



Social Media Effect on Self-Esteem in Relation to Personality Traits among Young Adults in Saudi Arabia

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Abstract: With the development and spread of social media sites, individuals must learn how to maximise their positive impact while minimising their negative effects. In this study, the relationship between social media and self-esteem has been explored, in addition to personality traits and how they differ in time spent on social media and self-esteem. The objective of this study is to determine whether social media affects individuals' mental health and self-esteem. This aim has been accomplished by meeting the following objectives: Determine whether social media affects the level of self-esteem among young adults, compare different personality traits, and assess the time spent on social media. Also, consider whether people with different personalities differ in their self-esteem. The participants of this study were approximately 385 male and female young adults aged 18 to 26 in Saudi Arabia. To measure these variables, the Big Five factors of personality by John Donahue and Kent, the self-esteem scale by Hudson, and the social media scale have all been used in the Arabic versions. The results show that social media and self-esteem are positively correlated with a large effect, and personality traits have a different level of association with social media use and with self-esteem.

Keywords: social media, personality traits, self-esteem, young adults.

Introduction

The study of human characteristics in relation to different variables is considered the most prevalent subject in

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psychology. In addition, Internet use, specifically social media, has become a huge part of people's daily lives and can affect us in different ways. According to Routley (2018), one of every two people in the world uses social media, the total number of social media users worldwide is estimated to be 3.8 billion, which constitutes 50% of the world's population. According to the General Authority for Statistics in KSA, research in 2019–2020 shows that 98.4% of adults in KSA use social media daily. Furthermore, the results show that 35.80% of the youth reported that social media affected their social lives and their relationships with others (GASTAT,2020).

Undoubtedly, if the topic is social media, the era that changed the use of social media and the internet in general should be viewed, and that's after COVID-19. The use and influence over material posted on social media increased significantly during and after the pandemic, due to the shift of daily activities from the real world to the internet. According to the WHO. (2021) study on social media and the pandemic among Gen Z and millennials, 90% of respondents were very concerned about the risk of COVID-19. Particularly the risk of a friend or family member contracting the virus. According to the survey the anxiety and worry is a result of COVID-19 fake news spread on social media.

The human personality is distinguished by its ability to be influenced by what is surrounding it in its environment, and there is no doubt that the development of the current human civilization and the emergence of social networking sites had a significant effect on personality. Personality is the result of interactions between individuals and the variables that surround them (John et al., 2008). Social networking sites had a significant impact on human personalities due to the network's development, which increased the opportunities to interact with others (Alsoudi, 2021). Negative interactions on social media, for example, disturbing news and opposing language, may influence individuals' negative emotions, mood, and mental health in general (Keles et al., 2020).

Self-esteem is defined as a person's overall self-evaluation of his or her worth (Weiten, 2004). This concept is ubiquitous in modern life, people generally assume that high self-esteem is essential to success in all fields in

life (Orth & Robins, 2014). In fact, promoting self-esteem and preventing self-esteem from declining is widely recognized as an important social goal, which deserves far reaching measures to raise the self-esteem of the nation (Orth & Robins, 2014). Furthermore, self-esteem is not necessarily a person's objective talents and abilities, or how a person is evaluated by others. In addition, self-esteem is commonly conceptualized as a "feeling good enough", and as a result, people with high self-esteem do not believe they are superior to others (Rosenberg, 1965). Valkenburg, Peter, and Schouten (2006) found that the frequency of using social networking sites indirectly affects self-esteem and well-being. Positive feedback on profiles can increase self-esteem and well-being, whereas negative feedback can decrease both.

According to the literature and previous research on social media effects in KSA, the majority of the research measures social media use in relation to academic achievement and performance among students, or in relation to COVID-19. For example, Alwagait et al. (2015) answered the question regarding the impact of social media on student academic performance in KSA by studying social media influence in one week. The findings showed an absence of relationship between social media use and grade point average (GPA). On the other hand, Alanzi and Al-Habib (2020) investigate the Saudi hospital personnel's usage of social media for educational purposes during the pandemic. The findings illustrate that social media is used by healthcare quality personnel in Saudi Arabia for educational purposes. Most respondents agreed that social media can be useful for improving knowledge and problem-solving abilities. The results suggest that social media can be potentially useful to provide healthcare quality in the Kingdom of Saudi Arabia.

This study gains its importance due to social media's consistent increase everyday, whether it's the rising numbers of social media sites or the time spent on those platforms. Conducting the study among young adults specifically because they are the most frequent users of social media. According to the General Authority for Statistics in KSA, young people are the most frequent users of social networking sites with approximately 98.43%, and a small difference between male and female, males with 98.63% and the percentage of females with 98.22% (GASTAT,2020). According to Saudi Arabia's 2030 vision, Saudi youth between the ages of 15 and 34 make up 36.7% of the country's total population, which is one of the country's comparative advantages

due to its young, talented, and ambitious population. Therefore, they see this group as being the most crucial and essential to building a productive society with a sustainable future (Vision Realization Program, 2022).

It is important to answer the question, how does daily exposure to social media influence psychological balance? Especially self-esteem. Understanding these relationships will lead to better utilization of social networking sites, and benefit from its potential to positively influence mental health. Furthermore, understanding the roles that personality traits play regarding the effect of social media, will help to predict the influence of social media on different personalities traits. Finally, this research will help to design counseling and training programs to spread awareness about the negative effects of social media and increase the beneficial area that social media can provide.

Research questions

-What are the relationships between social media and self-esteem among young adults?

-What are the differences between personality traits and the use of social media, in addition to the level of self-esteem among young adults?

Literature Review

Social media

Social media has been defined across many disciplines. Typically, definitions center on contact and interaction using technology (Carr & Hayes, 2015). Although there are many definitions, there is no common, formal, or unambiguous definition of social media (Kaplan & Haenlein, 2010). This can result in difficulty formulating theories and to guide research (Carr & Hayes, 2015).

In a brief and straightforward definition provided by Kaplan and Haenlein (2010), social media is an Internet-based applications that build on the foundations of Web 2.0 theoretically, and technologically and that enable the creation and exchange of User Generated Content.

On the other hand, Howard and Parks (2012) proposed a more nuanced definition of social media, dividing it

into three distinct components: the information infrastructure and tools used to create and distribute content, the content itself, and the individuals, groups, and industries that create and use digital content. The final definition is social media are Internet-based channels allow people to choose self-present and opportunistically communicate with both large and small audiences who value user-generated content and the perception of interaction with others, either in real-time or different periods (Howard and Parks. 2012).

In this research, the most presenting definition is Howard and Parks's definition duo to it including of the social component, which is the people and the interaction between individuals in society. Moreover, to understand the relationship between self-esteem and personality traits in the context of social media use, we must consider both the social media material and the participants in this activity.

The social comparison theory of Leon Festinger is the most fitting theory in the context of social interaction with others and their influence on self-esteem. It's a rational comparison based on the hypothesis that human beings have a motive to evaluate his or her opinions and abilities in the context of social relationships. Festinger suggests that people need to assess their abilities and the state of the world to make better and smarter choices about the words around them (Wheeler & Suls, 2000).

According to Festinger's theory, people evaluate their own social and personal worth by looking at how they stand in relation to others. There are two directions of social comparisons. The upward comparison suggests that individuals compare themselves to other people they believe are better. The goal of this comparison is to inspire us to be better and to be influenced by these people. The downward comparison suggests that people compare themselves to people they believe are worse. The purpose of this comparison is to make one feel better about one's situation (Cherry, 2019).

Social comparison theory, first proposed by Leon Festinger in 1954, posits that individuals have a natural tendency to compare themselves to others. In the 21st century, social comparison has become increasingly common and pervasive, due in large part to the rise of social media. Social media platforms such as Instagram and Facebook provide users with a constant stream of idealised images and representations of others, which can

lead to feelings of inadequacy and low self-esteem. As a result, it is important to be aware of the potential negative effects of social comparison and to take steps to mitigate them (Alsubaie et al., 2021).

Personality traits

Personality is a combination of psychological patterns of thoughts, feelings, behaviors, and interactions that can influence human behavior (Salem & Alanadoly, 2020). Personality traits are defined as the person's types of cognition and emotional thinking, in addition to behaviors that are presented over time and in several different situations (Bornstein, 2018). According to McCrae and Costa (1992) The personality develops in the childhood and becomes more stable after the age of 30 for most people.

The most widely reviewed and researched personality model is the five-factor of personality (Bornstein, 2018). The basic principles of modern trait theory are not new, their origins date back to 1990, by Cattell's personality theory (Boyle et al., 2008). In 1986, McCrae definition of the personality known as the Big Five Model, it's one of the most popular models of personality traits. Furthermore, the five-factor of personality FFP includes five main domains: openness, conscientiousness, extraversion, agreeableness, and neuroticism (OCEAN). Each of these five areas has six aspects (Shang et al, 2016). Individuals differ on each of these five trait dimensions, which could be determined genetically, through social adaptation, or through natural selection (Buss, 1996; Jang et al., 2002).

Within each of these five broad factors, several more specific personality traits are represented. Simply put, extraversion describes as active, energetic, dominant, socially engaged, and positive. Agreeableness contrasts prosocial and hostile orientation toward others. It consists of qualities such as altruism, kindness, trust, and humility. Conscientiousness embodies the impulse control that society expects, allowing for task- and goal-oriented behavior. Neuroticisms characterized with negative effects, anxiety, sadness, and nervous tension. Openness describes individual's spiritual and experiential life breadth, depth, and complexity (Costa & McCrae, 1992).

The trait theory, in particular the five-factor theory is the most appropriate theory for explaining the personality

trait variable. The five-factor theory was first proposed in the 1990s by psychologists McCrae and Costa Jr. The theory suggests that biological elements, particularly genetics, have a significant role in the formation of personality traits. In addition, non-genetic developmental variables (such as adoptive parents) seem to play a role of building one's personality (McCrae & Costa, 2003).

McCrae and Costa (2003) make the distinction between basic tendencies and characteristic adaptations to explain the stability of personality, which is the model's focus. Basic tendencies are an individual's innate capacities and tendencies, whereas characteristic adaptations are the actual learned structures that arise because of that person's interactions with their environment. While characteristic adaptations fluctuate, basic tendencies may be constant.

Self-esteem

Self-esteem is one of those topics where interest and study options are expanding over time and can be defined in four ways. The first way is the most simple and basic; it sees self-esteem as an attitude toward a specific object or situation. A second view of self-esteem addresses the gap between the ideal and actual selves. The closer these two are, the higher the self-esteem. Another way is to focus on the individual's response to himself. Finally, defining self-esteem in the context of the personality component, motivation and self-regulation which play a big role in this case (Mruk, 2006).

There is a two-factor approach to self-esteem definitions: one sees it as competence, while the other sees it as worthiness. It seems most acceptable to start with the earliest definition, in the work of William James, he sees self-esteem as the realistic successes and self-feeling toward what individuals can do or be, which he calls pretensions. James's definition is an example of a competency-based definition, competence in areas that are important to a person given their developmental history, personality traits, values, and other factors (Mruk, 2006).

Morris Rosenberg (1965) offered an alternative definition of self-esteem, which led to the most important discovery in this area. He explained it in terms of a specific attitude that is believed to be founded on the

perception of an emotion, a feeling about one's "worth" or value as a person. Rosenberg defined self-esteem as one's positive or negative attitude toward oneself and one's evaluation of one's own thoughts and feelings overall in relation to oneself. Another definition of self-esteem, in the view of worthiness by Alesi et al (2012) Self-esteem is viewed as a psychological trait that relates to self-evaluation based on one's beliefs about other people.

In conclusion, self-esteem can be explained by the two approaches, either separately or together as a two-factor. Competence is founded on an individual's capacity to take initiative and see a plan through to completion, while worthiness is more of an emotion than an actual ability (Mruk, 2006).

Sociometer theory by Heatherton and Wyland assume that human beings have a fundamental need to belong. According to the sociometer idea, one's self-esteem acts as a sociometer (compare to a barometer) to measure the level of social environment approval and disapproval (Leary & Tangney, 2012). When individuals' self-esteem is threatened or declines, they are motivated to control their behavior in order to avoid rejection and be accepted by others. Thus, self-esteem promotes socially desirable behavior that may increase the chances of getting what is needed.

Unlike other theories, self-esteem is not a self-sufficient motivator that generates its own needs. Instead, according to sociometer theory, the motivation to avoid social exclusion can be used to define the majority of behaviors that have been linked to the need to uphold one's sense of self-worth (Mruk, 2006).

Social media and personality traits

The trait theory explains how various social media usages related to different characteristics. For example, people with the neuroticism trait have a high level of anxiety and fear in real social situations, so they prefer online relationships (Salem & Alanadoly, 2020).

According to the theories, Agreeableness frequently uses social media to build relationships. Furthermore, a conscientious individual sees some interaction on social media as a waste of time, such as liking a post on Instagram. On the other hand, extroverted individuals use social media to communicate and share knowledge

with other individuals. Whereas with the openness trait, they are more serious about gaining information from media sites and always discover new ways of interacting with people (Salem& Alanadoly, 2020).

There have been several studies conducted regarding social media and personality traits, including Mahmoud and Farooq's (2014) study of the five personality traits concerning Facebook addiction. The result shows a positive correlation between extroversion, openness, and neuroticism in relation to Facebook addiction. The current study differs from Mahmoud and Farooq's on the social media platform; in the current research, will measure social media use generally, whereas in Mahmoud and Farooq's study, the concern was Facebook addiction.

A study conducted by Whaite et al. (2018) investigated the relationship between personality characteristics, the use of social media, and social isolation. Found that there is a high correlation between the use of social networking sites and the trait of neuroticism, while the correlation was low for the trait of extroversion and average for the rest of the traits. The current study differs from Whaite's in the effect of social media use. In the current research, the focus is on self-esteem, whereas in Whaite's study, the focus was on social isolation and its relationship to personality traits.

Kircaburun et al. (2018) study the five personality traits with the motives of using social media among people aged between 17 and 32 years. The results demonstrated the motivation of using social media is to make new friends and socialize, express interest, and pass time.

Alsoud (2020) studied the relationship between the big five personality traits and the social media use among undergraduate students in Oman. According to the findings, agreeableness is the most prevalent trait, followed by openness, conscientiousness, extraversion, and neuroticism as the least prevalent traits. Additional findings revealed a negative relationship between social media platform usage and agreeableness, extraversion, and neuroticism, as well as a positive relationship between neuroticism and openness to experience. The main difference between this study and Alsoud's research is the addition of self-esteem. Although the main variables are comparable, the goals of the two studies are not. Alsoud's research aims to predict the amount of social

media use based on different personality traits; however, the current study's emphasis is to investigate the relationship between personality traits and the use of social media in addressing self-esteem levels.

Asad et al. (2022) covered only one application of social media, and that is TikTok, in relation to personality traits and narcissistic behavior. The findings illustrate that personality traits, narcissism, and TikTok addiction all linked to each other's. TikTok addiction is directly related to grandiose narcissism and vulnerable narcissism. Neuroticism has no indirect effect on TikTok addiction via mediators such as a need to belong, a need for praise, or a need for self-esteem. Asad's study focused on narcissistic behavior on TikTok; nevertheless, the key subject in the current study is social media use in relation to self-esteem and how it differs for various personality types.

Social media and self-esteem

Stapleton et al. (2017) discovered that low self-esteem is thought to be influenced by social comparison. Due to the idealistic information that is shared on social media, which has heightened social comparison standards. People who spend more time on social media are more likely to assume that others have better lives, happier and more successful, which can result in lower self-esteem.

In research conducted by Pop et al. (2022), correlational research on the impact of social media among young users. The study discovered a link between social media use and the existence of loneliness, self-esteem, and body-esteem. The researchers also discovered that there are gender disparities in the link between social media use and these mental health characteristics. In addition, female social media users are more likely to express loneliness and low self-esteem. Furthermore, female social media users are more prone to compare themselves to others on social media, which can lead to feelings of inadequacy and low self-esteem. According to the study, social media use can have a harmful influence on mental health, particularly in young women. The current study's main focus is social media use as in Pop's research however, the dependence variables differ in their implication, in the present study will discuss self-esteem in relation to personality traits and the connection to social media use.

Jan et al. (2017) study was carried out to evaluate the idea that upward comparisons on social networking sites cause people to have lower self-esteem. The social networking site under consideration was Facebook. The results indicate that about 88% of Facebook users make social comparisons, and 98% of those comparisons are upward ones. Additional evidence from this study supports the notion that social media and self-esteem are strongly correlated. The more individuals use social the lesser their self-esteem. A person's self-esteem score drops by 5.574 points for every hour they spend on Facebook per day. The social media site under consideration differs from Jan's study and the current research in that Jan's study focused solely on the effect of Facebook, whereas in this research will focus on social media use in general.

According to Robins et al. (2001), personality might explain 34% of the variation in self-esteem. Furthermore, much research has been conducted to investigate the relationship between self-esteem and personality. As these investigations show, the highest levels of emotional stability, agreeableness, and conscientiousness were reported by those with high self-esteem, while the lowest levels of openness were found in people with low self-esteem.

Social media, self-esteem, and personality traits

Research in Lebanon by Hawi and Samaha (2019) studies the differences in personality characteristics of internet and social media addiction with self-esteem and self-construal. The findings indicated that there are similarities between Internet and social media addictions. Both were predicted by agreeableness, conscientiousness, openness to experiences, emotional stability, and level of self-esteem. The distinction between this study and those of Hawi and Samaha is that instead of looking at social media addiction, in the current study will quantify the time spend on social media using a questionnaire designed for Saudi youth. In addition, Hawi and Samaha incorporate internet addiction as a comparison with social media addiction, and the current study will discuss social media use as an independent variable. Moreover, in Hawi and Samaha's study, self-esteem was included as a predictor variable for social media addiction and Internet addiction. However, in the current study, we will examine the relationship between the variables.

In China, Wang et al. (2012) examine the relationship between the big five personality factors and self-esteem among Chinese university students who use social media. The finding suggests that different personalities have different motivations for using social media. Moreover, people with high self-esteem commented on other people's posts more. Wang's aim in the study was to investigate the different use intentions related to personality traits and how these reasons and behaviors affect a person's self-esteem. Moreover, for the current study, the goal is to find out if there is a relationship between social media use and self-esteem and if there are differences related to personality traits.

According to Smith (2022), there is a statistically significant positive and negative link between problematic Facebook use and both loneliness and self-esteem. It was discovered that, whereas loneliness was only partially mediated by self-presentation, the association between self-esteem and problematic Facebook use was inconsistently mediated by both self-presentation and extraversion. Although extraversion and self-presentation had a dampening influence on the connection between self-esteem and problematic Facebook use, the overall effects of loneliness and self-esteem remained positive and negative, respectively. These findings demonstrate the existence of various connections among psychological variables, consumption volume, and problematic Facebook use. In this study, Smith covered loneliness and self-esteem in relation to problematic Facebook use, including just one of the personality traits, extraversion.

The current study will focus on social media use in general as opposed to Smith's study, which only examined the impact of Facebook use. In addition, Smith's study only examined extraversion as a personality trait; however, in this study, all personality traits will be evaluated in relation to both social media and self-esteem.

In a different study on the use of social media, personality factors and their relationship to risky usage of social media were examined by Kircaburun and his colleagues. The study focus was to investigate the relationship between problematic social media usage (PSMU) and the Dark Triad (DT), as well as how these traits affected self-esteem. The DT are narcissism, psychopathy, and Machiavellianism. The term "machiavellianism" is used to describe a personality feature in which a person is so preoccupied with themselves that they will lie, cheat,

and manipulate others in order to further their own interests (Kircaburun et al., 2018).

The findings showed that narcissism and Machiavellianism had insignificant indirect impacts through self-esteem, despite the small but substantial direct effects on PSMU (Kircaburun et al., 2018). In contrast to Kircaburun's method of adding only the dark triad of personality traits, this study will include all five personality traits. Additionally, rather than measuring behavior on social media, social media use in this study will be more closely tied to the amount of time spent on it.

2.1 Hypothesis

H1. There is a relationship between the time spent on social media, and the level of self-esteem among young adults.

H0. There is no relationship between the time spent on social media, and the level of self-esteem among young adults.

H2. Different personality traits vary in time spent on social media.

H0. Different personality traits have no differences in time spent on social media.

H3. People with different personality traits vary in their level of self-esteem.

H0. People with different personality traits have no difference in their level of self-esteem.

Methodology

3.1 Study design

In this research, the best strategy to answer the question is a quantitative, non-experimental correlational design. Furthermore, the start of the research will be within subjects, applying the tests to the same sample. Moreover, moving to between-subjects means having more than one group based on the results.

The positivist research theory holds that the objective of study is solely to describe what individuals experience. Furthermore, science should only investigate what can be measured; anything that cannot be measured or

experienced is considered irrelevant. Positivism philosophy also believes that information should be gained through scientific investigation. Because of the emphasis on providing observable facts, the current research falls within the positivism umbrella (Barker et al., 2016).

3.2 Population and sample

Saudi Arabian youth between the ages of 18 and 26 make up the study's population. Young adults are specifically addressed because they are the most frequent users of social media platforms (GASTAT, 2022). The population of men and women between the ages of 18 and 26 in the Kingdom of Saudi Arabia is estimated to be 944776 (GASTAT, 2022).

Using OpenEpi website, and the following formula $[DEFF * Np(1-p)] / [(d2/Z21-2*(N-1)+p*(1-p)]$ the sample size has been extracted, with 385 participants between the ages of 18 and 26. Furthermore, samples will be taken from all five regions of Saudi Arabia: north, south, east, west, and central areas.

Sampling techniques are non-probability sampling, specifically, convenience sampling (voluntary response sampling). To collect data, the survey are made available online for participants to complete, and took approximately two months to reach a number of 394 participants.

3.2.1 Inclusion and Exclusion criteria.

Inclusion criteria

- Male and female
- young adult aged 18-26
- Saudi Arabians youth
- speaking Arabic

Exclusion criteria

- People diagnosed with anxiety or depression.
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- People on psychiatric medications.
- Individuals don't use social media.

3.3 materials

3.3.1 Sociodemographic sheet.

A non-structured survey was used to inquire about participants' ages, gender, place of residence, and nationality. Age is a factor of inclusion in the research, and gender and nationality were collected to ensure that the sample was representative of the population of Saudi adults. The survey was conducted in Saudi Arabia, and the place of residence was collected to identify any regional differences in the findings.

3.3.2 social media.

Social media scale by Dr. Asma Kelawy, the scale was created by the researcher to measure the social media use among college students in Saudi Arabia. The scale consists of 18 different items each has 3 levels of response (rarely, sometimes, always). The scale has been selected for its design based on the environment and culture of Saudi Arabia. Moreover, the scale has a good level of validity and reliability. An illustration of a scale phrase: 14(Watching social media distracts me from eating). To test the reliability in relation to Saudi culture, the researcher used re-test techniques. After 15 days, the researcher re-tested the sample, and the stability of the scale was 0.793, which indicates good reliability of the scale (Kalawy, 2017).

Regarding the validity of the scale, the researcher conducted two tests: content validity and concurrent validity. The scale has been sent to professional and came back with 90% agreement on all the scale phases. The validity coefficient reached 0.674, which is statistically significant at level 0.01 and is an indication that the scale has high validity. The researcher examined internal consistency by comparing the whole scale point to the sentences. Results ranged from -0.328 to 0.601, demonstrating the scale's excellent level of internal consistency demonstrated in table 3.1 (Kalawy, 2017).

Table 3.1: Internal consistency, social media scale

Item number	Correlation coefficient	Item number	Correlation coefficient	Item number	Correlation coefficient
1	0.65	7	0.34	13	0.52
2	0.48	8	0.37	14	0.42
3	0.77	9	0.56	15	0.43
4	0.65	10	0.43	16	0.51
5	0.43	11	0.45	17	0.34
6	0.59	12	0.51	18	0.49

3.3.3 Personality traits.

List the big five factor of personality, by John Donahue and Kentle. Adopted from the Arabic version, by Bochra Ismail (2013). The initial edition of this scale contained 44 phrases that excelled in their clarity and understandable, making it a good choice due to its high validity and reliability. In the Arabic version the total number of items is 32 items. The scale contains 8 reverse items (4,6,17,23,28,26,14,19). An example of the scale items (do you see yourself as a talkative person?) (John et al.2008).

The scale contains five answer options starting with strongly disagree (1) to strongly agree (5). Individuals with a high score in one personality trait have this as their dominant personality trait (John et al. 2008). The reliability for the Arabic version was tested using the internal consistency, correlation coefficient on 50 female students and 50 male students. The correlation coefficient for each statement, was between (0.01-0.05). Except for (2,3,8,12,24,27,28,29,34,40,41,43) therefore, this statement has been deleted in the standardized version. In addition, the researcher conducted re-testing after two weeks, the result is exhibited in table 3.2:

Table 3.2: Reliability coefficient for re-testing personality traits scale

Sub-test	Reliability coefficient for re-testing
Extroversion	0.79
Agreeableness	0.75
Consciousness	0.69
Neuroticism	0.71
Openness	0.65

Regarding the validity of the Arabic version, the researcher conducted factor analysis for the whole sample 200

male and 75 female. The result was 2.36 represent 46.88% from total contrast, and 1.04 explains 21.18% from the total contrast.

3.3.4 Self-esteem.

Self-esteem scale -Hudson (1994). Adopted from the Arabic version by Magdi Desouki. It's contained a 25 question with 12 revers items (3,4,5,6,7,14,15,18,21,22,23,25). Response of seven options starts with never to most of the time. The score ranges from 0 to100, the higher the score the lower the self- esteem. It's worth mentioning that there is no cut off score, or categorical scoring. Sampling item the 10th phrase (I feel I am a poring person)

Regarding the validity of this scale, the researcher used concurrent validity among high school and college students. For high school students the validity was 0.914, and college students was 0.922. The researcher measured reliability by using re-testing among high school the results was 0.84, and among college students was 0.87. Furthermore, the results on cronbach's alpha among college students 0.84. In addition to the high correlation between the Arabic version, and the English version. 0.964.

3.4 data analysis

Both descriptive and inferential methods will be applied in this study using SPSS program, version 25, to conduct the statistical analysis. Age, sex, area of residence, and nationality were among the personal variables of the study calculated using frequencies and percentages. To test the first hypothesis, Pearson correlation will be calculated at a statistical significance level of P 0.01 to determine if there is a relationship between social media and self-esteem.

In the second hypothesis, to test the difference between the five personality traits and the use of social media, a two-way ANOVA will be used; furthermore, to test the third hypothesis, the difference between the five personality traits and the level of self-esteem, a two-way ANOVA will be applied with a significance level of p 0.01.

3.5 Data collection procedures

The step for this research begins with ethical approval, a proposal has been sent to IRB includes all the details of the study. Ethical lessons have been obtained to keep the process ethical and legitimate.

The online survey included a sociodemographic sheet, which asked participants about their age, sex, ethnicity, and place of residence. The survey also included a social media survey to obtain information about the use of social media. In addition, a structured questionnaire was included, which consisted of the self-esteem scale and the five factors of the personality scale.

The primary method of collecting data was an online survey, which was distributed on social media sites and throughout researchers' groups. The survey was distributed through Telegram, Twitter, and LinkedIn on a daily basis for two months until the sample size was reached.

3.6 Ethical Considerations

To protect the rights of participants, permission from the Institutional Review Board (IRB) has been obtained before beginning the research procedure. In addition, an email has been sent to the authors of the questionnaire to request permission to use their information. Before collecting data from participants, participants were provided with a consent form that explained the topic of the research and the purpose of the data collection. Moreover, participants were assured that their names and any other identifying information would not be collected.

Results

Both descriptive and inferential methods have been used in this study. The mean of each group and the percentage that represents the entire set of data are first added up and extracted. The Pearson r-correlation has been calculated to measure the relationship between the variables. An ANOVA two-way test has been used to compare the various personality traits and the effects of social media to determine whether a relationship exists between them and to identify the differences. Moreover, Eta-squared is measured to find out the practical

significance among the variables.

To identify which age group has the highest rate of social media usage, the mean for each age group and the percentage they represent were extracted from the data. The group with the most responses is also determined by the mean and the percentage of respondents by gender. The nationality and the area of residence have been taken into consideration. In addition, the participant's mean and standard deviation are calculated in relation to the social media scale to identify the gender and age group with the highest social media usage. Internal consistency validity, structural consistency validity, and Cronbach's alpha have been calculated for each scale and among the participants to assess the validity and reliability of the scale utilized in connection to the respondents' characteristics. A test of normality has been conducted to assess whether the data are distributed normally across the scales. The results have been reported using tables and graphs.

Inferential statistics were then provided to address the study questions and hypotheses. To establish whether there is a link between social media and self-esteem, the P-correlation test is used. Furthermore. The use of social media and the five personality traits have been compared using an ANOVA two-way test, as have the differences between self-esteem and the personality traits. To find out the proportion of variance assigned to one or more effects. Eta-squared has been used to describe how variables behave within the sample and their impact size to evaluate the effect in the different groups. An additional finding has been mentioned, which is the relationship between social media use across age groups and gender. Finally, the percentage of each personality type in the sample has been calculated.

4.1 Descriptive data

Table 4.1: Descriptive Statistics for the Sample (N = 394)

	Frequency	Percent %	Mean	SD
Age (years)			20.83	0.808
18-20 years	231	59.7		
21-23 years	76	19.6		
24-26 years	80	20.7		

Gender				
Male	93	24.0		
Female	294	76.0		
Area Residence				
West	54	14.0		
East	13	3.4		
Center	246	63.6		
North	23	5.9		
South	51	13.2		
Nationality				
Saudi	368	93.4		
Non- Saudi	26	6.6		

The percentage of males in the study sample was 24.0%, while the percentage of females was 76.0%, as shown in Table 4.1. In terms of gender, those between the ages of 18 and 20 made up the largest proportion of the entire sample, accounting for 59.70%, followed by those between the ages of 24-26 at 20.70%, and those between the ages of 21 and 23 at an average of 19.6%. Most of the sample's residents' areas, 63.60% were in Saudi Arabia's center. Additionally, 93.4% of participants were Saudis, with 6.6% being from other countries. Non-Saudi participants have been excluded from the statistics, due to the study sample being among Saudi youths.

Table 4.2: Descriptive Statistics for normality test

Descriptives			Statistic	Std. Error
Social Media	Mean		34.4245	.30961
	99% Confidence Interval for Mean	Lower Bound	33.6230	
		Upper Bound	35.2260	
	5% Trimmed Mean		34.3935	
	Median		35.0000	
	Std. Deviation		6.06703	
	Minimum		21.00	

	Maximum		54.00	
	Range		33.00	
	Interquartile Range		9.00	
	Skewness		.044	.125
	Kurtosis		-.450	.248
Personality Traits	Mean		108.3542	.53656
	99% Confidence Interval for Mean	Lower Bound	106.9652	
		Upper Bound	109.7432	
	5% Trimmed Mean		108.6817	
	Median		109.0000	
	Std. Deviation		10.51442	
	Minimum		70.00	
	Maximum		139.00	
	Range		69.00	
	Interquartile Range		12.75	
	Skewness		-.544	.125
	Kurtosis		.949	.248
Self-esteem	Mean		83.0625	1.37064
	99% Confidence Interval for Mean	Lower Bound	79.5143	
		Upper Bound	86.6107	
	5% Trimmed Mean		82.1470	
	Median		81.0000	
	Std. Deviation		26.85891	
	Minimum		28.00	
	Maximum		171.00	
	Range		143.00	
	Interquartile Range		35.75	
	Skewness		.494	.125
	Kurtosis		.106	.248

Table 4.3: Normality test

Tests of Normality	Kolmogorov-Smirnov Statistic			Shapiro-Wilk Statistic		
		df	Sig.		df	Sig.
Social Media	.066	384	<.001	.991	384	.014
Personality Traits	.074	384	<.001	.981	384	<.001
Self Esteem	.048	384	.034	.981	384	<.001

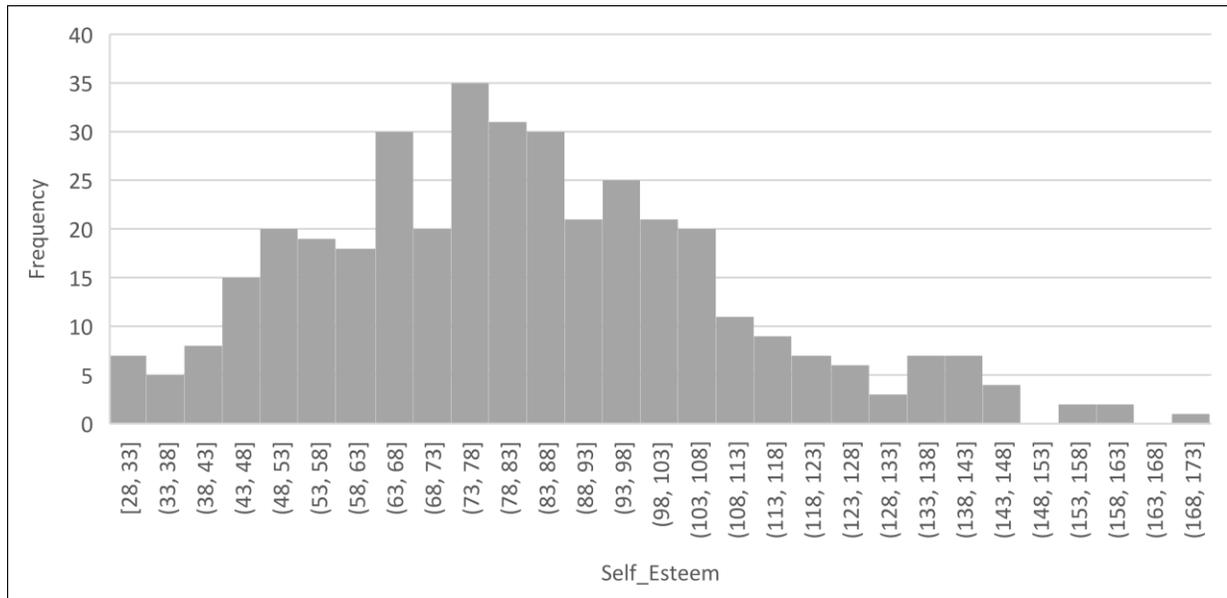


Figure 1: Distribution of the data on self-esteem scale

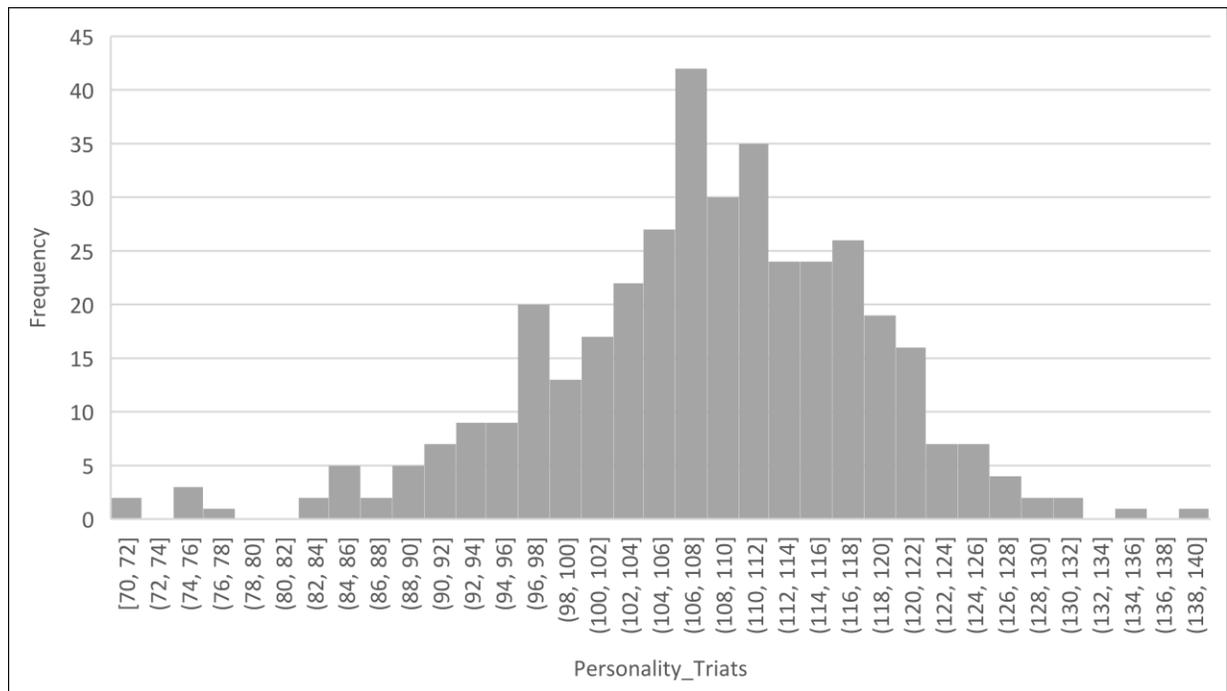


Figure 2: Distribution of the data on personality traits scale

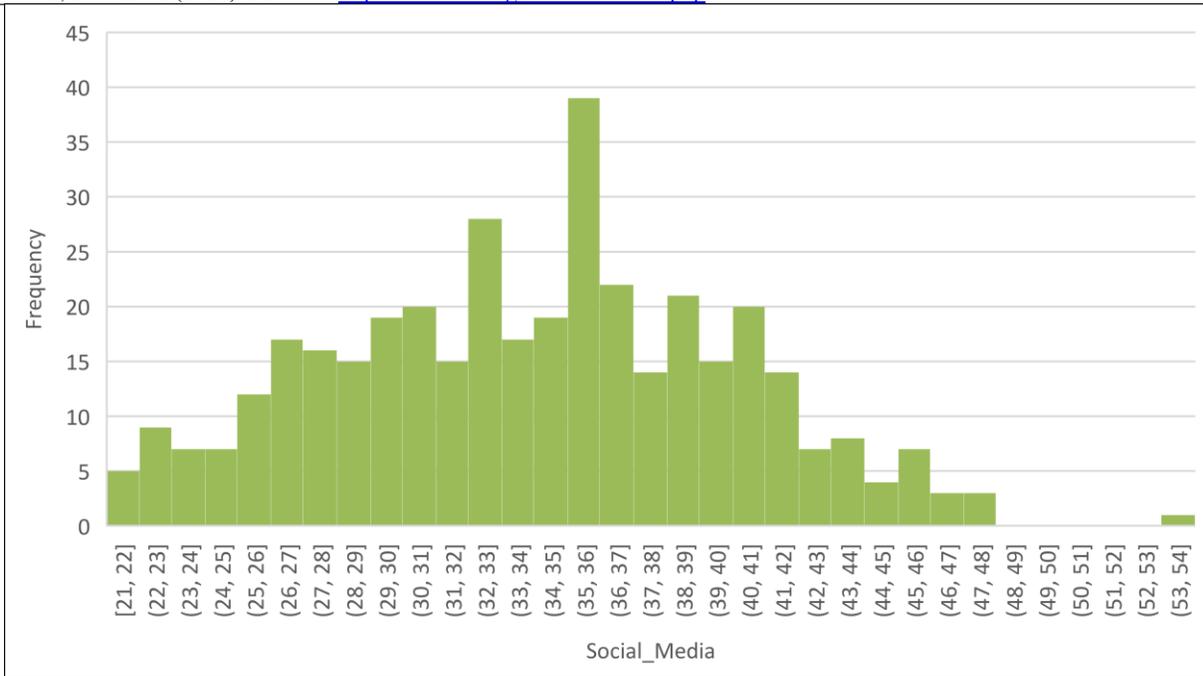


Figure 3: Distribution of the data on social media scale

4.2 The validity and reliability of the questionnaire

Assuring the questionnaire will measure what it was intended to assess is how to determine its validity. In terms of the clarity of its paragraphs and terminology, it also implies that the questionnaire contains all the components that must be included in the analysis in order for it to be understandable to everyone who uses it.

The following is how the researchers verified the applicability of the study tool:

Internal consistency validity

Using a base sample of 368 people, the correlation coefficients between each paragraph and the sum of its axis degrees were calculated in order to determine the internal consistency of the questionnaire's paragraphs. Since the probability value for each item is less than 0.05 and the correlation coefficients between each axis's paragraph and the sum of all of its paragraphs are statistically significant at the level of significance (0.05), the questionnaire's items are taken as true for the purpose for which they were intended.

Structural consistency validity

The validity of the questionnaire's structural consistency was calculated by calculating the correlation

coefficient between the total average of each of the standards of the questionnaire and the total average of the questionnaire's paragraphs in full, and it is clear from the table 4.4 that the indicated correlation coefficients are statistically significant at the level of 0.05, as the probabilistic value of each standard is less than 0.05.

Table 4.4: Structural consistency validity (N =368)

	Pearson Correlation	P- value
Self Esteem	0.908**	0.000
Personality Traits	-0.144**	0.000
Social Media	0.450**	0.000

$P < 0.05$

Cronbach's Alpha

The stability of the study tool ensures that the answer will be almost the same if it is repeated to the same people at different times. It is clear from table 4.5, that the indicated Cronbach's alpha value for standards and overall, of the questionnaire is greater than 0.70, which means that the stability of the questionnaire is excellent and its validity for use in the study.

Table 4.5: Cronbach's alpha stability (N = 368)

	Cronbach's Alpha	N of Items
Self Esteem	0.937	25
Personality Traits	0.679	32
Social Media	0.799	18
Overall, of questionnaire	0.828	75

4.3 Inferential methods, test hypotheses

To test the first hypothesis about the relationship between use of social media and self-esteem, the Pearson correlation coefficient was used, and Table 4.4 showed that there is a statistically significant positive correlation at the level of significance (0.01) between the use of social media and self-esteem. Additionally, as demonstrated in Table 4.6, the eta square is larger than 0.14, which means that the effect of social media on self-esteem is large. Accordingly, will reject the null hypothesis and accept the alternative hypothesis that there

is a relationship between social media use and the level of self-esteem among young adults in Saudi Arabia.

Table 4.6: Pearson Correlation among social media and self esteem

	self esteem	Eta	Eta square
social media	.261**	.574	.335

**p < 0.01

ANOVA two way has been used to test the second hypothesis of the differences between the five personality traits and the use of social media. From Table 4.7 , the findings illustrate statistically significant differences at the level of significance (0.01), in the average use of social media between the traits of extroverted ,conscientious, openness, and neuroticism traits as the P-value for these dimensions is less than 0.01; Thus, will reject the null hypothesis and accept the alternative hypothesis that there is a difference between the five personality traits in relation to the use of social media. Additionally, Eta test results demonstrate that the highest effect in with traits of Extraversion and Conscientiousness, while the lowest effect in with the traits of Agreeableness.

Table 4.7: Analysis of Multivariate among personality traits and social media

Source	Sum of Squares	df	Mean Square	F	Eta square
Extraversion	1062.407	28	37.943	1.921**	.132
Agreeableness	390.955	28	13.963	1.013	.074
Conscientiousness	741.924	28	26.497	1.932**	.132
Neuroticism	836.102	28	29.861	1.842**	.127
Openness	1129.124	28	40.32	1.846**	.127

**p < 0.01

To test the third hypothesis of the differences between the five personality traits and self-esteem, a multiple analysis of variance was used. Table 4.8 illustrates that there is a statistically significant difference at the level of significance (0.01) in the average self-esteem based on the personality trait, where the value of the P-value for this dimension is less than 0.01. Thus, will reject the null hypothesis and accept the alternative hypothesis, which is that there is a difference in the level of self-esteem based on personality traits. Eta square shows the all personality have a large effect in relation to self-esteem.

Table 4.8: Analysis of Multivariate among personality traits and self esteem

Source	Sum of Squares	Df	Mean Square	F	Eta square
Extraversion	3580.020	103	34.757	2.163**	.440
Agreeableness	2139.088	103	20.768	1.853**	.403
Conscientiousness	2512.179	103	24.390	2.213**	.446
Neuroticism	3622.660	103	35.171	3.220**	.540
Openness	3911.822	103	37.979	2.108**	.434

**p < 0.01

Additional findings are demonstrated in Table 4.9, showing the study sample's use of social media across gender and age groups. Females in the sample made up 294 (or 75.97% of the sample) and had a mean of 34.09 out of 54. Males made up 93.3% of the population, with a mean of 35.47 out of 54, which means that male participants are the most active users of social media. Moreover, those between the ages of 18 and 20 made up 231 (59.69%), with a mean score of 34.89 out of 54. In contrast, the distribution of people between the ages of 24 and 26 was 80 (20.67%), with a mean of 33.23 out of 54. Lastly, the distribution of people between the ages of 21 and 23 was (76, 19.64%), with a mean of 34.29 out of 54.

Table 4.9: Distribution of social media According to Age & Gender (N = 368)

	Frequency	Percent%	Mean	SD
Age				
18-20 years	231	59.69	34.89	5.97
21-23 years	76	19.64	34.29	6.13
24-26 years	80	20.67	33.23	6.185
Gender				
Male	93	24.03	35.47	5.76
Female	294	75.97	34.09	6.133

With regard to the personality traits across the sample, Table 4.10 shows that the mean of extraversion among young people was 3.07 out of 5, with a relative weight of 61.40 and a standard deviation of 1.27. The average agreeableness score was 3.76 out of 5, with a relative weight of 75.25 and a standard deviation of 1.07. This means that the acceptability rate among Saudi youth is very high. The average level of conscientiousness was

3.94 out of 5, with a relative weight of 78.8 and a standard deviation of 1.034, which means that the rate of conscientiousness among Saudi youth is high. The average neuroticism was 3.05 out of 5, with a relative weight of 61.03 and a standard deviation of 1.23, which means that the rate of neuroticism among Saudi youth is rather average, if not low. The average openness was 3.28 out of 5, with a relative weight of 65.5 and a standard deviation of 1.16, which means that the rate of openness among Saudi youth is at the average level.

Table 4.10: Personality traits scale (N = 368)

	Mean	SD	Percent	
<i>Extraversion</i>	3.07	1.27	61.40	
<i>Agreeableness</i>	3.76	1.07	75.25	
<i>Conscientiousness</i>	3.94	1.034	78.8	
<i>Neuroticism</i>	3.05	1.23	61.03	
<i>Openness</i>	3.28	1.16	65.43	

Discussion

The current study sought to answer the questions about how social media influences self-esteem and how personality characteristics differ in their use of social media and level of self-esteem among young adults. The first hypothesis, if there is a link between social media use and self-esteem, is supported by p-correlation and Eta results, which show that there is a significant association between the two. An ANOVA test revealed that different personality types have different associations with social media. The results of the third hypothesis analysis reveal that personality types differ in terms of self-esteem level.

The current findings suggest that young adults' use of social media affects their self-esteem, which indicates that the information shared on social media sites influences how people feel about themselves. This finding correlates positively with social comparison theory of Leon Festinger that suggests people view their self worth according to social variables (Wheeler & Suls, 2000). Jan et al. (2017) also support Festinger's theory; Jan and colleagues found that 88% of people make a social comparison on Facebook, and that 98% of the comparisons are upward social comparisons. Therefore, comparing oneself to others in the context of social media has been proven to affect self-esteem. According to Stapleton et al. (2017), social comparison is thought to have the

effect of lowering one's self-esteem.

The effect on self-esteem is not always a negative one, a positive influence could be seen in Pop et al.'s (2022) findings, which indicate that the more time spent on Snapchat, the higher the level of self-esteem. That could be interpreted by having good social support on social media, Pettijohn II et al. (2012) results suggest self-esteem that depends on friendship was positively correlated with Facebook intensity.

On the other hand, Jan et al. (2017) discovered a significant association between social media use and self-esteem. People's self-esteem declines as their use of social media increased. In a different view of the relationship between social media and self-esteem, Wang et al. (2012) funding suggests that individuals with higher level of self-esteem are more likely to engage in social media, especially commenting on other people's posts. That could mean that they see their opinion as important and valid.

The results proved that there are differences between the five personality traits and social media use. There was a statistically significant association between extroverted, conscientious, openness and neuroticism traits with social media use. That can be supported by the fact that people with a prominent extraversion feature tend to be chatty, energetic, and gregarious in addition to having high levels of social engagement and assertiveness (Hatzithomas et al., 2019). Salem and Alanadoly. (2020) found that extraversion is one of the most active personalities on social media. Bornstein. (2018) suggests that individuals with extraversion personalities are more comfortable in social contexts, which may positively affect their social setting.

The results of the current study indicate that the highest score in connection to social media use is for extraversion traits. That might be related to extraverts having larger social networks and more friends (Kim & Chock, 2017). This has been confirmed by Kircaburun, Alhabash, et al. (2018) who showed that extraversion was positively correlated with social media use for managing tasks and sustaining existing relationships. On the other hand, Alsoudi et al. (2021) discovered a negative correlation between extraversion trait and social media use. This can be explained by the fact that these people are more capable of maintaining their relationships in the actual world and have higher levels of self-efficacy.

Moreover, the current findings regarding conscientiousness illustrate a relationship between social media and conscientiousness. The high use of social media in the finding could be related to knowledge-sharing activities (Esmaeelinezhad & Afraze, 2018). Esmaeelinezhad and Afraze, (2018) found that conscientious people have the characteristic of being alert in the setting of online social networks and the capacity to disseminate knowledge. This characteristic enables them to engage in knowledge-sharing activities through social media sites (Esmaeelinezhad & Afraze, 2018). The current findings are in contrast with Alsoudi et al.'s (2021) results, which suggest conscientious people corroborated the least with social platforms use, as will Salem and Alanadoly's (2020) results. In relation to the problematic usage of social media conscientious people are the least likely to engage in problematic behaviors on social media platforms (Kircaburun, Alhabash, et al., 2018).

Although people with neuroticism are often anxious and self-conscious (Costa & McCrae, 1992), it's thought that most anxious people find comfort in technology, which accounts for their frequent usage of social media (Salem & Alanadoly, 2020). Another reason for neuroticism's use of social media could be because of poor adaptation to the surrounding environment and the members of the community (Alsoudi et al., 2021). The current findings align with Whaite et al.'s (2018) results, that show a high correlation between the degree of use of social networking sites and the trait of neuroticism. People with high levels of neuroticism choose to stay away from group activities and engage in another online activity (Salem & Alanadoly, 2020). Kircaburun, Alhabash, et al. (2018) find that the motive for neurotic individuals use of social media sites is for passing time, such as scrolling on TikTok (Asad et al., 2022).

Openness is the second most active trait on social media after extroversion (Salem & Alanadoly, 2020). It has been reported that they use social media to communicate with their friends and family and to search for information and education purposes (Kircaburun, Alhabash, et al., 2018). The current finding aligned with Alsoudi et al. (2021) found a positive relationship between social media use and openness, as did Salem & Alanadoly (2020) and Kircaburun, Alhabash, et al. (2018). Moreover, studies of personality traits in relation to social media addiction find a positive relationship between social media addiction and the trait of openness (Hawi & Samaha, 2018; Mahmoud & Farooq, 2014).

Agreeableness is the only trait in the current study that has no link with social media. This finding aligns with Whaite et al. (2018) results which suggest that the least personality traits users of social media are agreeableness, and if they use social media, it will be to enhance their social connections. Alsoudi et al. (2021) also found a negative connection between social media and agreeableness as well as (Salem & Alanadoly, 2020).

The finding regarding self-esteem and personality traits shows that there are differences in the level of self-esteem in relation to personality traits. The results of the Eta test illustrate large practical indications in addition to the statistical significance in all personality factors and the level of self-esteem. Personality accounts for 34% of the change in the level of self-esteem (Robins et al., 2001). Amirazodi and Amirazodi (2011)'s findings align with the current results: extraversion, agreeableness, conscientiousness, and openness all predicted a high level of self-esteem, while neuroticism personality traits predicted low levels of self-esteem. Zeigler-Hill et al. (2014) found that a higher level of self-esteem was associated with a high level of extraversion, agreeableness, conscientiousness, and openness.

This study has proposed that social media sites and the time spent on them are an accompanying reason that affects the level of self-esteem. In addition, different personality traits differ in their use and influence on social media sites and their level of self-esteem. This information could add to the literature on social media and provide a basis for further study. Course providers could use the information provided in this research to design awareness campaigns to promote healthy use of social media platforms and minimise the negative impacts of social media. In addition, social media platforms could benefit from the findings and build a reinforcement system to enhance and elevate self-esteem.

Conclusion

The study adds to the literature on social media use by identifying the impact on self-esteem, and differences between personality traits related to the use of social media sites. The current finding offers a starting point for social media use in relation to different personality traits, especially understanding the specific motivation for

each personality trait when interacting on social media sites. Furthermore, the first finding provided is the relationship between social media use and self-esteem. Personality traits and their differences in relation to the use of social media and self-esteem. In conclusion, this study contributes to the understanding of the effects of social media sites and, in practical terms, helps to provide basic courses and interventions to minimize the risks associated with social media use.

Limitations

The social media scale used in this study was a general measure of time spent on social media, and did not specifically assess the motivations for using social media. Thus, the results cannot conclusively state whether the time spent on social media is associated with positive or negative use. The social media scale only provides us with three alternatives for how frequently the participants use social media platforms: low, average, and high. As a result, neither the exact time nor the purpose of using social networking sites are reflected in the tools of choice.

The results can only be generalized to young adults and cannot be applied to other age groups.

Furthermore, because responses to the survey were not distributed equally among men and women or throughout the various regions of Saudi Arabia, the reliability of these data is impacted.

Recommendations

Further research is needed to develop a more comprehensive understanding of the purposes of social media use and to design a scale that measures the exact duration of time spent using each application. Future studies should also consider the impact of age on social media use and ensure that participants are evenly distributed across age groups. In addition, to incorporate different age groups.

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