

# The Association Between Social Media Use and Mental Well-Being Among Vietnamese Adolescents

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**Abstract:** *Adolescence is a developmental stage that experiences an interaction among several factors including biological, psychological, and social sides that contribute to the overall well-being. In a technological advanced era, the emerge of social media takes up enormous attention of social concern that the use of social media is potentially associated with reduced interaction and isolation. However, in Asian context, little is known about the effect of social media on adolescent psychological well-being. According to social comparison theory (Festinger, 1954) and social cognitive theory (Bandura), people are driven to evaluate themselves with others and may find motivation to improve or feel dissatisfied, which was not justified in a virtual environment. This study explores the possible relationship between the social media patterns and adolescence well-being. Adolescence's well-being is measured by The Stirling Children's Wellbeing Scale (SCWBS) for emotional symptoms and psychological well-being and open data reflect personal perception on the topic.*

**Keywords:** Social Media, Mental Well-Being, Psychological, Socio-Cognitive

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## 1. Introduction

Adolescence is a critical period in physical and psychological development and prones are affected by external influences. Well-being refers to subjective happiness and psychological wellness. While some scholars considered well-being as a global construct, others included different blocks into this conception of individual's psychology to constitute models of well-being (Seligman, 2018; Ryff, 1989). In light of the philosophical stance, happiness was not the final lifelong purpose (Mill, 1989; as cited in Martin, 2008), which means it should not be achieved as an ending. Therefore, it is not astonishing that several studies investigated the factors to identify and improve the level of well-being (Bradburn, 1969; Leary, 2004; Ruff, 1989).

In recent years, the advent of social media has transformed the way people in general and teenagers in particular communicate and expose themselves to a virtual network as a channel to connect with society. Such activities have become a topic of concern whether it promotes social participation of teenagers or isolation (Primack et al., 2017). Efforts have been made to link the feature of screentime to the general health and well-being (Stiglic, 2019).

### **1.1 The relationship between Social Media Use and the level of Mental Well-being**

Multitudes of studies on the correlation between social media use and mental well-being have generated conflicting results. A number of published studies showed negative correlation between social media use and mental well-being of adolescents; in particular, greater screen times are associated with worsened emotional well-being. According to Twenge and Campbell (2018), after 1 hour of use, higher screen times result in lower psychological well-being, specifically increase in screen time is generally linked to progressively lower mental well-being. Likewise, high users of social media are considerably more prone to anxiety or depression (Seabrook, 2016; Yang et al., 2013). However, these studies' validity may be mitigated for being reliant on self-reported data which might not be completely reliable (Wilkinson & Parry, 2004). The study also focused on short-term associations rather than long-term effects; meanwhile, mental well-being is influenced by a complex interplay of factors over time, and a single snapshot may not capture the full impact of screen time on mental health.

Conversely, there are studies illustrating opposing views on social media use and mental well-being, indicating positive social media use impacts on psychological well-being, specifically, adolescent social media users gain greater life satisfaction in terms of finding companionship. In Oh, Ozkaya and LaRose's study (2014) on the correlation of online supportive interaction on adolescents' mental well-being, social media's companionship aspect has a direct positive correlation with life satisfaction. Other studies concluded the null effects or benefits of greater time spent on social media (Odgers, 2018; Przybylski & Weinstein, 2019). Social media use has negligible to no relationship with adolescents' total mental welfare - accounting for at most 0.4% of the variation in well-being (Orben and Przybylski, 2019), whereas other researchers reached the conclusion that negative effects from excessive social media use is only significant upon emotional well-being, which is the most current emotional state of an individual. Particularly, active social media use and network size are weakly or not associated with aggregated ill-being (Valkenburg, 2022). Moreover, some point out that social media might not have a longitudinal relationship between greater screen time and severe mental health problems therefore social media are rather indicators than direct culprits of mental-ill health (Beeres et al., 2021). Subsequently, the impacts of social media use on adolescents' mental well-being has not yet been defined in an unqualified manner.

### **1.2 Cultural Considerations in Vietnam**

Research on the association between excessive social media use and adolescents' well-being has been proliferating, yet has concentrated greatly on the Western society, sampling predominantly teenagers of this culture. Within the scope of well-being, limited examination on adolescents of their cultural counterparts, such as those in Asia (Thang et al., 2022). The collectivist culture of Vietnam and of Asia as a whole might contribute to considerable differences in the way adolescents in this country interact with social media. These discrepancies may have direct impacts on the outcomes for the relationship between excessive social media use and adolescents' mental well-being.

It was proposed by Nguyen et al. (2021) that Vietnamese adolescents predominantly use social media, in particular, Facebook as an aid to their studies as well as as a means of communication to parents and relatives. This aspect of social media use can enhance perceived social support in Vietnamese adolescents, improving their mental well-being, yet, it is likely that amidst a collectivist culture, Vietnamese teenagers might experience distress conforming to social pressures coming from both their peers and their higher ups.

### **1.3 Theoretical Framework**

#### **Social Comparison Theory**

The Social Comparison Theory, first proposed by Festinger (1957) suggests that individuals determine their own social and personal worth based on how good these criteria are compared to other people. The direct or indirect outcomes of social comparison process are closely related to the personal worth, motivation as element of the PERMA stable well-being model. Many following research found that people who regularly compare themselves to others may find motivation to improve (Rains & Keating, 2011). This study points out that engaging with social media communities where individuals share similar challenges and goals can foster a sense of belonging and support, positively influencing mental well-being. On the other hand, some may also experience negative feelings and consequences of constant comparison (Chou & Edge, 2012). According to their study, individuals who spent more time on Facebook believed that others were happier and had better lives, leading to increased feelings of envy and decreased life satisfaction. Through observation of Vietnamese adolescents, affected by the collectivist cultural pattern throughout their nurturing process, compare themselves with other individuals' display on various social media platforms.

#### **Socio-Cognitive Theory**

Social Cognitive Theory (SCT) (Bandura, 2001), provides insights into behaviorism, specifically proposing that behavior, cognition and environmental factors interactively influence an individual's actions and mental state. SCT emphasizes the dynamic interaction between individuals, their behavior, and their environments, in incorporating elements such as observational learning and self-efficacy. The study by Bandura (1986) concluded that when the behavior was rewarded (positive or negative reinforcement), humans are inclined to imitate; however, if the behavior is punished, imitation is less likely. This result is significantly more prevalent in the male children participants, who are long exposed to gender stereotypes such as boys are usually praised and are expected to show aggression throughout their nurturing process. This theory can elucidate how adolescents may react both physically and mentally to posts on social media, regarding environmental factors relating to their situations, in this case, the collectivist cultural pattern and online social network environment.

Available studies have provided a significant outlook on the relationship between social media use and mental wellness in adolescents, still, these studies have not yet been entirely representative of the whole population, as existing research has predominantly been conducted towards Western adolescents. The results and conclusion drawn therefore cannot be applied to adolescents of different cultures, in this case Vietnamese adolescents in Asia due to cultural differences.

In Vietnam, in recent years, the association between social media and mental health has received increasing attention. However, it is common that most research in Vietnam focuses on the negative approaches and effects of social media use on adolescents' mental health (Le, 2020; Minh, Anh, & Tan, 2023). This study therefore aims to reduce the gap by providing an investigation on the relationship between social media use and mental health amongst Vietnamese adolescents, considering the differences in culture along with a few other factors such as regions that could affect the correlation. Therefore, this study contributes an objective approach to this topic to verify previous studies' findings in Vietnamese context.

## 2. Methodology

### 2.1 Research Design

This research was conducted based on a mixed approach including both quantitative and qualitative methods. Using numerical and open data, we would investigate the correlation between social media use and mental well-being among Vietnamese teenagers. With this mixed approach, we could gain a more complete picture of the relationship between mental health and the time spent on social media use among Vietnamese adolescents (Matthews & Ross, 2010).

Data in this study was collected through an online questionnaire. By using an online questionnaire, we aimed at teenagers who had an electronic device connected to the Internet. Therefore, participants would have a high chance of using social media. This questionnaire consisted of four main parts including participants' demographic characteristics, social media use, self-rated mental well-being, and open questions. Each part of the questionnaire was designed clearly and written in Vietnamese in order to make sure that all participants could easily understand the questions. It took the students around ten minutes to complete the survey.

### 2.2 Participants

The survey was sent to Vietnamese students aged 16 – 18 with mixed genders who enrolled at high schools in different areas in Vietnam. To ensure statistical validity, a sample size of 200 students was at first targeted, representing diverse genders, ages, and living areas. However, this survey was conducted during summer holiday, so 128 students agreed to join in which 110 of them filled in enough information for the research. In this study, we took students living in four areas into consideration, including mountainous or remote, rural, suburban, and urban areas. We also took gender as a demographic characteristic.

### 2.3 Measures

Social media use was investigated in terms of types of social media and time spent on it. Participants reported which social media they used, including Facebook, TikTok, Instagram, YouTube, Zalo, and other social media. They are considered as popular social media in Vietnam at present. Adolescents' time spent on social media was measured by a time scale adapted from KUPOL study (Beeres et al., 2021). The respondents reported a Likert Scale of how much time they spent on these online platforms ranging from 0, 0.5 hour, 1, 2, 3, 4,5,6 to 7 hours or more per day.

Mental well-being was assessed using the Stirling Children's Wellbeing Scale (SCWBS), which is a validated tool designed to estimate children's mental well-being aged from 8 to 15 years old (Liddle & Carter, 2015). Although high school students in Vietnam are 16-18 years old, they are not familiar with the definition of mental well-being. Therefore, this scale was considered appropriate for them to understand the content of the survey. This scale was also available to use freely, so it was translated into Vietnamese to prevent any misunderstanding. The SCWBS included 15 positively worded short items in which 12 questions measured mental well-being and 3 others measured social desirability. Mental well-being consists of two sub components: Positive Emotional States to measure Emotional (Hedonic) Well-being and Positive Outlook to measure Psychological (Eudaimonic) Well-being. Each item on the SCWBS was rated on a 5-point Likert scale including: 1 (Never), 2 (Not much of the time), 3 (Some of the time), 4 (Quite a lot of time), 5 (All of the time). According to Liddle & Carter (2015), the score range of mental well-being was found from 12 to 60 with the mean score around 44. The SCWBS of this research had a high Cronbach alpha 's around 0.85, so it was considered reliable and internally consistent.

## 2.4 Data Collection Procedures and Data Analysis

This study met all the ethical requirements. The targeted participants were high school students who are over 16 years old, so only their consents were required. Participants fully understood that they could withdraw from this research when they felt uncomfortable. All data was anonymized to protect participants' identities. Although this online survey was anonymous and positively worded, advice for any mental wellbeing concerns from UNICEF were included as references for participants.

Data in our study was collected through an online questionnaire on Qualtrics XM, including closed and open questions. Qualtrics XM was a platform designed to help organizations gather, analyze, and act on data to improve experiences across various domains. It was widely used for surveys, feedback collection. In order to make sure that the online survey was easy to access and understand, it was piloted among five adolescents with their consents.

Collected data would be analyzed using Statistical Package for the Social Sciences (SPSS) version 27.0. Descriptive statistics including mean, standard deviation, percentages would present hours spent on social media as well as levels of mental well-being among Vietnamese adolescents. Tests of normality were used to investigate whether four variables including time spent on social emotional intelligence, mental/ emotional/psychological well-being, were normally distributed or not. In this research, tests of correlation were also employed to examine the relationship between time spent on social media use and mental/emotional/psychological well-being.

Open data in the questionnaire were analyzed to find out how social media influences adolescents' mental well-being. Common impacts of social media on teenagers's mental health would be found and presented using thematic analysis (Matthews & Ross, 2010).

## 3. Results

### 3.1 Demographic features of the participants

The participants were 110 high school students in Vietnam aged from 16-18 years old (Mean=16.7, SD=0.7). 41.8% of them were 16 years old while 47.3% of them were 17 years old. Only 10.9% of the participants were at the age of 18. More females ( 67.3%) than males (30%) completed this survey. The majority of the students lived in the urban area, which accounted for 70% of the participants. Meanwhile, the percentages of adolescents living in suburban area, rural area, and mountainous/remote area were respectively 14.5%, 14.5% and 1%.

### 3.2 Social Media Use

All of the participants used social media and even a range of types of platforms. Facebook was the most popular platform because 95% of them had an account. Zalo and Youtube were also really common because 94% and 91% of the students used these networks. 82% of the participants used Tiktok or Instagram while 35% of them used other kinds.

It was found out that Vietnamese adolescents spent a lot of hours on social media (Mean=4.7 and SD=1.9). From Figure 1, around 58% of the participants used online social platforms for more than 5 hours/day. Especially, more than 26% of them spent more than 7 hours a day online, which accounted for the biggest proportion. It could also be seen from Figure 2 that levels of time spent on social media were not normally distributed. Test of normality Kolmogorow-Smirnov confirmed this observation because  $p \text{ value} = 0.00 < 0.05$ .

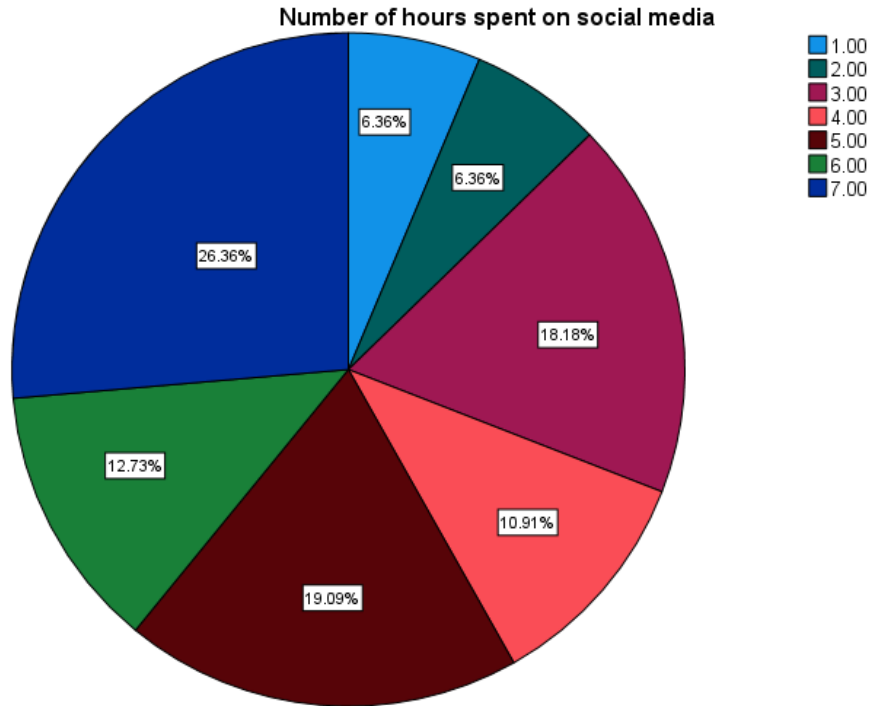


Figure 1: Number of hours spent on social media

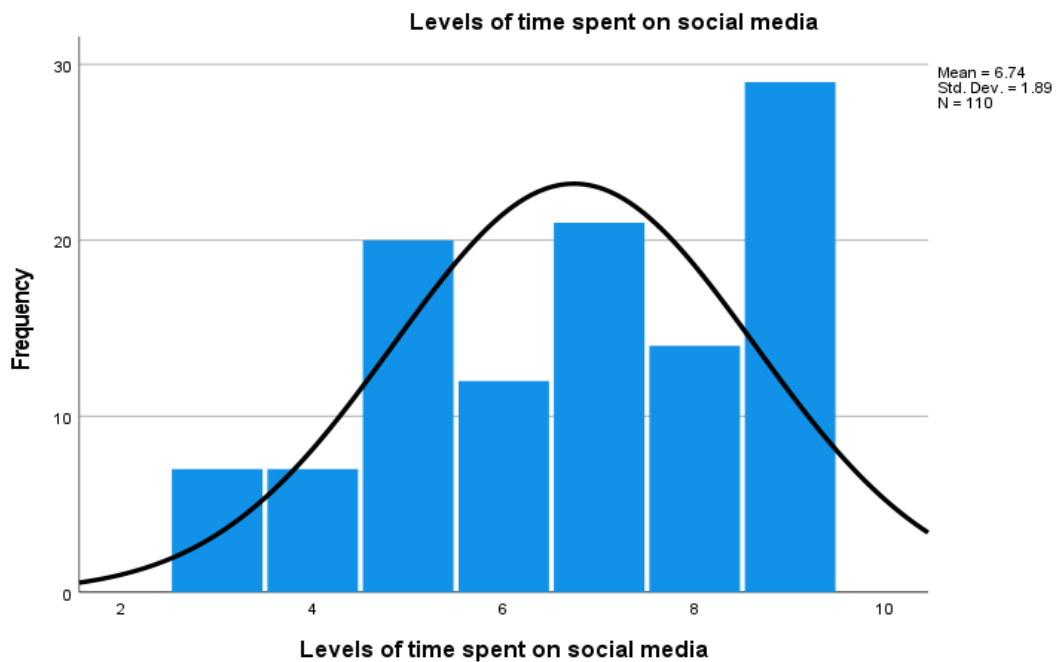
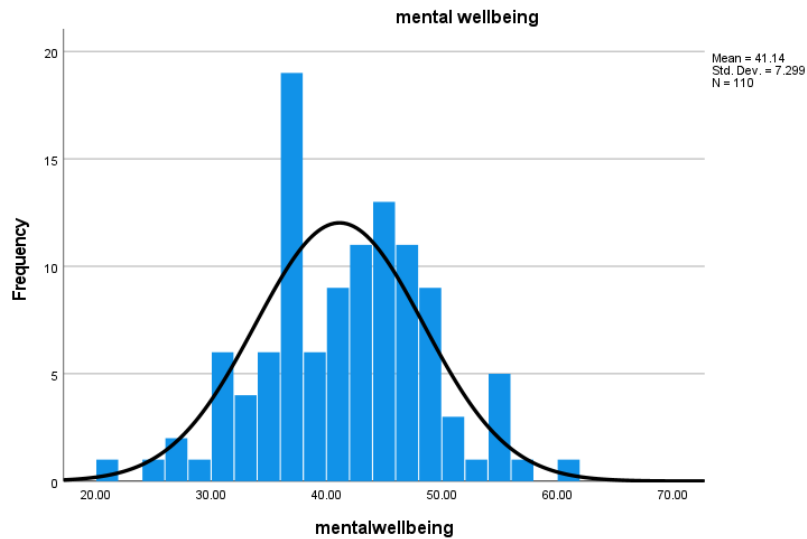


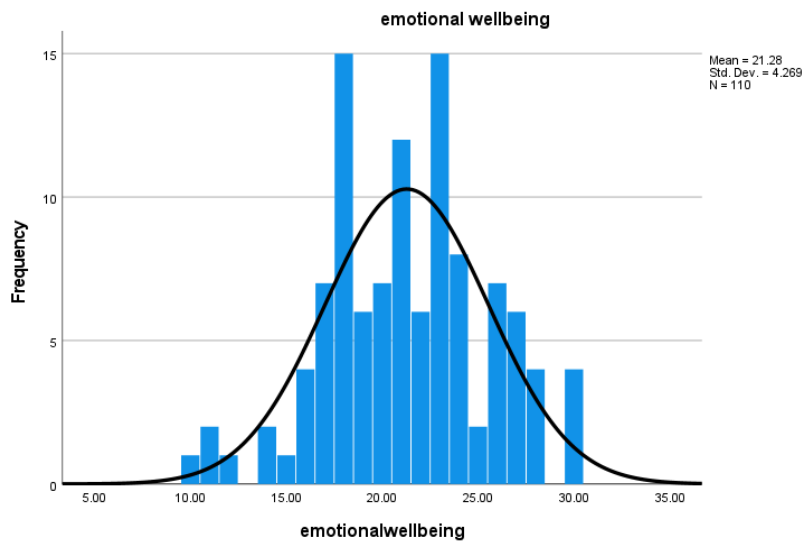
Figure 2: Distribution of levels of time spent on social media

### 3.3 Levels of mental well-being, emotional well-being, psychological well-being

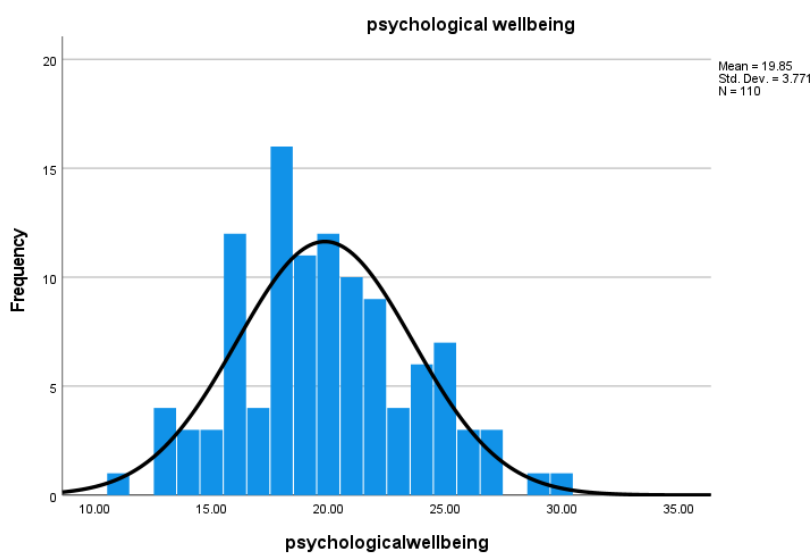
The mean score of Vietnamese adolescents' mental well-being in this research was 41.14 with a SD of 7.29. Meanwhile, UK adolescents had a higher level of mental well-being with Mean=43.95, SD 7.29 (Liddle & Carter, 2015). The mean (standard deviation) scores of emotional well-being and psychological well-being were 21.28(4.26), 19.85(4.77). Therefore, the participants had higher levels of emotional well-being than psychological well-being. Histograms for mental well-being, emotional well-being and psychological well-being were demonstrated in the following Figure 3, 4, 5.



**Figure 3: Distribution of mental well-being scores**



**Figure 4: Distribution of emotional well-being scores**



**Figure 5: Distribution of psychological well-being scores**

It could be seen from Figure 3,4,5 that all three variables (mental/emotional/psychological well-being) were normally distributed. This observation was affirmed by tests of normality Kolmogorow-Smirnov with all the p values=0.095, 0.088,0.051> 0.05.

### 3.4 Associations between time spent on social media and mental well-being, emotional well-being, and psychological well-being

Spearman’s Tests of Correlations showed a weak negative association between social media use and mental well-being ( $\rho=-0.19$ ,  $p=0.046<0.05$ ) and another weak negative relationship between social media use and emotional well-being ( $\rho=-0.24$ ,  $p=0.012<0.05$ ). However, there was no significant relationship between social media use and psychological well-being ( $p=0.348>0.05$ ). The associations between time spent on social media and mental/emotional well-being were also illustrated in the below scatter plots (Figure 6 & 7). In these figures, the dots appeared to locate around a diagonal line with downward sloping, which seemed to show negative correlations between social media and mental/emotional well-being.

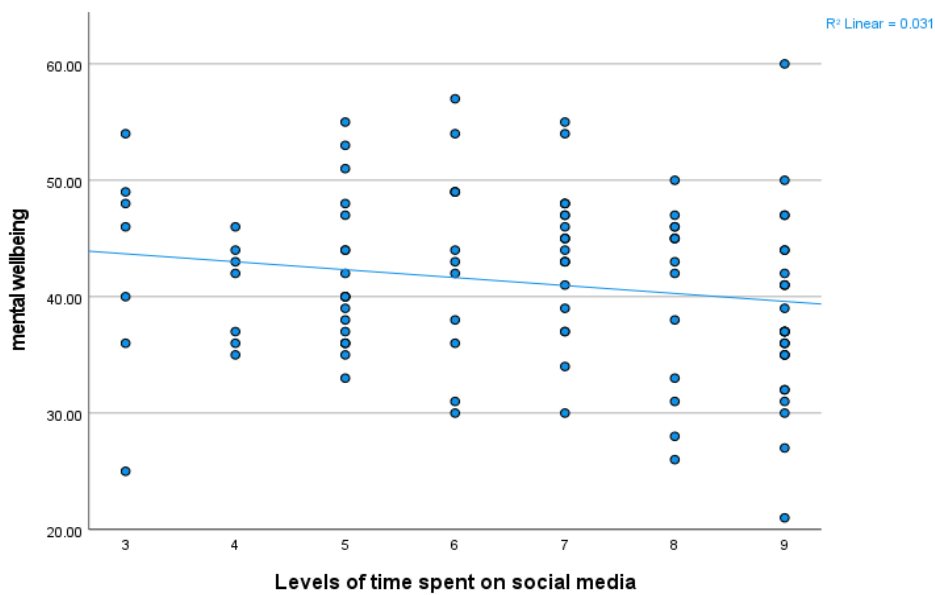


Figure 6: Association between time spent on social media and mental well-being

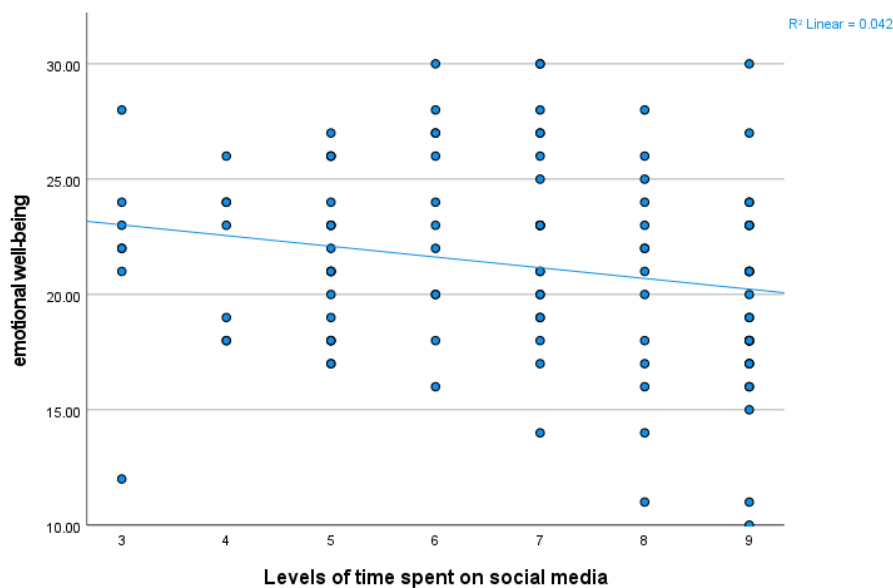


Figure 7: Association between time spent on social media and emotional well-being

### 3.5 Self-reported data about the association between social media use and mental well-being

In this research, participants were asked to report whether their mental health was influenced by the number of hours on social media. 70% of them answered "yes" while 30% of them said "no". 7% of the total participants described only positive influences such as happiness and relaxation; 3% of them mentioned both positive and negative impacts; 60% of them reported only negative consequences. Therefore, the correlation between social media usage from self-reported data was stronger than the one analyzed by Spearman's tests of correlation.

Adolescents from this survey shared five common negative influences of social media use on their mental health, including stress, depression, demotivation, peer pressure, and attention deficiency. For example, a student answered "When spending too much time on social media, I feel stressed, tired and lose motivation to do anything." Another student agreed: "Social media made me depressed and I do not want to do anything". A large number of students shared: "I felt upset when enquiring a lot of negative information on social platforms". Others experienced peer pressure when interacting online on social networking. Some students could not concentrate on their studies because of the distraction from social platforms. Because the researchers were not present when participants filled the questionnaire, several students also reported negative influences on physical health such as headache, backache, eye problems, and sleep deprivation.

## 4. Discussion

The research findings reveal that Vietnamese teenagers use a wide range of social media. Social media has become prevalent among the youth with 100% adolescences aged 16 to 19 use social media on a daily basis, which is higher than European context at 84% (Mediaråd, 2019). The screening time for social networking purpose (Mean=4.7 and SD=1.9) reflects regular use at higher frequency than US records (Mean= 2.70, SD= 1.53) (Twenge & Campale; 2018) for the same age group. However, this finding might be caused by the fact that 70% of the participants come from urban areas where there is a lack of outdoor spaces and activities for them.

Levels of mental well-being of Vietnamese adolescents (Mean=41.15, SD=7.29) are lower than those of UK teenagers (Mean=43.95, SD=7.29) (Liddle & Carter, 2015). This figure should be interpreted from cultural, familial and social context. The family structure and parental style in the Western country is differentiated with Vietnamese practice (Nguyen et al., 2021) and this may contribute to the perception of well-being. In previous research in both Vietnam and the UK it was indicated that the level of well-being reduced in accordance with late adolescence age group, which reflected the difficulty in adjustment to higher education phase. Therefore, it is anticipated that in the near future, participants in this study will be prone to a reduction in well-being level.

Adolescences present higher levels of emotional well-being than psychological well-being, reflecting better temporary satisfaction than eudaimonia in the long term. This shared a similar pattern with reports in European countries with more than 50% posing positive feeling and contemporary satisfaction (Lyyra et al., 2021).

In terms of theoretical approach, this study supported confirmation for the psychological theory of Socio-Cognition. A weak negative association between social media use and mental well-being ( $\rho=-0.19$ ), emotional well-being ( $\rho=-0.24$ ), which backs up previous research in Western contexts that social media use is associated with more mental health problems (Beers

et al., 2018). This finding extends the body of evidence for the Socio-Cognitive theory that mental condition is under collective influences of external factors including interaction on social media sites. However, it does not associate with the reduction in psychological sense of happiness as no significant relationship between social media use and psychological well-being. Therefore, social media can be and should be carefully regarded as a proximity instead of a defining factor for low level of well-being.

From the thematic response, it was evident that a majority of the students reported a relationship between social social media use and mental well-being (70%). Although a small number of them shared positive influences of social media on their mental health, most of them reported negative influences including stress, depression, peer pressure, attention deficiency, demotivation. From adolescent self-report answers, they are aware of negative influences on mental health; however, they still spend a lot of daily time on social media sites on a daily basis. This finding deserves further investigation for better understanding for the force, motivation or other confounding factors that initiate the habit of using virtual social media.

The present study was limited for several factors. Firstly, the sample was via online recruitment and not representative for the whole population. Thematic data from self-reported answers may mitigate the finding validity (Wilkinson & Parry, 2004). Also, the study was cross-sectional, which does not generate implications for a longitudinal scale. Lastly, the population needs a bigger sample size for finding reliability.

## 5. Conclusion

Based on the statistical evidence and self-report responses from participants, it is plausible to conjecture an association between higher frequency in using social media with lower level of emotional well-being among adolescents in Vietnam. Therefore, it can be concluded that from a theoretical approach, this study findings back up the Socio-Cognition theory and Social Comparison theory. Besides, it extended the literature in the Vietnamese population to for national interpretation. However, it is apparent that psychological well-being is not correlated with the use of social media.

This study contributes to shaping public awareness about Vietnamese adolescence's well-being; hence, it is valuable input for constructing a practical program for well-being promotion among teenagers. Exploiting the provided fundamental data to support community representation and education managers encourage adolescents' well-being not solely by the terminology itself but through constructive components. In particular, the use of social media and elements of social media should be filtered and investigated as proximal elements of well-being constitution.

Future research should pay attention to other confounding factors that may define the social consequences of social media use. In addition, the differences in types of devices or the way adolescents use social media sites for in association with mental outcomes will also be a topic for clarification. Also, future studies should focus on the construct of well-being and varied indicators to identify explicit components to boost general level of well-being as a social target.

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