

**Self-Esteem as a Potential Moderator of the Relationship Between Social Media Use
and Life Satisfaction**

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Abstract

The growing everyday presence of social media raised the importance of investigating its effects on our well-being. The negative consequences of social media, such as anxiety, depression or poor sleep quality emphasize the need for identifying variables that decrease these effects. Therefore, this paper investigated the relationship between time spent on social media, self-esteem and life satisfaction. It was hypothesized that social media use and life satisfaction are negatively correlated and that self-esteem moderates this relationship. 88 people, ranging in age from 18 to 54 ($M = 23.24$, $SD = 4.75$), participated in this study. The results indicate that all three variables are significantly correlated and the first hypothesis has been confirmed. Meaning that more time spent on social media is negatively related to life satisfaction. However, the second hypothesis, that self-esteem functions as a moderator, has been rejected. These findings underline the importance of future research investigating variables that might decrease the negative effects of social media use.

Keywords: social media, self-esteem, life satisfaction

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Introduction

Social Media

During the last few years, spending time on social media platforms, such as Instagram or Facebook, has worldwide become a popular activity to do during free time. Not only for teenagers but also for adults and children (Sahin, 2017). The popularity of social media platforms enabled them to replace traditional media, such as radio or television (Auxier & Anderson, 2021). This is due to the multitude of possibilities, including the ability to post pictures of oneself, socialise with friends and family and play games. Thus, social media goes far beyond only communicating with others (Sahin, 2017). Particularly, the ability to retain interpersonal interaction even during a pandemic is a benefit of social media (González-Padilla & Tortolero-Blanco, 2020).

Social Media and Life Satisfaction

Despite the benefits that social media may provide, the potential drawbacks should not be overlooked. Mobile devices have made it possible to access the Internet and, therefore, social networks, at any time and from any location (Saha & Guha, 2019). Thus, constant exposure to social media is created, which is thought to have negative consequences, as it enhances problematic social media use (Bányai et al., 2017). Even though no concrete definition of excessive social media usage has been formulated so far (Bányai et al., 2017), research has shown that it has been negatively associated with different aspects of mental health, such as depression (Malaeb et al., 2020; Andreassen et al., 2016, as cited in Bányai et al., 2017).

Social media use is not only correlated with decreased mental health but also with lower life satisfaction, which is a core concept in positive psychology (Gilman and Huebner, 2003). It can be described as a cognitive judging process based on an individual's assessment of their life in general or on a particular topic (Szcześniak et al., 2021). This process works through comparing the actual living condition and the criteria an individual sets for themselves (Pavot & Diener, 2008). People, that frequently use social media seem to evaluate the life of others as better, which emphasizes the negative correlation between life satisfaction and social media usage (Hawi & Samaha, 2017).

The negative association between life satisfaction and social media consumption might be explained, to a certain extent, by the social comparison theory. According to Festinger (1954),

humans seek consistent and accurate assessments of themselves. These assessments are used for self-exploration, meaning that they facilitate the evaluation of oneself as a person. Social comparison can be divided into upward, downward and lateral social comparisons. Upward comparisons indicate that the other person is judged as better than oneself. Downward comparisons indicate that the other person is judged as not as good as oneself, and lateral comparisons indicate that the other person is seen as equal (American Psychological Association, n.d.). This process does not only take place in real life, but also on social media (Lewallen & Behm-Morawitz 2016). On social media platforms, specific values and norms are taught, such as a specific body image that is desirable. However, these ideals are often unrealistic and unachievable. This, in turn, can potentially lead to a reduction of how satisfied a person is with themselves and their life in general (Tiggemann & Polivy, 2010). Additionally, as people tend to show their life on social media platforms only from the best side, the continuous comparison can therefore lead to a great difference between the actual living conditions and how one wants their life to be, resulting in lower life satisfaction (Martilla et al., 2020; Vogel et al., 2014).

However, besides the social comparison theory, sleep and anxiety are two key variables when investigating the relationship between social media consumption and life satisfaction. First, the potential harm of social media on sleep is increasingly being researched (Exelmans & Scott, 2019). Particularly, the quality of sleep might be negatively impacted by usage of social media right before bed. This could be explained by raised arousal levels due to the interactive use and continual flow of news and information on social media. This, in turn, keeps individuals up and makes it harder for them to fall asleep, which can be problematic, as both the quantity and quality of sleep are diminished (Exelmans & Scott, 2019). Decreased sleep quality is associated with a decline in life satisfaction (Pilcher et al., 1997; Ness & Saksvik-Lehouillier, 2018). Second, anxiety is also associated with social media consumption and life satisfaction. People commonly use multiple social media accounts across various platforms, rather than just one. This so-called online multitasking may become stressful and overwhelming, which can potentially lead to increased anxiety levels (Keles et al., 2020). Additionally, the fear of missing out (FOMO) may also contribute to this. FOMO indicates that a person has the perception that other people are experiencing things that the individual is not part of. A persistent need to be updated on those events can be developed (Przybylski et al., 2013). Social media users who experience FOMO frequently feel the urge to check what others are experiencing and sharing. However, as

the people cannot be part of the things that are shared on social media, frequent monitoring reinforces anxiety. Therefore, the anxiety levels of users might keep rising in this vicious spiral (Alonzo et al., 2021). The high frequency of using social media, which is negatively correlated with life satisfaction, might be caused by FOMO. Additionally, anxiety levels are generally also thought to be negatively associated with life satisfaction (Serin et al., 2010; Beutel et al., 2009; Mahmoud et al., 2012).

Self-Esteem

Self-esteem is another important key variable in relation to life satisfaction. Self-esteem can be defined as “self-esteem refers to an individual overall positive evaluation to the self” (Rosenberg, 1965, as cited in Abdel-Khalek, 2016). It can also be described as a subjective construct that shows an individual’s perception, emotional evaluation, and acceptance of the self (Patel et al., 2018). Both approaches define self-esteem as a personal and rather subjective concept. During a person’s life, self-esteem remains relatively stable and constant, but it shows an improvement during young adulthood (Szcześniak et al., 2021). According to previous research, self-esteem is positively associated with life satisfaction (Brown et al., 2001). This arises logically from the definitions of self-esteem and life satisfaction, as both include a subjective evaluation of either oneself or one’s living situation. If an individual has high levels of self-esteem, indicating a satisfaction with oneself, the satisfaction with one’s life, which is based on who one is, is usually high as well.

Self-Esteem as Moderator

Self-esteem might moderate the negative association between high social media use and life satisfaction. For self-esteem to function as a moderator in this relationship, it must be correlated with both variables. First, self-esteem and life satisfaction are closely related concepts. Both deal with the subjective evaluation and judgment of one’s life (Espnes & Moksnes, 2013). Additionally, factors that influence self-esteem, including the quality of interpersonal relationships and others’ approval (Szcześniak et al., 2021), are also related to life satisfaction (Segrin & Taylor, 2007). Second, social media and self-esteem are considered to be negatively associated. This association can be explained, to a certain degree, with the above-mentioned social comparison theory. The upward comparisons are thought to decrease self-esteem (Jan et

al., 2017). According to Claire et al. (2021), people with lower self-esteem tend to make more upward comparisons, resulting in even lower levels of self-esteem, indicating that high levels of self-esteem might diminish the negative effects of social comparisons on life satisfaction. Additionally, self-esteem influences an individual's ability to deal with setbacks and negative aspects of life (Espnes & Moksnes, 2013). As a result, an individual's self-esteem might function as a form of coping mechanism. People who have high self-esteem can thus deal with unpleasant situations more adequately than those with low self-esteem (Espnes & Moksnes, 2013). Thus, they may be able to better cope with the negative effects of social media. Therefore, self-esteem might moderate the effects that social media has on life satisfaction. Since social media is omnipresent in today's society, it is crucial to investigate variables that preserve life satisfaction and, consequently, protect well-being and good mental health.

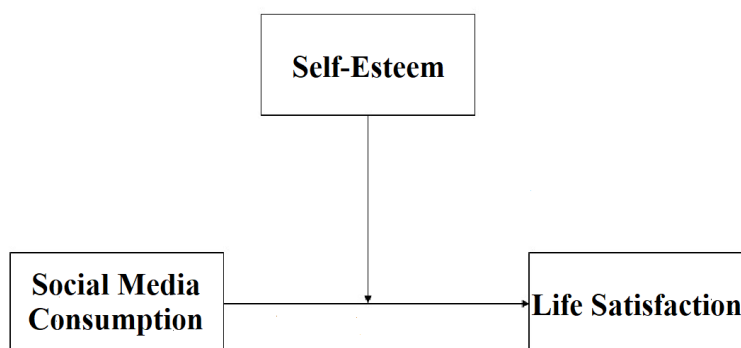
Therefore, this study aims at investigating the relationship between social media consumption, life satisfaction and self-esteem. The following hypotheses are proposed: (1) Excessive social media use leads to a decrease in life satisfaction and (2) a high degree of self-esteem reduces this potential effect, implying that a person with a high level of self-esteem is less negatively influenced by excessive consumption.

Hypothesis 1: High social media consumption is associated with lower satisfaction with life.

Hypothesis 2: Self-esteem moderates the relationship between social media consumption and satisfaction with life.

Figure 1

Visualisation of the Proposed Moderation Model.



Methods

Design

In order to investigate the relationship between social media consumption and life satisfaction and whether this association is mediated by self-esteem a cross-sectional design was employed. In this study, the independent variable (IV) was time spent on social media, the dependent variable (DV) was life satisfaction and the moderator (M) was self-esteem.

Participants

The G-Power Calculation was used to indicate the needed sample size (Faul et al., 2007). The results indicate that, with a confidence interval of 95%, a sample size of 77 is appropriate to obtain adequate statistical power. Participants were recruited by the distribution of the survey through social media (WhatsApp and Instagram). The survey was also available for University of Twente students in the test subject pool 'Sona'. In total, 259 participants took part in this study. Individuals who were under the age of 18, or did not use social media were excluded. Additionally, participants who did not give informed consent, who gave incomplete responses and who did not answer the attention question correctly were categorised as incomplete and thus excluded from the study. This process led to the final number of participants being $N = 88$. Their age ranged from 18 to 54 ($M = 23.24$, $SD = 4.75$). Among the participants 59.1% identified as female, 37.5% as male, and 3.4% preferred not to say it. 69.3% of the participants were German, 6.8% Dutch, and 23.9% were of another nationality.

Materials

Necessary materials to participate in the study included a laptop or mobile device, and a stable internet connection. The survey consisted of several parts. First, a brief information sheet, followed by informed consent, was shown. Second, demographic questions, regarding age, gender and nationality were asked. Then, the questionnaires aiming at answering the hypotheses were shown. Only the questionnaires relevant for this study will be discussed.

Social Media Consumption

In order to measure the social media consumption of the participants, the question "Indicate your total screen time only on social media during the last week (Monday to Sunday)"

was integrated into the survey, as the total time spent on social media was the variable of interest. In order to ensure that the participants were able to retrieve this information from their mobile device, short instructions on how to do so were provided.

Satisfaction With Life Scale

For the assessment of the participant's judgment of their own life, the Satisfaction With Life Scale has been used (Pavot and Diener, 2008). The five items of the scale are scored from 1 ("Strongly disagree") to 7 ("Strongly agree"). An example of one of the items is 'I am content with my life'. All items are formulated positively, which means that they can be added up to get the total score on the scale. Therefore, the potential score on the scale ranges from 5 to 35 in total. The neutral point on the scale is represented by a score of 20. A score between 5 and 9 implies an extreme dissatisfaction with one's own life. Scores between 15 and 19 are being interpreted as a slight dissatisfaction, and scores that range from 21 to 25 indicate being slightly satisfied. Everything between 31 and 35 indicates that the individual is extremely satisfied with life (Pavot and Diener, 2008). With a coefficient α between 0.79 and 0.89, the scale has a high internal consistency (Pavot and Diener, 2008). Fujita and Diener (2005) found out that the measured life satisfaction is moderate temporal stable. In this study, Cronbach's α was .89.

Rosenberg Self-Esteem Scale

In order to assess the participant's level of self-esteem, the Rosenberg Self-Esteem Scale was used (Department of Sociology, 2022). The scale, developed by Dr Rosenberg, is a widely-used measure in social science research. It is a 10-item questionnaire and each of the items, like 'I certainly feel useless at times', is rated on a four-point scale, which ranges from strongly agree to strongly disagree. The highest possible score is 40 and the lowest 10, where a lower score indicates higher self-esteem. The scale shows in general high reliability and Cronbach's α varies for different samples between .77 and .88 (Department of Sociology, 2022). In this sample, Cronbach's α was .91.

Procedure

Before the participants completed the questionnaire, they were briefly informed about the purpose and content of the study. Additionally, the contact details of the researchers and the

information, that participation was anonymous, were provided. Subsequently, the participants had the chance to give informed consent and to agree to voluntarily participate. This was followed by brief questions about age, gender and nationality. Afterwards, the selected questionnaires, including a brief explanation on how to retrieve the total time spent on social media, were followed. A short explanation has also been added on how to retrieve this data on a smartphone. Participants acquired through ‘Sona’ received 0.25 ‘Sona-Credits’. If participants were recruited through friends and family they did not receive any compensation.

Data Analysis

The data were analysed using SPSS. Before the analysis, incomplete data were omitted. First, Cronbach’s α was calculated to assess the reliability of each scale. Second, descriptive statistics of all three scales were calculated to give a general overview of the data. Third, the frequency distribution was analysed using the Shapiro-Wilk test to decide on the appropriate analysis methods. Based on the results of this test, Spearman’s rho was used in the correlational analysis, which was conducted to investigate the first hypothesis. In order to test the second hypothesis a moderation analysis was conducted, using SPSS PROCESS macro with centralized values. The results of this analysis can show whether a moderation effect is present.

Results

The data were analysed according to the above-described methods. The descriptive statistics are shown below in Table 1.

Table 1

Descriptive Statistics of the Total Scores on the Rosenberg Scale, The Satisfaction With Life Scale and the Total Time Spent on Social Media.

	N	Min.	Max.	M	SD
Rosenberg Scale	88	10	35	19.96	5.54

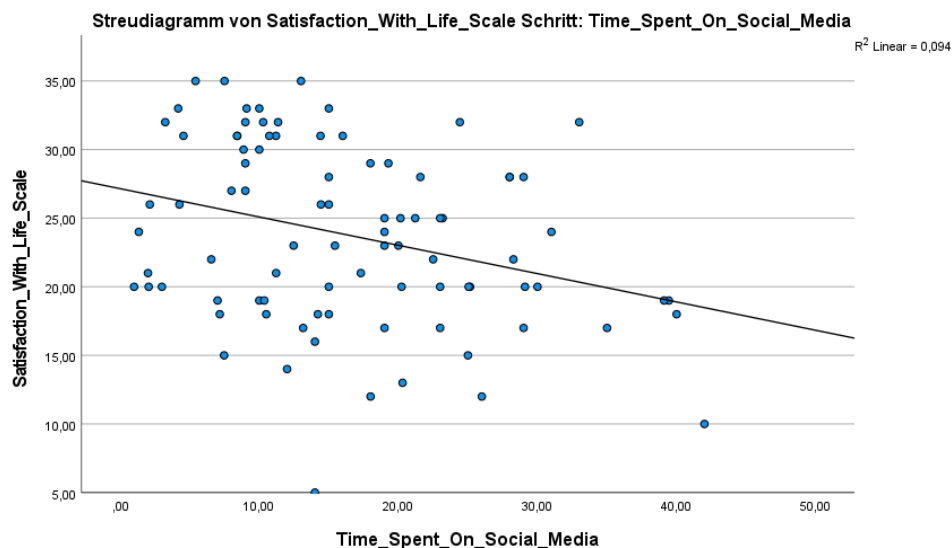
Satisfaction With Life Scale	88	5	35	23.78	6.54
Total Time Spent on Social Media	88	1	42	16.43	9.73

Hypothesis 1: High social media consumption is associated with lower satisfaction with life.

In order to test this hypothesis, the frequency distribution has been assessed, using the Shapiro-Wilk test. This test revealed that the ‘Total Time Spent on Social Media’- Questionnaire ($W = .96, p = .01$) and the Satisfaction With Life Scale are not normally distributed ($W = .97, p = .03$; see Appendix A for histograms). Therefore, the non-parametric measurement Spearman’s rho was used to assess correlations (see Appendix B). The association between the time spent on social media and life satisfaction was negative and statistically significant ($r_s = -.30, p = .01$). This relationship is visualised in the scatterplot below (see Figure 1).

Figure 1

Scatterplot Visualising the Relationship Between the Time Spent on Social Media and the Total Score on the Satisfaction With Life Scale.

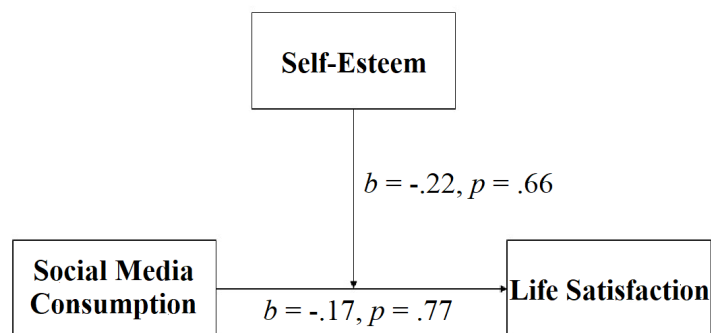


Hypothesis 2: Self-esteem moderates the relationship between social media consumption and satisfaction with life.

In order to answer this hypothesis a moderation analysis, using centralised values, was conducted. A significant model was observed [$r^2 = .45$, $F(3, 84) = 22.79$; $p < .01$]. In this model, the effect of social media consumption on life satisfaction was not statistically significant ($b = -.17$, $p = .77$). The effect of self-esteem on life satisfaction was negative and statistically significant ($b = -4.25$, $p < .01$). The effect of the interaction predictor was not statistically significant ($b = -.22$, $p = .66$). These results suggest that no moderation effect is apparent, as only self-esteem but not social media consumption nor the interaction predictor seem to have a significant effect on life satisfaction.

Figure 2

Results of the Moderation Analysis.



Discussion

The purpose of this thesis was to explore the relationship between high social media consumption and life satisfaction and whether a person's level of self-esteem moderates this relationship. The results revealed that all three variables are significantly correlated. There seems to be a negative relationship between social media use and satisfaction with life. However, the interaction effect in the moderation analysis was statistically insignificant, indicating that no

moderation effect is apparent. In this model, only self-esteem seems to significantly predict how satisfied a person is with their life.

Based on the findings the first hypothesis was accepted. Individuals who spend a significant amount of time on social networks seem to have a lower level of satisfaction with their lives. This negative relationship is in line with findings of previous research, as negative associations between social media usage and life satisfaction are indicated (Hawi & Samaha, 2017; Martilla et al., 2020). Additionally, Malaeb et al. (2021) reported that excessive use of social media appears to be linked to depressive symptoms and general decline in psychological well-being. Interpersonal communication with other people can also lack from increased social media consumption (Malaeb et al., 2021). According to Keles et al., 2020, anxiety is also negatively correlated with social media usage. These aspects are also proven to be negatively associated with life satisfaction, emphasizing the strength of the relationship between social media consumption and life satisfaction (Hawi & Samaha, 2017; Serin et al., 2010). Rasmussen (2020) suggests, that the excessive use of social media is a maladaptive coping strategy resulting from already declined well-being. This means that social media use may not decrease life satisfaction, but if this is already low, it affects the amount of social media usage. Therefore, the causal links between social media consumption and life satisfaction seem to be not clear yet. Coyen et al. (2019) suggest that the relationship between social media use and mental health might not be as significant as previously assumed. Such findings might be explained by the fact that depression and other general mental disorders are rarely produced just by a single stressor, implying that high social media use is not the only predictor of a decline in life satisfaction (Hankin, 2006). These implications put the findings of this study into perspective, as other influencing variables have to be considered.

One such variable could be the decline in sleep quality (van der Schuur, 2019). The amount of time individuals spend on social media, particularly in the evenings, overlaps with the amount of time they could sleep. The issue with using social media right before sleeping is that it has been found to raise arousal levels, making it more difficult to fall asleep again. The brightness of the screen also makes falling asleep more difficult, resulting in fatigue throughout the day (Alonzo et al., 2021). These findings are relevant because adequate sleep is essential for good mental health and well-being (Joao et al., 2018).

Another variable that might explain the results obtained in this study is the potential influence of loneliness. According to research, loneliness partially explains the link between high social media consumption and people's satisfaction with life (Martilla et al., 2021). Loneliness can be caused either by a lack of social interaction with others or by the fact that the relationships are qualitatively insufficient. This lack of interpersonal relationships is related to depression, suicide and a decrease of life satisfaction (Bugay, 2007). It may be claimed that social media provide the chance to overcome this loneliness by fostering connections to online friends and support groups. There is evidence that this could eventually lessen social isolation and the feeling of loneliness, and it might even enhance mental health (O'Keeffe & Clarke-Pearson, 2011). However, the quality of interpersonal connections is more important than their quantity, and it seems that real live interactions are more qualitative than if they take place online (Teo et al., 2013).

The second hypothesis was rejected, as the interaction effect has been statistically insignificant. In the moderation model, only self-esteem seemed to predict life satisfaction. Meaning that self-esteem predicted life satisfaction, whereas social media consumption had no significant effect on life satisfaction. This finding is, to a certain extent, consistent with previous research. The effect of self-esteem on life satisfaction is in line with research, emphasizing on the importance of self-esteem for life satisfaction (quelle). This is due to the relatedness of both constructs (Brown et al., 2001; Espnes & Moksnes, 2013). The definitions of the concepts explain this association. Both, self-esteem and life satisfaction are subjective evaluations of a person's life or self (Mazur et al., 2021). The subtle difference is that self-esteem is more about the self and life satisfaction is about the life of the person as a whole (Espnes & Moksnes, 2013). Thus, the two concepts are closely related to each other, but the directionality is still not clear. Some research suggests that self-esteem predicts life satisfaction, but other research suggests that life satisfaction predicts self-esteem (Espnes & Moksnes, 2013).

However, the finding that social media does not have a significant effect on life satisfaction is not consistent with most previous research. Social media consumption is thought to be negatively related to life satisfaction (Hawi & Samaha, 2017; Sahin, 2017). This is thought to be due to the negative effects of social media on anxiety, depression, sleep quality, and social comparison (Serin et al., 2010; Beutel et al., 2009; Martilla, 2020; Ness & Saksvik-Lehouillier, 2018). Contradictory to these studies, according to Coyen (2019), life satisfaction and social

media may not be as closely associated as previously believed. This suggests that social media and mental health may not be as closely related as previously believed.

There are several possible explanations for this finding. First, this study only measured the total time people spent on social media and not the content that was consumed. However, this content might be more important than the quantity itself. Depending on the content, social media might be positively associated with life satisfaction. People now utilize social media as an important resource to get assistance and social support, which is an essential component since it helps sustain an individual's mental health (De Choudhury & Kiciman, 2017; Huh & Ackerman, 2012). Online social support shows to be a way to decrease negative influence on an individual's well-being and increase a person's quality of life (Rains & Young, 2009). An example for this kind of support are online communities for individuals that experienced sexual abuse (Andalibi et al., 2016). This demonstrates that social media might have benefits for life satisfaction.

Second, and similar to the previous explanation, could the type of social media platform play a role. It can be differentiated between image-based and text-based platforms (Pittman & Reich, 2016). Aspects that are proven to decrease life satisfaction, such as social comparison, might be more prevalent in one than the other type of platform. Image-based platforms, such as Instagram, have the option to comment and like pictures. These indices of popularity can increase the probability of upward comparison and thus decrease life satisfaction (Vogel et al., 2014). Text-based platforms, such as WhatsApp, may be more used for communication rather than comparisons. However, as this study did not differentiate between the different types of social media platforms, this variable cannot be accounted for.

Third, social media use might only have a negative effect on life satisfaction if its usage is problematic. Most studies refer to problematic or excessive usage when presenting results, however, no consensus on what is considered problematic is reached yet (Bányai et al., 2017). This study did measure the time spent on social media without grouping the participants into problematic and unproblematic. Taking this into account when interpreting the results of this study, it might be that below a problematic usage, the time spent on social media does not have such a negative effect on life satisfaction as previously thought.

Limitations and further research

In retrospect, the conducted research in this study had some limitations. First, the questionnaire's length might have been disadvantageous. Almost half of the participants had to be excluded as they gave incomplete responses. Of course, there might be a variety of explanations for this, and the needed sample size was still achieved, but it seems reasonable to conclude that the duration played a factor. The second limitation is that the type of content consumed by the participants was not mentioned. The study focused solely on the length of time spent on social media, yet there is a vast range of information available on the platforms. This specification may have aided in the creation of a sharper and more accurate image of the results.

The mentioned limitations may serve as a basis for future research. The content consumed should be investigated further. Positive content, such as self-improvement tips, may have a greater positive influence on individuals than other forms of information. It might also be that a positive way of using social media could even lead to improved well-being (Berryman, Ferugson & Negy, 2018). The type of use might also be studied further. This relates to whether people utilise the platforms passively or actively, that is, whether they merely browse other users' content or actively upload their own. A more exact definition of "high consumption" should be the topic of future research. Currently, there is no consensus on what constitutes excessive use. In any case, a unified understanding would be preferable, as this would facilitate the understanding in this area of research.

Conclusion

Concluding, it was shown that a negative correlation between social media use and life satisfaction exists, while self-esteem, even though it is a closely related factor, did not moderate this relation. This is consistent/inconsistent with previous research, implicating a further need for exploration as the world has become increasingly exposed and reliant on social media. This offers a great potential for positive effects of social media to benefit society, but unless the influence of social media on other concepts and areas of life is explored more in depth, this also offers a great potential for negative consequences of social media. Therefore, it is necessary to further research how greatly social media influences us, as a stable mental health is essential for a happy and fulfilling life.

References

- Abdel-Khalek, A. M. (2016). Introduction to the psychology of self-esteem. Self-esteem: perspectives, influences, and improvement strategies, 1-23. tinyurl.com/prjdbax9
- Alonzo, R., Hussain, J., Stranges, S., & Anderson, K. K. (2021). Interplay between social media use, sleep quality, and mental health in youth: A systematic review. *Sleep Medicine Reviews, 56*, 101414. <https://doi.org/10.1016/j.smr.2020.101414>
- American Association for Suicidology. Validity of the blue whale challenge is disputed, but social media's impact on young people's mental health is real. 2017. Retrieved from: <https://www.einpresswire.com/article/393609296/validity-of-the-blue-whale-challenge-is-disputed-but-social-media-s-impact-on-Young-people-s-mental-health-is-real>
- American Psychological Association. (n.d.). Social Comparison Theory. In APA Dictionary. <https://dictionary.apa.org/social-comparison-theory>
- Andalibi, N., Haimson, O. L., De Choudhury, M., & Forte, A. (2016, May). Understanding social media disclosures of sexual abuse through the lenses of support seeking and anonymity. In *Proceedings of the 2016 CHI conference on human factors in computing systems* (pp. 3906-3918). <https://doi.org/10.1145/2858036.2858096>
- Auxier, B., & Anderson, M. (2021). Social media use in 2021. *Pew Research Center, 1*, 1-4. https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2021/04/PI_2021.04.07_Social-Media-Use_FINAL.pdf
- Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., Andreassen, C.S., & Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PloS one, 12*(1). <https://doi.org/10.1371/journal.pone.0169839>
- Berryman, C., Ferguson, C. J., & Negy, C. (2018). Social media use and mental health among young adults. *Psychiatric quarterly, 89*(2), 307-314. <https://doi.org/10.1007/s11126-017-9535-6>
- Beutel, M. E., Glaesmer, H., Wiltink, J., Marian, H., & Brähler, E. (2010). Life satisfaction, anxiety, depression and resilience across the life span of men. *The Aging Male, 13*(1), 32-39. <https://doi.org/10.3109/13685530903296698>

- Błachnio, A., Przepiorka, A., & Rudnicka, P. (2016). Narcissism and self-esteem as predictors of dimensions of Facebook use. *Personality and Individual Differences, 90*, 296-301. <https://doi.org/10.1016/j.paid.2015.11.018>
- Brown, J.D., Dutton, K.A., & Cook, K.E. (2001). From the top down: Self-esteem and self-evaluation. *Cognition and emotion, 15*(5), 615–631. <https://doi.org/10.1080/02699930126063>
- Bugay, A. (2007, September). Loneliness and life satisfaction of Turkish university students. In *Education in a changing environment conference proceedings* (pp. 371-376). tinyurl.com/5na2nhrc
- De Choudhury, M., & Kiciman, E. (2017, May). The language of social support in social media and its effect on suicidal ideation risk. In *Eleventh International AAAI Conference on Web and Social Media*. tinyurl.com/3b74nyhw
- Coyne, S. M., Rogers, A. A., Zurcher, J. D., Stockdale, L., & Booth, M. (2020). Does time spent using social media impact mental health?: An eight year longitudinal study. *Computers in Human Behavior, 104*, 106160. <https://doi.org/10.1016/j.chb.2019.106160>
- Davila, J., Hershenberg, R., Feinstein, B. A., Gorman, K., Bhatia, V., & Starr, L. R. (2012). Frequency and quality of social networking among young adults: Associations with depressive symptoms, rumination, and corumination. *Psychology of popular media culture, 1*(2), 72. <https://psycnet.apa.org/doi/10.1037/a0027512>
- Exelmans, L., & Scott, H. (2019). Social media use and sleep quality among adults: the role of gender, age and social media checking habit.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191. <https://doi.org/10.3758/BF03193146>
- Festinger, L. (1954). A theory of social comparison processes. *Human relations, 7*(2), 117-140. <https://doi.org/10.1177/001872675400700202>
- Gilman, R., & Huebner, S. (2003). A review of life satisfaction research with children and adolescents. *School Psychology Quarterly, 18*(2), 192. <https://psycnet.apa.org/doi/10.1521/scpq.18.2.192.21858>

- González-Padilla, D. A., & Tortolero-Blanco, L. (2020). Social media influence in the COVID-19 Pandemic. *International braz j urol*, *46*, 120-124.
<https://doi.org/10.1590/S1677-5538.IBJU.2020.S121>
- Hankin, B. L. (2006). Adolescent depression: Description, causes, and interventions. *Epilepsy and Behavior*, *8*, 102–114. <https://doi.org/10.1016/j.yebeh.2005.10.012>
- Hawi, N. S., & Samaha, M. (2017). The relations among social media addiction, self-esteem, and life satisfaction in university students. *Social Science Computer Review*, *35*(5), 576-586.
<https://doi.org/10.1177%2F0894439316660340>
- Huh, J., & Ackerman, M. S. (2012, February). Collaborative help in chronic disease management: supporting individualized problems. In *Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work* (pp. 853-862).
<https://doi.org/10.1145/2145204.2145331>
- João, K. A. D. R., de Jesus, S. N., Carmo, C., & Pinto, P. (2018). The impact of sleep quality on the mental health of a non-clinical population. *Sleep medicine*, *46*, 69-73.
<https://doi.org/10.1016/j.sleep.2018.02.010>
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, *25*(1), 79-93. <https://doi.org/10.1080/02673843.2019.1590851>
- Lewallen, J., & Behm-Morawitz, E. (2016). Pinterest or thinterest?: Social comparison and body image on social media. *Social media+ society*, *2*(1), 2056305116640559.
<https://doi.org/10.1177/2056305116640559>
- Mahmoud, J. S. R., Staten, R. T., Hall, L. A., & Lennie, T. A. (2012). The relationship among young adult college students' depression, anxiety, stress, demographics, life satisfaction, and coping styles. *Issues in mental health nursing*, *33*(3), 149-156.
<https://doi.org/10.3109/01612840.2011.632708>
- Malaeb, D., Salameh, P., Barbar, S., Awad, E., Haddad, C., Hallit, R., Sacre, H., Akel, M., Obeid, S., & Hallit, S. (2021). Problematic social media use and mental health (depression, anxiety, and insomnia) among Lebanese adults: Any mediating effect of stress?. *Perspectives in psychiatric care*, *57*(2), 539-549. <https://doi.org/10.1111/ppc.12576>
- Malik, S., & Khan, M. (2015). Impact of facebook addiction on narcissistic behavior and self-esteem among students. *J Pak Med Assoc*, *65*(3), 260-263. tinyurl.com/2p97easa

- Marttila, E., Koivula, A., & Räsänen, P. (2021). Does excessive social media use decrease subjective well-being? A longitudinal analysis of the relationship between problematic use, loneliness and life satisfaction. *Telematics and Informatics*, *59*, 101556. <https://doi.org/10.1016/j.tele.2020.101556>
- Mehdizadeh, S. (2010). Self-presentation 2.0: Narcissism and self-esteem on Facebook. *CyberPsychology, Behavior, and Social Networking*, *13*, 357–364. <https://doi.org/10.1089/cyber.2009.0257>
- Moksnes, U. K., & Espnes, G. A. (2013). Self-esteem and life satisfaction in adolescents—gender and age as potential moderators. *Quality of Life Research*, *22*(10), 2921–2928. <https://doi.org/10.1007/s11136-013-0427-4>
- Ness, T. E. B., & Saksvik-Lehouillier, I. (2018). The relationships between life satisfaction and sleep quality, sleep duration and variability of sleep in university students. *Journal of European Psychology Students*, *9*(1), pp.28–39. <http://doi.org/10.5334/jeps.434>
- O’Keeffe, G., & Clarke-Pearson, K.; Council on Communications and Media. (2011). The impact of social media on children, adolescents and families. *Pediatrics*, *124*, 800–804. <https://doi.org/10.1542/peds.2011-0054>
- Patel, A. K., Tiwari, S. K., Singh, S., & Lindinger-Sternart, S. (2018). Self-esteem and life satisfaction among university students of Eastern Uttar Pradesh of India: a demographical perspective. *Indian Journal of Positive Psychology*, *9*(3), 382–386. <https://www.proquest.com/openview/99e48a56a76157fd76505ff6b763c055/1?pq-origsite=gscholar&cbl=2032133>
- Pavot, W., & Diener, E. (2008). The satisfaction with life scale and the emerging construct of life satisfaction. *The journal of positive psychology*, *3*(2), 137–152. <https://doi.org/10.1080/17439760701756946>
- Pilcher, J. J., Ginter, D. R., & Sadowsky, B. (1997). Sleep quality versus sleep quantity: relationships between sleep and measures of health, well-being and sleepiness in college students. *Journal of psychosomatic research*, *42*(6), 583–596 [https://doi.org/10.1016/S0022-3999\(97\)00004-4](https://doi.org/10.1016/S0022-3999(97)00004-4)
- Pittman, M., & Reich, B. (2016). Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words. *Computers in Human Behavior*, *62*, 155–167. <https://doi.org/10.1016/j.chb.2016.03.084>

- Ponnusamy, S., Iranmanesh, M., Foroughi, B., & Hyun, S. S. (2020). Drivers and outcomes of Instagram Addiction: Psychological well-being as moderator. *Computers in Human Behavior, 107*, 106294. <https://doi.org/10.1016/j.chb.2020.106294>
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in human behavior, 29*(4), 1841-1848. <https://doi.org/10.1016/j.chb.2013.02.014>
- Rains, S. A., and Young, V. 2009. A meta-analysis of research on formal computer-mediated support groups: Examining group characteristics and health outcomes. *Human communication research 35*(3):309–336. <https://doi.org/10.1111/j.1468-2958.2009.01353.x>
- Rasmussen, E. E., Punyanunt-Carter, N., LaFreniere, J. R., Norman, M. S., & Kimball, T. G. (2020). The serially mediated relationship between emerging adults' social media use and mental well-being. *Computers in Human Behavior, 102*, 206-213. <https://doi.org/10.1016/j.chb.2019.08.019>
- Rezaei, T., Bayani, A. A., & Shariatnia, K. (2015). The prediction of mental health based on variables of Self-esteem, life satisfaction and hope among College students. *Iranian Journal of Health Education and Health Promotion, 3*(3), 242-252. <http://journal.ihepsa.ir/article-1-253-en.html>
- Saha, S. R., & Guha, A. K. (2019). Impact of social media use of university students. *International Journal of Statistics and Applications, 9*(1), 36-43. <https://doi.org/j.statistics.20190901.05>
- Sahin, C. (2017). The Predictive Level of Social Media Addiction for Life Satisfaction: A Study on University Students. *Turkish Online Journal of Educational Technology-TOJET, 16*(4), 120-125. <https://eric.ed.gov/?id=EJ1160611>
- Segrin, C., & Taylor, M. (2007). Positive interpersonal relationships mediate the association between social skills and psychological well-being. *Personality and individual differences, 43*(4), 637-646. <https://doi.org/10.1016/j.paid.2007.01.017>
- Serin, N. B., Serin, O., & Özbaş, L. F. (2010). Predicting university students' life satisfaction by their anxiety and depression level. *Procedia-Social and Behavioral Sciences, 9*, 579-582. <https://doi.org/10.1016/j.sbspro.2010.12.200>

- Shahnaz, I., & Karim, A. R. (2014). The impact of Internet addiction on life satisfaction and life engagement in young adults. *Universal Journal of Psychology, 2*(9), 273-284.
<https://doi.org/10.13189/ujp.2014.020902>
- Szcześniak, M., Mazur, P., Rodzeń, W., & Szpunar, K. (2021). Influence of life satisfaction on self-esteem among young adults: The mediating role of self-presentation. *Psychology Research and Behavior Management, 14*, 1473.
<https://doi.org/10.2147%2FPRBM.S322788>
- Teo, A., Choi, H., & Valenstein, M. (2013). Social relationships and depression: Ten-year follow-up from a nationally representative study. *PloS one, 8*(4), e62396.
- Tiggemann, M., & Polivy, J. (2010). Upward and downward: Social comparison processing of thin idealized media images. *Psychology of Women Quarterly, 34*(3), 356-364.
- van der Schuur, W. A., Baumgartner, S. E., & Sumter, S. R. (2019). Social media use, social media stress, and sleep: Examining cross-sectional and longitudinal relationships in adolescents. *Health communication, 34*(5), 552-559.
<https://doi.org/10.1080/10410236.2017.1422101>
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of popular media culture, 3*(4), 206.
<https://doi.org/10.1037/ppm0000047>

Appendix A

Frequency Distributions of the Used Scales

Figure A1

Frequency Distribution of the Total Time Spent on Social Media.

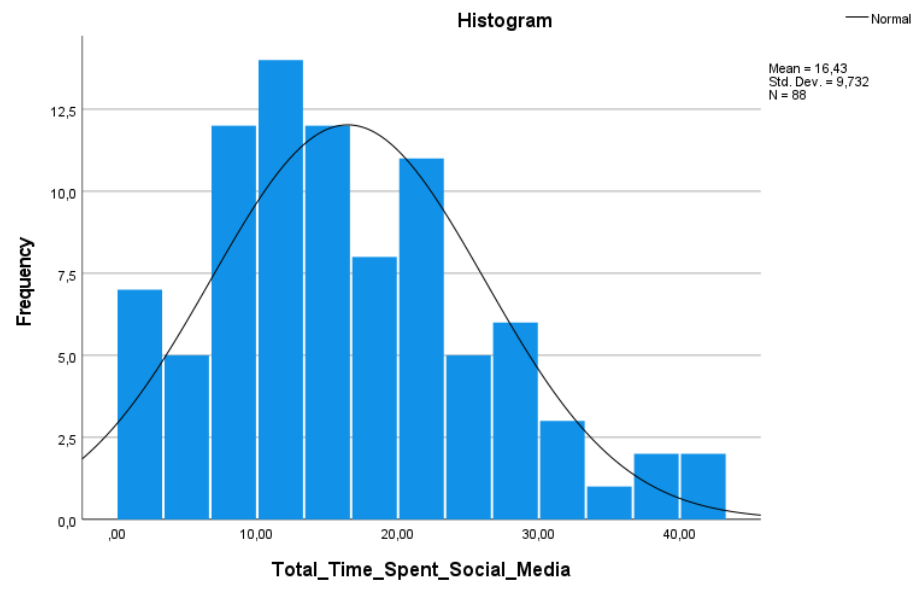


Figure A2

Frequency Distribution of the Total Score on the Satisfaction With Life Scale.

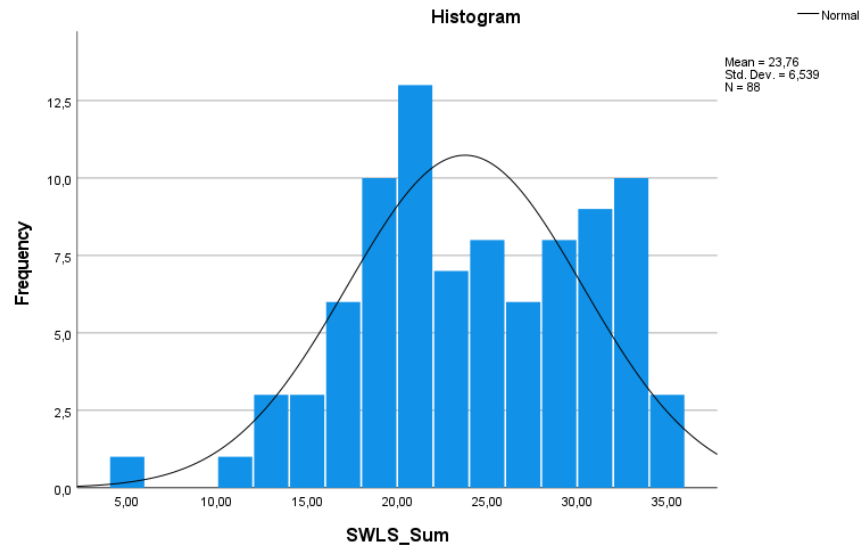
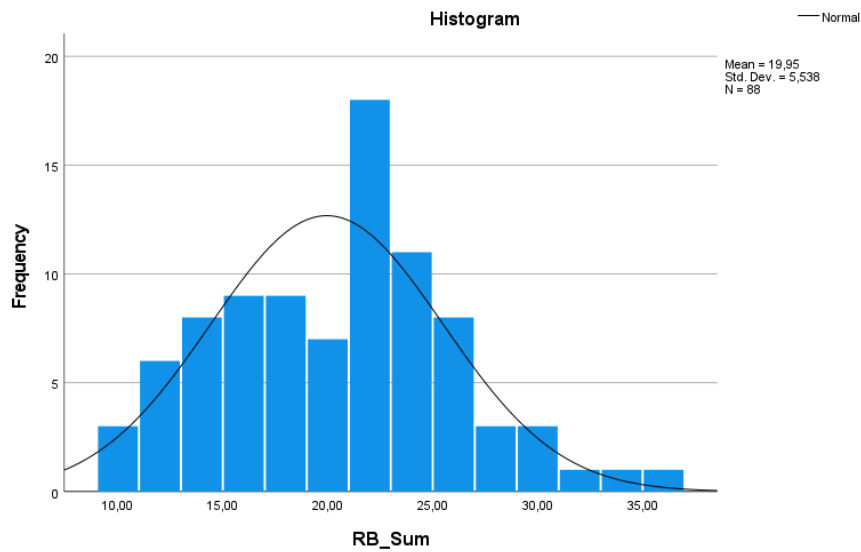


Figure A3

Frequency Distribution of the Total Scores on the Rosenberg Scale.



Appendix B
Correlation Table

Table B2

Correlation Table Showing Spearman's rho for the Time Spent on Social Media, the SWLS, and the Rosenberg Scale Scores.

		Satisfaction With Life Scale	Rosenberg Scale	Total Time Spent on Social Media
Satisfaction With Life Scale	Spearman's rho	1	-.72	-.30
	Sig. (2-tailed)		.00	.01
Rosenberg Scale	Spearman's rho	-.72	1	.37
	Sig. (2-tailed)	.00		.00
Total Time Spent on Social Media	Spearman's rho	-.30	.37	1
	Sig. (2-tailed)	.00	.00	

Note. N = 88 for all Scales.