

FORMS OF SOCIAL MEDIA USE AND LEVEL OF DEPRESSION: THE CASE OF UNIVERSITY STUDENTS IN NAIROBI COUNTY, KENYA

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Abstract

Social media use has increased tremendously, with an estimated 3.5 billion users globally. Most people in the world use social media to pass, receive or acquire information or for entertainment. A significant number of that population comprise University students. There are various forms of social media use among university students. Many studies have linked social media use among university students to various mental health issues including depression. However, there are limited studies on the relationship between various forms of social media use and the level of depression. This study hence intends to cover this gap by investigating the relationship between forms of social media use (Facebook, WhatsApp, Twitter and Instagram) and the level of depression among university students in Nairobi County. The study was anchored on the social cognitive theory by Albert Bandura (1986) and Albert Ellis Cognitive theory of depression (1957). A correlational study design was utilized to guide the study. The target population was 196,718 students from public and private Universities in Nairobi County. A sample size of 383 participants was picked. Proportionate sampling technique was utilized to ensure a representative sample size from each of the four institutions. Stratified random sampling was then applied to guarantee that the respondents were well represented in various strata (gender, age, level of study). Simple random sampling was then employed to ensure equal distribution of participants from each stratum. The pilot study was conducted among 38 students from Jomo Kenyatta University of Agriculture and Technology. Data was gathered through a structured questionnaire and a Cronbach coefficient of 0.7 and above was used to test the reliability of the instrument. The Spearman Rank order correlation coefficient was employed to test the hypotheses. The finding revealed a significant positive correlation between Facebook utilization and WhatsApp use with level of depression, $r_s(350) = .126, p < .05$ and $r_s(350) = .170, p < .01$ respectively. On the other hand, the relationship between the use of Twitter and the use of Instagram and the level of depression was not statistically significant, $p > 0.05$. The study concluded that there was a statistically significant relationship between Facebook and WhatsApp and the level of depression while there was no statistically significant relationship between Twitter and Instagram and the level of depression among university students in Nairobi County. The study recommended that the University management should establish psycho-education strategies targeting specific social media forms like WhatsApp and Facebook that have a high frequency of utilization to ensure students understand their effects on their mental health.

Keywords – Social media use, Depression

Introduction

Technology has made the world a small village making it possible for people across the world to pass and receive information. Social media is one of the many ways communication globally is made possible. Young people highly utilize social media as compared to other populations (Hruska & Maresova, 2020). Students have conformed to use these platforms to acquire and pass social and academic information. Facebook, WhatsApp, Instagram, and Twitter are some of the major forms of social media use among university students (Alhabash & Ma, 2017). Due to its high and regular use, students can easily be addicted to some social media platforms. Addiction to social media is dangerous for it can interfere with the normal functioning of the students and in severe cases results in mental illness including depression (Kuss & Griffiths, 2017). Most university students spend the majority of their time comparing their lives with

their peers they see on these social media platforms hence predisposing themselves to depression (Pounders, Kowalczyk, & Stowers, 2016). Additionally, most university students are in their late adolescence and early adulthood when they are creating their identities. Currently, people can view the lives of their friends, peers, and other people they encountered in their lives unfold through social media (Thomas, Briggs, Hart, & Kerrigan, 2017). University students use various social media platforms to create identities they feel they want their peers and people who know them to see. Additionally, the majority spend quality time comparing their lives with those of others they see as perfect through social media platforms hence creating a risk for them to develop mental issues including depression (Pounders et al., 2016).

Several researchers in Kenya have revealed the use of various forms of social media by university students for various purposes. According to Chris (2015) students in Kenyan universities spend time on social media especially Facebook, WhatsApp, and Twitter highly even during lecture hours. Khamali and Thairu (2018) added that social media tools such as Facebook, WhatsApp, Twitter, and blogs resulted in better communication, collaboration, interaction, and knowledge sharing amongst the students in Kenyan universities. Further, Ogaji, Okoyeukwu, Wanjiku, Osiro, and Ogutu (2017) revealed that the majority of pharmacy students at Kenyatta University use Facebook and Twitter for less than 30 minutes daily but spend longer time on WhatsApp and YouTube applications. This study, therefore, intended to find out whether the use of these forms of social media is related to depression among university students in Nairobi County.

The forms of social media use and level of depression

Labrague (2014) investigated Facebook use and adolescents' emotional states of depression, anxiety, and stress and found that time spent on Facebook increased levels of depression and anxiety. Tosun and Kaşdarma (2019) assessed the relationship between passive Facebook use and depression and revealed that the frequency of upward Facebook use was associated with depression among undergraduates. Tandoc Jr, Ferrucci, and Duffy (2015) examined the link between Facebook use, envy, and depression among college students and discovered that Facebook uses for envy and surveillance of friends resulted in depression among college students. Gül, Fırat, Sertçelik, Gül, Gürel, and Kılıç (2021) evaluated the association between problematic WhatsApp usage among adolescents and its link to fear of missing out and discovered that problematic WhatsApp usage among adolescents was related to depression. Foroughi, Griffiths, Iranmanesh, and Salamzadeh (2021) explored the associations between Instagram addiction, academic performance, social anxiety, depression, and life satisfaction among university students and showed that there is a positive effect of Instagram addiction on social anxiety and depression among university students. Unruh-Dawes, Smith, Krug Marks, and Wells (2022) investigated differing relationships between Instagram and Twitter on Suicidal Thinking and revealed that Instagram and Twitter were associated with positive mental health. These researchers demonstrate that there is a link between forms of social media used by university students and levels of depression. Facebook use and depression among students seem to be investigated greatly as compared to other forms of social media and therefore there is a need to do more investigation on WhatsApp, Instagram, and Twitter in comparison with depression among university students. Additionally, the majority of these studies have been conducted in the west, there is a dearth of these studies in the African region and Kenya, and hence the current study intended to cover these study gaps.

Objective of the Study

To examine the relationship between the forms of social media use and the level of depression among university students in Nairobi County.

Hypothesis

H₀₁: There is no statistically significant relationship between the forms of social media use (Facebook, WhatsApp, Twitter, and Instagram) and the level of depression among university students in Nairobi County

Methodology

The study was conducted among 196,718 university students in Nairobi County. The study utilized the correlational research design to examine the relationship between forms of social media use and the level of depression. Multi-stage sampling technique was employed to obtain a representative sample of 383 respondents. Two public and two private universities were purposively selected for leading in ICT infrastructure (CPS, 2012). Proportionate sampling was utilized to ensure a representative sample size from each of the four Universities. Stratified random sampling was then utilized to guarantee that the participants are well represented in the following strata: gender, year of study, and age categories. Simple random sampling was then utilized to establish the participants that will take part in the study from each stratum. Data was gathered using a structured self-report questionnaire. The study objectives informed the development of the study questionnaire and therefore ensuring content validity of the study. The internal consistency approach was used to assess the study tools' reliability. A Cronbach coefficient of 0.7 or higher was required for the instrument to be considered reliable (Cronbach & Shavelson, 2004). From the reliability findings, the social media scale had a cronbach alpha score of 0.934, while the depression scale had a score of 0.937. Spearman Rank Order correlation was used to determine the relationship between forms of social media use and levels of depression. Data analysis was aided by SPSS Version 23.

Results and Discussion

The study first highlighted and discussed the forms of social media use followed by the level of depression and lastly the relationship between frequency of social media use and depression among university students in Nairobi County. The findings are outlined in sections 1.0- 3.0 as follows

The forms of social media use among students in Nairobi County

Table 1.0

Descriptive Analysis of Forms of Social Media Use

Facebook use	Frequency	Percentage	Min	Max	Mean	Std. Deviation
Low Frequency	122	34.7	0	4	2.22	1.299
Moderate Frequency	73	20.7				
High Frequency	157	44.6				
Total	352	100.0				
WhatsApp Use	Frequency	Percentage	Min	Max	Mean	Std. Deviation
Low Frequency	26	7.4	0	4	3.10	1.038
Moderate Frequency	89	25.3				
High Frequency	237	67.3				
Total	352	100.0				
Twitter Use	Frequency	Percentage	Min	Max	Mean	Std. Deviation
Low Frequency	115	32.7	0	4	2.04	1.192
Moderate Frequency	111	31.5				
High Frequency	126	35.8				
Total	352	100.0				
Instagram Use	Frequency	Percentage	Min	Max	Mean	Std. Deviation
Low Frequency	82	23.3	0	4	2.43	1.227
Moderate Frequency	84	23.9				
High Frequency	186	52.8				
Total	352	100.0				

As shown in table 1.0, a good number of the students (67.3%) had a high frequency of WhatsApp use, 52.8% had a high frequency of Instagram use, and 44.6% had a high frequency of Facebook use, while 35.8% had a high Twitter use. Findings on the mean and standard deviation established that on average the students had a high frequency of WhatsApp use 3.10 (SD=1.038), while the students had on average a moderate frequency of Facebook, Twitter, and Instagram use, 2.22 (SD=1.299), 2.04 (SD=1.192) and 2.43 (SD=1.227) respectively.

These findings indicate that WhatsApp is the most popular form of social media among university students followed by Instagram, Facebook came third, and lastly, Twitter. These findings indicate that Facebook which has been popular among students in the past is reducing its popularity while the recently discovered apps like WhatsApp and Instagram are gaining momentum.

These findings concur with past researchers who have already established that students use WhatsApp more compared to other social media platforms. A study conducted by Nagler, Ebner, and Schön (2015) revealed that WhatsApp was the most used form of social media at 46.56%, followed by Facebook at 35%, and Skype was last at 13%. Nagler et al., 2015 also added that when comparing WhatsApp and Facebook for purposes of learning, 70% of students utilized WhatsApp more intensely for learning than Facebook. Another investigation done by Hussain, Khan, Mahboob, Latif, and Waheed (2020) indicated that students engaged more on WhatsApp as compared to Facebook. Furthermore, Akintola, Bello, and Daramola (2016) did

a study that discovered that WhatsApp was the favorite social media platform among undergraduates.

The level of depression among university students in Nairobi County

Table 2.0

Level of Depression

Level of Depression	Frequency	Percentage	Min	Max	Mean	Std. Deviation
Mild depression	267	75.9	0	60	10.03	9.287
Moderate depression	66	18.8				
Severe depression	18	5.1				
Extreme depression	1	0.3				
Total	352	100.0				

As highlighted in table 2.0, a good number of the students (75.9%) experienced a mild level of depression, 18.8% had a moderate level of depression, while 5.1% had severe depression. The mean score for level of depression was 10.03 (SD = 9.287), demonstrating that on average, the students had a mild level of depression.

These findings disagree with a majority of past studies, past researchers seem to indicate that university students suffer from moderate to high levels of depression. There is a dearth of past studies that indicate that there is a low level of depression among university students. A study done by Sarokhani, Delpisheh, Veisani, Sarokhani, Manesh, and Sayehmiri (2013) on the prevalence of depression among Iranian university students showed that students experienced moderate levels of depression at 33. Another investigation by Ahmed, Negash, Kerebih, Alemu, and Tesfaye (2020) on the prevalence of depression among Jimma University students discovered that the prevalence of depression among the students was high with 28.2% of the student population having depression. Further, a survey by Naushad, Farooqui, Sharma, Rani, Singh, and Verma (2014) indicated that depression was reported among 79.2% of 308 students who took part in the study. A majority (41.2%) were found to be suffering from moderate followed by mild (26.6%) depression, hence students had moderate levels of depression. Peltzer, Pengpid, Olowu, and Olasupo (2013) did a study among university students in Western Nigeria and showed a prevalence of 7.0% severe depression and 25.2% moderate to severe depression. The study concluded that students had a moderate level of depression. A study done in Kenya by Othieno, Okoth, Peltzer, Pengpid, and Malla (2014) on the prevalence of depression among university students showed that the overall prevalence of moderate depressive symptoms was 35.7% (33.5% males and 39.0% females) and severe depression was 5.6% (5.3% males and 5.1% female).

Most of the past studies including some done among Kenyan university students have shown that students experience moderate to high levels of depression while the current study indicates a low level of depression among university students in Nairobi County. These findings might be due to increased awareness of depression among university students and also a pointer of effectiveness of support systems available to the students.

The relationship between Forms of Social Media Use and Level of Depression

Table 3.0

Relationship between Forms of Social Media Use and Level of Depression

		Level of Depression	
Spearman's rho	Facebook Use	Correlation Coefficient	.125*
		Sig. (2-tailed)	.019
		N	352
	WhatsApp Use	Correlation Coefficient	.170**
		Sig. (2-tailed)	.001
		N	352
	Twitter Use	Correlation Coefficient	.062
		Sig. (2-tailed)	.249
		N	352
	Instagram Use	Correlation Coefficient	-.022
		Sig. (2-tailed)	.676
		N	352

*. Correlation is significant at the 0.05 level (2-tailed).

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

Spearman rank-order correlation findings on table 1.0 indicates a significant positive relationship between Facebook utilization and WhatsApp use with level of depression, $r_s(350) = .126, p < .05$ and $r_s(350) = .170, p < .01$ respectively. The findings implied that increased levels of Facebook and WhatsApp use were correlated with increased levels of depression. The correlations coefficient score and level of significance for WhatsApp use were higher than that of Facebook use, indicating that level of depression was highly correlated with WhatsApp use as compared to Facebook use.

These findings differ from most of the past studies which seem to suggest that Facebook is highly associated with depression as compared to WhatsApp among university students. For instance, Tosun and Kaşdarma (2019) assessed the relationship between passive Facebook use and depression and revealed that the frequency of Facebook use was associated with depression among undergraduates. Tandoc Jr et al., (2015) examined the link between Facebook use, envy, and depression among college students and discovered that Facebook uses for envy and surveillance of friends resulted in depression among college students. Additionally, Gül et al., (2021) evaluated the association between problematic WhatsApp usage among adolescents and its link to fear of missing out and discovered problematic WhatsApp usage among adolescents with depression. The past studies might be concentrating on Facebook because it has been in existence for a long time as compared to WhatsApp. There is a need, therefore, to carry out more investigations on WhatsApp usage and its relationship with depression among university students.

On the other hand, the findings showed that the relationship between the use of Twitter and the use of Instagram with the level of depression was not statistically significant, $p > 0.05$. These findings reveal that university students in Nairobi County are utilizing WhatsApp more

followed by Facebook, Twitter, and Instagram respectively. Additionally, the findings indicate that high use of WhatsApp and Facebook was statistically correlated to depression among students in Nairobi County while there was no statistically significant relationship between Twitter and Instagram with depression.

These findings concur with past studies which have already found that there is no significant relationship between Twitter and Instagram use and depression among university students. The majority of studies on the two forms of social media use have indicated that the two forms have a positive impact on university students who use them. For instance, a study by Foroughi et al., (2021) explored the associations between Instagram addiction, academic performance, social anxiety, depression, and life satisfaction among university students and showed that there is a positive effect of Instagram addiction on social anxiety and depression among university students. Another study by Unruh-Dawes, Smith, Krug, Marks and Wells (2022) investigated the relationship between Instagram and Twitter on Suicidal Thinking and revealed that Instagram and Twitter were associated with positive mental health.

These findings might be so because the use of Twitter and Instagram among university students is not as rampant as the use of WhatsApp and Facebook. Future researchers should continue investigating these two platforms to examine whether the trend changes over time or it remains the same

Conclusion

The study concluded that there is a statistically significant relationship between WhatsApp and Facebook use and the level of depression. The study also concluded that there is no significant relationship between Instagram and Twitter and the level of depression among university students in Nairobi County. Students should therefore control how much time they spend on various forms of social media to ensure they do not negatively influence their mental health.

Recommendations

The study recommends that the University management should put in place psycho-education strategies targeting specific social media applications like WhatsApp and Facebook that have a high frequency of utilization. This would enlighten students on the effect of these forms of social media on their level of depression. This study also recommends that students engage more in face-to-face social activities which would help reduce their levels of depression. Since more literature seems to be focusing on Facebook and its relation to depression, future researchers should focus more on other forms of social media like Twitter and Instagram.

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