

Are You Millennial Generation? The Effect of Social Media Use toward Mental Health among Millennials

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Abstract: The millennial generation is inseparable from the use of social media. Social media sites have emerged as important communication channels available that engaged with millennials. Social media use has positive and negative effects on their mental health. This study explores the effects of social media use among millennials in relationship with mental health in Aceh Province, Indonesia. A quantitative method with the correlation technique was used for this study that involved 391 millennials participated (136 males and 255 females millennials with range aged 19-39 years). Social media use was measured by using the Social Media Use Integration Scale (SMUIS), while mental health was measured by using the Mental Health Inventory (MHI-18). The results of the study showed that there exists a significant relationship between social media use with mental health among millennials ($p=.000$ $r=-.211$). This study also found that significant gender differences among millennials on social media use, which is females consistently show higher social media use than males. It can conclude that social media use has to effect on both sides of positive and negative mental health, such as psychological distress and psychological well-being, further results are discussed.

1 INTRODUCTION

The development of social media is very rapid and reaches all elements of society, especially the millennial generation, a group of individuals born in 1980-2000 (19-39 years) (Kaifi, Nafei, Khanfar, & Kaifi, 2012). They are called millennial because of their proximity to the new millennium and digital development (Kaifi et al. 2012) so that computers and non-traditional values have a major influence on the millennial generation (Andert, 2011). Unlike traditional media, social media is an interactive tool which becomes important for youths and young adults in creating and shaping experiences (Michikyan & Suárez-Orozco, 2016).

The latest neuropsychological research states that one's self-disclosure on social media activates the intrinsic reward system of the brain as much as rewards generated from food and sex (Tamir & Mitchell, 2012). Judging from the perceived effects, it explains why most individuals tend to not be separated from the use of social media. Functionally, the Pew Research Center project found that the strongest reason for using social media is connecting with friends and family, making new friends, finding partners and also reading celebrity or politician

reviews (Smith, 2011). The study also explains the difference of age groups toward the use of social media. 30 to 49-year-old individuals are reported to have stronger attention in using social media to keep connecting with other people who have the same interests and hobbies are 18% compared to 18 to 29-year-old individuals at only 10%. Individuals aged 18-29 years are more focused on connecting with people who have been present in their lives such as current friends and family members (Smith, 2011).

The presence of social media in daily activities for the millennial generation has affected mental health. The American Association of Suicidology states that social media can have a major impact on mental health (American Association for Suicidology, 2017). Based on its function, social media are connecting media that allow each individual to interact each other. Selfhout, Brantje, Delsing, ter Bogt, & Meeus (2019) found that the quality of interaction on social media is a predictor of better mental wellness. Umberson and Montez (2010) state that the quality and quantity of social relationship affects behavioral health, physical health, mental health and risk of mortality. Relationship quality includes positive aspects in relationships such as emotional support from others and strained aspects in relationships such

as conflict and stress (Umberson & Montez, 2010). In addition, the use of social media is also associated with self-presentations that have a positive connection with well-being (Reinecke & Trepte, 2014; Grieve & Watkinson, 2016).

Nevertheless, it cannot be denied that the use of social media is also has a negative impact on mental health. The presence of negative effects from using internet on individual's well-being is a new thing. Kraut, Kiesler, Boneva, Cummings, Helgeson, and Crawford (2002) say that several years after the availability of internet access by The Home Net Project in 1995, the use of higher internet access was associated with symptoms of loneliness and depression. In 2012, Rosen, Cheever, and Carrier coined the term "iDisorder", defined as a negative relationship between the use of technology and psychological health. After that, the researchers started to turn to social media. Rosen, Whaling, Rab, Carrier, and Cheever (2013) examined Facebook usage in 1,143 students. Researchers found that major depressive disorder, dysthymia, bipolar-mania, narcissism, antisocial personality disorder, and compulsive behavior were predicted to be one of the most common Facebook usage variables (general use, number of friends, use for image management). Depression is associated with negative social interactions and social isolation (Chou, Liang, & Sareen, 2011). Another research shows that for 45% of adults in the UK are indicated to be anxious and uncomfortable when being unable to access social media (Anxiety UK, 2012). Moreover, there is a new term related to it in the medical field, namely phantom vibration syndrome which is defined as feeling cellphone vibration while the cellphone is not vibrating (Drouin, Kaiser, & Miller, 2012). Phantom vibration syndrome can reflect the form of the anxiety caused by cellphones as individuals' obsession to check social media and their messages (Rohilla & Kumar, 2015).

Research by Fathadhika and Afriani (2018) toward 343 adolescents in Banda Aceh city found that 98 (28.6%) subjects were addicted to social media. In addition, social media addiction scale showed most of the adolescents suffered from difficulty to think about something when they stop using social media. According to social media engagement scale, most of the subjects in this research used social media 15 minutes before sleep and 15 minutes after waking up each day. It shows that the adolescents in Banda Aceh are difficult to get away from social media, when they are about to sleep, and the first thing they do after waking up is accessing social media.

Furthermore, Research by Fathadhika and Afriani (2018) showed that 10.5% of subjects suffered from *fear of missing out* (FoMo) in high category and the other 48.7% suffered from moderate category of FoMo. Przybylski, et al., (2013) defines FoMo as worry suffered by an individual when other people have impressive experience while one is not present there. It makes an individual continuously maintains the activity in social media without limited time, therefore it leads to social media addiction (Abel, Buff, & Burr, 2016).

Based on previous researches, there are positive and negative effects between the use of social media and mental health. Therefore, the researchers want to figure out about the relationship between the use of social media and mental health among millennial generation in Aceh. Furthermore, the researchers want to know whether the use of social media has more positive or negative effects on mental health in the millennial generation in Aceh. This research hypothesis is that there is a relationship between social media use and mental health among millennials of Aceh.

2 LITERATURE REVIEW

2.1 Social Media Use

Jenkins-Guarnieri, Wright, and Johnson (2012) define the use of social media as the rate of to what extent social media is integrated into users' social behavior and daily routine, and the importance of correlation between emotional and the use of social media. A focus of measurement was developed to capture broader concepts that related to the attachment of using social media.

2.2 Mental Health

Veit and Ware (1983) also define that mental health as a condition that is not only seen based on there or not symptoms psychological pressure, but also some psychological characteristic that is influential in their lives. According to Veit and Ware (1983), mental health has two dimensions, namely:

1. Psychological distress

Psychological distress is an individual condition that explains the negative affectivity associated with mental health in an individual. Psychological distress is divided into three subdimensions, namely anxiety, depression, loss of behavioral and emotional control.

2. Psychological well-being

Psychological well-being is an individual condition that can explain the positive affectivity related to mental health in an individual. Psychological well-being is divided into two subdimensions namely positive effects in general (general positive affect) and emotional ties.

3 RESEARCH METHOD

Subject is from millennial generation, some individuals aged 19-39 years old in Aceh province. 391 subjects were 391 consisting of 136 males and 255 females. The data were obtained by online google form. The study used two measures, that is:

Social Media Use Integration (SMUIS) composed by Jenkins-Guarnieri, Wright, & Johnson in 2012. SMUIS consists of 10 items that are divided to two subscales, social integration and emotional connection subscale as well as integration into social routines subscale. SMUIS has 6 options from 1 (strongly disagree) to 6 (strongly agree), the higher score of which is 60 and the lowest is 10. The higher the score obtained shows the higher integration of social media usage, and vice versa. The reliability of SMUIS in this study is 0.78. Mental Health Inventory (MHI-18) was composed by Veit and Ware in 1983. MHI-18 consists of 18 items consisting of four subscales namely anxiety, depression, behavioral control, and positive effect. MHI-18 has 6 options from 1 (all of the time) to 6 (none of the time), the highest score is 100 and the lowest score is 0. The higher the score obtained shows the good psychological well-being, and vice versa. If getting low score, the level of psychological distress will be higher. The reliability value of MHI-18 in this study is 0.87.

Spearman Brown Formula technique, a correlation test method, was used to process the data in order to test the correlation between the use of social media and mental health with SPSS 20.0 software. Spearman Brown Formula was used in this research because assumption test in this research was not met in which research data were not normally distributed with value of Asymp.Sig. (2-tailed) 0.061 for MHI and 0.038 for SMUIS. The Data were stated abnormally distributed because value of Asymp.Sig. (2-tailed) of one of variables was lower than 0.05 ($p < 0.05$), according to Kolmogorov-Smirnov normality test.

4 RESULT

Table 1: Distribution of Percentage of Sociodemographic Factors

Socio-demographic Factors	Total	Percentage (%)
Sex		
Male	136	34.6
Female	255	65.2
Job Status		
Employee	144	36.8
Unemployed	247	63.2
Time of using social media (per-day)		
<30 minutes	14	3.6
30 minutes -1 hour	38	9.7
1-2 hours	38	9.7
2-3 hours	71	18.2
3-5 hours	93	23.8
>5 hours	137	35
Type of Gadget		
Computer	6	1.5
Laptop	5	1.3
Smartphone	377	96.4
Tablet	3	0.8

The research was conducted to 391 Aceh millennials consisting of 136 (34,6%) male and 255 (65,2%) female. Most of the subjects were unemployed for 247 subjects (63,2%) and the rests were employed at 144 (36,8%). Some subjects used social media for more than 3 hours per day. Subjects using social media 3-5 hours per day were 93 subjects (23.8%) and those using social media more than 5 hours per day were 137 (35%), this number has exceeded half of the subjects. while the rests used social media less than 3 hours per day. Gadget that was mostly used by the subjects was smartphones for 377 (96.4%), the other subjects used computers (1.5%), laptops (1.3%), and tablets (0.8%) to access social media.

Spearman Brown Formula testing was conducted to see the relationship between the intensity of the social media use and mental health in the millennial generation in Aceh. Decision making in the Spearman Brown Formula test can be conducted by looking at Sig. (2-tailed), if the significance score obtained from the data analysis is lower than .05 ($p < .05$), it can be concluded that there is a relationship between the variables. On contrary, if the significance score is higher than .05 ($p > .05$), there is no relationship between the two tested variables (Pallant, 2010). Based on the results of testing on the intensity variables of social media use with mental health, it shows a significance value of 0,000 ($p = .000$). This

significance value indicates there is a relationship between the intensity of social media use and mental health. Thus it can be concluded that the research hypothesis proposed in this study was accepted (ha accepted and ho rejected).

In addition, based on Spearman Brown Formula test, Correlation Coefficient score was -0.211 ($r = -0.211$). This score means that mental health and social media use has two-way correlation or are negatively correlated. This can be interpreted that the higher the intensity of social media use, the lower the level of mental health. Linearity test result of both variables also shows r-square score for 0.44 which means that social media use influence mental health for 44%.

Table 2: Overview of the subjects' intensity of social media use and mental health

Variable	Total	Percentage (%)
Intensity of using social media		
High	222	56.8
Low	169	43.2
Mental health		
High	43	11
Low	348	89

The table above shows the intensity level of social media usage and mental health of the subjects. 222 (56,8%) subjects are at high category of the intensity of social media usage, while other 169 (43,2%) are at low category. Most of subjects have low mental health at 348 people (89%) and the others at 43 people (11%) have high mental health. The data indicate that most of subjects in this research use social media in high intensity and have low mental health. The data are correlated with statistic test which shows that the high social media use negatively affects one's mental health.

5 DISCUSSION

The result of this research shows that the higher media social use the lower one's mental health. It is in accordance with several research that correlated low mental health with high psychological disorder such as depression, anxiety, loneliness, emotional adaptation ability and low self-esteem. Research by Shensa, Escobar-Viera, Sidani, Bowman, Marshal, & Primack (2017) and Davila (2012) found that the high social media use was correlated with the high depression symptom. The high intensity of social media use makes them ignore other constructive

aspects in life, so that it could lead to depression symptom. (Shensa, et.al, 2017). For example, engagement of social media makes an individual have shoth time to have face-to-face interaction and be involved in physical activity (Martinsen, 2008). Ono, Nozawa, Ogata, Motohashi, Higo, Kobayashi, Ishikawa, Ara, Yano, & Miyake (2011) found that the number of face-to-face social interaction is positively correlated with improving mental health. Physical activity does not only help prevent certain physical diseases, but also it has essential role in preventing and managing depression symptom (Paluska & Schwenk, 2000). It is because physical activity can activate endorphin secretion which could reduce pain and produce happiness (Paluska & Schwenk, 2000).

Another research is by Shensa, Sidani, Dew, Escobar-Viera, & Primack (2018) that found that the high social media use was correlated with the improvement of anxiety and depression symptoms. Social media usage activity is strongly related to sedentary behaviors. Sedentary behavior is an activity that involves sitting and standing position. (Ainsworth, Haskell, Whitt, Irwin, Schwartz, Strath, O'Brien, Bassett, Schmitz, Emplaincourt, Jacobs, & Leon, 2000). Research by Sanchez-Villegas, Ara, Guillen-Grima, Bes-Rastrollo, Varo-Cenarruzabeitia, & Martinez-Gonzales (2008) showed that the participants having high level of sedentary habits were 31% at risk suffering from mental disorder (depresi, bipolar, anxiety, or stress), compared to those with low sedentary behavior. Moreover, the social media use could cause fear of missing out in which an individual keep connecting in social media because fearing of missing information (Andreassen, Billieux, Griffiths, Kuss, Demetrovics, Mazzoni, & Pallesen, 2016). Thus, it makes possible to an individual to suffer from anxiety when being away from social media.

Screen blue light-caused sleep disorder could cause bad mental health. Blue light presses melatonin, drowsiness-producing substance from brain. Bad sleep could make an individual difficult to receive positive emotion because suffering from limitation in correctly processing certain neurotransmitters in the brain (Woodson, 2006), make an individual feel sad or unsatisfied. Insomnia is proven increasing the risk in developing depression (Cole & Dendukuri, 2003; Riemann & Vodeihoizer, 2005). Another research found that an individual with anxiety tends to suffer from difficulty of sound sleep compared to with no anxiety (Monti & Monti, 2000).

Besides anxiety and depression, the high social media use is also linked to loneliness (Lou, Yan, Nickerson, & McMorris, 2012). It is because the

mechanism of social media use is inclined to increasing the number of new friends than improving friendship more intense therefore it is difficult to have close friend. Social media probably can fulfill their social life, however it is still unclear whether they can meet emotional need until it is emotionally satisfying. Moreover, social media use is correlated with the low emotional adaptation (Kalpidou, Costin, & Morris, 2011). That research showed that an individual with many friends in social media showed low emotional relationship so that one suffered from social adaptation difficulty, either emotional adaptation or academic adaptation. Social adaptation is directed to one's feeling of fitting and being satisfied in social relationship and social activity (Kalpidou, Costin, & Morris, 2011).

6 CONCLUSIONS

The results showed that there was a negative relationship between the intensity of social media use and mental health. This can be interpreted that the high intensity of social media use is related to the low level of mental health.

This research is certainly far from perfect so there are still some shortcomings, either because of the limitations of the researchers or in the implementation process. One of research's shortcomings is in the process of collecting data online which makes not all people have access to participate in this research. Moreover this research has uneven subjects number based on age. Although all subjects were millennials, the millennials above 30-year-old are few.

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