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The Impact of Social Media on Self-Destructive Behaviour and Poor Mental Health

Outcomes

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Abstract

The rise of social media over the last ten years, and the exponential growth of its use during this period, has led to the urgent concern of its relationship with self-destructive behaviour and declining mental health in users, especially among adolescents and young adults. The current study examined the association between social media intensity of use and measures of poor mental health outcomes such as depressive symptoms, anxiety, self-esteem and self-destructive factors (e.g., self-destructive thoughts or self-destructive action ideation). Data was obtained from 80 respondents aged 16 to 30 years by using a structured questionnaire that included validated psychometric scales, in a quantitative, cross-sectional survey design. Descriptive statistics, Pearson correlation analysis, Independent samples t-test and multiple linear regression were used to analyse the data in SPSS. Results showed that there was a statistically significant positive relationship between social media consumption and mental health problems ($r = .61, p < .01$) and self-destructive behavior ($r = .54, p < .01$). Results from the regression analysis showed that together these factors of social media intensity, social comparison and cyberbullying exposure accounted for about 47% of the variance in poor mental health. The female and male respondents showed significant differences in anxiety and social comparison. The study concludes that, while social media undoubtedly provides connectivity and support, there is a significant correlation between excessive and uncritical use of social media and psychological distress and self-destructive tendencies. These recommendations encompass digital-literacy education, redesigning platforms, and targeted mental health interventions.

Keywords: social media, self-destructive behaviour, mental health, depression, anxiety, cyberbullying, social comparison

1. Introduction

Social media has permeated into daily life and has influenced the way people interact, build identities and view themselves as compared to other people. These technologies have democratised the information and created more connectivity than ever before; however, there is increasing research that focuses on the potential psychological expenses that emerge from these technologies. This is particularly so for young people, who are in a developmental stage where they are more susceptible to peer assessment, social acceptance and comparison. This paper reviews the current



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empirical evidence and the relationship between social media engagement patterns and self-destructive behaviours and poor mental health outcomes.

1.1 Background of the Study

The percentage of adolescents and young adults who use multiple social media everyday has skyrocketed since the mid-2010s. In tandem, there has been a corresponding increase in reports of anxiety, depression and acts of self-destruction among the same patient populations. Though correlation does not prove causation, the overlap in time has led to numerous studies to investigate whether, and how, digital engagement can impact psychological distress. This relationship is important for parents, teachers, mental health professionals and policymakers looking for evidence-based solutions.

While there is public interest in the impact of social media, there have been mixed results, with some studies finding negative associations, while others find positive or no association. A lot of the literature is from Western settings and based on large secondary datasets which are unable to provide insight into individual level mechanisms. Focused primary research that measures the intensity of the social media use and measures specific psychological indicators are still needed. The issue that this study was trying to solve is to what extent can social media engagement be used to predict self-destructive behaviour and poor mental health outcomes within a specified sample.

1.2 Objectives of the Study

The study aimed to address four research questions: (1) What is the level of social media engagement for the respondents? (2) What is the relationship between social media engagement and the presence of mental health problems (depression, anxiety, and low self-esteem)? (3) What is the relationship between social media engagement and the presence of self-destructive behaviours? and (4) What is the relationship between social comparison and cyberbullying exposure and mental health problems (depression, anxiety, and low self-esteem)?

1.3 Significance of the Study

This study is one of a few pioneering primary, quantitative investigations to pinpoint measurable aspects of social media use to psychological outcomes and thereby makes a significant contribution to the evolving scholarship on digital wellbeing. The results will help shape the design of digital-literacy curricula, assist clinicians in screening at-risk individuals and inform the design of safer online environments by platform designers and regulators. The emphasis on the mechanisms identified (social comparison, cyberbullying) instead of generalisations provides actionable directions.

2. Literature Review

This section summarizes existing research according to three thematic categories: Social media and mental health, Social media influences on self-destructive behavior, and Individual and demographic differences.



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2.1 Social Media and Mental Health Outcomes

There has been a significant amount of literature that has been published linking social media consumption to decreased mental health. Keles, McCrae and Grealish (2020) examined adolescent studies using systematic review and identified a consistent association between social media use and depression, anxiety and psychological distress. In the same way, Twenge and Campbell (2019) found that high screen time and social media use was linked to poorer psychological wellbeing among adolescents, such as decreased curiosity, emotional stability, and so on. Vannucci, Flannery, and Ohannessian (2017) identified that increasing SMD use was associated with increasing anxiety symptoms in young adults. But this link is not necessarily bad – Orben and Przybylski (2019) suggested that effect sizes in the majority of the literature are small and methodological decisions can overestimate the actual association. All of these studies indicate that there is a link – albeit a complex one – and that it is the how and how much of using platforms that is significant, rather than just the act of being there.

2.2 Social Media and Self-Destructive Behaviour

Apart from the distress, the role of social media in self-destructive behaviour such as self-harm and suicidal ideation has been explored. John et al. (2018) performed a systematic review on the association between cyberbullying victimisation and the risk of selfharm and suicidal behaviors in children and youth. Marchant et al. (2017) examined both the pros and cons of internet usage and highlighted that internet images and content can normalise or enable act of self-destruction, but it can also offer support and avenues for seeking help. Nesi et al. (2021) developed a transformation framework to explain how the characteristics of social media – permanence, quantifiability and visualness – transform adolescent risk behaviour. These results suggest that the social media does not all have the same effect, but that it is combined with the type of content and a user's vulnerability to create self-destructive effects.



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2.3 Mediating and Moderating Factors

The third literature centers on the psychological processes and demographic features which impact the effect of social media. Passive consumption of social media – scrolling and viewing curated lives has become a key mediator; finding evidence that passive use of the internet to browse social media has a negative impact on subjective wellbeing, mainly because of upward social comparison, and feelings of envy (Verduyn et al., 2017). Fardouly et al. (2015) demonstrated the detrimental effects of exposure to idealized images on social media on body image and mood, particularly among females. These impacts are frequently qualified by gender and some studies revealed that among youth there was a stronger association of using SNS and appearance-related anxiety among young women. At the same time, self-esteem acts as a buffer/amplifier – people who have lower self-esteem seem to be more vulnerable to the negative aspects of comparison and validation-seeking. The literature, when combined, emphasizes the conditional nature of the effects of social media and that there is a psychological pathway, rather than a general effect on social media.

3. Research Methodology

3.1 Research Design

The study was quantitative, survey and cross sectional study. This approach was suitable as it would enable the variables to be measured once only, and it would enable the study of relationship between one set of variables (social media use) and another set of variables (self-destructive behaviour and mental health indicators) within the same sample.

3.2 Population and Sample

Target population were adolescents/young adults (aged 16-30) who were active social media users and using at least one of the social media. In getting the respondents, convenience sampling technique was used, specifically the snowball sampling with the population of 80 respondents. The size of the sample needed for conducting a correlational and regression analysis was determined to be 80 with a medium size effect to be detected at the conventional alpha of .05.

3.3 Research Instrument

Data were gathered from a structured questionnaire which comprised five sections: demographic information; a social media intensity scale that assessed the number of hours spent on social media, how often social media was looked at and how many platforms people used; a mental health outcomes scale that assessed depression, anxiety and self-esteem; a social comparison and cyberbullying exposure scale that assessed social comparison and exposure to cyberbullying; and a self-destructive behaviour scale that assessed self-destructive behaviour, including the thoughts about self-destructive behaviour and self-destructive behaviour tendencies. Items have been scored on a 5-point scale (1 = strongly disagree; 5 = strongly agree). The instrument was based on existing scales which were modified for the study context.



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3.4 Validity and Reliability

The instrument content was obtained with expert opinion from two academics who were experts in psychology and research methodology. Cronbach alpha was used to assess reliability, which had scores of more than .70 for the internal consistency of all subscales (acceptable level). The overall instrument was found to have a Cronbach's alpha of .84.

3.5 Data Collection and Analysis

The questionnaires were conducted online and voluntary, anonymous. Informed consent was sought and the respondents assured of confidentiality; those who indicated that they were distressed given mental health helpline information. SPSS version 26 was used to enter and analyse the data. The characteristics of the respondents and distributions of variables were summarised using descriptive statistics. Pearson product-moment correlation was used to examine relationships between the variables, independent-samples t-tests were used to compare gender differences and multiple linear regression was used to determine variables that predicted poor mental health outcomes. A p value of $< .05$ was considered statistically significant.

4. Results

An overview of the results of the study is provided in this section. Firstly, descriptive statistics are presented, then reliability results, correlation analysis, t-test comparisons and regression analysis are presented. The 80 respondents whose demographic profile is summarised in table 1. A strong gender bias existed with the sample and the ages suggested that this is the age group that is most active on social media.

Table 1. Demographic Profile of Respondents (N = 80)

Variable	Category	Frequency	Percentage (%)
Gender	Male	37	46.3
	Female	43	53.8
Age	16–20 years	29	36.3
	21–25 years	34	42.5
	26–30 years	17	21.3
Platforms used	1–2 platforms	22	27.5
	3–4 platforms	41	51.3
	5 or more	17	21.3

Note. Percentages may not total 100 due to rounding.



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Table 2 shows the number of hours a day the respondents spend on the social media. Most also reported spending over 3 hours per day on social media and there was a high level of engagement in the sample.

Table 2. Daily Social Media Usage (N = 80)

Daily Hours of Use	Frequency	Percentage (%)	Cumulative (%)
Less than 1 hour	6	7.5	7.5
1–2 hours	18	22.5	30.0
3–4 hours	31	38.8	68.8
5–6 hours	16	20.0	88.8
More than 6 hours	9	11.3	100.0

Note. 70% of respondents reported three or more hours of daily use.

The descriptive data of the key variables of the study are presented in table 3. Based on the social comparison scores, average scores on social media intensity show that there is moderate-high intensity and moderate anxiety and depressive symptom scores that are not negligible.

Table 3. Descriptive Statistics for Study Variables (N = 80)

Variable	Mean	SD	Min	Max
Social media intensity	3.82	0.74	1.60	5.00
Social comparison	3.65	0.81	1.40	5.00
Cyberbullying exposure	2.94	0.97	1.00	5.00
Depressive symptoms	3.41	0.88	1.20	5.00
Anxiety	3.58	0.85	1.30	5.00
Low self-esteem	3.29	0.90	1.00	5.00
Poor mental health (composite)	3.43	0.79	1.35	4.90
Self-destructive behaviour	2.71	1.02	1.00	5.00

Note. All items rated on a 5-point Likert scale. Higher scores indicate greater levels.

Table 4 shows reliability analysis for each subscale. All measures had Cronbach's alpha of $> .70$, reflecting acceptable internal consistency of the measures.

Table 4. Reliability Analysis of Scales

Scale	No. of Items	Cronbach's Alpha
Social media intensity	5	.81
Social comparison	4	.78



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Scale	No. of Items	Cronbach's Alpha
Cyberbullying exposure	4	.83
Poor mental health (composite)	9	.86
Self-destructive behaviour	5	.80
Overall instrument	27	.84

Note. Alpha values above .70 indicate acceptable reliability.

The Pearson correlation analysis was used to test Hypothesis 1 and Hypothesis 2 as shown in Table 5. There was a significant positive correlation between intensity of social media and mental health problem ($r = .61$, $p < .01$) and self-destructive behaviour ($r = .54$, $p < .01$). There was also a significant relationship between social comparison and both outcome variables, as well as between cyberbullying exposure and both outcome variables. These results findings support H1 and H2.

Table 5. Pearson Correlation Matrix of Key Variables (N = 80)

Variable	1	2	3	4	5
1. Social media intensity	1				
2. Social comparison	.57**	1			
3. Cyberbullying exposure	.45**	.49**	1		
4. Poor mental health	.61**	.64**	.58**	1	
5. Self-destructive behaviour	.54**	.52**	.60**	.67**	1

Note. ** Correlation is significant at the 0.01 level (2-tailed).

To investigate gender differences (H3), an independent-samples t-test was used. As reported in the text, female respondents scored significantly higher on anxiety ($M = 3.79$, $SD = 0.78$) than male respondents ($M = 3.34$, $SD = 0.86$), $t(78) = 2.44$, $p = .017$, and on social comparison ($M = 3.88$, $SD = 0.74$) compared with males ($M = 3.38$, $SD = 0.82$), $t(78) = 2.86$, $p = .005$. These results lend support to H3.

Finally, a multiple linear regression was used to find the predictors of poor mental health outcome as shown in Table 6. The model proved to be statistically significant, $F(3, 76) = 22.41$, $p < .01$, and accounted for about 47% of the variance in poor mental health outcomes ($R^2 = .47$, Adjusted $R^2 = .45$). Social comparison was the strongest predictor followed by cyberbullying exposure and social media intensity.

Table 6. Multiple Regression Predicting Poor Mental Health Outcomes

Predictor	B	SE B	β	t	p
(Constant)	0.62	0.28	—	2.21	.030



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Predictor	B	SE B	β	t	p
Social media intensity	0.24	0.09	.26	2.67	.009
Social comparison	0.33	0.08	.38	4.13	.000
Cyberbullying exposure	0.28	0.07	.31	4.00	.000

Note. $R^2 = .47$, Adjusted $R^2 = .45$, $F(3, 76) = 22.41$, $p < .01$. Dependent variable: Poor mental health outcomes.

In summary, findings suggest that each individual factor (social media engagement, upward social comparison and cyberbullying exposure) was individually linked to mental health and cyberbullying consequences and that all three together explained almost half the variance in mental health outcomes. Differences were seen in terms of gender, with women having higher levels of anxiety and social comparison.

5. Discussion

The findings are similar to those in the literature that indicate that heavy social media use is related to psychological problems. The result of positive correlation between social media intensity and negative mental health as well as negative self-destructive behavior was similar to the findings of Keles et al. (2020) and John et al. (2018) who had reported systematic results. Interestingly, the regression results suggest that social comparison is the strongest predictor of positive affect related to the mechanism proposed by Verduyn et al. (2017) and Fardouly et al. (2015) that the social comparison and idealised imagery is corrosive. This increased anxiety and social comparison in females points towards earlier research that young women are especially susceptible to appearance-related pressures they do experience online. The medium sized effects meanwhile accorded with Orben and Przybylski's warning (2019) that social media is only one factor among many that can also contribute to distress.

There are practical implications in these results. Since social comparison and cyberbullying were the two most important predictors, interventions which decrease exposure to negative comparison information and increase resistance to becoming a target of cyberbullying could be most effective. Digital-literacy education that encourages critical interaction with the content presented, as well as changes to platform design (e.g. reducing salience of likes and number of followers) may help reduce some of the harms identified.

6. Conclusion

The purpose of this study was to examine the effects of social media on self-destructive behaviours and other mental health issues for 80 youths. As it can be observed, there is a clear and statistically significant relationship: the use of social media the more intense, the more intense the upward comparison, the more intense the exposure to cyberbullying, the more intense the depression, anxiety, low self-esteem and self-destructive tendencies. Social comparison and exposure to



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cyberbullying were the strongest predictors, accounting for almost half of the variance in mental health outcomes along with usage intensity. Gender also was shown to be a factor, with women experiencing significantly more anxiety and social comparison.

But these findings aren't to imply that social media is dangerous. Rather, they suggest that how and how much engagement is experienced will have psychological implications, as will the type of content that is engaged with. The benefits of social media is that it can be a source of support, connect and help, but the challenge is minimising harm while maximising benefit. This study's self-report data, small sample and cross sectional design limit the ability to draw causal conclusions and there may be bias in the data. Future research should be larger and more representative samples in order to obtain more information regarding the direction of effects over time and utilize longitudinal and mixed-method designs.

Accordingly, the researchers believe that Digital-Literacy Education and Mental-Health Education should be integrated into school and university curricula, there should be a modification of the platforms that would help reduce the pressures of social-comparison and cyberbullying, and specific screening and support services should be created for those at a higher risk. Collaboration among various stakeholders such as educators, clinicians, platform designers and policies is crucial in helping to establish a safe online space for youth.

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