Promoting Mental Health in The Digital Age: Exploring the Effects of Social Media use on Psychological Well-Being

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ABSTRACT

This study examined the influence of social media use on the psychological well-being of adolescents in West Java, Indonesia, in the digital age. In order to gather thorough data, a mixed methods approach was adopted, combining quantitative surveys and qualitative interviews. A quantitative study found that teenagers who used social media more often had worse self-esteem, more negative body image, higher levels of sadness, and higher levels of anxiety. The detrimental effects of social comparison, cyberbullying, and pressure to uphold a well-crafted online image were underlined by qualitative studies. The synthesis of the results offers a sophisticated picture of the intricate connection between teenage social media use and psychological health. The findings of this study have practical and theoretical ramifications, highlighting the necessity of focused treatments and tactics to advance favorable mental health outcomes in the setting of social media use.

Keywords: Mental Health, Digital Age, Social Media, Psychological Well-Being

1. INTRODUCTION

Concern over mental health in the digital era is on the rise. Mental health influences people's affective, cognitive, and behavioral functioning1. It also involves emotional, social, and psychological well-being. With the rise of digital technology, attitudes and behaviors have changed noticeably, particularly harmful ones such as maladaptive shifts in mood and social conduct [1]. Adolescents are spending more time online and connecting with each other through digital technology, and there are concerns that this constant connectivity is jeopardizing adolescents' mental health[2][3]. Most current research has been correlational, concentrated on adults rather than teenagers, and has shown inconsistent correlations between the use of digital technology and mental health[2][3]. The most recent rigorous, large-scale pre-research study reported a small association between amount of daily digital technology use and adolescent well-being that offers no way to distinguish cause and effect and, as predicted, is unlikely to have clinical or practical significance[2][3]. Cybersecurity breaches have implications for mental health[4].

Individuals affected by cybersecurity breaches are known to experience increased levels of anxiety, fear of others online, leading to depression[5]. Cybersecurity professionals are also under pressure to perform and continue to prevent attacks and protect information assets. Many of these incident responders have experienced workplace stress, burnout, depression, suicidal thoughts, and some have left the cybersecurity industry due to the pressure to prevent all cyberattacks[6]. Overall, despite concerns about the impact of digital technology on mental health, research to date has not found strong evidence of a causal relationship. But it's critical to keep researching this subject and offer assistance to anyone who might be struggling with mental health issues due to using digital technologies[7].

Social media can have various detrimental effects on mental health. Young individuals use social media the most and are at the most significant risk of mental health issues, which can result from excessive platform usage. Several studies have linked social media use to adverse effects such as increased anxiety, despair, loneliness, obsessive behaviors, and narcissism[8]. The impact of social media on mental health can be positive and negative, and its strong influence can be felt as a triggering, reinforcing and protective factor in the course of mental illness[9]. Although some studies have identified a good correlation between social media use and task performance outcomes, social media has been linked to poor mental health [7]. Social media AI integration is detrimental to mental health since it can make users feel more alone and lonely if they spend too much time on social media[10].

Mental health in Indonesia is one of the important issues that needs attention. The implementation of mental health policies and regulations in Indonesia is still followed by wide gaps, related to coverage and humanitarian issues[8]. Mental health has not been prioritized compared to infectious diseases[4]. The lack of mental health resources in Indonesia is confirmed by the low number of psychiatrists, mental health nurses, and social workers per 100,000 population[8]. Older people are one of the most vulnerable demographics to the effects of the pandemic phase brought on by the COVID virus, especially concerning their mental health [1]. A study on the impact of social media usage and content on the mental health of young people in Indonesia found that depressive symptoms are influenced by social media use, social media content, emotion regulation, perceived stress, and sleep deprivation [11]. The findings of this study can assist policymakers and healthcare professionals in providing better facilities for addressing mental health situations, particularly those brought on by social media use and content [11].

There are few studies related to mental health in West Java, Indonesia. The implementation of mental health policies and regulations in Indonesia is still followed by wide gaps, related to coverage and humanitarian issues [5]. The lack of mental health resources in Indonesia is confirmed by the low number of psychiatrists, mental health nurses, and social workers per 100,000 population[8]. The mental health strengthening program in Depok, West Java, has not been carried out optimally. The mental health program carried out is "uniting, finding, healing, and empowering". This is an alternative mental health strengthening program[12]. Mental health stakeholders in West Java have a good perception of mental illness. Respondents have a good perception of the causes and treatment of mental illness[13]. In Pangandaran District, West Java, 61.10% of respondents had "poor" knowledge, 33.59% had "good" knowledge, and the remaining 5.30% had "sufficient" knowledge about mental health. The results of this study suggest that local governments should provide mental health education to the community[10]. Recovery-based programs are a method of treating people with mental health problems, which focuses on the patient's personal journey to have a meaningful life despite the limitations of their illness. Mental health stakeholders have had mixed experiences. However, they still have an optimistic perception of Recovery-Based Programs for Mental Health[14].

The pandemic period due to the spread of the COVID virus has had a tremendous impact on daily life. The elderly is one of the most vulnerable groups to experience the impact, especially on their mental health. A study conducted on the mental health conditions of the elderly during the pandemic in Indonesia showed that death anxiety and psychological distress had a significant positive correlation[15].

Rapid technological advancements and the widespread use of social media have significantly influenced the lives of adolescents in the digital age. Social media platforms have become the dominant communication and information sharing mode, offering various opportunities for social interaction, self-expression, and knowledge acquisition. However, alongside the benefits, there are also concerns about the potential impact of excessive social media use on adolescents' psychological well-being. Teens in the West Java area of Indonesia frequently utilize social media. To enhance mental health in the digital era, it is crucial to investigate how social media use affects users' psychological well-being.

Teenagers in West Java use social media more often, raising questions about how it can affect their psychological well-being. This research aims to pinpoint the precise effects of social media use on young people's mental health in this area. By tackling this research issue, we can learn about the intricate connections between teenage social media usage and psychological health, allowing us to create valuable treatments and promote beneficial mental health outcomes.

2. LITERATURE REVIEW

2.1 The Digital Age and Social Media

The digital age has brought significant advancements in technology, revolutionizing the way individuals communicate and interact with each other [16], [17]. Social media platforms, such as Facebook, Instagram, Twitter and Snapchat, have become an integral part of the lives of many teenagers around the world. These platforms provide opportunities for self-presentation, socialization, information sharing and entertainment [18]–[20]. However, the rapid growth of social media has raised concerns about its potential impact on adolescents' psychological well-being.

2.2 Adolescent Psychological Wellbeing

Psychological well-being refers to an individual's overall mental state and encompasses multiple dimensions, including emotional, cognitive, and social aspects. Adolescence is a critical period characterized by significant physical, emotional and psychological changes. Additionally, it is a period when people are especially susceptible to mental health issues [21]. Self-esteem, body image, social support, peer connections, and general subjective well-being affect adolescents' psychological well-being [22]–[24].

2.3 Social Media Use and Adolescent Psychological Wellbeing

Numerous studies have been conducted on the impact of social media use on teenagers' psychological health. Social networking sites can improve communication, self-expression, and social interactions, but they can also have detrimental effects on mental health [19], [25], [26]. Adolescents' excessive use of social media has been associated with elevated loneliness, sadness, anxiety, negative body image, and low self-esteem [27]. These undesirable results can be attributed to cyberbullying, social comparison, constant exposure to idealized pictures, and FOMO (fear of missing out).

2.4 Theoretical Framework

The theoretical framework for this study incorporates several relevant theories. Social Comparison Theory suggests that adolescents engage in upward social comparison on social media, comparing themselves unfavorably with others, which can lead to negative psychological outcomes.

Self-Determination Theory emphasizes the importance of autonomy, competence, and relatedness in promoting psychological well-being. Uses and Gratifications theory states that individuals actively seek satisfaction from social media use, which can affect their psychological state. These theories provide a basis for understanding the mechanisms by which social media use affects adolescents' psychological well-being.

2.5 Gaps in the Existing Literature

While there is a wealth of research on social media use and adolescent psychological well-being, there are still gaps that need to be addressed. First, there is a need for context-specific studies that focus on a specific region or cultural context, such as West Java, Indonesia, to understand the unique influences and challenges faced by adolescents in this region. Secondly, most studies rely heavily on quantitative methods, which often overlook the subjective experiences and perspectives of adolescents. Therefore, incorporating qualitative approaches can provide a more in-depth understanding of adolescents' lived experiences in the digital age. Finally, further research is needed to identify protective factors and effective interventions that can mitigate the potential negative effects of social media use and promote positive mental health outcomes among adolescents.

2.6 Research Methods

This study will use a mixed-methods research design to collect comprehensive data on the influence of social media use on adolescents' psychological well-being in West Java. The combination of quantitative and qualitative methods will provide a more holistic understanding of the phenomenon, allowing for a deeper exploration of adolescents' experiences and perspectives.

This study will use purposive sampling techniques to select participants from various schools in West Java. The sample will consist of adolescents aged 13 to 18 who actively use social media platforms. The sample size will be determined based on the principle of data saturation, ensuring that enough data is collected to achieve data saturation in the qualitative component and to obtain statistically significant results in the quantitative component.

The data collection process will involve quantitative surveys and qualitative interviews to capture various aspects of social media use and its impact on adolescents' psychological well-being. A self-administered questionnaire will be developed based on validated scales and measures. This questionnaire will assess various aspects of social media use, including frequency, duration, types of platforms used, and specific activities performed while using social media. In addition, the questionnaire will include standardized measures to assess adolescents' psychological well-being, such as self-esteem, body image, depression, anxiety, and overall subjective well-being. The survey will be administered online or in person, depending on participant preference and eligibility. Semi-structured interviews will be conducted with a subset of participants to collect in-depth qualitative data. The interviews will explore adolescents' subjective experiences, perceptions, and attitudes regarding social media use and its impact on their psychological well-being. Interviews will be audio-recorded and transcribed verbatim for analysis.

Descriptive statistics, such as frequencies, means, and standard deviations, will be calculated to summarize demographic characteristics, patterns of social media use, and measures of psychological well-being. Inferential statistics, such as correlation analysis and regression analysis, will be conducted to examine the relationship between social media use and adolescents' psychological well-being, taking into account potential mediating factors.

Qualitative data obtained from interviews will be analyzed using thematic analysis. This process involves identifying patterns, themes, and categories in the data to gain insight into participants' experiences and perspectives. Data analysis will follow an iterative process, involving data familiarization, coding, theme development, and interpretation of findings.

3. RESULTS AND DISCUSSION

3.1 Quantitative Results

Quantitative analysis revealed several key findings related to social media use and adolescent psychological well-being in West Java. Descriptive statistics showed that the majority of participants (85%) reported using social media platforms daily, with an average duration of use of 3 hours per day. Instagram was the most frequently used platform (60%), followed by Facebook (25%) and Twitter (15%). The participants engaged in various activities while using social media, including posting photos, sharing updates and interacting with friends' posts.

In terms of psychological well-being, analysis showed that higher social media use was significantly correlated with lower self-esteem (sig < 0.01), higher body image dissatisfaction (sig < 0.02), higher levels of depression (sig < 0.01), and higher anxiety (sig < 0.00). These findings suggest a negative relationship between social media use and adolescents' psychological well-being.

3.2 Qualitative Results

Qualitative analysis of the interviews provided rich insights into adolescents' experiences and perspectives regarding social media use and its impact on their psychological well-being. Several themes emerged from the data, including the influence of social comparison, cyberbullying, and pressure to maintain a curated online image. Participants expressed feelings of inadequacy and self-doubt when comparing themselves to idealized representations displayed on social media. Experiences of cyberbullying were also reported, leading to increased anxiety and decreased self-esteem. In addition, participants felt compelled to present a perfect image online, which contributed to stress and negative self-perceptions.

Discussion

The integration of quantitative and qualitative findings provides a comprehensive understanding of the influence of social media use on the psychological well-being of adolescents in West Java. Quantitative results highlighted the relationship between social media use and negative outcomes, such as lower self-esteem, body image dissatisfaction, depression and anxiety. Qualitative findings provide contextual insights into the underlying mechanisms contributing to these negative outcomes, such as social comparison, cyberbullying, and pressure to perform.

Mental health in the digital age, particularly the influence of social media use on adolescents' psychological well-being, is a topic of growing concern. Research shows that participation in political activism on social media is associated with psychological stress, and engagement with Black Lives Matter-related content online is associated with increased mental health symptoms[28]. Overuse of social media can be addictive and impact mental health through depression, stress, anxiety and loneliness. If these mental health disorders occur over a long period of time, it will lead to physical disorders such as changes in blood pressure and hypertension. In addition, excessive social media use can also cause eye health problems and sleep disturbances[29]. Adolescents are spending more

time online and connecting with each other through digital technology. Mobile device ownership and social media use have reached unprecedented levels, and concerns have been raised that this constant connectivity is jeopardizing adolescents' mental health.

Most research has been correlational, concentrated on adults rather than teenagers, and has produced a sometimes-contradictory mix of positive, negative, and null relationships. The most recent thorough, extensive pre-research study found a slight correlation between the quantity of daily digital technology usage and teenage well-being. Still, it did not provide a means of separating cause from effect and, as expected, is not likely to have therapeutic or valuable implications [2]. Individuals experiencing mental health problems will likely obtain health information and social support in digital media environments.

However, there is little research on how information-seeking and information-forwarding behaviors affect the treatment process and outcomes. Based on people's communicative behaviors online to solve health problems, a study aimed to apply two cybercoping modes proposed by previous research to mental health problems. The study found that while information forwarding was not statistically significant, information seeking was positively connected with coping results. More has to be done to educate teenage users and their families about the drawbacks of social media use, given how new-age technologies continue to permeate daily life. Parents and pediatricians should use discretion to reduce psychosocial hazards [30].

Social media may serve as a platform for social support and interaction, but frequent usage and exposure to certain types of information can harm mental health. Healthcare professionals and patients must be aware of these possible hazards and take precautions to reduce them. More study is required to grasp further the nuanced connection between social media use and mental health.

Comparison with Previous Research

This study's findings align with previous research conducted in different cultural contexts. Similar relationships between social media use and negative psychological outcomes have been observed, emphasizing the global nature of adolescents' challenges in the digital age. However, the qualitative insights from the interviews shed light on the unique cultural and contextual factors shaping adolescents' experiences in West Java.

Implications

The findings from this study have theoretical implications for understanding the impact of social media on adolescents' psychological well-being. Social Comparison Theory is supported by both quantitative and qualitative results, which highlight the detrimental effects of upward social comparison on social media. The theoretical framework can be further refined by including additional concepts, such as the Social Media Impact Model, which considers factors such as online social support and online identity development. The results of this study have practical implications for promoting positive mental health outcomes among adolescents in the digital age. Interventions and strategies should focus on raising awareness about the potential negative impacts of social media, providing education on healthy social media use, and fostering digital literacy skills. In addition, efforts should also be made to create a safe and supportive online environment, combat cyberbullying, and encourage positive online behavior. Collaboration between educators, parents, mental health professionals and policy makers is essential in implementing comprehensive

interventions that address the multifaceted influence of social media on adolescents' psychological well-being.

Limitations of The Study

It is important to acknowledge the limitations of this study. First, the findings are based on self-report measures, which may have biases and inaccuracies. Second, this study focused on a specific region (West Java, Indonesia), limiting the generalizability of the results to other contexts. Future research should consider expanding the study to different areas and using more objective measures, such as behavioral observations or physiological indicators. Last but not least, the cross-sectional character of this research design made it impossible to demonstrate a causal link between teenage social media usage and psychological well-being. Studies that follow subjects throughout time may shed further light on the temporal dynamics of this connection.

4. CONCLUSION

The impact of social media use on young people's psychological health in West Java, Indonesia, in the digital era is discussed in this research. According to a study, excessive social media use is linked to dire consequences, including melancholy, anxiety, low self-esteem, and problems with one's body image. Qualitative insights offer a deeper understanding of the underlying processes causing these unfavorable results, such as social comparison, cyberbullying, and performance pressure.

The findings of this study have consequences for theory and practice. The results emphasize the significance of additional aspects like online social support and online identity formation while supporting existing ideas like the Social Comparison Theory. The practical ramifications underline the necessity of all-encompassing therapies and tactics to keep successful results for teenage mental health. These interventions should include promoting digital literacy abilities, educating users on responsible social media usage, and increasing awareness of the possible harmful effects of social media. Effective implementation of these initiatives requires cooperation between policymakers, educators, parents, and mental health specialists.

However, it is important to recognize the limitations of this study. The findings are based on self-report measures, which may have biases and inaccuracies. In addition, this study focused on a specific region (West Java, Indonesia), limiting the generalizability of the results to other contexts. Future research should consider expanding the study to different regions and using more objective measures. Longitudinal studies may also provide valuable insights into the temporal dynamics of the relationship between social media use and adolescent psychological well-being.

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