

Utilization of digital devices as a tool for enhancing sexual and reproductive health awareness: an experience of undergraduates

Yuganthi Subasinghe¹, Migara Karunaratne¹, Nethra Senadhi¹
Department of Demography, University of Colombo, Sri Lanka

Abstract:

Today, digital technology has become an integrated part of lives, especially the lives of young population in Sri Lanka. And young people use digital technologies to seek sexual and reproductive health (SRH) information. In this context the this paper analyses how digital devices are being used by the university students of the Faculty of Arts in obtaining SRH awareness. The study is based on primary data collected in 2018 from hundred of final year university students by using purposive sampling method. Quantitative data were gathered in three aspects and data were collected by using self-administrated questionnaire. The results revealed that the main three reasons that the students use digital devices for getting SRH awareness were privacy, availability of updated information and easy accessibility. The students have used five types of methods to search SRH related factors and among them majority have used smart phones. The respondents utilized digital devices to watching heterosexual sex videos, homosexual sex videos, videos related to contraceptive methods and Etc. It revealed that curiosity was the main reason to search these sexual related videos through digital devices. It was disclosed that 70 per cent of the respondents satisfied about the digital devices and the main reason for satisfaction was the protection of privacy and the digital devices are used only by themselves so that they can search SRH related facts than the other devices. On the other hand some of the respondents were not satisfied about the digital devices because disturbs their education. Therefore it can be suggested digital technology can play a significant role in disseminating SRH knowledge to youth.

Key words: Sexual and reproductive health, utilization of digital devices, undergraduates

Introduction

Today, digital technology has become an integrated part of lives, especially the lives of young population in Sri Lanka. According to the Department of Census and Statistics (DC&S), percentage of internet usage of household population (aged 5-69 years) has increased dramatically and it was reported as 15.1 and 21.3 per cent in the years of 2016 and 2017 respectively (DC&S, 2017). Digital technologies are electronic tools, systems, devices and resources that store or process data (Green & Huang, 2016). These include social networking sites, video sharing, blogs, instant messaging, mobile

technology, virtual worlds, social media, online games and applications, multimedia, productivity applications, cloud computing, interoperable systems, and mobile devices. Young people use digital technology for gathering and sharing information, connecting with friends. Also it provides anonymous avenues for seeking sexual and reproductive health (SRH) information for youth. Use of digital devices among the university students is relatively high because student centered learning that happen in the current university system provide opportunity for the students to discover new knowledge by themselves. Therefore, most of the university students use different types of digital devices for their educational purposes. As a result, digital devices have become a tool for getting SRH education among university students.

In addition to traditional sources such as articles, magazines and books, new forms of sources have become important avenues for SRH education. SRH is a relatively broad topic which covers physical and psychological wellbeing as well as social, economic and cultural wellbeing of persons. Most of the researchers have often been cited online search engines as the first place that youth go for when they have questions about sex. Majority of the youth prefer to utilize online search engines such as Google, Bing, Yahoo and Ask.com to learn about birth control and sexual transmitted infections. However it is evident that the majority of youth are unfamiliar with specific sexual health education websites (Boyar et.al, 2011).

Some argue that internet provides a relatively safe space for youth to explore and to get a better knowledge on SRH and its' related issues (Stern, 2002). Therefore, two main concerns have been stressed by the researchers on the use of digital technology to learn about sex and sexual health. They are (a) the information assessed and/or receive may be inaccurate or misleading and (b) youth may rely on this form of information and turn away from real people in their lives who can communicate certain values about sex.

Objective

The main objective of this paper is to examine how digital devices are being used by the university students of the Faculty of Arts in obtaining SRH awareness. This main objective will be addressed by the following three specific objectives:

- to explore the digital devices they have used for getting SRH education;
- to study the SRH related information/facts which they have collected by using digital devices;
and
- to investigate their satisfaction on using digital devices for getting SRH education

Data and Methods

The study mainly based on primary data collected from the Faculty of Arts, University of Colombo in 2018. Sample represents hundred (100) final year university students in the Faculty of Arts and this sample includes both male (50) and female (50) students selected by using purposive sampling method. Data were collected by using self-administrated questionnaire. The quantitative data have been analyzed by using uni-variate and bi-variate analyses. Quantitative data were gathered in several aspects of (a) the digital devices they have used for getting SRH education (b) what are the information/facts collected through the digital devices and (c) their satisfaction of using digital devices for getting SRH education.

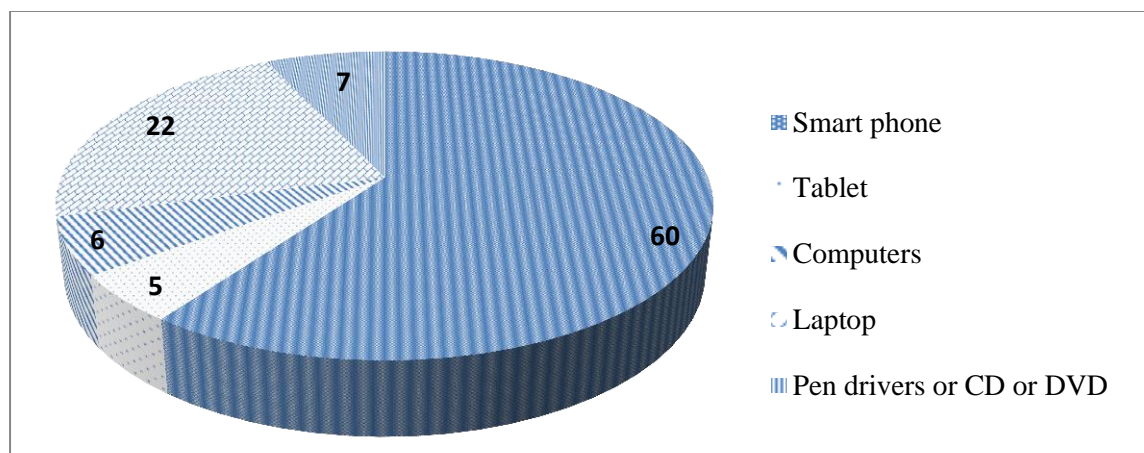
Results and Discussion

In general, the majority of the university students used to get SRH knowledge and awareness by using digital devices. The digital devices or other sources that they used for getting SRH awareness, nature of information/ facts that university students search related to SRH and satisfaction of using digital devices for getting SRH awareness were varied.

Nature of digital devices that university students used for getting SRH awareness

Students in the faculty of Arts have utilized printed sources and digital devices to gain SRH related awareness. Twenty per cent of the respondents mentioned that the printed sources provide more accurate and updated knowledge about SRH. Three major types of printing sources they used were newspapers (50 per cent), magazines (24 per cent) and books (26 per cent). Others (80 per cent) have stated that digital devices are more effective and updated than the printed sources to gain SRH knowledge. These students have used five types of methods to search SRH related factors. It is also found that 60 per cent of the respondents used smart phones which assisted youth to overcome barriers on getting SRH information and services (Williamson et al, 2009). Others used laptops, pen drives, computers and tablets in searching SRH related facts as shown in Figure 01.

Figure 01: Percentage distribution of digital devices used to search SRH related information among university students



Source: Sample Data, 2018

According to the respondents, protect privacy (64 per cent), mostly updated (5 per cent) and easy to access (31 per cent) were the main three reasons to use digital devices for getting SRH awareness. Therefore, more than 60 per cent of the respondents used smart phones to gain such advantages. Mobile health (mHealth) is the practice of using mobile phones to improve health behaviors, services and it specially apply the adolescence, because mobile phones offer privacy, convenience, and access. Global reproductive health programs are leveraging mobile phones to support adolescent health and through diverse communication formats that link adolescents to gathered information and services on a wide range of sexual and reproductive health topics (World Bank, 2012). Further, L'Engle (2016) suggested that providing SRH information via mobile phone is appealing, feasible, and culturally acceptable among youth. The study revealed that there is an ethnic difference on usage of digital devices to search SRH related facts. Among the Sinhala students, smart phones (58 per cent) and laptops were the most popular (23 per cent), but among the Tamil and Muslim students, smart phones was very useful for this purpose.

The place and the time that the students spent to use of digital devices to search about SRH were inquired in the study. More than half of the students (52 per cent) reported that they used digital devices at homes, 31 per cent at the boarding place/ hostels, 15 per cent at the university, and 2 per cent at the neighbors' homes. More than 60 per cent of the students searched alone and the others with their friends, neighbors and siblings. With regard to the time that they spent for searching, SRH related videos per week through digital devices, the majority of male and female students stated that they spent 1-2 hours per week (90 per cent females and 62 per cent males), as a results of the advantages of the digital devices such as easy to access, easy to handle and protect privacy.

According to the respondents, the mean age at starting to search SRH related factors through the digital devices was 24 years. With regard to gender disparities, it was found that there is a huge gap between male (16.4 years) and female (20.2 years) considering mean age of starting to search SRH for the first time. One third of the respondents have mentioned that they came to know about the accessibility to the SRH related factors through the digital devices from their friends for the first time and among them some of students shared the videos, facts and information related to SRH with their friends as a habitual activity.

Nature of SRH information/facts that university students search through digital devices

When considered the main SRH related areas that the respondents searched by using the digital devices, it is evident that more than half of the respondents used digital devices for watching heterosexual sex videos and finding the information (51 per cent) and the others used digital devices for watching homosexual sex videos/ information (1 per cent), videos / information related to contraceptive methods (10 per cent), pregnancy related videos/ information (34 per cent) and sexually transmitted diseases related videos/ information (4 per cent). In relation to the gender disparities, the study showed that males used digital devices to search SRH knowledge more than females such as male searched heterosexual sex videos/ information (76.5 per cent), homosexual sex videos/ information (100 per cent) and videos/ information related to contraceptive methods (100 per cent) more than females. Although all female students searched the sexually transmitted diseases related videos, none of the male students have not searched such videos.

Curiosity was the main reason (61per cent) for searching SRH related videos/information. Reasons and the types of information searched were interrelated and it is shown in table 01

Table 01: The types of information and the reasons of search SRH related videos/ information

Types of information			Motivation by the friends	Motivation by adult people	Motivation by girlfriend or boyfriend	Need of contraceptive knowledge	Curiosity	Total
Heterosexual sex videos/ information		Percentage (%)	31.4	21.6	2.0	9.8	35.3	100.0
		Number	16	11	1	5	18	51
Homosexual sex videos/information		Percentage (%)	50.0	0.0	0.0	0.0	50.0	100.0
		Number	1	0	0	0	0	01
Videos/ information related to contraceptive methods		Percentage (%)	50.0	0.0	0.0	0.0	50.0	100.0
		Number	5	0	0	0	5	10
Pregnancy related videos/ information		Percentage (%)	0.0	0.0	0.0	0.0	100.0	100.0
		Number	0	0	0	0	34	34
Sexually transmitted diseases related videos/ information		Percentage (%)	0.0	0.0	0.0	0.0	100.0	100.0
		Number	0	0	0	0	4	4

Source: Sample Data, 2018

It was found that motivation done by the friends, adult people, girlfriend or boyfriend affected to search of SRH related videos/information. On the other hand, the need of contraceptive knowledge and curiosity also affected as individual factors. Motivation done by the friends was the mostly affected reason than the other factors to search SRH related videos/ information.

With regard to the age that first time they searched SRH related information using the digital devices, 50 per cent of the respondents started to search heterosexual sex videos/information between the ages of 14-16. All the respondents have started to search videos/information related to contraceptive methods, sexually transmitted diseases related videos/ information at the age of 16 and 19. But after age 20, most of them attempted to search pregnancy related videos and information.

It was further revealed that they shared information that they have searched with the others as nearly 70 per cent shared with their friends and rest of the students shared with younger people, neighbors, and their boyfriend or girlfriend. Information they shared with others are shown in table 02.

Table 02: Types of information shared by the respondents with another people.

Types of information	Younger people Friends Neighbors Boyfriend or girlfriend Other						Total
Heterosexual sex videos and information	Number	6	34	11	0	0	51
	Percentage (%)	11.8	66.7	21.6	0.0	0.0	100.0
Homosexual sex videos and information	Number	0	1	0	0	0	1
	Percentage (%)	0.0	100.0	0.0	0.0	0.0	100.0
Videos and information related to contraceptive methods	Number	0	10	0	0	0	10
	Percentage (%)	0.0	100.0	0.0	0.0	0.0	100.0
Pregnancy related videos and information	Number	1	22	0	0	11	34
	Percentage (%)	2.9%	64.7	0.0	0.0	32.4	100.0
Sexually transmitted diseases related videos and information	Number	0	2	0	2	0	4
	Percentage (%)	0.0%	50.0	0.0	50.0	0.0	100.0

Source: Sample Data, 2018

While 69 per cent of the students shared the SRH related videos/ information with their friends, 7 per cent shared with the younger people, 11 per cent with neighbors and 2 per cent with their boyfriend or girlfriend. It was also found that all the students were familiar with the mobile phones through the Facebook, Viber, Imo, WhatsApp. Studies have demonstrated that mobile phones (mhealth) can be positively influenced on youth SRH outcomes by improving knowledge, reducing sexual risk behavior and increasing utilization of health services (Levine et al, 2008; Vahdat et al, 2013).

Satisfaction of using digital devices for getting SRH awareness

However, the accuracy of information gathered through the digital devices have a direct impact on their satisfaction related to SRH awareness. Eleven per cent of the students were highly satisfied with

the use of digital devices for gaining their SRH awareness. More than 50 per cent of respondents were moderately satisfied about the use of digital devices. Further, the findings showed that, 30 per cent of the university students were not satisfied regarding the use of digital devices for gain their SRH knowledge. It may be due to the inadequate use of digital devices or scared to use such devices for searching SRH related facts.

When analyzing the satisfaction of using digital devices by gender and sector it showed that 6.1 per cent of rural respondents (students who came from rural areas) were highly satisfied while 50 per cent of the respondents were moderately satisfied. It is important to note that while 44 per cent of rural respondents reported that they were not satisfied of using digital devices for enhancing their SRH knowledge, none of the students in the urban sector reported that they were not satisfied. However, findings showed that 76.5 per cent of urban respondents were moderately satisfied and 23.5 per cent were highly satisfied of using digital devices. It can be fairly assumed that this may be due to the urban and rural disparities of using technological and digital devices.

In many situations, gender plays a major role in making differences. While 20 per cent of males were highly satisfied of using digital devices, there were no highly satisfied females. However, as in same percentage (60 per cent) of males and females were moderately satisfied of using digital devices for improve their SRH knowledge. It is significant that 20 per cent of males and 40 per cent of females were not satisfied of using digital devices. Compared to male respondents, more females had a negative attitude of using digital devices as a source of gaining their SRH knowledge.

Reasons for satisfaction of using digital devices for gaining SRH knowledge, are given in Table 05. It shows that the majority (46 per cent) of the respondent's main reason for satisfaction was the protection of privacy and the digital devices can be use lonely to search SRH related facts than the other devices. It is interesting to note that most of students' attitudes towards the use of digital devices for searching SRH related facts are more advanced. Secondly, more than one third (35 per cent) of the respondents have mentioned that easy accessibility is one of reasons for the satisfaction. Nineteen per cent of the respondents mentioned that main reason for the satisfaction is that it improves their knowledge. Most of the students used digital devices as a tool for improving their knowledge.

When it comes to the reasons for not satisfaction, 43 per cent mentioned that it may affect the prevalence of STDs. It showed that most of the respondents have some knowledge regarding the prevalence of STDs in society. These type of attitudes will be useful for them to protect from STDs, especially from HIV/AIDS. Because, the addiction of searching sexual related videos and links will impact on practicing them in real world and it will become more risky for both male and females for having STDs.

Table 03: Reasons for satisfaction and not satisfaction of using digital devices for enhancing SRH awareness

Satisfaction		Not satisfaction	
Reason	Percentage (%)	Reason	Percentage (%)
It improves knowledge	19	It effects for studies	22
Easy accessibility	35	It causes for neglect from society	27
It safe privacy and it can be used to study lonely.	46	It causes for having mental stress	08
		It can affect for prevalence of STDs	43
Total	100	Total	100

Source: Sample Data, 2018

In an academic perspective, 22 per cent of respondents stated harmfulness of digital devices for their studies as the main reason for dissatisfaction is using digital devices. It is important to note that the majority (86 per cent) of the respondent who have given this reason are females.

This study further investigated the opinions about using digital devices for enhancing their SRH awareness. More than half (58 per cent) of the respondents mentioned that easy access to recent updated information as the main reason for they use of digital devices. Also 12 per cent of respondents' opinion was smart phones and tablets are the most protective devices that they can use as digital devices for enhancing their SRH knowledge than other devices. Most of respondents like to protect their privacy when they search SRH related facts. While 16 per cent of respondents mentioned that using digital devices will cause unsafe behaviors, 14 per cent mentioned that digital devices are not a proper mechanism to improve SRH related awareness. Most of the respondents (76 per cent) who reported that digital devices are not a proper mechanism, suggested to establish a proper mechanism to increase SRH related books, improve accessibility to accurate SRH related visuals and videos and restrictions for inaccurate SRH and sexual related videos and websites.

Conclusion

The study concludes that the majority of university students use digital technology for gathering information and getting knowledge on SRH. Smart phone was the most effective digital tool used by the university students for getting SRH knowledge. Protect privacy is the main reason to use digital devices for getting SRH awareness. The respondents mean age at starting to search SRH related factors through the digital devises was 24 years. Majority of the respondents used digital devices for watching heterosexual sex videos and finding information about sex. More than 50 per cent of respondents were moderately satisfied about the use of digital devices. Especially urban and rural

disparities of using technological and digital devices for gain SRH knowledge was mostly differ. More females had a negative attitude of using digital devices as a source of gaining their SRH knowledge. Aware and control the internet facilitators by proper mechanism is the recommendation can be given to provide more accurate knowledge regarding SRH through digital devices.

References

- Boyar, R., Levine, D., & Zensius, N. (2011). *TECHsex USA: Youth sexuality and Reproductive Health in the digital age*. Oakland: ISIS.
- Department of Census and Statistics. (2017). *Computer Literacy Statistics - 2017*. Colombo: Department of Census and Statistics.
- Green, R., & Huang, X. (2016). *Clasification of Digital Content, Media and device Types*.
- L'Engle, K.L., Mangone, E.R., Parcesepe, A.M., Agarwal, S., Ippoliti, N.B. (2016). Mobile phone interventions for adolescent sexual and reproductive health: a systematic review. *Pediatrics*, 138(3).
- Levine, D., McCright, J., Dobkin, L., Woodruff, A.J., Klausner, J.D. (2008). SEXINFO: a sexual health text messaging service for San Francisco youth. *Am J Public Health*, 98(3), 393-395.
- Stern, S. (2002). Sexual Selves on the World Wide Web: Adolescent girls home page as sites for sexual self expressions. *Journal of Media*, 265-286.
- Vahdat, H.L., L'Engle, K.L., Plourde, K.F., Magaria, L., Olawo, A. (2013). There are some questions you may not ask in a clinic: providing contraception information to young people in Kenya using SMS. *Int J Gynaecol Obstet*, 1, 02-06.
- Williamson, L.M., Parkes, A., Wigh,t. D., Petticrew, M., Hart, G.J. (2009). Limits to modern contraceptive use among young women in developing countries: a systematic review of qualitative research. *Reprod Health*, 06(3).
- World Bank and International Telecommunication Union. (2012). *The little data book on information and communication technology*. Washington DC: The World Bank.