

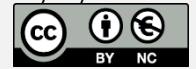
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Psychological wellbeing of social media users: A structural equation modeling analysis

Ririn Nasriati¹ , Dian Laila Purwaningroom², Eky Okviana Armyati³, Sugeng Mashudi⁴

Author information

^{1,2,3,4}Department of Nursing, Universitas Muhammadiyah Ponorogo, Indonesia

 yieyien.nasriati@gmail.com

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Abstract

Social media has positive and negative impacts on human life. Even though negative impacts have been identified, positive impacts are rarely studied in the literature. The identification of positive impacts will be useful for preventing health issues among social media users. Therefore, the study is intended to investigate the psychological well-being status of the social media population. The study used a cross-sectional design with a purposive sampling method. The analysis used structural equational modeling to answer the research question of the study. The results showed the psychological well-being of social media users is at normal levels with mild stress. The influencing factors influencing the finding are sex and education. Health promotion is fundamental to improving the outcomes and *vice versa*, decreasing the risk factors of mental disorders. Interventional studies are needed to prevent distress in the future.

Keywords: social media; psychological well-being; mental health nurses; nursing assessment; community practice

Introduction

Restlessness, tension, and sleeping disorder are the main signs of psychological distress (Casagrande et al., 2020; McGinty et al., 2020). Studies highlighted that confusion, worried and concentration difficulties have been considered clinical symptoms of stress (Beard et al., 2020; Viertiö et al., 2019). As already known, the stage of growth and development of adolescence is related to psychological distress (Bernstein & Pfefferbaum, 2018). That distress is caused by situational crises, threats to self-concept, fear of failure, dysfunction of the family system and less information on social media (Barbe & Pennington-Gray, 2018; Roddy et al., 2018; Asibong et al., 2020).

Social media is media allowing one to interact and socialize along with communicating with another person. Recent investigation suggests several approaches to reduce distress as follows relaxation therapy, group support counseling and social media interactions (Dumbala et al., 2020; Shechter et al., 2020; Vidal, Lhaksampa, Miller, & Platt, 2020; McFerran et al., 2018). Into response this health issue, social networking implemented screening and intervention procedures when users show signs of emotional distress or risk of suicide. Also, social media help increase mental health awareness, and health promotion to prevent behavioral problems (Nesi, 2020). Interestingly, social media may predict diseases such as diabetes, anxiety, depression, and psychosis (Merchantid et al., 2019). People's personalities, mental states, and health behaviors can be reflected on their social media. The research is since language on Facebook can predict diagnoses in people's health records, revealing new opportunities to personalize care and understand how patients' daily lives relate to their health.

Unfortunately, a study evaluating the psychological status of social media user is limited in the literature as excessive of using social media lead to anxiety, depression, and other psychological disorders. In addition, the symptoms are common among person at aged 18-25 years old. A study found that students using Facebook every 15 minutes decrease their academic achievement (Rosen et al., 2011). Social media allows commenting and sharing of information which sometimes leads to distress (Kaplan & Haenlein, 2010). When left untreated, this will reduce the health-related quality of life among social media users. Therefore, the study is intended to investigate the psychological well-being status of the social media population. It is hoped that the finding of the study helps nurses

to provide a comprehensive intervention plan for those having psychological problems in the community. Also, this will encourage the government to elaborate with healthcare professionals to solve the issues.

Method

This study used a cross-sectional study design as there was no intervention given during the data collection process. The inclusion criteria were male or female living in Ponorogo, students who were active in social media within one year had complaints in psychological aspects and were able to communicate in Bahasa. Meanwhile, the exclusion criteria were students experiencing mental health problems. Purposive sampling methods were used in the study. A total of 110 respondents who met the inclusion criteria were engaged from June 2020 until July 2020.

Depression, Anxiety, Stress Scale 42 (DASS 42) was used to the collected psychological status of the respondents. This instrument has been validated and can be used for the study as the reliability score is 0.9483. Psychological stress scores include Normal = 0-14, mild stress = 15-18, moderate stress = 19-25, severe stress = 26-33, very heavy stress = 34 (Lovibond & Lovibond, 1995). Univariate and bivariate analyses were used to present the characteristics of respondents. Structural Equation Modeling (SEM) and Partial Least Square (PLS) were used to reach the objective of this study.

Results

The following is the detail of our findings during the study process (**Table 1**). The table concluded that most of the respondents (77.3%) were female, 17-25 years old (85%), in high school (72.7%) and stress levels were normal (50%). All the respondents signed the informed consent before the study outset. The opportunity to participate in the study was announced on social media and they were volunteered. The results showed that demographic factors that did not affect psychological distress were good. Individuals experiencing mild stress increased motivation and performance (Karim, Oyewande, Abdalla, Ehsanullah, & Khan, 2020). The influencing demographic variables are gender and education level of respondents. The gender of the respondents is almost entirely (77.3%) female, the age is in the late adolescence category (85%) and most of the respondents' education (72.7%) is high school.

Table 1. Demographic Data

Variables	Percentage (%)
Sex	
Female	77.3
Male	22.7
Age (Years)	
12-16	1.8
17-25	85
26-35	9.0
36-45	2.7
46-55	0.9
Education	
Elementary School	0.9
Junior High School	3.7
Senior High School	72.7
Bachelor	22.7
Stress Level	
Normal	50
Mild	20
Moderate	19.1
Severe	10.9

Discussion

Social media has a significant impact on people's lives, particularly in adolescence. Some of the most popular social media sites currently used by teenagers include YouTube (85%), Instagram (72%), Snapchat (69%), and Facebook (51%). There is a new social media site platform that has been introduced recently, TikTok, which is quickly gaining traction among adolescence. This group is very dependent and influenced by their peers as an important developmental task came from peer relationships and self-identity. The achievement of adolescent developmental tasks can be fulfilled and assisted with social media. This is because in social media there are features and contexts to help adolescents achieve these developmental tasks such as friends who are always available, personal information displayed publicly and permanently, and there is feedback from colleagues that can be measured instantly given in the form of "likes" (Nesi, 2020).

The finding of this study is in line with several previous studies. For example, the presence of friends on social media has a positive impact on adolescent mental health (Wood et al., 2016). Peer friendships become more prominent and characterized by similarities with their peers and social media (Brown & Larson, 2009). The study also reported that positive adjustment during adolescence is caused by the possession of broad social skills and social acceptance (e.g., status and power) (Brown & Larson, 2009). These findings highlight the importance of social circles and opportunities for learning and the provision of positive friendships during different periods. The quality of friendship could protect adolescents from negative influences. In addition, adolescents using social media tend to have lower levels of loneliness and higher social adjustment (Yang & Brown, 2013). Social media may improve relationships and social well-being, as well as increase self-disclosure (Valkenburg & Peter, 2009). Sending electronic messages in online conversations is a means of channeling emotions to cause emotional relief through conversations with peers and this can contribute to the psychological well-being of adolescents (Dolev-Cohen & Barak, 2013). Another factor that contributes to the level of stress is the feeling of well-being when presenting themselves on social media (Kim & Lee, 2011; Qiu et al., 2012). Through this self-presentation, the user gets feedback from fellow social media that impact positive self-identity (Valkenburg & Peter, 2009).

Almost all the social media users (77.3%) in this study were female. The findings in this study differ from previous studies in that adolescent girl, compared to boys, react more emotionally and behaviorally to ambiguous ridicule on Facebook (Barnett et al., 2013). In addition, female students are more likely to become anxious and distressed when using Facebook (Thompson & Loughheed, 2012). However, the study highlighted that the level of stress is in the mild stage influenced by the ability of women to express their emotions. This is in line with the findings that sending electronic messages in online conversations improves emotional relief and psychological well-being (Dolev-Cohen & Barak, 2013).

The results showed that the final education level of the respondents was at the high school stage (72.7%). Respondents with high school education are currently studying in the college or as students. A study stated that when compared to individuals with less education or from secondary school, those with high education, and bachelor's and higher degrees reported better social well-being (Bekalu et al., 2019). The use of social media is positively related to the heterogeneity of student communication networks, which in turn is positively related to social capital and psychological well-being (Kim & Kim, 2017). Also, someone with a higher level of education has a better cognitive ability to deal with stressors (Mandemakers & Monden, 2010). However, there is an intermediate variable that shows that demographic factors affect psychological distress. Demographic factors indirectly affect psychological distress through social media user variables. It is necessary to examine other variables that directly affect psychological distress.

Conclusion

There is no influence of demographics (gender and education) on psychological distress during the study. Social media activity may increase psychological distress. As a result, intensive health education is urgently required to prevent severe distress. Further studies are important to provide interventions in preventing distress among the group. Health policymakers were fundamental to be engaged in the upcoming investigation.

Author's declaration

The authors made substantial contributions to the conception and design of the study and took responsibility for data analysis, interpretation, and discussion of results. For manuscript preparation, all the authors read and approved the final version of the paper.

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Availability of data and materials

All data are available from the authors.

Competing interests

The authors declare no competing interest.

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