

Relationships Between Technology, Social Media and Sexual Behavior Among University Students

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Abstract

Technology and social media nowadays has become a common phenomenon in this 21st century among youth. Everybody have their own technology which is smartphone and social media has been developed more from time to time until arouse the bad consequences among youth. This study aims to identify the relationships between technology usage and social media exposure towards sexual behavior among youth where the university students as the main focus. This study also lookup about the differences between gender male and female towards sexual behavior. This study applies quantitative methods that involved questionnaire distributions to respondents. A total of 250 students from The National University of Malaysia (UKM) had been recruited by using convenience sampling technique. The results of this study found there is a significant, positive relationship between social media exposure and sexual behavior and for technology usage there is no significant relationships towards sexual behavior. For gender differences there is no significant difference between male and female towards sexual behavior. The results showed sexual behavior has been developed because of social media exposure instead of technology usage. For gender differences showed that male and female have same sexual behavior.

Keywords: Technology, Social Media, Sexual Behavior, Students

Introduction

Technology and social media are known as an important communication platform among community especially youth. In the beginning, technology was developed to help people to ensure their job or task became more smooth and getting easy by using the right technology. But, nowadays technology become more advance for example from a big, immobile phone into smart phone that offers a lot of functions to the users just by clicking the options on the screen. Yet, with the development of a technology determine the advancement of social media together. Year by year the social media application become more high-end and there are tons of users in every applications. Examples of popular social media nowadays are Whatsapp, Instagram, Twitter, Facebook, Telegram, YouTube, Bigo Live, SnapChat, WeChat, TikTok, and

others. Social media that has most user are Facebook, Twitter (LiaRatnasari, 2014) and YouTube (Nonsi et al., 2015). Technology specifically is refer to the gadget and electronic devices such as smartphome, computer, laptop, tablet, smart watch and others. Both technology and social media have pros and cons of using it. If the person use it wisely, the consequences can turn positively and vice versa. Before the new era of smartphome, community just used television, newspaper, and telephone to get information and socialize with other people. After the improvement and innovation of technology, now we have smartphome that substitute the classic technology. Everything we can search by clicking the smartphome screen and get the information that we want faster than before. In addition, people can communicate conveniently with each other that far away from them.

Most of the social media user not onlyin Malaysia. But, also in all over the world. Most of the users used social media to share about their life, task and job, and personal andfamily matter. Also nowadays many countries have developed a better experiencetowards internet network and for now there are a few companies already developed 5G network. This development can ease the people to access whatever information they want beyond limit. However, with these developments also can bring bad consequences to individual. Based on thisstudy, sexual problem that refer to sexual behavior is the most critical thing that happened among youth because oftechnology and social media usage. Sexual behavior is refer to any sex things that someone do to another person andthe person feel free towards the behavior. Thus, based on this research, the technology andsocial media, sexual behavior specifically refer to the sexting, phone sex, video call sex,and live stream sex which is known as virtualexual behavior. From virtual sexual behavior can lead to reality sexual behavior which are kissing, couple sleep, masturbation, dating, touching partner, and the worst impact is sexual intercourse.

Social media can bring high risk towards sexual behavior and sexting among youth (O'Keeffe et al., 2011). This matter alsohas been support by other researchers such asBrown (2009) that had stated explicit media that contains sexual matter can give sexual influences towards thinking and behavior.Technology that have a better internet experience can give an impact towards sexual, belief, behavior, and sexual terror (Owens et al., 2012). Most of youth nowadays use social media to get socialize with friends, partner orother people. Therefore, youth especially university students must know the awareness about the usage of technology and social media. This awareness can enlighten the youth from using technology and social media for negative things including sexual contents. In connection with that, this study aims to examine the relationships between technology and social media towards sexual behavior among university students.

Methodology

Respondent background: Respondents recruited for this research are about 250 university students with range age from 19 to25 years old. The selection of the respondentsis based on convenience sampling technique.Majority of the respondents are Malays with a total 217 respondents followed by 14 respondents of Chinese, Indian 7 respondentsand others 12 respondents. The total respondents for both genders are quitebalance between male and female which is male 108 respondents and female 142 respondents. Most of the respondents are single in relationship status followed by six married respondents and one divorce. From the total of the respondents, 115 respondentsare from urban areas followed by suburban

areas with 70 respondents, village areas 56 respondents and nine respondents from urban centers.

Research Design

The design for this research is quantitative approach with the use of questionnaire method. The questionnaire was translated from English to Malay language to make the respondents more understand about the items. The distribution of the questionnaire is based on the agreement between researcher and respondents. Cross sectional study was applied in this research to ease the research to make generalization of the result.

Measures

The original version of all questionnaires are from English language. Then, the questionnaire was translated into Bahasa Melayu to make respondents more understand the items and get a better results. A pilot test was conducted before the real data collection and a few corrections were made to make sure the instruments are good to use. A total of 30 students were volunteered in the pilot study and the questionnaires were distributed manually by researcher. After the pilot study and following the suggestions and some modifications were made, then a set of Malay version questionnaire was completed.

There are four instruments employed in this research as follow:

i. Mobile Phone Involvement Questionnaire (MPIQ)

This instrument was used to measure the usage of technology which is smartphone and developed by Walsh et.al (2010). This instrument has eight items using 7-point Likert scale which is 1= strongly disagree, 2= disagree, 3= quite disagree, 4= neutral, 5= quite agree, 6= agree, and 7= strongly agree.

ii. Cell Phone Use Survey

This instrument was used and being combined together with MPIQ as one section. This instrument was developed by Walsh et.al (2011) and consists of 'fill in the blank' answer items. The items are all about the frequency of smartphone usage and time spent using smartphone every day.

iii. Social Media Questionnaire (SMQ)

This instrument has been modified from original version which is Facebook Intensity Scale by Ellison et.al (2007). The modification was done by inserting a few social media application other than Facebook. There are 11 items that measure about social media exposure or usage by respondents and plus four items about the duration of social media usage. This instrument used 5-point Likert scale which is 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, and 5= strongly agree.

iv. Brief Sexual Attitudes Scale (BSAS)

This instrument is the short version of Sexual Attitudes Scale that had been developed by Hendrick and Hendrick (1987) and even it is the different version, it still measure the sexual behavior. There are four dimensions of sexual behavior such as permissive (10 items), birth control (3 items), communion (5 items), and instrumentality (5 items). This instrument also use 5-point Likert Scale which is 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, and 5= strongly agree. The result of reliability for all three instruments are good. The reliability of

Mobile Phone Involvement Questionnaire (MPIQ) is 0.80 while for Cell Phone Use Survey has reliability 0.68. Reliability for Social Media Questionnaire (SMQ) is 0.83 and for Brief Sexual Attitudes Scale (BSAS) is based on each dimensions. Reliability for permissive is 0.93, birth control 0.84, communion 0.71, and instrumentality 0.77. Overall reliability is 0.88.

Results

Table 1 showed the demographic information of the respondents for this research which consists of gender, age, race, faculty, marital status, and accommodation environment. Majority respondents are Malay with total 217 students followed by Chinese 14 students, others 12 respondents, and Indian 7 respondents. Also, for gender male and female are quite balance in total which is 108 and 142 respondents. Range age of the respondents are 19 to 25 year old with

22 year old as the majority respondents (42.8%) and least age is 19 year old (0.4%). Most of the respondents are single in relationship with total 243 respondents followed by married 6 respondents and divorced 1 respondents. There 8 faculties in UKM for Bangi branch and most respondents are from Faculty of Social Sciences and Humanities (FSSK) with total 73 respondents and the least respondents are from Faculty of Law (FUU) 8 respondents. The last part for demographic showed the accommodation environment from urban with total 115 respondents followed by suburban 70 respondents, village 56 respondents, and city center 9 respondents.

Table 1
Respondents Demographic

Category		N	(%)
<i>Gender</i>	<i>Male</i>	108	43.2
	<i>Female</i>	142	56.8
<i>Age</i>	19	1	0.4
	20	23	9.2
	21	40	16.0
	22	107	42.8
	23	57	22.8
	24	9	3.6
	25	13	5.2
<i>Race</i>	<i>Malay</i>	217	86.8
	<i>Chinese</i>	14	5.6
	<i>Indian</i>	7	2.8
	<i>Others</i>	12	4.8
<i>Faculty</i>	FSSK	73	29.2
	FPI	32	12.8
	FPend	21	8.4
	FUU	8	3.2
	FST	22	8.8
	FEP	33	13.2
	FKAB	19	7.6
	FTSM	42	16.8
<i>Marital Status</i>	Single	243	97.2
	Married	6	2.4
	Divorced	1	0.4
<i>Accommodation</i>	Village	56	22.4
<i>Environment</i>	Suburban	70	28.0
	Urban	115	46.0
	City center	9	3.6

Table 2 showed mean score for instruments that used in this research. Mean score for Mobile Phone Involvement Questionnaire (MPIQ) is 34.21 (SD= 8.39) and for Social Media Questionnaire (SMQ) is 37.35 (SD= 7.27). For Brief Sexual AttitudesScale (BSAS) showed that the mean score for every dimensions which is permissiveness (17.92, SD= 8.21), birth control (10.47, SD=3.74), communion (14.23, SD= 5.82), and instrumentality (12.39, SD= 5.21). This study also showed the frequency of respondents that sent and received messages via a few applications. From the result showed that all the applications which is text, Facebook, Google+, Pinterest, Reddit, Snapchat, Tumblr, Twitter, Youtube, and others have total messages are from 0 to 20 messages per day. For call with most frequency respondents are from 0 to 5 calls for making call and receiving call per day. Average time that respondents spent towards smartphone usage per day are 6 to 10 hours followed by 11 to 15 hours, 0 to 5 hours, 16 to 20 hours, and more than 20 hours.

Table 2

Mean score for MPIQ, SMQ, and BSAS

Variables	N	Min	SD	Variance	Min	Max
Mobile Phone Involvement Questionnaire	250	34.21	8.39	70.36	12.00	56.00
Social Media Questionnaire	250	37.35	7.27	52.89	16.00	55.00
BSAS-Permissiveness	250	17.29	8.21	67.44	10.00	50.00
BSAS-Birth Control	250	10.47	3.74	13.99	3.00	15.00
BSAS-Communion	250	14.23	5.82	33.86	5.00	25.00
BSAS-Instrumentality	250	12.39	5.21	27.16	5.00	25.00

Majority of the respondents have more than 400 followers and friends on socialmedia with frequency 115 respondents and the least is 2 respondents that have below than 10 followers. For average time spent onsocial media per day showed that above 3 hours has most respondents followed by 2 to3 hours, 1 to 2 hours, 31 to 60 minutes, 10 to30 minutes, and the least one is below 10 minutes. There are 5 social media applications used by a lot of respondents andthe top three are Instagram with the highest frequency of respondents followed by Twitter, and Facebook. Whereas for Youtubeand Tumblr respectively have frequency 45 and 1 respondents. Normality test for all instruments showed that all of them have normally distributed data because all of the skewness and kurtosis values are within the range of -1.5 and +1.5 (Tabachnik & Fidell, 2013; Abdul Rahman, 2016). Table 3 shows the normality test result which include all the instruments and dimensions.

Table 3

Normality test for MPIQ, SMQ, and BSAS

Variables	Skewness	Kurtosis
MPIQ	-0.16	-0.09
SMQ	-0.23	0.14
BSAS- Permissiveness	1.31	1.34
BSAS- Birth Control	-0.69	-0.49
BSAS- Communication	-0.21	-0.94
BSAS- Instrumentally	0.12	-0.85

Table 4 shows the relationship between social media exposure towards dimensions of sexual behavior. The result shows that there is a significant, positive relationship between social media exposure and three dimensions of sexual behavior which is permissiveness ($r=0.242$, $p<0.01$), communion ($r=0.197$, $p<0.01$), and instrumentality ($r=0.161$, $p<0.05$). One of the dimensions is not significant in relationship with social media exposure that is birth control ($r=0.091$, $p>0.05$). Hence, overall there is a relationship between social media and sexual behavior. This shows that social media exposure can influence the sexual behavior.

Table 4

Correlation between Social Media Exposure and Dimensions of Sexual Behavior

Variables	Social Media
BSAS-Permissiveness	0.242**
BSAS-Birth Control	0.091
BSAS-Communion	0.197**
BSAS-Instrumentality	0.161**

* $p<0.05$, ** $p<0.01$

Table 5 shows the relationship between technology usage and dimensions of sexual behavior. The result shows there is no significant relationship between technology usage towards three dimensions of sexual behavior which is birth control, communion, and instrumentality. For permissiveness there is a weak relationship but significant. So, for overall, there is a relationship between technology and sexual behavior. From this result, technology does not give so much influences towards sexual behavior.

Table 5

Correlation between Technology Usage and Dimensions of Sexual Behavior

Variables	Technology
BSAS-Permissiveness	0.150*
BSAS-Birth Control	-0.025
BSAS-Communion	0.038
BSAS-Instrumentality	0.112

*p<0.05

Nevertheless Table 6 shows gender differences between male and female towards the dimensions of sexual behavior. T-test analysis was used and conducted to identify the gender differences with all four dimensions of sexual behavior. However, the result showed there is no gender differences between male and female towards all the dimensions of sexual behavior.

Table 6

T-test of Gender Differences Male and Female Towards Dimensions of Sexual Behavior

Variables	Gender	N	Min	SD	df	t
BSAS-Permissiveness	Male	108	18.65	8.59	250	1.22
	Female	142	17.37	7.89		
BSAS-Birth Control	Male	108	10.17	3.94	250	-1.13
	Female	142	10.70	3.58		
BSAS-Communion	Male	108	14.85	5.86	250	1.48
	Female	142	13.75	5.76		
BSAS-Instrumentality	Male	108	12.95	5.12	250	1.50
	Female	142	11.96	5.26		

Discussion

The result for this study showed there is no significant relationship between technology and sexual behavior and there is a significant relationship for social media and sexual behavior. The dimensions for sexual behavior are permissiveness, birth control, communion, and instrumentality. The concept of technology usage for this study is more focus on smartphone and mobile phone usage. The technology is always related to sexting behavior which involves the process of receiving and sending text or picture messages that have sexual contents from somebody that someone know or not. This study result also has been supported by Benotcsh et al (2013); Ybarra et al (2013) which is sexting was happened due to smart phone usage. On the other hand, there is also a study that showed no relation between technology and sexting that is Rice et al (2012) which had stated only a few respondents whose did sexting due to smartphone ownership. In terms of sexual intercourse, Ybarra et al (2013) stated majority of the respondents did the sexual intercourse as the consequences of sexting and this result also had been supported by (Rice et al., 2012). Therefore, based on the past study showed contrary finding compares to this study. This is due to the respondents itself

with their manner towards sexual issues. For this study, most of the respondents are female and they have closed attitude towards sexual matter. So, it is hard to get an ideal and accurate result about sexual behavior because they do not want to share about their sexual knowledge that leads to sexual behavior.

For social media exposure towards sexual behavior, the finding shows that there is a significant, positive relationship between both variables. There are three dimensions of sexual behavior that related with social media which is permissiveness, communion, and instrumentality. The relation of these three dimensions are weak but significant with social media exposure. Based on this study, there are three types of social media that popular and frequently used by respondents which are Instagram, Twitter, Facebook, and others. Others are refer to the applications that are newly launched and had not being mentioned by the past researchers. Lia (2014) stated that most of the respondents use Facebook and Twitter as a medium to socialize with others. In terms of sexual behavior, there are a few past studies that support the result of this study. Syamsulhuda and Winarti (2010) stated that majority of the respondents tend to sexually behavior due to access to social media contents. This finding also has been supported by Nonsi et al (2015) that stated social media exposure could give such a positive and negative consequences towards sexual behavior. So, past studies and this study have a similar finding towards social media and sexual behavior with permissiveness as the core dimension towards social media exposure. The exposure to social media is not accidentally happen but the respondents did it with their own purposes.

For gender differences, this study shows there is no significant differences between male and female towards dimensions of sexual behavior in overall. This finding also had been supported by Benotsch et al (2013) that stated male has similar proportion with female in sexting that leads to sexual behavior. But, different with a few others past studies which there is a significant difference between gender. Ybarra et al (2013) stated that female significantly different with male in sexting. Rice et al (2012); Jenny et al (2010) have same result which is male is more risky and tend to do the sexual activity rather than female. In general, the finding of this study and past studies quite similar and balance. The unsupported finding for this study may be because of the differences of cultural and religion factor of this country as compared to west countries. Both variables which is technology and social media tend to be influenced by dimension permissiveness for sexual behavior. The acceptance and openness attitudes of respondents towards sexual behavior is more affected by social media more instead of technology. So, this matter can be related with theories that are being used in this study which are Theory of Acceptance Model (TAM) Davis (1985) and Theory of Reasoned Action (TRA) that had been developed by (Ajzen and Fishbein, 1980). Also, through this study showed that most of the respondents still have sensitivity and closed attitudes towards sexual issues and they are reluctant to give opinion and ideas about the sexual issues thus affect the result for sexual behavior section. From result of the finding shows social media is a medium that can give a huge influences towards sexual behavior rather than technology usage. In addition, a lot of students use social media to ease themselves communicate and get socialize with others. But, the more easy access to internet and many other applications could be basic matter for structuring the curiosity about sexual. Austin et al (2018) found that bad internet usage could bring bad effects especially to sexual behavior which is sexual intercourse and the risky of lose control towards sexual behavior. Johnson (2016) add a few point which are every person used internet for 6 to 15 hours average every

week. It is getting worst to sexual behavior when the time spend on the internet are increasing from time to time.

Conclusion

Based on past studies and this study showed a little bit different of finding on technology and gender differences which there is no significant relationship between technology and sexual behavior and there is no gender differences male and female towards sexual behavior for this study but vice versa in past studies. This is due to several factors that may influence the result of this study. The first factor is cultural which is based on respondents' races. But, almost all races in Malaysia actually had been taught the similar things towards some issues as example sexual issues. Many parents educate their children to have sensitivity towards certain issues such as sexuality. In terms of religion, in this study most of the respondents are Muslim and of course the religious things make the believers to follow the rules in their religion. In Islam male and female cannot dating, and meeting in couple and these assumed to have sin if still doing it. So, these rules in religion make this research's respondents have limited knowledge about sexual matter. For other religions also have their own rules and regulations. But the believers maybe are not aware and bounded about it due to educational from parents. Therefore, these two factors can make a lot of change towards sexual knowledge and behavior then could give an impact to the result. For gender differences, most of the respondents are female in this study. So, most of them have closed minded towards sexual things. All the responses that had been collected, only a few responses could give the accurate information. In addition, based on the observation that happened during the study showed male tend to be more active about sexual issues rather than female. But, because of personal barrier that originate from cultural and religion factors make them feel uncomfortable to share their personal opinion.

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