a common choice when investigating social comparisons on self-esteem as the process lets the examiner understand the reasons behind the demographics decisions, behaviours, or actions from a societal viewpoint. It can

also collect a large volume of data without risking the loss of in-depth information from a large number of participants within a short-term period (Saunders et al. 2015).

As with any research strategy, there are weaknesses; hence this needs to be discussed by the author and be evaluated to weigh against the benefits. Though according to Swanson (2005), each approach has its weaknesses but, it may not hinder the research depending on the purpose of the investigation. In quantitative research, it may often have inadequate measures of variables, loss or lack of participants, small sample sizes or errors in measurement (Creswell, 2002). As indicated, some research may be more suitable for other strategy methods as the data collected by quantitative research may not be robust enough to explain complex issues. As well, the researchers need to consider the format and style related to the method as typically quantitative research may consist of scales and graphs, which makes it difficult to read and interpret if not presented properly. Although there are some weaknesses in quantitative research, the researcher feels this method is the more suitable approach than the qualitative research method. As for the mixed method, this approach can provide a more profound investigation towards the research while using two different methods in one single investigation. However, the mixed method is a sophisticated approach and would take more resources and time into planning and analysing in order to gather the necessary data. The examiner is limited by time; hence it would restrict the development of mixed methods approach.

#### 4.3.2. Primary Method: Cross-Sectional Survey

A cross-sectional survey is the chosen quantitative research instrument implemented within this thesis to accumulate the necessary information about the population of interest at one point in time (Lavrakas, 2013). The survey can provide useful information as it helps identify important behaviour, beliefs and attitudes of individuals (Creswell, 2002). This research instrument gives the researcher the convenience of gathering data from a large cohort, as well it gives the opportunity to investigate the relationships between variables and could be measured and analysed numerically using statistical tools and techniques (Byram & Bell, 2012). This is also a primary method of research which is first-hand research used to collect data, rather than collecting data from previously done research.

The survey for this study was generated on Google Forms. As the investigation is related within the field of SNSs, the survey was distributed on these platforms in order to obtain data

from participants who are users on these sites. This also became a much faster approach to reach a vast amount of respondents in a cost-effective and time-efficient way. The full survey and the questions were kept to a minimum and concise manner, as it includes 4 different scales; the demographic, UGT, Rosenberg Self-Esteem and Social Comparison scale (Appendix 1). These scales either contain a Likert scales of measurement or a multiple-choice grid (Appendix 2), The UGT scale contains an option which states “None of the Above” to give the participant an opportunity to go against all options. This will allow the participant to feel less forced into choosing an answer that applies to them the most. The different scales give a different purpose. By using statistical techniques and combining the variables together, it gives the researcher an opportunity to fully compare and understand social networking behaviour and if self-esteem is impacted differently in gender by online social comparison. As self-esteem and social comparison can be considered sensitive topics and the survey contains questions regarding these, the researcher has decided to include these questions at the end of the survey (Appendix 2). According to Creswell (2002), the researcher needs to “*develop sensitive questions and used with care*” (p.386) and by introducing sensitive questions after respondents have answered impersonal questions like age and gender, this can help participants be more at ease as they warm up to the survey.

Before distributing the main survey, the researcher shared the survey to a small number of test participants. The survey test responses were not included in the final survey dataset, as the sole purpose of the survey testing was to ensure the survey was easy to read and navigate through and no mistakes were made. Saunders et al. (2008), has expressed that survey testing can make sure the survey is easily and fully comprehensible. Survey testing is a quick and simple way to get feedback from others to improve the investigation, as every question in the survey has been reviewed and tested not only by the researcher but by another individual’s perspective. This will help create a much more straight forward assessment to ensure that participants could complete it without any confusion or difficulty. This will also help to prevent complications from occurring when the data collected is being analysed and examined.

The researcher had reflected on other quantitative instruments but felt that surveys were the best primary method for this investigation as surveys allow participants to be completely anonymous and at ease to partake in the study. The topics of self-esteem and social comparison can be sensitive subjects to individuals. Thus, any personal information cannot

be traced back and identified and the investigation adheres to the General Data Protection Regulation (GDPR) legislative act as the respondents are voluntarily participating in the survey themselves and have been informed about their rights in advance.

#### 4.3.3. Sampling

A population is a group of individuals who have a common characteristic (Creswell, 2002). Thus, the sample is a subset of the population (Bryman, 2012). As this thesis attempts to investigate if gender varies in self-esteem due to social comparison on SNSs, the target population is individuals who are users of social networking sites. Cooper (2014) indicated that quantitative research includes a non-probability sampling technique where the participants who are selected from the population do not have a known chance of being included. In other words, the researcher does not know the probability that an individual may be selected from the population as it is randomly selected. The type of non-probability sampling this study has implemented is convenience sampling. This type of sampling is simply based on seeking for participants who are easily accessible and available to the researcher (Bryman, 2012). The survey was distributed around on social networking sites specifically, on Facebook and Instagram. Hence, majority of the respondents were all sourced from these platforms, as the researcher has over 800 connections across Facebook and Instagram the aim was to receive a minimum of 100 responses. This was a desirable figure due to the length of time that the survey was published for (14 days) from the 1<sup>st</sup> to the 15<sup>th</sup> of June 2020 and during this period this study was conducted the whole population was struck by the Covid-19 pandemic, resulting in students and the whole workforce having to work from home and using technology and the internet more than usual. Another factor that could generate more response is through engagement on these platforms, the intention was to get other SNSs users to share the survey around as this can lead to a much broader reach.

#### 4.4. Research Choice

There are three research methods shown on the fourth layer of the Research Onion; the mono-method, mixed-method and multi-method. The research design, which is the overall framework or blueprint of the complete study (Kinnear & Taylor, 1996), may use one type of method or multiple methods to collect data within the study. Saunders et al. (2015) refer to multi-method as an investigation that uses “*more than one quantitative or qualitative method but does not mix the two together.*” (p.145) The mixed-method uses both quantitative and qualitative methods in one investigation while both methods can help answer different

questions (Thomas, 2003). Mono-method uses a single data collection technique, either qualitative or quantitative. For this research, the mono-method was the most appropriate method, the single method which was adopted was quantitative research and the data collection technique that was undertaken was the survey technique. As indicated above (4.3.1) this decision was made due to time restrictions and limited resources, which will be further discussed in research limitations (4.7).

#### 4.5. Time Horizons

The fifth layer of the Research Onion considers the length of time which the research will prevail. There are two types of time horizons a study can undertake; cross-sectional or longitudinal. According to Bryman & Bell (2011), cross-sectional studies collect data on variables of interest only once in a short period of time. Thus, Saunders et al. (2008) refer to it as a 'snapshot' at a single point in time. Whereas, longitudinal research refers to the ability to examine change and development by gathering information from the same sample of participants over an extended period of time (Payne, 2016).

This study has taken the cross-sectional approach as it gives the researcher an excellent opportunity to observe and examine a broad knowledge in a single point in time. In addition to this, the cross-sectional design is more desirable for the examiner as it takes up a shorter time frame to conduct than longitudinal research (Levin, 2006), as this investigation was limited to a semester term within the academic year.

#### 4.6. Techniques and Procedures

The final layer on The Research Onion entails the authors approach towards the data collection and data analysis process within this study. This research paper has undertaken a quantitative approach. Hence, both the data collection and analysis process use this strategy. A survey was implemented to collect primary data within this investigation; this was designed on Google Forms. Thus, when the researcher began the process of data collection, the site has automatically stored the data which was collected over the period of 14 days and enabled the publisher of the survey to view the responses in graphs and charts. Google Forms have also generated it into a downloadable Google Spreadsheet. However, the researcher had discovered the results were not accurately presented in the Google Form graphs and charts. Hence, out of precaution, the researcher transferred every individuals' response manually and

inputted it into Microsoft Excel spreadsheet. This spreadsheet was transferred over to IBM Statistical Package for the Social Sciences (SPSS) software to analyse the variables and uncover the insights and attempt to fulfil the research objectives. The researcher used SPSS version 6 as it was a user-friendly quantitative statistical analyse platform which examined a large and complex set of data (IBM, 2020). All responses which were transferred onto Google Spreadsheet from Google Forms were imported into SPSS in a single instalment. Hence, the data was quickly handled and managed without anyone tampering with it, including the researcher. Thus, all data were exact responses captured from the survey.

#### 4.7. Ethical Considerations

According to Cooper (2014) “*Ethics in research are standards of behaviour that guide moral choices about our behaviour and our relationship with others*” it is intended to protect the participants and prevent any harm and suffer from research activities (Swanson, 2005). The researcher has previously read and understood ‘The National College of Ireland (NCI) Ethical Guidelines and Procedures for Research involving Human Participants’ and has adhered to all the guidelines throughout this investigation. The researcher has also submitted an ‘Ethical Review Application Form’ and was approved by NCI for this study, along with the research proposal in December 2019. As this investigation involves gathering data from participation in a survey, the research design must inform participants of their rights, the purpose of the study and gain their consent (Cooper, 2014). Hence, while publishing the survey on SNS; Facebook and Instagram, the researcher informed any potential participants that the data generated from the survey was used as part of dissertation research and participation in the study was completely voluntary and can withdraw from the survey at any time. The participants were also notified that respondents would not be identifiable through any questions asked and responses will be kept confidentially and all the data generated will only be available to the researcher (Appendix 3). As discussed on (4.3.3.), the survey may be shared around by other SNSs users. Hence, some participants may not see the researcher’s original post attached to the survey. In this case and out of precaution, the researcher had displayed the purpose of the survey, participants rights and consent at the beginning of the survey when participants clicked into the Google Form link.

#### 4.8. Conclusion

With this chapter, the researcher has reviewed and considered all the necessary tools and techniques to properly conduct this investigation. As the topic for this study is to examine whether self-esteem impacts gender differently based on online social comparison, specifically on SNSs. The author has concluded the best way to investigate this is by a deductive quantitative research approach by using cross-sectional surveys on a non-probability convenience sample to achieve the research objectives.



## 5. Findings & Analysis

### 5.0. Introduction

The methodology chapter above (4.0) detailed the techniques and procedures in which the data is collected. The following step, and this chapter, aims to simply illustrate the findings based on the methodology applied and present the results of the research conducted into visual graphs and charts. Within the findings section, the visual diagrams are all formed on SPSS software to present each scales discovery. Thereafter, the researcher will revert back to the research objectives and hypotheses (3.0) and by using the same software to examine the data collected, establish the relationships between variables and display it into illustrations to achieve the research objectives and ultimately reject or accept the assumptions made.

### Response Rate

The researcher had predicted a response rate of a minimum of 100 survey results within 14 days from the 1<sup>st</sup> to the 15<sup>th</sup> of June 2020, which was distributed on Facebook and Instagram to capture the insights from SNSs users. Within this period, the survey gained 141 responses (n- 141) which was higher than the anticipated projection of 100 responses, hence this was over the desired ratio gaining +41% more.

### 5.1. Survey Findings

#### 5.1.1 Question 1. Gender

As shown below in figure 2, the bar chart presents the gender of all the respondents. The results have signified that out of 141 respondents the majority of the participants were female. Although, the desired ratio was 1:1 though this was entirely infeasible as the researcher selected a non-probability sampling technique. With the reflection of women are more frequently on any SNSs, specifically on Facebook and Instagram than males (PEWInternet, 2014). In this regard, it has shown a more significant amount of female participants in the survey, demonstrating a towering figure of 85 individuals (61%) who were female and the remaining 56 individuals (39%) who were male respondents. As this investigation is concerning the gender differences in self-esteem, the researcher designated the first question on the survey to ask about their sex.

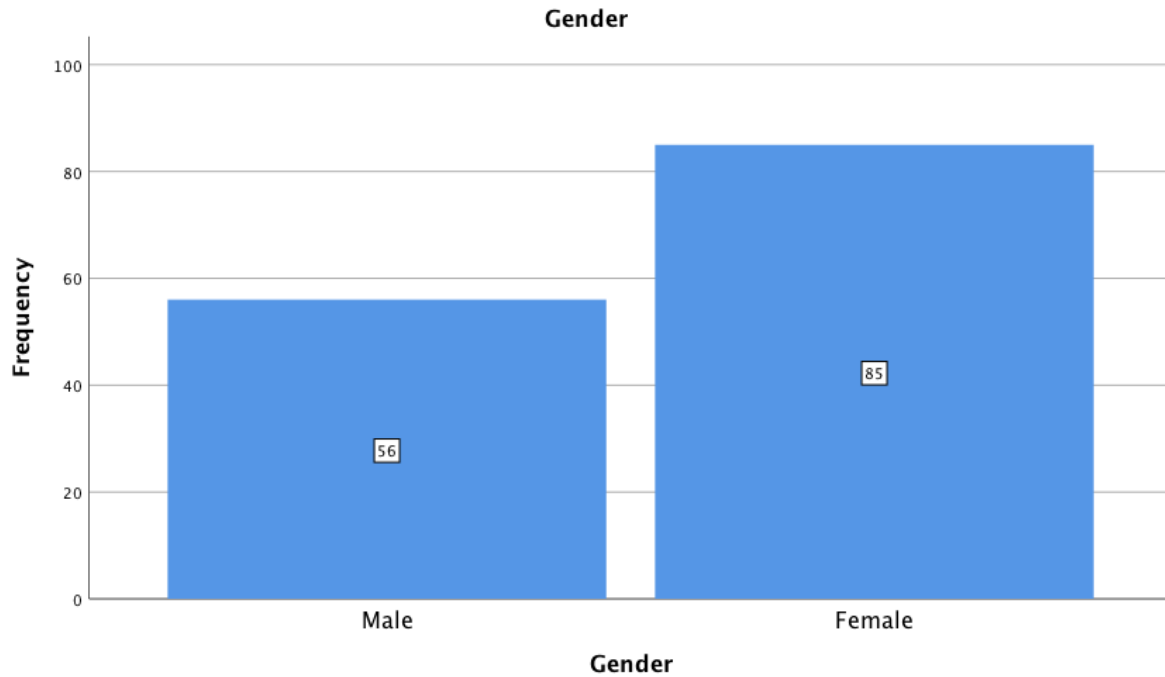
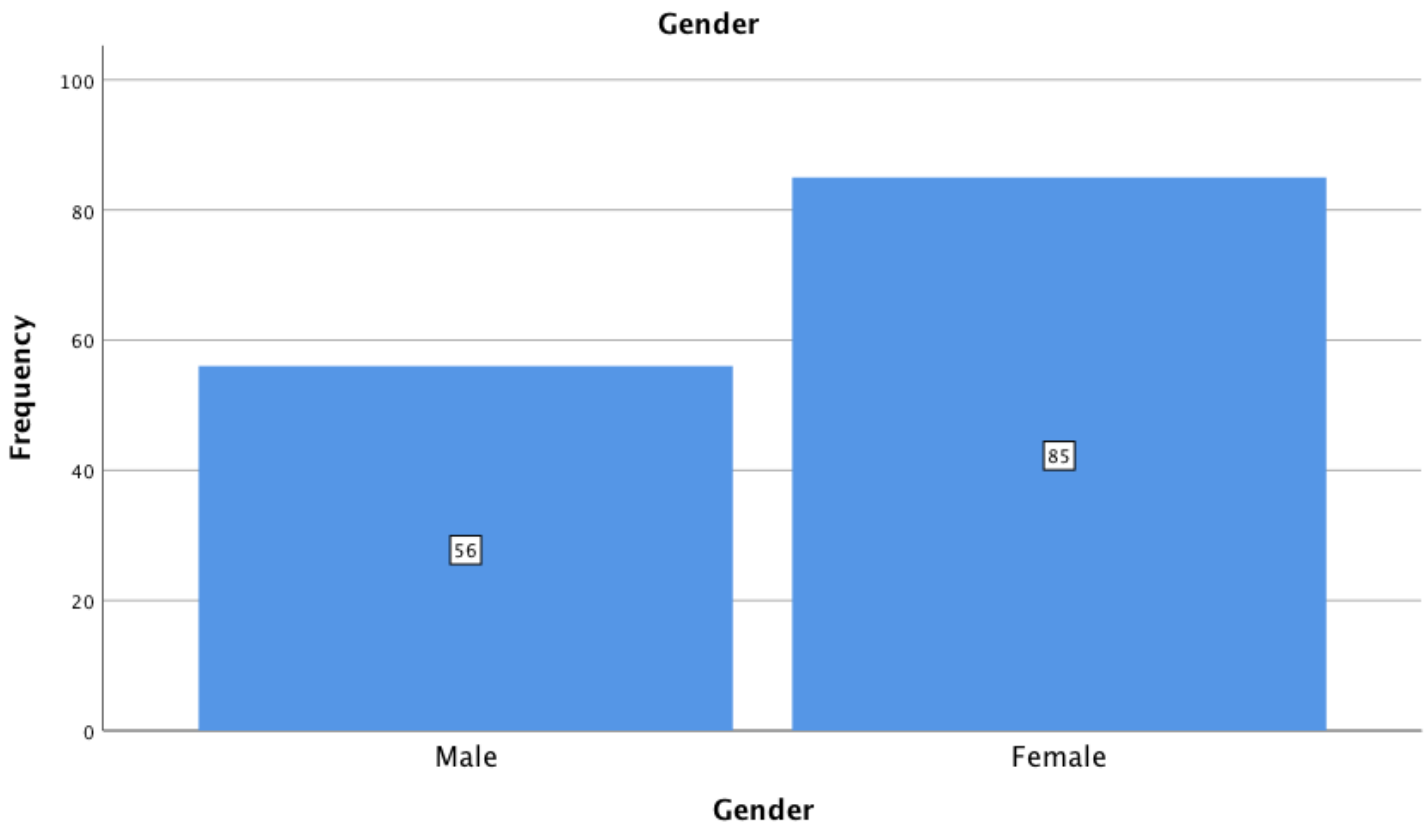


Figure 2: Survey respondents dividend within gender.

### 5.1.2. Question 2. Age

Age was examined as previous studies indicated that males typically display higher levels of self-esteem than females at every age range (Kling, 1999; Moksnes, 2013; Magee, 2019). In addition to this, according to The American Psychological Association, there is a known gender gap since males report higher self-esteem than women from an early age towards late adulthood. It is believed that this gender gap only narrows from middle age towards late adulthood (Zeigler-Hill, 2012). Hence, the author made the assumption under objective 2 that younger age respondents will score lower on the RSES scale than older respondents in both genders (Erol, 2011). While male respondents will show higher scores in every age category (Sliva, 2016). This will be examined in (5.4.1) whilst, in figure 3 it has displayed the age range each participant is positioned in. 60 participants have specified they are in the age range of 18-23 years old, 25 partakers were in the range of 24-29 years old, 11 survey contributors were within the range of 30-35 years old, 5 respondents stated they were in the range of 36-41 years old, 10 participants were in the age range of 42-47 years old and lastly, the remaining 30 people were indicated they were in their late adulthood of 47+ years old.



*Figure 3: The age groups respondent categorised within.*

### 5.1.3. Question 3. SNS Usage Frequency

Shown in figure 4, the bar chart reveals the average amount of time participants will spend on SNSs daily. Respondents were given multiple choices to answer the question; less than 30 minutes, 30- 60 minutes, 1-2 hours, 2-3 hours and 3+ hours. According to Carter (2018), SNSs users spend an average usage time of 2 hours and 24 minutes per day. Though, 26 of the participants (18.4%) had reported usage of 2-3 hours in the survey which correlates to this statement. The most significant figure is 46 respondents (32.6%), who indicated that they spend more than 3 hours of their day on SNSs. The lowest sum, 14 respondents (9.9%) claims to have spent less than half an hour on SNSs daily, followed by 17 of participant (11.3%) stating they have spent 30-60 minutes daily on these platforms. The rest of the participants of 38 individuals (27.7%) has responded to 1-2 hours on SNSs daily, which is less than the average time stated by Carter (2018). As indicated in the literature review (2.3.2.), there have been mixed findings whether the frequency and the duration spent on SNSs can influence a user's self-esteem. Vogel (2014) suggested a user's self-esteem may be affected by long-term exposure to SNSs in everyday life, Although, other studies have found the opposite (Gross, 2004; Valkenburg, 2009). For this reason, the SNS usage frequency is

examined and tested within the assumption suggested by the researcher.

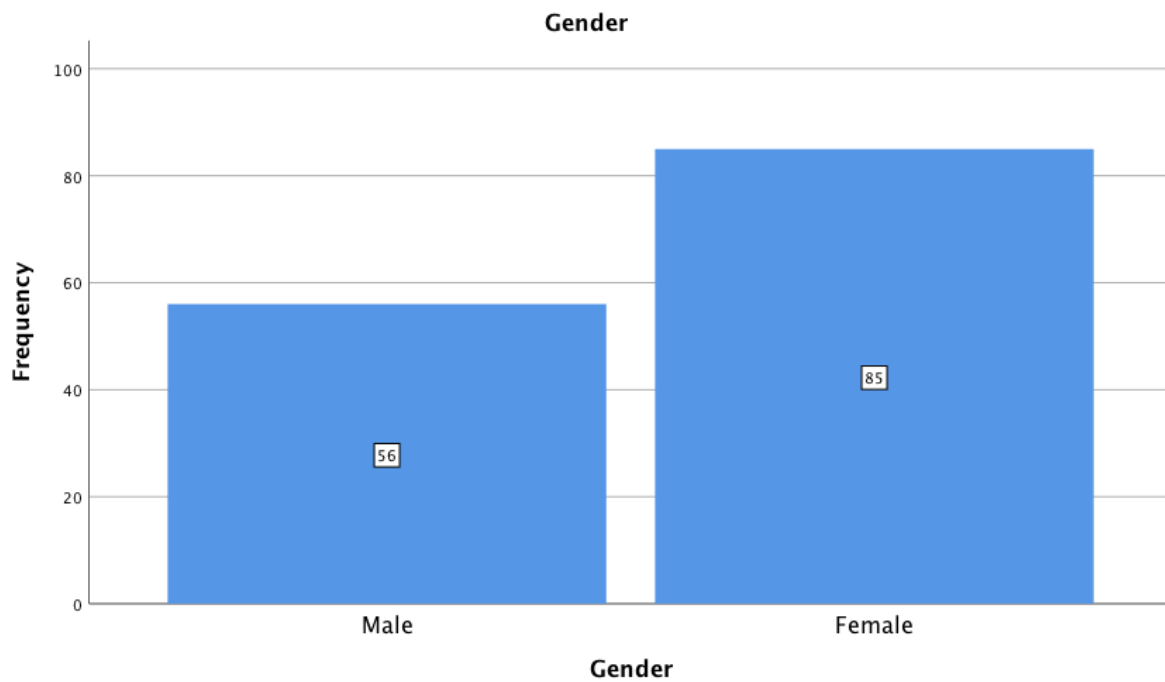


Figure 4: Bar chart of daily average SNS usage frequency.

#### 5.1.4. Question 4. Main purpose in SNS Usage

When asked what respondents primary purpose of using SNSs is, the researcher implemented the UGT scale developed by Kratz (1973) into this question. The UGT scale suggested 6 gratifications that users seek out when using SNSs. Which are, observing others, passing time, self-expression, maintaining existing relationships, entertainment and sharing and seeking information and education purposes. The researcher added: “None of the above” as an option. This may allow the participant to feel less forced into choosing an answer that do not apply to them. As indicated within the visual graph below (figure 5), a sum of 55 respondents (39%) indicated they use SNSs as an entertainment source along with 44 (31.2%) of users use SNS to pass time. SNSs are described as a form of electronic communication which enables users to share information, ideas and other content privately and publicly, indicating it is a platform for users to communicate and connect with one another (MerriamWebsterDictionary, 2018). Nevertheless, a lower portion of 44 respondents (13.5%) has specified that they use SNSs to maintain relationships. 14 (9.9%) survey partakers have revealed that their primary purpose was to share and seek information and for educational purposes. Only 4 respondents have declared that they use SNS to observe others (2.8%) and one individual participant selected self-express (0.7%). The remaining 4 (2.8%)

participants have indicated none of the gratifications applies to them, as they selected “None of the above” as their response.

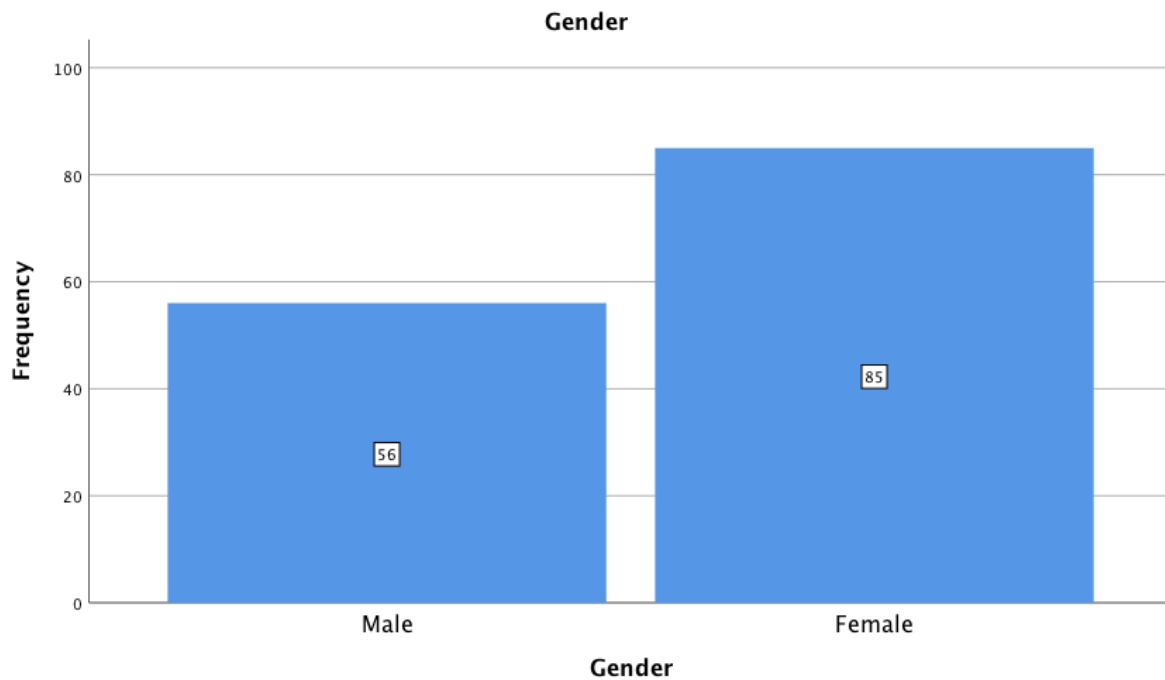


Figure 5: UGT Scale; Displaying respondents main purpose on SNS.

#### 5.1.5. Question 5-14 RSES Score Total

The Rosenberg self-esteem scale contains 10 different items/questions in examining self-esteem. Hence, this was presented in a multiple-choice grid as the respondents had 4 different selections in answering the questions within the scale; strongly agree, agree, disagree and strongly disagree. The scale includes a scoring method, as Rosenberg (1965) indicated; “Strongly Disagree” gives the participant 0 points, “Disagree” 1 point, “Agree” 2 points, and “Strongly Agree” 3 points. However, question 2, 5, 6, 8 and 9 are reverse scored. The highest score a participant can attain is 30 and the lowest is 0. Adding the scores up for all ten items, if the participant has a higher score it indicates high self-esteem and having a lower score signals lower self-esteem and well-being. Shown within the visual below in figure 5, six respondents collected 30 points which were the highest scores within the survey and the lowest score was 3 points obtained by a single survey partaker. The mean score of participants was 19.27 with a standard deviation of 5.47 points. The average score within the scale is 15; hence this shows the total respondents who partook in the survey have an above-average self-esteem score as it is 4.95 above the mean score. Though, further within this

chapter, the self-esteem scale will be examined by gender and age (5.6.1). After that, it will determine whether self-esteem correlates with SNS usage frequency (5.6.2).

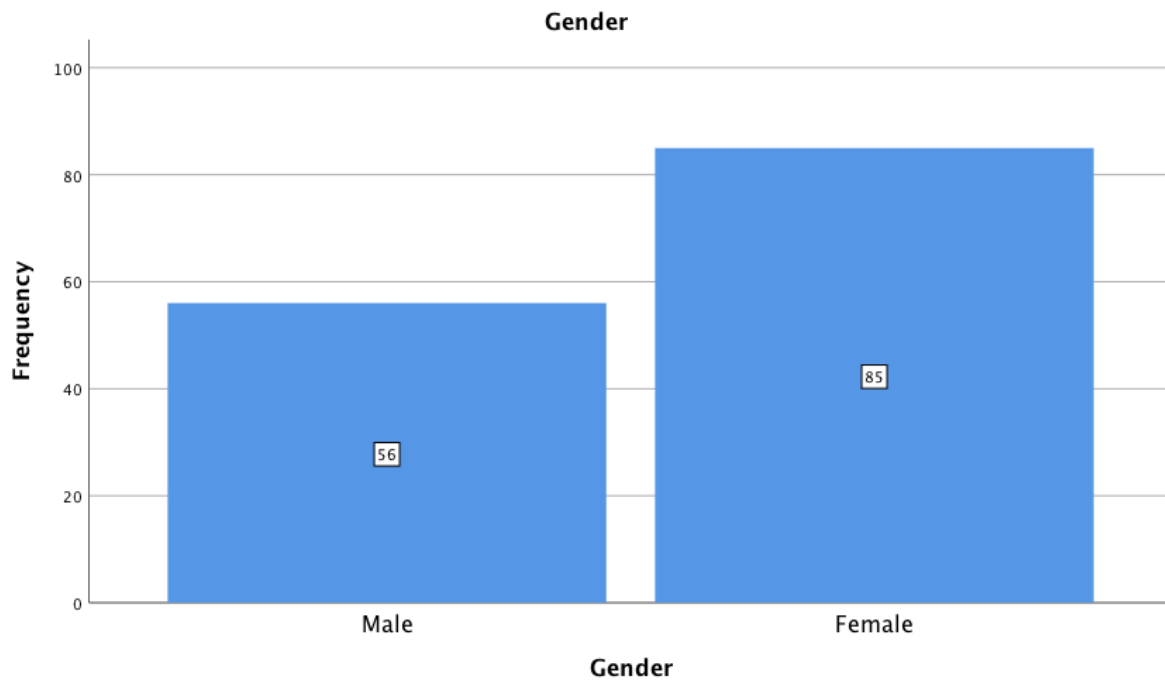


Figure 6: Bar chart of respondents RSES scores.

### Cronbach's Alpha

Cronbach's Alpha, also known as coefficient alpha is a commonly used statistic for scales to measure the internal consistency. The researcher used Cronbach's Alpha to assess the internal consistency and reliability of the two Likert scales within this research- RSES and The Social Comparison scale. Shown below, displays Cronbach's Alpha value range from 0-1, the higher the value the greater the reliability of the scale (Taber, 2018).

#### Cronbach's Alpha Internal Consistency

$a \geq 0.9$	Excellent
$0.9 > a \geq 0.8$	Good
$0.8 > a \geq 0.7$	Acceptable
$0.7 > a \geq 0.6$	Questionable
$0.6 > a \geq 0.5$	Poor
$0.5 > a$	Unacceptable

By using the Cronbach's Alpha to analyse the RSES scale, it had received a value of .883

which signifies the scale is in the range of  $0.9 > \alpha \geq 0.8$ . Thus, the scale suggest a good level of reliability

#### 5.1.6. Question 15-21 Social Comparison Score Total

The social comparison scale was established by Allan & Gilbert (1995), applicants were involved in making a comparison of themselves in relation to other people and in rating themselves along a ten-point Likert scale. Low scores indicate the participant is feeling low in self-perception and may have feelings of loneliness. In contrast, high self-esteem individuals lose interest in social comparison (Allan & Gilbert, 1995). The lowest score a respondent can obtain within this scale is 11. The highest is 110, as shown in the bar chart in Figure 7, a single respondent attained the lowest scoring digit of 11 and the most top result a respondent gained in the scale was a 107. The average score of respondents was 62.05, with a standard deviation of 14.97 points. The average score within the scale is 55; hence this indicates the 141 total respondents who participated in the survey have an above-average social comparison score. Females have shown to have lower social comparison average scores than males indicated in figure 8. Though, further within this chapter the social comparison scale will be examined by gender and formulate relationships with other variables to verify the hypothesis made (5.4)

Using Cronbach's Alpha to test the internal consistency and reliability of the Social Comparison scale, it had received .908 results, which in this measurement,  $\alpha \geq 0.9$  indicates an excellent level of reliability. Hence, the result which the scale has received signifies an excellent internal consistency and reliability.

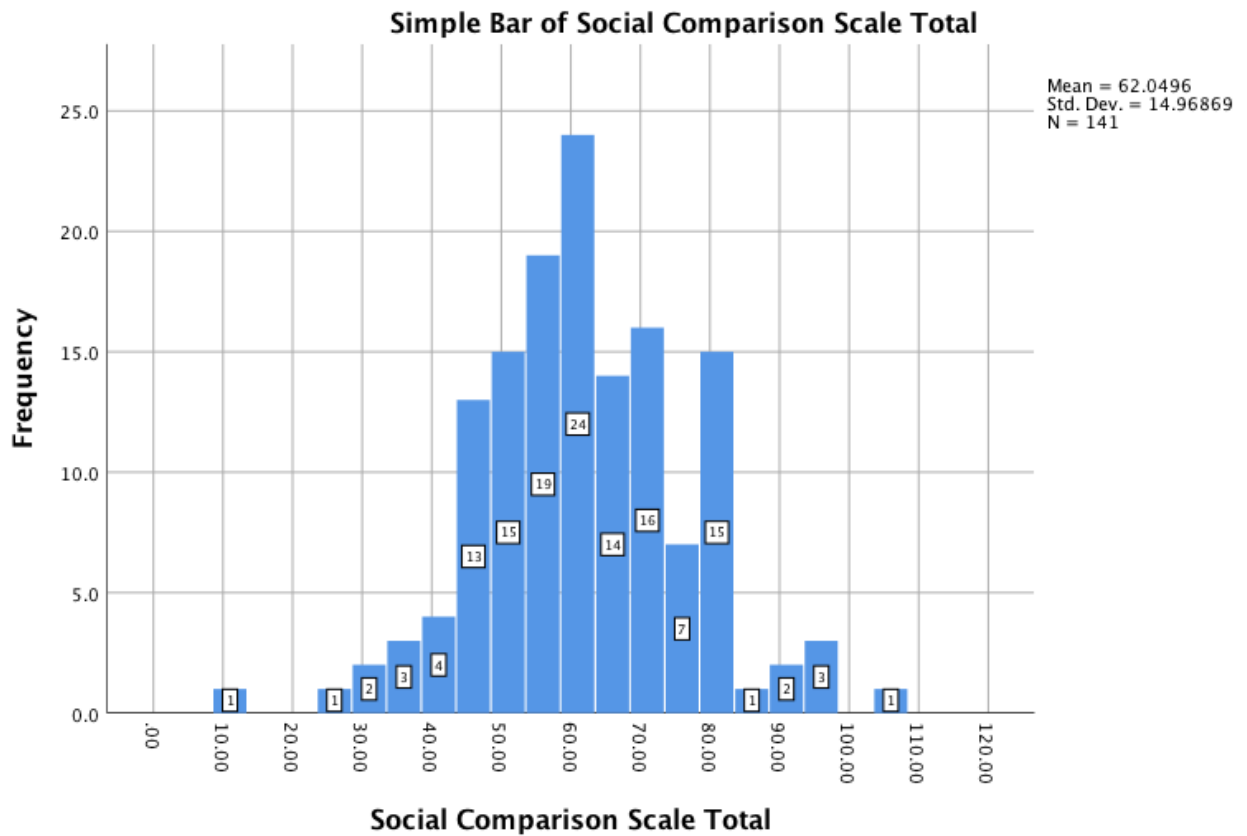


Figure 7: Social comparison scale participants total score.

## 5.2. Analysis

### 5.3. Independent T-Test

#### 5.3.1. Social Comparison & Gender

##### Hypothesis 1

The first research objective within this study examines the relationship gender has with social comparison. To explore this, the Social Comparison scale total score of participants (figure 7) will be examined with the variable gender. The author has predicated previously in H1 that female respondents will score lower than the males in the Social Comparison scale (Allan & Gilbert, 1997). As according to (Bergagna, 2018), females are more susceptible to comparing themselves to others. By running an independent samples t-test, shown in table 1 it has found that social comparison scores for males ( $M = 63.61$ ,  $SD = 17.85$ ) and females ( $M = 61.02$ ,  $SD = 12.73$ ) were not significantly different  $t(139) = 1.003$ ,  $p = 0.067$ . As the p-value for this independent samples t-test was greater than 0.05, the null hypothesis that there were no



significant differences between males and females socially comparing themselves was accepted; consequently, both genders have the same relationship with social comparison.

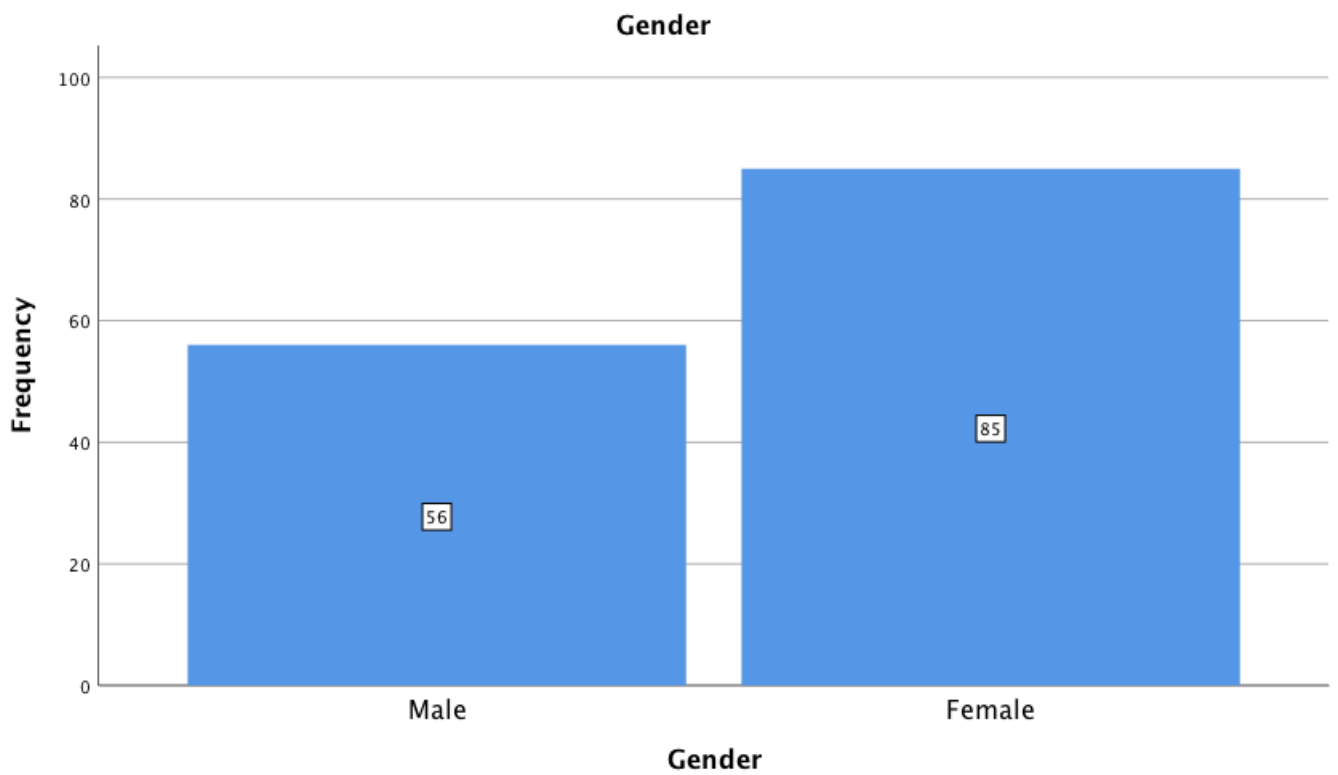


Figure 8: Boxplot displaying social comparison score in gender.

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	3.413	.067	1.003	139	.318	2.58361	2.57621	-2.51001	7.67724
Equal variances not assumed			.937	91.332	.351	2.58361	2.75632	-2.89122	8.05845

Table 1. Independent t-test on social comparison score in gender.

#### 5.4. Multiple Regression

For hypotheses 2-5, a multiple regression was conducted to predict RSES scores from age, gender, social comparison scores, and SNS frequency. The test complies to various assumptions to give a valid result. To fulfil the assumption, the initial analysis identified one outlier, with a residual value higher than 3 standard deviations from the mean. This outlier was removed from the dataset and the analysis was repeated without it. The reason for

removing the outlier is because it can cause problems in analysis. Hence, the final sample size for this analysis was  $N=140$ . The data were assessed for normality by visually inspecting a histogram (shown in figure 9.) of the distribution of the residuals, which indicated that the data were approximately normally distributed. Visual inspection of a standardised residual (figure 10) vs standardised predicted values plot (figure 11) indicated that the data satisfied the assumption of homogeneity of variance, as shown there is a linear relationship between the dependent variable and for each of the independent variables. The data did not display multicollinearity as all variance inflation factor (VIF) values ranged between 1.016 and 1.71 and thus was below a high (VIF) value of 5. Hence, no predictor variable is linearly predicted to another predictor variable.

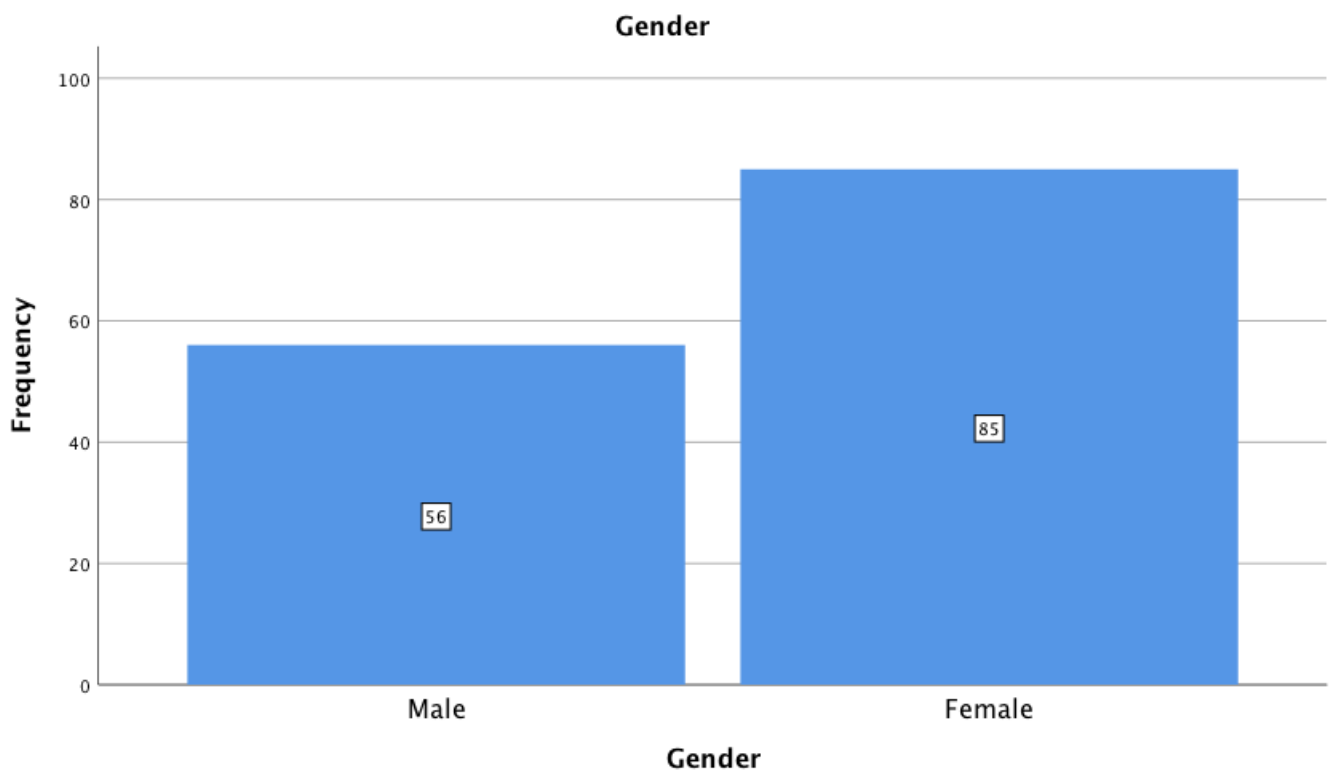


Figure 9: Histogram showing residuals are normally distributed.

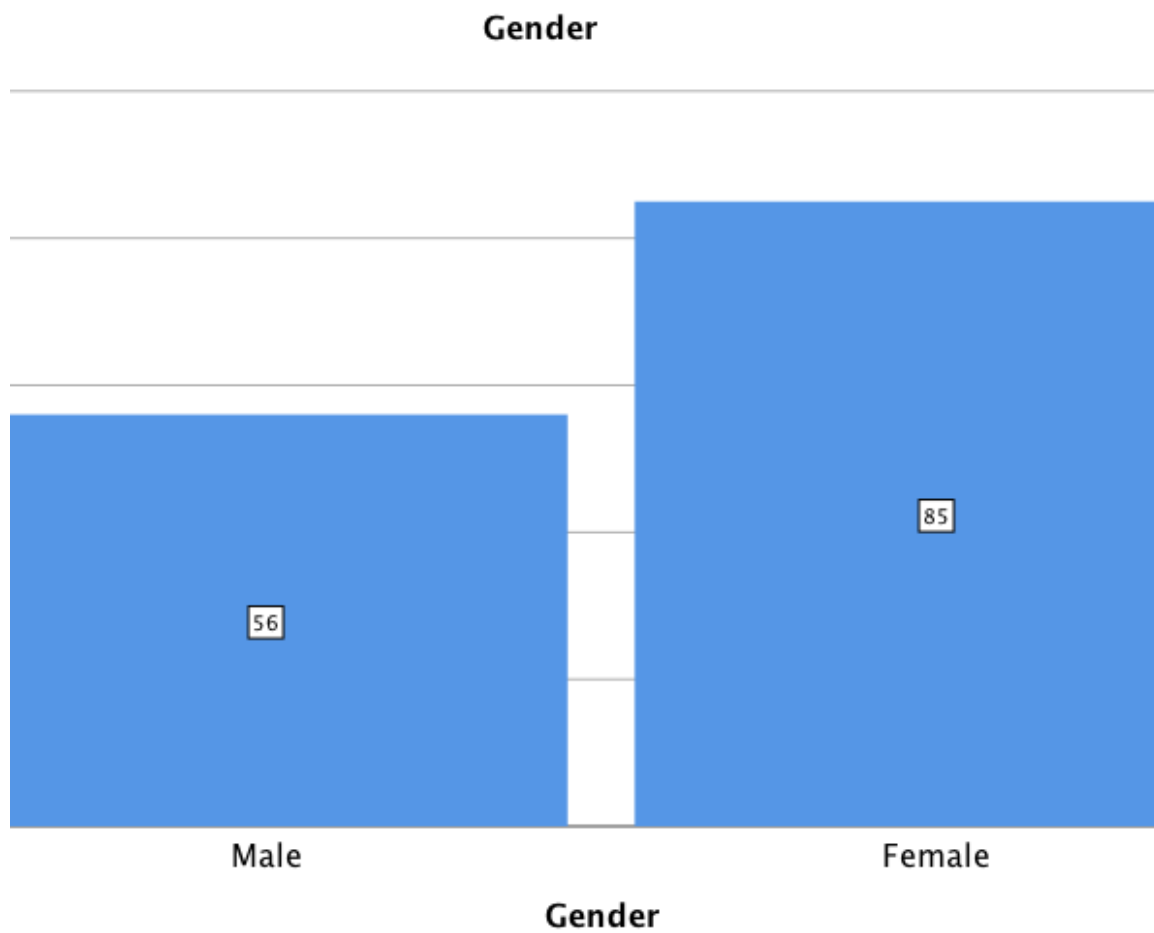


Figure 10: Plot of standardised residual values.

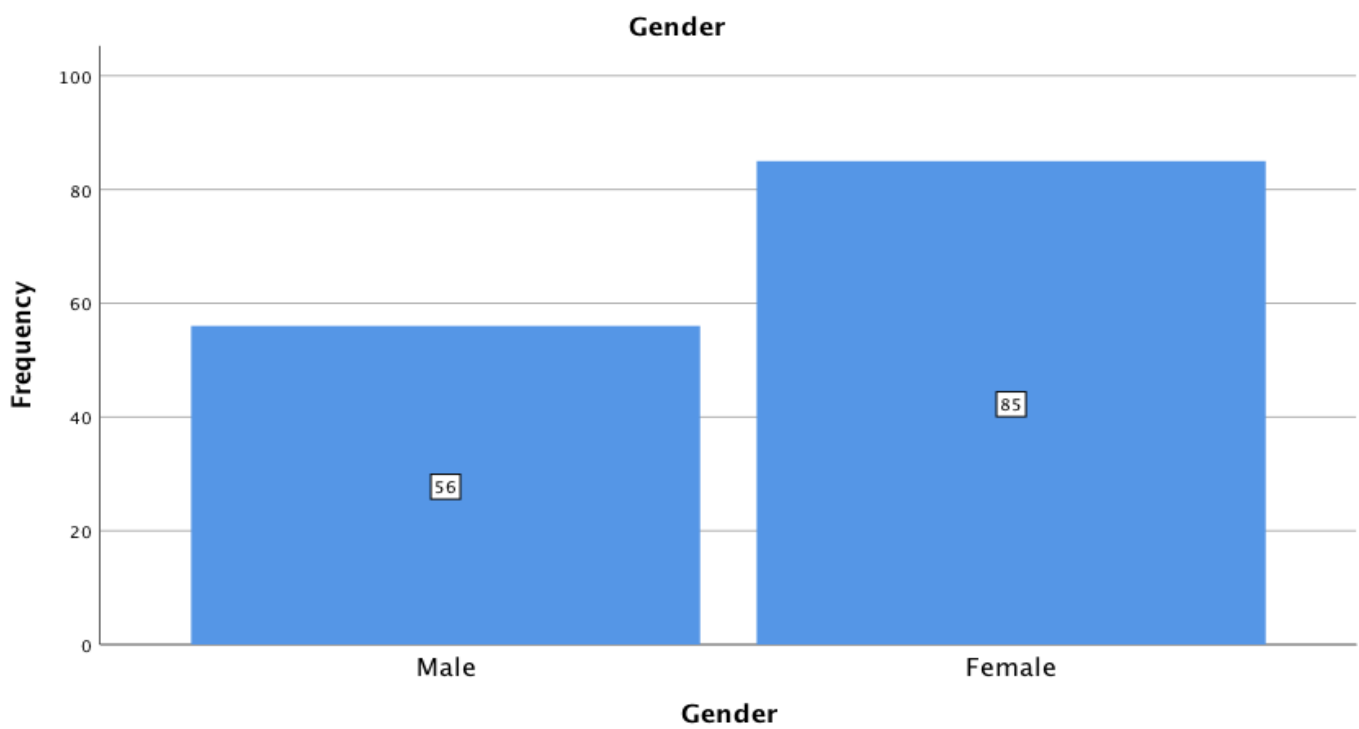


Figure 11: Scatterplot of standardised predicted values.

The regression model, incorporating all predictor variables, explained 63.4% of the variance in self-esteem ( $F(4, 135) = 58.34, p < .001$ ).

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 <sup>a</sup>	.634	.623	3.37396

a. Predictors: (Constant), Social Comparison Scale Total, Gender, SNS Usage Frequency, Age

b. Dependent Variable: Total\_RSES

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2656.436	4	664.109	58.339	.000 <sup>b</sup>
	Residual	1536.785	135	11.384		
	Total	4193.221	139			

a. Dependent Variable: Total\_RSES

b. Predictors: (Constant), Social Comparison Scale Total, Gender, SNS Usage Frequency, Age

Table 2: The model summary and analysis of variance result.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.622	2.054		3.224	.002		
	Gender	-1.209	.589	-.108	-2.055	.042	.984	1.016
	Age	.567	.186	.208	3.051	.003	.585	1.710
	SNS Usage Frequency	-.502	.281	-.121	-1.787	.076	.595	1.681
	Social Comparison Scale Total	.239	.020	.641	11.783	.000	.918	1.089

a. Dependent Variable: Total\_RSES

Table 3: Coefficient for each independent variable result.

#### 5.4.1. Factors Impacting Self-Esteem

The second research objective examines the relationship self-esteem has on social comparison, gender and age. Under this aim, hypothesis 2-4 was made.

##### Hypothesis 2- Social Comparison

The researcher has earlier predicted in H2 that participants who have scored low on the social comparison scale will score low on the RSES, indicating that participants who socially compare on social networking sites influence their self-esteem negatively (Lee, 2014).

The analysis has found that social comparison was positively associated with self-esteem, controlling for other variables ( $\beta = 0.641, p < .001$ ).

This indicates that as one variable increases or decreases, so does the other. In this case, it has confirmed that individuals who have scored low on the social comparisons scale will, in fact, score low on the self-esteem scale. Thus, accepting the hypothesis made.

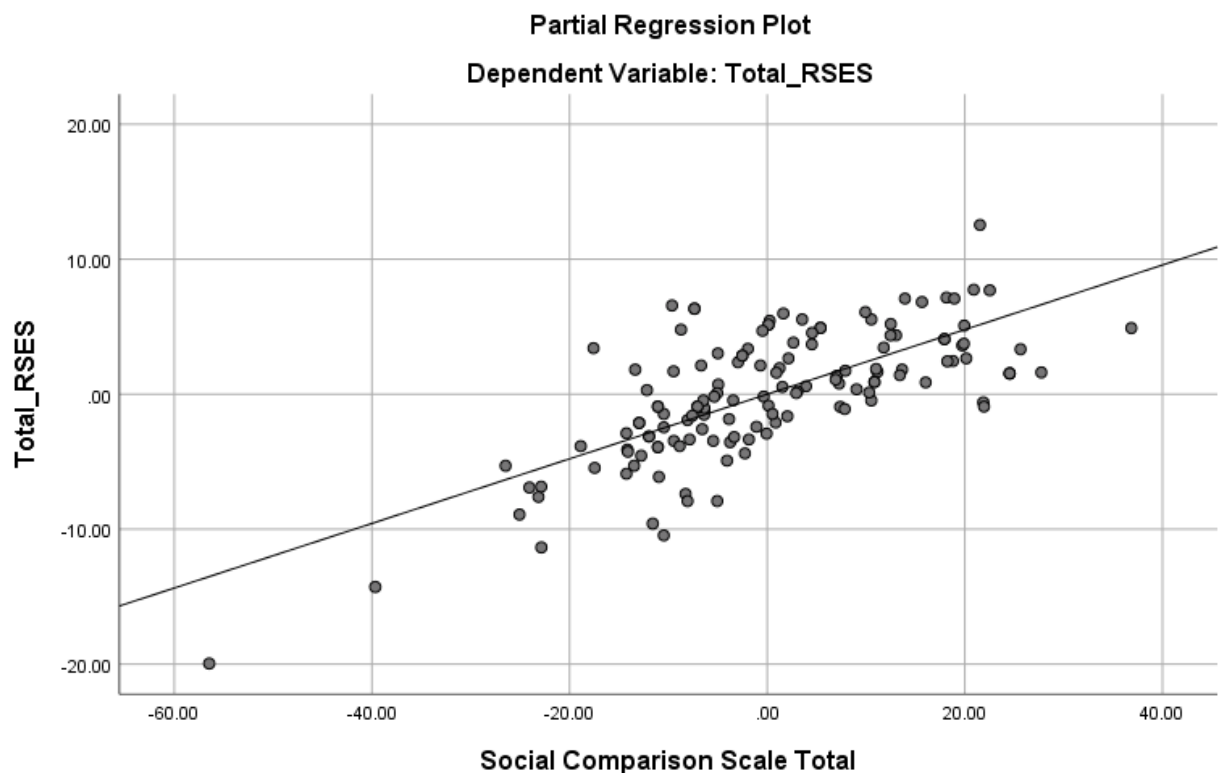
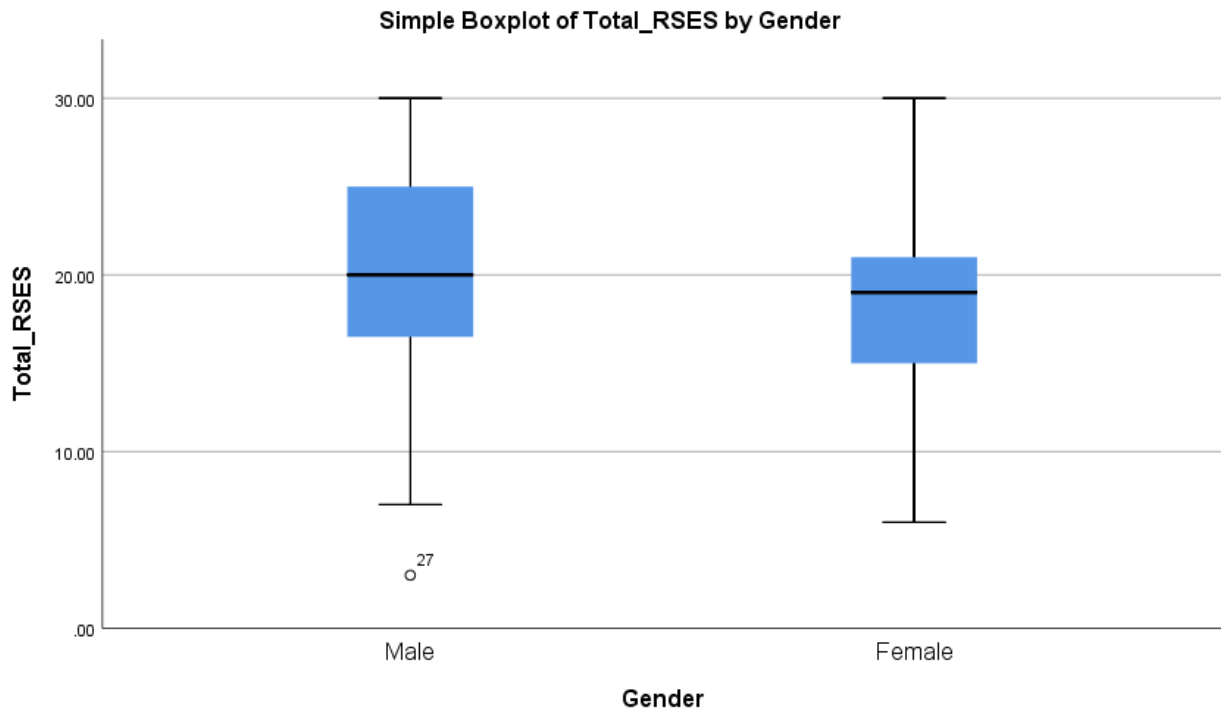


Figure 12: Partial regression plot showing the strong positive relationship between self-esteem scores and social comparison scores, controlling for the effects of age, gender, and social networking site usage frequency.

### Hypothesis 3 – Gender

For H3 the anticipated results are that the female participants will score a lower mark on the RSES than male, indicating a gender difference in self-esteem (Moksnes, 2013). It has found that gender was significantly associated with self-esteem levels, controlling for other variables ( $\beta = -.108, p = .042$ ), such that males had higher self-esteem than females.

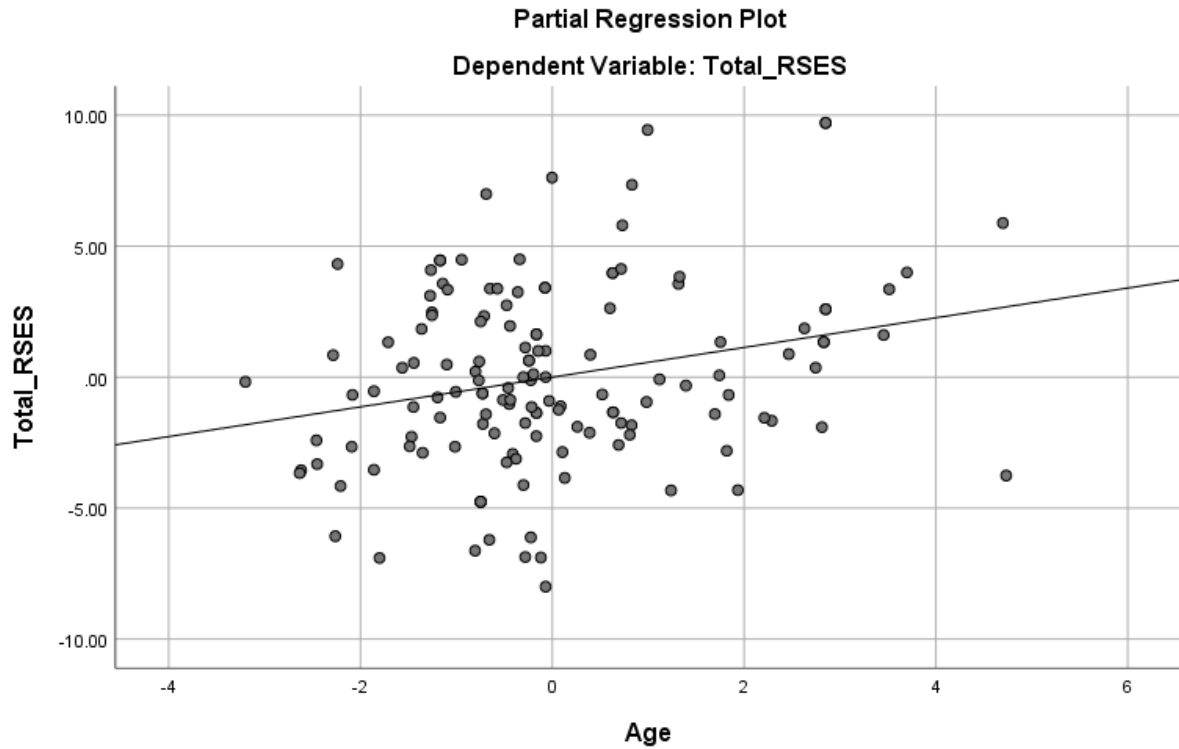
Therefore, the hypothesis proposed is accepted. This is evident in the illustration in figure 13.



*Figure 13: Boxplot showing the difference in self-esteem across genders. Note; This boxplot has not adjusted for the influence of the other predictor variables (age, social comparison, and social networking site usage frequency) on both self-esteem and gender.*

### Hypothesis 4 – Age

The proposed assumption for H4 is that younger age respondents will score lower on the RSES than older respondents in both genders (Erol, 2011). However, males will show higher scores at every age variable (Sliva, 2016). The analysis has discovered that age was significantly positively associated with self-esteem levels, controlling for other variables ( $\beta = 0.208, p = .003$ )



*Figure 14: Partial regression plot showing the strong positive relationship between self-esteem scores and age, controlling for the effects of gender, social comparison scores, and social networking site usage frequency.*

For the second part of hypothesis 4, the notion of belief was males will display a higher score at every age category. The researcher had used an illustration shown below in figure 15 to show if this was valid. The graph has shown that males do show higher self-esteem scores in every age variable. (missing male results in 36-41 years old). Therefore the prediction made was accepted.

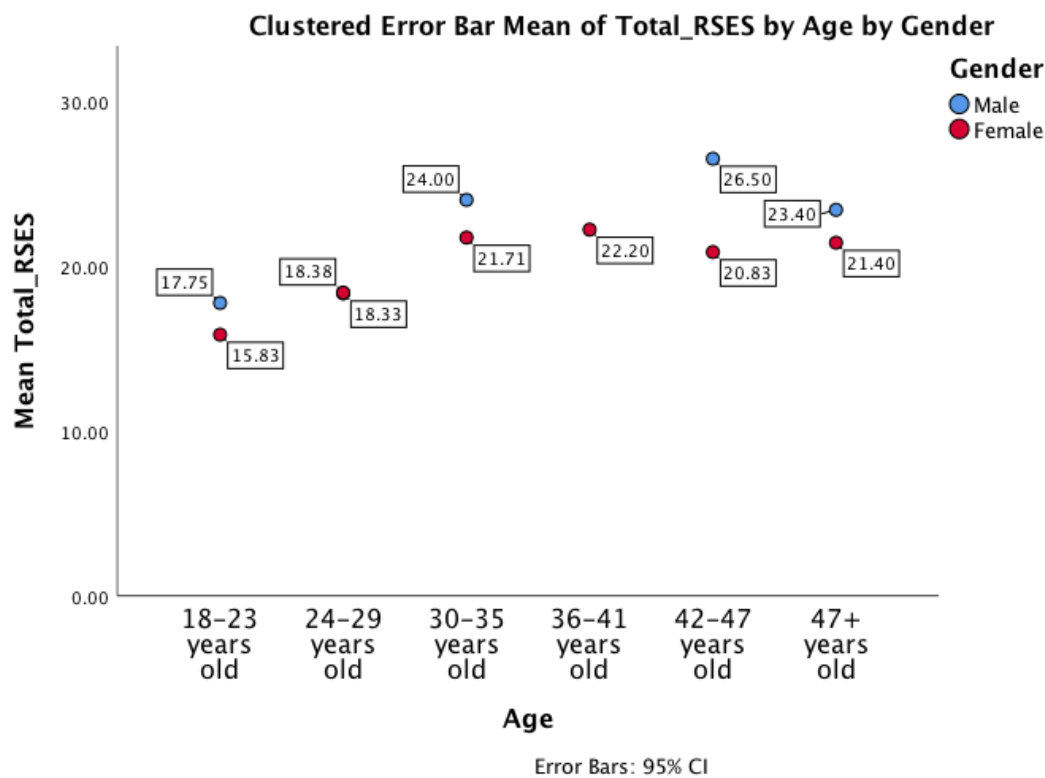


Figure 15: Graph displaying male having higher self-esteem scores than female at every age category.

#### 5.4.2. Self-Esteem and SNS Usage Frequency

The third and last research objective examines whether social networking sites usage frequency affects gender self-esteem. Hypothesis 5 and 6 were made under this intention.

#### Hypothesis 5 – SNS Usage Frequency

Lastly, within the multiple regression analysis, the hypothesis made is that self-esteem will have a negative correlation with social networking sites usage frequency. However, it has found that social networking site usage frequency was not significantly associated with self-esteem after controlling for the effects of age, gender, and social comparison scores ( $\beta = -0.121, p = .076$ ). Therefore, the hypothesis proposed is rejected in this case.



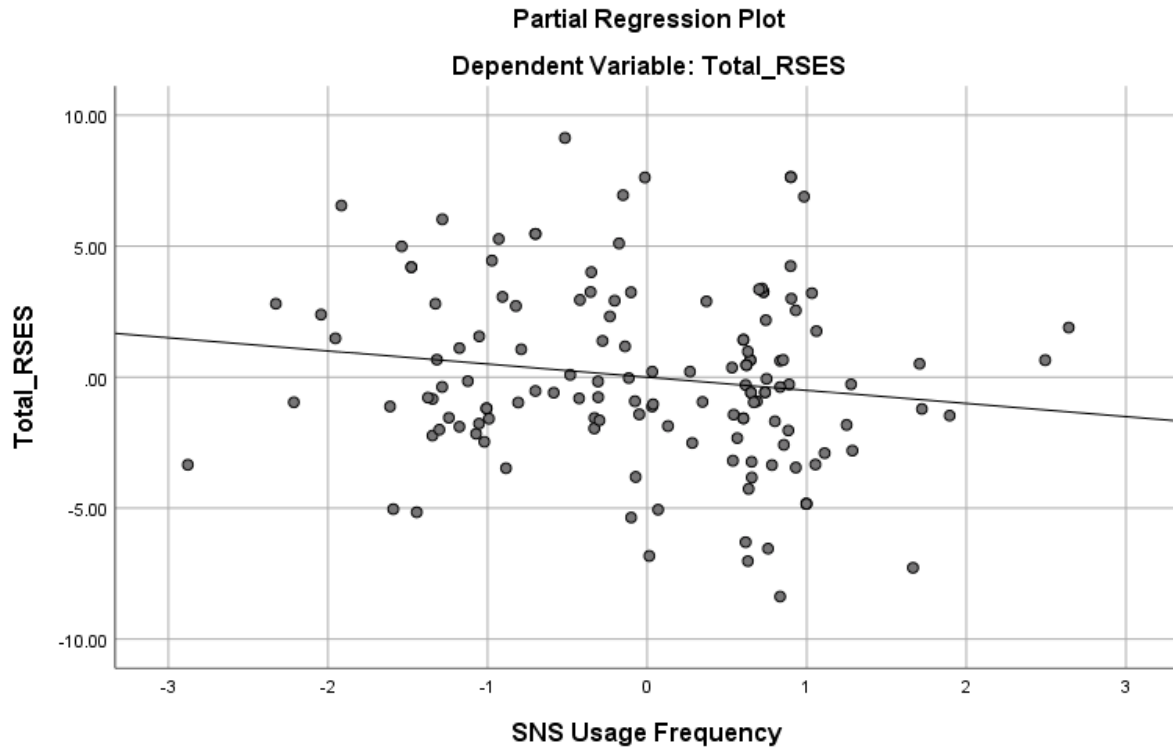


Figure 16: Partial regression plot showing the weak relationship between self-esteem scores and social networking site usage frequency, controlling for the effects of age, gender, and social comparison scores.

## 5.5. Spearman Correlation

### 5.5.1 Social Comparison and SNS Usage Frequency

Hypothesis 6-Social Comparison and SNS Usage Frequency in Females

#### Correlations<sup>a</sup>

			SNS Usage Frequency	Social Comparison Scale Total
Spearman's rho	SNS Usage Frequency	Correlation Coefficient	1.000	-.260*
		Sig. (2-tailed)	.	.016
		N	85	85
	Social Comparison Scale Total	Correlation Coefficient	-.260*	1.000
		Sig. (2-tailed)	.016	.
		N	85	85

\*. Correlation is significant at the 0.05 level (2-tailed).

a. Gender = Female

Table 4: Spearman correlation on females social comparison scores and SNS usage frequency

A Spearman's rank-order correlation was conducted to determine the relationship between the female respondent's social comparison scale scores and their social networking site usage frequency. As the researcher has projected in H6: Females who score low on the social comparison scale will use SNSs more frequently than users who score high on the social comparison scale. The sample size for this test was N=85, totalling for all the females within the survey and the degrees of freedom within this statistic test was (n-2). There was a statistically significant, but weak, negative correlation between social comparison scores and social networking site usage frequency ( $\rho(83) = -0.26, p = .016$ ). As such, within female respondent's there was a tendency for greater social networking site usage frequency in individuals with lower social comparison scale scores. Therefore, the hypothesis proposed is accepted as the relationship corresponds with the facts observed.

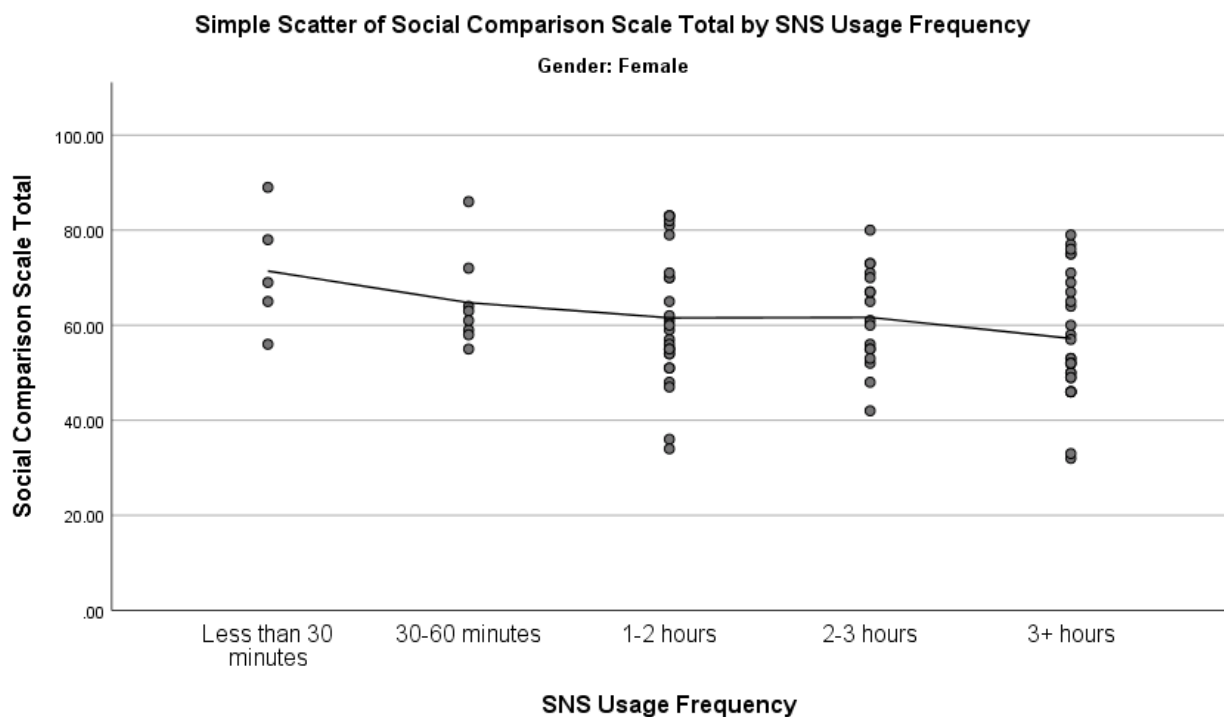


Figure 17: Scatterplot displaying a negative correlation between social comparisons scores and SNS usage frequency

## 6. Discussion & Recommendations

### 6.0. Introduction

The objective of this section is to provide a more significant interpretation of the results gathered, by thoroughly explaining and evaluating what was found in the previous chapter and relating it to the literature review and current existing knowledge. Thereafter, the researcher will provide recommendations for future work.

### 6.1. Social Comparison in Gender

#### **Hypothesis 1**

As discussed in the literature review, social comparison impacting gender differently has not been heavily examined in previous research. Though, the investigation of Gibbons & Buunk (1999) and Guidmond (2014) have both uncovered that there may be a gender difference in social comparison, as females are more interested in comparing themselves to others, especially on the field of physical attributes (Bargagna, 2018). Thus, the first objective of this research was to examine the relationship gender has with social comparison. With the researcher's speculation that females will score lower than the males in the social comparison scale, indicating females are more prone to social comparison than male and concluding a gender difference. The data which the investigator has uncovered has presented that there were no significant differences between males and females socially comparing themselves. Therefore, concluding that both genders have the same relationship with social comparison, as they did not differ significantly in their social comparison scale scores. This finding was the complete opposite relationship of which was observed. As it contrasts the theories of Bargagna (2018), who suggested that *'that males feel a less urgent need to compare themselves to others'* (p.840), resulting in females receiving a lower score as they are more uncertain about themselves and are more sensitive to the behaviour of others (Guidmond, 2014). The implication of the data was similar to Pulford's (2018) investigation on social comparisons in an academic setting relating to gender and academic self-confidence. Although, this research was measuring students' tendencies to social compare themselves with other students in an offline educational environment which the researcher thought will cause an effect on the overall result. However, it has still found that male and female

respondents did not differ significantly in their social comparison scale. The author had questioned previously in why gender was not a variable considered in the research of many academic investigations, starting with the research of Festinger (1954) and many other scholars (Lee, 2011; Garson, 2016; Kim, 2017) in recent years, who have either dismissed gender as a factor or only used females participants in their sample (Vogel). Thus, this may be due to the fact that both genders had proven to have the same relationship with social comparison.

## 6.2. Factors Impacting Self-Esteem

As mentioned previously, the second research objective examines the relationship social comparison, gender and age have on self-esteem and under this intent, hypothesis 2-4 was made and was tested by multiple regression analysis.

### Social Comparison & Self-esteem

#### **Hypothesis 2**

As previous research had indicated that SNSs give users a much greater opportunity to cautiously pick and publish content that best present their ideal self. Thus, the content within SNSs is seen to be in the direction of upwards comparison (Vogel, 2014). Prior in the literature, upwards comparison was described as occasions when people compare themselves to others who they think is better than them (Wills, 1981). As a result, these individuals who have upward compared tend to feel negative and express more inadequate self-esteem and well-being, some researchers have found the opposite outcome (Kraut, 2002; Valkenburg, 2009; Gerson, 2016). With the research depicting this, the author of this investigation had placed confidence that participants who have scored low on the social comparison scale will score low on the RSES. This indicates that participants who socially compare on social networking sites engage in upward comparison that will influence their self-esteem negatively.

The analysis has found that social comparison was positively associated with self-esteem. This confirms that individuals who had scored low on the social comparisons scale will, in fact, score low on the self-esteem scale. This result also depicts that as one variable increases, so does the other variable and vice versa. This confirms that upward comparisons on SNS will have a negative subjective outcome as individuals tend to believe that other users are doing better and have a better life, shown on SNSs. Therefore, people start to compare their realistic offline selves to the online best selves of others (Lee, 2014). Hence, the outcomes

such as poor self-esteem, depression and life satisfaction which researchers (Feinstein, 2013; Lee, 2014; Brooks, 2015; Bettmann, 2020) have found within their examination was valid.

#### Age and Gender Impacting Self-esteem

##### **Hypothesis 3-4**

In previous literature on gender differences within self-esteem, the trend in research indicates that males typically display higher levels of self-esteem than females (Kling, 1999; Moksnes, 2013; Magee, 2019). This has led to the assumption that female participants will score a lower mark on the RSES than male, indicating a gender difference in self-esteem (Moksnes, 2013). The analysis has found that gender was significantly associated with self-esteem levels, such that males had higher self-esteem than females. Although within this research, it did not explain why males had higher self-esteem than females. Though, in previous research, an explanation in why males will have higher self-esteem than females may consider factors like difference in body image ideals, cultural influence (Sliwa, 2016) and the impact of gender roles (Golan, 2015) leading to a difference in the results. As well, females are more conscious of their physical attributes and are more sensitive to the behaviour of others (Guidmond, 2014) which can all lead to lower self-esteem.

Self-esteem levels in gender appear to have a strong association with age, as APA has signified that there is a known gender gap while males report higher self-esteem than women from an early age towards late adulthood. However, Enrol and Orth (2011) have suggested in their research that self-esteem gradually increases during an individual transition from adolescence into their young adulthood in both genders. This has directed to the proposed assumption that younger age respondents will score lower on the RSES than older respondents in both genders. However, males will show higher scores in every age category. The analysis has discovered that age was significantly positively associated with self-esteem levels and that males in every age group scored higher than females. The data uncovered corresponded to the research of Moksnes, 2013 and Magee, 2019. However, it contrasts to Zeigler-Hill (2012) who implied the gender gap would narrow in old age. This finding was inconclusive, as the illustration and figures obtained from the survey have not concluded this result.

## SNS Usage Frequency and Self-esteem

### **Hypothesis 5**

Lastly, the objective of this research concerning the two factors examines whether social networking sites usage frequency affects gender self-esteem. When reviewing the SNS usage frequency and self-esteem, the literature based on this was inconsistent and inconclusive in discovering whether SNSs usage has any effects on an individual's self-esteem. Several academic investigations have found that user's self-esteem may be affected by long-term exposure to SNSs in everyday life (Feinstein, 2013; Vogel, 2014; Bettmann, 2020). Other studies have also found that the usage frequency of SNSs is correlated to positive outcomes (Kraut, 2002; Valkenburg, 2009; Gerson, 2016). Although, the reason for the inconsistent results was defended due to the change in the use of the internet over the decade. Thus, potentially changing the user's well-being outcomes (Valkenburg, 2009). However, based on the analysis conducted within this thesis, it has found that social networking site usage frequency was not significantly associated with self-esteem. Therefore, the hypothesis proposed was rejected in this case. This result was related to Gross'(2014) research which has found no correlation between the usage frequency of SNSs and user's subjective well-being and Coyne's (2020) eight-year longitudinal study who has found that the rate of SNSs usage is not associated in an individual's mental health or subjective well-being. The study has also proposed that it may depend on what users do on SNSs. Hence it does not matter about the duration of an individual's SNS usage. If users stay more active on social media by regularly commenting, posting and interacting with other users' content rather than being a passive user browsing and reading due to boredom self-esteem would not be affected.

## 6.3 Social Comparison and SNS Frequency in Females

### **Hypothesis 6**

The last hypothesis made within this dissertation has projected that females who score low on the social comparison scale will use SNSs more frequently than users who score higher on the social comparison scale. The data revealed there was a statistically significant, but weak, negative correlation between social comparison scores and social networking site usage frequency. As such, within females, there was a tendency for a much higher social networking site usage frequency in individuals with lower social comparison scale scores. Therefore, the assumption made was accepted. The data obtained from the research survey has also revealed that 4 participants had selected "observing others" when answering the question 'What are your main purposes of using social networking sites' (table 5). The 3 out

of the 4 participants were females, admitting that their intention in using SNS is to observe their online connections. Festinger (1954) stated in the social comparison theory that an individual who tends to observe others also tends to socially compare themselves to others in the process subconsciously. All female participants who selected this option showed a high SNS usage frequency of 3+ hours with a mean average of 55 for their social comparisons scale score, matching the weak, negative correlation between social comparison scores and SNS usage frequency.

Gender	SNS_Usage_Frequency	Main_Purpose_SNS_Usage	Total_Sum	Total_RSES
Female	3+ hours	Observing others	53.00	21.00
Male	1-2 hours	Observing others	46.00	13.00
Female	3+ hours	Observing others	49.00	8.00
Female	3+ hours	Observing others	67.00	22.00

Table 5. Participants selecting 'observing others' as their main purpose on SNS.

#### 6.4. Original Aim

The primary purpose of this dissertation is to clarify whether social comparison on social networking sites influences self-esteem differently in gender". By using the 6 hypotheses made and the data acquired throughout this investigation to conclude, yes, there is a possible gender difference in self-esteem when social comparison is executed on social networking sites. Although 2 of the hypotheses made were rejected. Nevertheless, some of the other hypotheses made were proven successful and were more fruitful than others. It is also important to mention that answering this aim included many factors that needed to be combined to create this outcome. Such as hypothesis 6, where it was found that there is a significant association but negative correlation with social comparison and social networking site usage frequency, specifically in females. Thus, implying that a greater social networking site usage frequency, results in having a lower social comparison score. By combining this result from hypothesis 6 with hypothesis 2, which proves that social comparison and self-esteem are significantly associated to each other and that female has a lower social comparison score than males indicating that participants who socially compare effects their self-esteem negatively. Thus, the aim of the research was answered and can conclude that females spend much more time on social networking sites, and will socially compare more and in turn, negatively impact their self-esteem.

#### 6.5. Recommendations for Future Academic Research

This study has highlighted that age is a variable to be considered when analysing self-esteem in gender. With regards to this, the random sampling technique may not be as valid as others. This investigation followed the random sampling procedure and gained a sample size of 141 participants. However, it was not evenly spread out throughout the age categories as many respondents were in the age category of 18-24 years old and only 5 participants were in the bracket of 36-41 years old and all were female and in turn, this produced a less comprehensive finding. In addition to this, lower self-esteem has been found in younger individuals. Given this finding, future research can investigate the reasoning behind this.

Lastly, the present study uses a cross-sectional mono-method approach. This could have limited the evidence in support of the direction between gender difference in self-esteem, and social comparison on social networking sites. Future studies can conduct longitudinal or mixed-method research involving quantitative and qualitative method. As this can instigate a much more rigorous examination, as well as using both methods of research is highly beneficial for any investigation as it proves much stronger and in-depth in findings. Mixed-method research would have developed the research data and analysis more on the participants perspective regarding social comparison on social networking sites.



## 7. Conclusion

The present study focused on investigating whether gender has a different association with social comparison, prompting a self-esteem variance when active on social networking sites. By using a quantitative cross-sectional survey methodology, the research findings have proven that there is a gender difference in self-esteem. SNS usage frequency, social comparison and self-esteem are significantly associated with each other. Being aware of that, social comparison and SNS usage has a negative correlation. Thus, the result has found that specifically in females, who holds a higher SNS usage frequency, have a lower social comparison score. Therefore, while females are active on SNS they are socially comparing and in turn, affecting their self-esteem negatively.

As many lives have been greatly impacted by SNSs, it is important to continue exploring additional information and knowledge towards these fields. This is to gain a better comprehensive understanding on the feelings and outcomes within individuals and by performing this investigation it has gained a much significant awareness on the implications of SNS towards social comparison and the level of effects it has on both genders' subjective well-being. Future research should continue the investigation on what the motivation and reasoning behind users socially comparing on SNS, as this can help find a solution in preventing such an effect and limiting the cause within the user's subjective well-being and self-esteem. As we are living a digital age and as younger individuals are much more frequent users of SNS it will impact them more than other age categories and possibly cause long-term damage towards their well-being.

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## 9. Appendices

### Appendix 1: Survey Questionnaire

#### Demographic Questions

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##### 1. What gender are you?

Male

Female

##### 1.2. How old are you?

18-23 years old

24-29 years old

30-35 years old

36-41 years old

42-47 years old

47+

##### 1.3. On average, how long do you spend on social networking sites daily?

Example of social networking sites is Facebook, WhatsApp, Instagram, YouTube and Snapchat.

Below 30 minutes

30-60 minutes

1-2 hours

2-3hours

3+hours

**UGT Scale**

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**2. What is your main purpose of using social networking sites?**

Please tick one.

Maintaining Existing Relationships,

Meeting New People and Socialising,

Passing Time

Sharing and Seeking Information and Educational Purposes

Observing Others

Self-Expression

Entertainment

None of the Above

**Rosenberg Self-Esteem Scale**

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**3. Please indicate how strongly you agree or disagree with each statement regarding your self-esteem. (Please only select one response per column)**

**3.1. On the whole, I am satisfied with myself.**

Strongly Agree      Agree      Disagree      Strongly Disagree

**3.2. At times I think I am no good at all.**

Strongly Agree      Agree      Disagree      Strongly Disagree

**3.3. I feel that I have a number of good qualities.**

Strongly Agree      Agree      Disagree      Strongly Disagree

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

Strongly Agree      Agree      Disagree      Strongly Disagree

**3.5. I feel I do not have much to be proud of.**

Strongly Agree      Agree      Disagree      Strongly Disagree

**3.6. I certainly feel useless at times.**

Strongly Agree      Agree      Disagree      Strongly Disagree

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

Strongly Agree      Agree      Disagree      Strongly Disagree

**3.8. I wish I could have more respect for myself.**

Strongly Agree      Agree      Disagree      Strongly Disagree

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

Strongly Agree      Agree      Disagree      Strongly Disagree

**3.10. I take a positive attitude toward myself.**

Strongly Agree      Agree      Disagree      Strongly Disagree

### Social Comparison Scale

---

**Please pick a number which best describes the way in which you see yourself in comparison to others**

**In relation to others I feel:**

**4.1. Inferior 1 2 3 4 5 6 7 8 9 10 Superior**

**4.2. Incompetent 1 2 3 4 5 6 7 8 9 10 More competent**

**4.3. Unlikeable 1 2 3 4 5 6 7 8 9 10 More likeable**

**4.4. Left out 1 2 3 4 5 6 7 8 9 10 Accepted**

**4.5. Different 1 2 3 4 5 6 7 8 9 10 Same**

**4.6. Untalented 1 2 3 4 5 6 7 8 9 10 More talented**

**4.7. Weaker 1 2 3 4 5 6 7 8 9 10 Stronger**

**4.8. Unconfident 1 2 3 4 5 6 7 8 9 10 More confident**

**4.9. Undesirable 1 2 3 4 5 6 7 8 9 10 More desirable**

**4.10. Unattractive 1 2 3 4 5 6 7 8 9 10 More attractive**

**4.11. An outsider 1 2 3 4 5 6 7 8 9 10 An insider**

Appendix 2: Layout of Likert Style Measurement and Multiple Choice Grid.

Please indicate how strongly you agree or disagree with each statement regarding your self-esteem. ( Please only select one response per column) \*

	Strongly Agree	Agree	Disagree	Strongly Disagree
On the whole, I am satisfied with myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I think I am no good at all.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please pick a number which best describes the way in which you see yourself in comparison to others

In relationship to others I feel: \*

	1	2	3	4	5	6	7	8	9	10	
Inferior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Superior

Appendix 3: Ethical Consideration; Post Published in Advanced Informing Participants on Their Rights.

**3.1 Facebook and Instagram Post**

Hi all,

I am currently doing a study on whether social comparison on social networking sites influences gender self-esteem differently. This investigation is part of my MSc in marketing dissertation. Hence, it will be much appreciated if I can take less than 5 minutes of your day to gain these insights.

Your participation in this study is entirely voluntary and you can withdraw from the survey at any time. Once you have the survey completed all responses you have provided will be anonymised and will be kept confidentially. The data will only be available to the researcher. Once again, thanks for helping me out and if possible, please share this survey around.

**3.2 Google Forum Post**

An Investigation into Whether Social Comparison on Social Networking Sites Influences Gender Self-Esteem Differently.

This survey is part of my research for my MSc in marketing dissertation. If you wish to take part, please note all responses will remain fully confidential and collected on an anonymous basis.

Once again, thank you for participating and if possible, please share this survey around.