Demographic Differences in Online Social Networking Addiction among
Undergraduate University Students in Nairobi County, Kenya

Virginia Wanjiru Nyagah, Ph.D. in Counseling Psychology Candidate;
Sr. Sabina Mutisya, Ph.D; Ntabo Jared Anyona, Ph.D; and Stephen Asatsa, Ph.D.,
Department of Psychology, Catholic University of Eastern Africa

Abstract

The excessive use of social networking sites by undergraduate university students is very alarming as it has led to some developing addiction to online social networking. This has been supported by statistics showing that university students are spending a lot of time on social networking sites. The aim of the study therefore was to investigate demographic differences in online social networking addiction among undergraduate university students in Nairobi County, Kenya. The study adopted mixed method sequential research design. The target population was 34,405 undergraduate university students; from which a sample size of 385 respondents was obtained by use of Godden (2004) formula for calculating sample size. Data was collected using questionnaires and social media addiction scale (SMAS). Data analysis was done using univariate analysis. The study had several findings: first the study found that females (47.43%) were more addicted to online social networking compared to males (52.57%). The study also found that first years (24.57%) were more addicted to online social networking; while fourth years (18.86%) had the least addiction. The study further found that undergraduate university students in private universities sponsored by religious institutions (27.43%) were more addicted to online social networking, followed by public universities (41.43%) and undergraduate university students from private universities not sponsored by religious institution (31.14%). Finally, the study found that undergraduate students (22.57%) who spend more than 6 hours online are more addicted to online social networking; while those (6%) who spend less than 30 minutes online are less addicted to online social networking.

Key Words: Online Social networking, addiction, facebook, twitter, whatsapp, instagram

Introduction and background

Online social networking has revolutionized the communication industry, especially among the young people (Thomson, 2013). In today's society, young people have been found to be the most prolific users of online social networking sites (Christofferson, 2016). Christofferson further said that this form of communication has greatly increased in the last few years with many people relying on social networking sites such as Facebook, YouTube, WhatsApp, Instagram, Twitter and Snapchat among others to pass information and connect with others. Currently, the most popular social networking sites include Facebook, Twitter, Instagram, Snapchat and WhatsApp (Woo & Lee, 2017). Olufadi (2016) notes most of the users of these sites are subscribed to more than one platform.

Apart from communication, online social networking facilitates interaction of university students by making connections with friends within the university, and outside of school (Kirik et al, 2015). However, regardless of the positive side of SNS usage, Jeong and Kim (2017) report that concerns have emerged over their potential to be addictive as a result of excessive use. Statistics show that university students are spending a lot of time on social networking sites. For instance, Janvovic, Nikolic, Vukonjanski and Terek (2016) found that students in Serbia spend an average of 5 hours daily on Facebook and other social networking sites while in United Kingdom, about 50% of university students are firstly logged into Facebook every morning as soon as they woke up (Woo & Lee, 2017). Hormes (2016) found that 28.6% of undergraduate students in China are on social networking sites (SNSs) six hours per day.

Online social networking addiction involves spending too much time on social networking sites such as Facebook, Whatsapp, Twitter, Instagram and Snapchat among others so much that it interferes with other aspects of daily life (Pavlicek, 2013). Pavlicek further notes that someone who is considered to be an online social networking addict uses social networking site all the time and excessively. Some of the activities that someone who is addicted to online social networking engages in are checking status updates, stalking the profiles of other users for many hours daily and posting frequently. Choi and Lim (2016) pointed out that addiction to online social networking refers to spending too much time on SNSs.

A number of studies have been done to explain the signs that show someone is addicted to online social networking. For instance, Hong et al. (2014) found that online social networking addiction is often associated with neglect of basic drives, being tensed, being withdrawn, loss of sense of time, feelings of anger, and depression when the computer or the device they use to access these sites is inaccessible. In support of these findings Norharlina (2016) who found that online social networking addiction can lead the addict in experiencing school absenteeism, lying, fatigue, decreased job productivity and social isolation. Norharlina further says that this form of addiction can also translate to low self-esteem, boredom, depression or attention-deficit hyperactive disorder.

Online social networking addiction is an emerging global problem especially among university students. For instance, in the United Kingdom, about 50% of university students are firstly logged in Facebook every morning as soon as they woke up (World Facebook Statistics, 2015). Different studies show statistics of how university students are addicted to online social networking. For example, Mohammadi, Valinejadi, Saman, Karimpour, Kaivanfar, Safaeipour and Kawyannejad (2018) carried out a cross section study to assess the addiction to internet, smartphone and social networks among students of medical sciences in Kermanshah University in Iran. The sample size comprised 350 respondents who were selected by random and cluster sampling techniques. Social network addiction questionnaire was used to measure addiction to social networks. The scale's items scoring was based on a five-point Likert scale (from 5=always to 0=rarely). Scoring for the scale was classified into three categories; score of 1 to 25 represented a normal user, score 26 to 49 indicated that one is about to get addicted to social networks and scores from 50 to 75 indicated that one is addicted to social networks. The levels of addiction were classified into normal users, those who were exposed to the addiction and addicted users to social network. The study found that the majority (53.9%) of respondents were exposed to addiction to social networks. This was followed by 36.4% who were normal users and 9.7% who were addicted to social networks. The study concluded that those addicted to social networking sites were 30.79%.

Kirik et al (2015) conducted a survey type quantitative research to determine the level of social media addiction among young people in Turkey. The study also aimed at suggesting ways of preventing the addiction. The target population for the study was teenagers aged 13-19 years enrolled in a state high school in Gaziosmanpaşa district of İstanbul province in Turkey for the 2014-2015 second term. The sample size for the study comprised of 271 respondents. Social Networking Status Scale (SNSS) was used to measure social media addiction among young people. Independent-Samples T-Test and One-way Analysis of Variance were used to analyze the data. The study found that with respect to gender, there was no significant difference (t=0.406; P>0.05) between social media addiction and gender. These findings were inconsistent with Tang, Koh and Gan (2017) study which found that female students were significantly more likely to be addicted to social networking in comparison with male students (OR = 1.543, 95% CI = 1.329-1.791).

With respect to the amount of time respondents spend on social media, the study further found that there was a significant difference (F=44.036; P<0.05) between social media addiction levels and the amount of time people spend on the Internet. This was interpreted to mean that social media addiction levels increased with the increase in daily time spent on the Internet. More findings of the study revealed that there was a significant difference (F=53.56; P<0.05) between social media addiction levels of people and the daily frequency of visiting social media profiles. This was interpreted that social media addiction levels increased with increase in daily frequency of visiting social media profiles.

Tang, Koh and Gan (2017) carried out a study to investigate addiction to internet use, online gaming, and online social networking among young adults in China, Singapore, and the United States. The sample size for the study was 3267 undergraduate students aged between 18 and 25 years. Psychological instruments were used to assess various Internet-related addictions and depressive symptoms. The study found that female students were more likely to be addicted to social networking in comparison with male students (OR = 1.543, 95% CI = 1.329-1.791), and the rates of social networking addiction were 27.8% and 37.3% for male and female students, respectively.

A study by Al-Menayes (2015) used cross-sectional survey design to examine dimensions of social media addiction among university students in Kuwait. The target population was college students doing mass communication at a large state university in Kuwait. The sample size for the study comprised of 1327 undergraduate students who were purposively selected. Young's (1996) internet addiction scale was used to measure the social addiction among university students. Factor analysis was done to understand the dimensions of social media addiction among university students. Three factors were formulated to show the dimensions of social media addiction. In the first factor, the item in the scale which had the highest mean was "I think about social media when I am away" (mean= 3.03; SD= 1.24). In the second factor, the item with highest mean was "I find myself using social media longer than intended" (mean= 4.20; SD= 0.95). Finally, in the third factor, the item which had the highest mean was "I find life boring without social media" (mean=3.98; SD= 1.09). The study further found that social media addiction had three independent dimensions; user's experience; time spent on social media and satisfaction derived from social media. The study concluded that the majority of university students in Kuwait are addicted to social media.

Ahmer and Tanzil (2018) carried out a cross-sectional survey study to determine the frequency and intensity of Internet addiction among social networking sites users among medical undergraduates of Karachi. Pakistan. The target population was students from a public medical college (Jinnah Sindh Medical University) and a private medical college (Liaquat College of Medicine and Dentistry). Open Epi software was used to estimate the sample size which comprised of 340 respondents. Internet addiction was measured using Young's Internet Addiction Test. Chi Square test was used to see whether there are significant differences between gender, public and private colleges with respect to internet addiction. The study found that females were more addicted (57.4%) to internet compared to males (42.5%). The study further found that this difference was statistically significant (p= 0.02). With respect to the differences in the type of college and internet addiction, this study found that respondents in government medical college had higher frequencies (43.2%) of internet addiction compared to respondents in private medical college (41.7%) although the difference was not statistically significant (p=0.45)

Similar studies have been done in Africa to find the extent to which university students are addicted to online social networking. For instance, Idubor (2015) adopted the expost-facto research design to investigate social media usage and addiction levels among undergraduates in University of Ibadan, Nigeria. The population of the study comprised of all undergraduate students in the University of Ibadan, Nigeria. The sample size was 907 undergraduate respondents. Social media utilization and addiction questionnaire was used to collect data. The study found that the mean of the level of social media addiction among undergraduate students was 2.96 which is greater than the mean of 2.50 set for a higher level of social media addiction. The study concluded that there is a high level of addiction to social media among undergraduate students in University of Ibadan, Nigeria.

Dau (2015) similarly conducted a study to assess the level at which students are addicted to social media in Northern Nigeria. The target population for the study was students in four tertiary institutions in Katsina state Nigeria: Federal College of Education Katsina, Katsina University Katsina, The Hassan Usman Katsina Polytechnic and Ummaru Musa Yaraduwa University. A sample size of 800 respondents were sampled to take part in the study. The study found that the majority (55.5%) of the respondents are strongly addicted to social networking sites. This was followed by 28.4% of the respondents who were moderately addicted and 16.1% who were not addicted to SNSs. The study concluded that the majority of students in tertiary institution are strongly addicted to SNSs usage.

Otu (2015) carried out a quantitative study to investigate social media addiction among students of the University of Ghana. The target population was students of the University of Ghana from whom a sample size of 200 respondents from four colleges: College of Education, College of Basic and Applied Sciences, College of Humanities and the College of Health Sciences of the University of Ghana was selected. Data was collected using questionnaires and internet addiction test (IAT) scale. The study found that the majority (35%) of the respondents spend four or more hours on social media daily. This was followed by 17% who spent two hours and one hour on social media respectively on a daily basis. The least (15.5%) of respondents spent less than an

hour on social media daily. This was followed by 15.5% who spent three hours on social media daily.

To test social media addiction by university students, Otu (2015) used IAT which had 13 statements which respondents were asked to respond in terms of frequency of behavior that fit them best. They were rated on a five Likert scale starting from not Applicable to always and then scored from 0 to 5 respectively. The scores of each respondent were then added and then classified into four categories in order to get the level of addiction to social media. The four categories were 0 – 14 points to imply none, 15 – 29 points to imply mildly addicted, 30 – 59 points to imply moderately addicted and 60– 80 points to imply severely addicted. The study found that the majority (45%) of respondents were moderately addicted. They were followed by 36% who were mildly addicted and 19% who were not addicted to social media. The least (1%) of respondents were found to be severely addicted.

A'lamElhuda and Dimetry (2014) conducted a descriptive, analytical cross-sectional institutional-based study to investigate the impact of Facebook and other social networks usage on academic performance and social life among medical students at the University of Khartoum, Sudan. The target population for the study was medical students from the Faculty of Medicine. Stratified random sampling technique was used to select a sample size of 275 respondents. Data was collected by the use of structured questionnaires. The findings of the study revealed that university students reported that they visit social networking sites when lectures are going on. Further, they reported that they don't concentrate in class or in the laboratory as a result of using social networking sites.

In conclusion, the studies reviewed revealed that irrespective of the methodology and various scales used for measuring addiction to internet and certain social media platforms, the results show that university students are addicted to online social networking. The majority of the studies have used internet addiction scale but this proposed study will use social media addiction scale, questionnaires and interview guides to find out the level of addiction towards online social networking and see whether similar findings will be replicated with Kenyan university student

population. Finally, mixed method research design approach will be used to bring in the strength of both quantitative and qualitative studies.

Methodology

The study adopted a mixed method sequential explanatory research design. The target population for this study was undergraduate university students enrolled in seven selected universities and their respective counselors in Nairobi County. Nairobi County. The study used both probability and non-probability sampling methods at various stages.

Under probability sampling, stratified sampling technique was used to classify the universities into three strata: public universities, private universities sponsored by a religious institution (church) and private universities not sponsored by a religious institution. Simple random sampling was used to select two public universities, two private universities sponsored by a religious institution (church) and three private universities not sponsored by a religious institution. Multistage sampling technique was then used to classify different schools/ faculties of the randomly selected universities into groups.

From each university, one school/ faculty was randomly selected to participate in the study. Further multistage sampling technique was used to classify different departments from the randomly selected faculty from each university. One department was then randomly selected. From the randomly selected department, cluster sampling technique was used to classify students into four clusters depending on the year of study. From each cluster, stratified sampling technique was used to divide the students into strata comprising males and females. From each stratum, simple random sampling technique was used to obtain the sample size for the study. This was guided by Godden (2004) formula used to calculate the sample size of each university. The sample size for the study was 385 respondents. Data was collected by use of social media addiction scale (SMAS). A pilot study was done to pre-test the research instrument in order to ascertain the validity and reliability of the instrument. Reliability was found to be .823. Data collected was systematically organized and cleaned by checking whether all the questions have been filled so as to carry out the analysis. Data was coded and entries into SPSS version 22 done. The outcomes of the coded data were tallied, tabulated, analyzed and summarized. Data was

analyzed by univariate analysis. Logistical and Ethical Considerations were observed during the whole process of conducting the research.

Results

Data were collected using questionnaires and social media addiction scale (SMAS).

SMAS was used to measure online social networking addiction.

Type of Social Networking Sites Accounts used by Respondents

The study sought to find out the type of social networking sites respondents use. The respondents were asked to indicate the type of social networking site account they use. The frequency and percentage of respondents' type of social networking site account they use was then computed. Table 1 shows the findings of the frequency and percentages of the type of social networking site accounts the respondents have.

Table 1: Type of Social Networking SitesAccount used

Type of Account	Frequency	Percentage
Facebook	332	18.16%
Twitter	298	16.3%
Instagram	308	16.85%
WhatsApp	347	18.98%
Snapchat	243	13.29%
YouTube	300	16.41%

Table 1 shows that the type of social networking site account owned by the majority of respondents was WhatsApp with a percentage of 18.98%. This was followed by Facebook (18.16%) and Instagram with 16.85%. The social networking site account owned by the least number of respondents was Snapchat (13.29%) followed by twitter with 16.3% and You Tube with 16.41%.

The study also sought to find out online social networking addiction levels according to type of account owned and used. Social media addiction scales (SMAS) was used to measure addiction to online social networking. To measure the different levels of online social networking addiction, the total scores on social media addiction scales (SMAS) were added. Since the scale consisted of 14 questions which were rated on a five-point Likert scale: strongly agree, agree, neutral, disagree, strongly disagree, and scored 5, 4, 3, 2, and 1 respectively, the minimum score was 14 and the maximum score was 70. The scores were then transformed into three categories and analyzed. The categories of online social networking addiction were: a score of 14-28 points would indicate an average online user, a score of 29-43 would indicate a mildly addicted user and a score of 44-70 would indicate a severely addicted user. Table 2 shows the findings of online social networking addiction levels according to type of account used.

Table 2: Online Social Networking Addiction Levels according to Type of Account Used

Levels of Online Social Networking Addiction		Facebook	Twitter	Instagram	WhatsApp	Snapchat	YouTube
Normal User	Mean	3.00	3.83	3.89	1.92	4.65	3.18
	Frequency	22	18	18	24	17	17
	Percentage	6.63%	6.05%	5.84%	6.92%	7.00%	5.67%
Mildly Addicted User	Mean	2.72	3.17	2.40	1.55	3.61	2.34
	Frequency	143	128	131	150	93	128
	Percentage	43.07%	42.95%	42.53%	43.23%	38.27%	42.67%
Severely Addicted User	Mean	2.38	3.09	2.42	1.53	3.69	2.50
	Frequency	167	152	159	173	133	155
	Percentage	50.30%	51.01%	51.62%	49.86%	54.73%	51.67%
Total	Mean	2.57	3.17	2.49	1.56	3.73	2.47
	Frequency	332	298	308	347	243	300
	Percentage	100	100	100	100	100	100

Table 2 shows that respondents who used Snapchat (7%) had a higher mean of normal addiction levels to online social networking (mean= 4.65) while those who used WhatsApp (6.92%) were found to have lower levels of addiction to online social networking (mean=1.92). Similarly, respondents who used Snapchat (38.27%) were found to have higher mean (mean= 3.61) of mild addiction to online social networking while those who used WhatsApp (43.23%) had lower mean of mild addiction levels to online social networking (mean=1.55). Lastly, severe levels of addiction to online social networking were found with respondents who used Snapchat (54.73%) with a mean of 3.69 while respondents who used WhatsApp (49.86%) had lower levels of severe addiction to online social networking (mean=1.53).

This shows that, among the listed social networking sites listed, use of snapchat was found to lead to respondents' experience of all levels of addiction to online social networking. However, there was no major statistical difference in terms of mean of the different levels of addiction to online social networking between use of Snapchat and other listed social networking sites. Hence, any of these listed social networking sites can lead to either normal, mild or severe addiction to online social networking. The researcher observed that even if fewer respondents were found to use Snapchat compared to other social networking sites, higher means of addiction to online social networking were recorded in the three levels among these respondents.

The study sought to find out demographic differences such as gender, year of study and type of university in online social networking addiction among undergraduate university students. First, the study sought to find out the gender differences in online social networking addiction among undergraduate university students. Table 3 shows the findings of gender differences in online social networking addiction among undergraduate university students.

Table 3: Gender Differences in Online Social Networking Addiction among Undergraduate University Students.

	Gender of Participant	Frequency	%	Mean	Std. Deviation
Total Addiction Scores	Male	184	52.57	42.80	9.947
	Female	166	47.43	43.44	10.631
	Total	350	100	43.11	10.267

Table 3 shows that females (47.43%) are more addicted to online social networking (mean= 43.44; SD= 10.631) compared to males (52.57%) who had a mean= 42.80; SD= 9.947. This means that both genders were mildly addicted to online social networking because according to the levels of addiction in SMAS, they got a mean score of between 29-43 in social media addiction scale indicates a mildly addicted user. The study also sought to find out online social networking addiction among university students with respect to year of study. Table 4 shows findings of online social networking addiction among university students with respect to year of study.

Table 4: Year of Study Differences in Online Social Networking Addiction Among Undergraduate University Students

Year of Study	Frequency	Percentage	Mean	Std. Deviation
First	86	24.57%	44.53	9.161
Second	89	25.43%	42.34	10.058
Third	109	31.14%	43.63	11.394
Fourth	66	18.86%	41.41	9.831
Total	350	100	43.11	10.267

Table 4 shows that first years (24.57%) were more addicted to online social networking (mean= 44.53; SD= 9.161) followed by third years (31.14%) with a mean= 43.63; SD= 11.394. The year of study with the lowest (mean= 41.41; SD= 9.831) possible addiction to online social networking were fourth years (18.86%) followed second years (25.43%) with a mean= 42.34;

SD= 10.058. According to the Social media addiction scale (SMAS) levels of addiction, first years can be classified as being severely addicted because they got a mean between 44-70 in SMAS which indicate severe addiction. On the other hand, second, third and fourth years can be classified as mildly addicted. This is because they got a mean which is between 29-43 in SMAS which indicates a mildly addicted user

Online social networking addiction among undergraduate university students according to the type of university was also sought. Table 5 shows the findings on the online social networking addiction among undergraduate university students according to the type of university.

Table 5: Online Social Networking Addiction among undergraduate university students According to Type of University

Type of university	F	%	Mean	Std. Deviation
Private (sponsored by religious institution)	96	27.43	20.45	9.799
Private (not sponsored by religious institution)	109	31.14	17.21	8.392
Public	145	41.43	18.29	9.210
Total	350	100.0	18.55	9.193

Table 5 shows that undergraduate university students in private universities sponsored by religious institution (27.43%) were more addicted to online social networking (mean= 20.45; SD= 9.799). They were followed by public universities (41.43%) with a mean= 18.29; SD= 9.210. The least possible addicted to online social networking are undergraduate university students from private universities not sponsored by religious institution (31.14%) with a mean= 17.21; SD= 8.392. However, according to levels of addiction in SMAS, all the respondents in the three types of universities can be classified as being normal. This is because they scored a mean between 14-28 in SMAS which indicates an average online user. Online social networking addiction differences according to the time spent online was also sought. Table 6 shows the findings of social media addiction differences according to the time spent online.

Table 6: Online Social Networking Addiction Differences According to Time Spent online

Time Spent Online	Frequency	percentage	mean	Std. Deviation
Less than 30 Minutes	21	6%	38.65	12.516
From 30 Minutes-1hour	49	14%	38.73	11.311
1-2 Hours	60	17.14%	39.92	9.769
2-3 Hours	61	17.39%	43.26	10.206
3-6 Hours	80	22.86%	45.24	7.784
More than 6 Hours	79	22.57%	47.30	9.624
Total	350	100.0	43.15	10.277

Table 6 shows the findings of online social networking addiction differences according to the time spent online. The undergraduate students (22.57%) who spend more than 6 hours online are more addicted to online social networking (mean= 47.15; SD= 9.624) while those (6%) who spend less than 30 minutes online are less addicted to online social networking (mean= 38.65; SD=12.516). This can be interpreted that respondents who use less than 30 minutes to 3 hours can be classified as being mildly addicted to online social networking while those who spend more than 3 hours online can be classified as being severely addicted to online social networking.

Discussion

The findings of this study showed that females (47.43%) were more addicted to online social networking (mean= 43.44; SD= 10.631) compared to males (52.57%) who had a mean= 42.80; SD= 9.947. Probably the reason behind this could be that the features the social networking sites (SNSs) have or activities respondents carry out on these sites which encourage females to use SNSs more compared to males. For instance, Instagram and Facebook provides platform for people to post photos and activities they engage in. Females are found to post more photos compared to males. As a result of this, females keep on checking their SNSs accounts to see

whether their friends are liking the photos they post. If they find more likes, they post more and as a result they become addicted to online social networking.

From these findings, it can also be interpreted that both male and female respondents had a mean above average for online social networking addiction. This means that even if females

are more addicted to online social networking, also males are addicted to online social networking to some extent. This is because unlike females who are fond of posting photos, males use SNSs in other ways like watching YouTube videos. Finally, it can be interpreted that both male and female respondents are mildly addicted to online social networking. This is because they scored a mean of between 29-43 of SMAS which implied mildly addicted.

In support of these findings is a study by Tang, Koh and Gan (2017) on addiction to internet use, online gaming, and online social networking among young adults in China, Singapore, and the United States. The study found that female students were more (37.3%) likely to be addicted to social networking in comparison with male students (27.8%). However, disagreeing with these findings is a study by Kirik et al (2015) which sought to find the level of social media addiction among young people in Turkey. The study found that gender (t=0.406; P>0.05) made no significant difference in social media addiction.

The study also found that first years (24.57%) were more addicted to online social networking (mean= 44.53; SD= 9.161) while fourth years (18.86%) had the lowest (mean= 41.41; SD= 9.831) possible for addiction to online social networking. Fourth years had the lowest mean probably because at this stage of schooling they are dedicating a lot of their time to books and academics due to the fact that they have realized they are about to finish school and would like to have good grades by the time they graduate. On the other hand, first years were found to be more addicted to online social networking compared to other classes because they have just joined university and have a lot of freedom away from parents and would like to see what the social networking sites have as they are the ones trending among university students.

These findings disagree with Guraya, Almaramhy, Al-Qahtani, Guraya, Bouhaimed and Bilal (2018) study which sought to measure the extent and nature of university students use of social

networking sites in medical education (SNSME). The study found that fourth-year students mean for use of social networking sites was significantly higher (790) than other years. They were followed by third years (651) and second years (623). The class with least mean (534) was for first years followed by fifth years (626).

From the findings of year of study differences, it can also be interpreted that all classes had a mean above average for online social networking addiction and all the classes are mildly addicted to online social networking except the first years who are severely addicted to online social networking. This is because according to the classification of levels in SMAS scores, score of 29-43 would indicate a mildly addicted user where the majority of classes are unlike first years whose score was between 44-70 which indicated they were severely addicted.

With respect to the type of university, the study found that undergraduate university students in private universities sponsored by religious institutions (27.43%) were more addicted to online social networking (mean= 20.45; SD= 9.799). They were followed by public universities (41.43%) with a mean= 18.29; SD= 9.210. The least possible addicted to online social networking are undergraduate university students from private universities not sponsored by religious institutions (31.14%) with a mean= 17.21; SD= 8.392. Undergraduate university students in private universities sponsored by religious institution were found to be more addicted to online social networking than those in other institutions. Probably the reason behind this could be the facilities the institutions have put in place to facilitate learning and students take advantage of it to access social networking sites. These findings disagree with a study by Ahmer and Tanzil (2018) which was carried to determine the frequency and intensity of Internet addiction among social networking sites users among medical undergraduates of Karachi. Pakistan. The study found that respondents in government institutions had higher frequencies (43.2%) of internet addiction compared to respondents in private institutions (41.7%). However, the difference was found not to be statistically significant (p=0.45). The findings of this study also show that the respondents in all universities had a mean below average for addiction to online social networking. The reason behind this could be that all the universities try to put

restrictions in terms of internet use installed by universities where they allow it for academic purpose only. Lastly, the findings of this study reveal that all respondents in the three types of universities are average normal users of social networking sites (SNSs). This is because according to SMAS scores, an average normal user of SNSs scores 14-28 points which respondents from all the three types of universities scored.

Finally, the findings of online social networking addiction differences according to the time spent online revealed that undergraduate students (22.57%) who spend more than 6 hours online are more addicted to online social networking (mean= 47.15; SD= 9.624) while those (6%) who spend less than 30 minutes online are less addicted to online social networking (mean= 38.65; SD=12.516). It can be interpreted from these findings that, all respondents irrespective of the time they spend online, obtained a mean above average for online social networking addiction. Also, according to scoring in SMAS, those who spend less than 30 minutes, from 30 minutes – 1 hour, 1-2 hours and 2-3 hours respectively are said to be mildly addicted to online social networking. This is because they scored 29-43 points in SMAS which implies a mild addicted user of social networking sites. The study further interpreted that those who spend 3-6 hours and more than 6 hours online respectively were severely addicted to online social networking. This is because in SMAS scoring, a person who scores 44-70 points implies that he or she is severely addicted. Finally, the study concluded that the more the time one spends on social networking sites per day, the more likely they will be addicted.

In support of these findings is a study by Kirik et al (2015) on the level of social media addiction among young people in Turkey which found that daily time spent on the Internet (F=44.036; P<0.05) and daily frequency of visiting social media profiles (F=53.56; P<0.05) made significant differences in addiction level. Whereby increase of daily time spent on the Internet as well as increase in frequent daily visits to social media profiles led to increase in the addiction as well.

Conclusion

The study concluded that WhatsApp was the most popular (18.98%) among respondents followed by Facebook (18.16%) and Instagram with 16.85%. Snapchat was the least popular (13.29%) followed by Twitter (16.3%) and You Tube (16.41%). The study also concluded that

use of Snapchat led to higher mean of normal, mild and severe addiction levels to online social networking (mean= 4.65, mean= 3.61 and mean=3.690 respectively while WhatsApp led to lower mean of normal, mild and severe levels of addiction to online social networking (mean=1.92, mean=1.55 and mean=1.53) respectively. However, there was no big statistical difference in terms of mean of the different levels of addiction to online social networking between use of Snapchat and other listed social networking sites. Hence any of these listed social networking sites can lead to either normal, mild or severe addiction to online social networking. The researcher observed that even if fewer respondents were found to use Snapchat compared to other social networking sites, higher means of addiction to online social networking were recorded in the three levels among these respondents.

Further, the study concluded that both genders were mildly addicted to online social networking. With respect to the year of study, the study concluded that first years and third years were mildly addicted while second years and fourth years were normal average online users. The study also concluded that the respondents in the three types of universities can be classified as being normal average online users. Finally, the study concluded that respondents who use less than 30 minutes to 3 hours can be classified as being mildly addicted to online social networking while those who spend more than 3 hours online can be classified as being severely addicted to online social networking.

Recommendations

The study recommends that psychologists need to design counseling interventions that are more holistic and inclusive in order to curb this problem. The study also recommends that the counselors and psychologists need to attend seminars, workshops or trainings in order to get more knowledge on this form of non-chemical addiction. The study also recommends that university students need to be enlightened more on healthier ways of using social networking sites in order to avoid addiction. Finally, the findings of this study revealed that respondents from universities sponsored by religious institutions were found to be more addicted to online social networking compared to respondents in public universities and private universities not

sponsored by religious institutions. Future studies should also explore the reasons behind this and possibly use qualitative approaches to get the subjective view of participants

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