



Nursing, Midwifery and Paramedicine Students' Use of the Cell-Phone in Academic Learning at Hormozgan University of Medical Sciences

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ABSTRACT

Information and Communication tools play a certain role in almost all societies and are used by all social classes especially university students on a daily basis. Cell-phone is considered as a primary communicative mean in educational domain and is associated with such benefits as an effective interaction with learners as well as professors and high accessibility to enhance electronic learning among university students. Therefore, the present research aimed to explore the extent to which university students used their cell-phones to learn the academic stuff at the Nursing, Midwifery and Paramedicine faculty of Bandar Abbas University. As a descriptive/analytical study, the present research was conducted on 282 students who entered the university in 2015 and were selected randomly. The data collection instrument was a questionnaire whose reliability and validity were already established. The data were statistically analyzed via SPSS ver20.0. The most common age group ranged between 21 and 23 years (37.9%) and the least common was above 26 years (7.1%). About 45.4% of the subjects used the cell-phone in learning their academic materials while 47.9% believed that it helped to save time and facilitate learning. Moreover, a significant correlation was found between the use of cell-phone and saving time. Considering the fact that using a cell-phone facilitated learning and was also used as a portable technology it showed to facilitate the revision of materials and the time spent. Therefore, those in charge at universities are advised to consider the instructional capabilities of this tool to enhance the quality of education.

Key words: University Students, Cell-Phone, Learning

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INTRODUCTION

Information and communication technology distinguishes the present world from the past eras. How this technology developed and was used in many domains has become an index of development worldwide.

Information and communication technology highly distinguishes the present world with that of the past. The extent to which this technology is employed is a key index of development [1]. Today, information and communication technology is known as a novel and powerful

phenomenon which affects human's daily life directly or indirectly. It is ever increasingly being used in different activities. Due to the fact that electronic services provide users with speed, flexibility and innovation, investment on them can be a great step in improving the quality of human life [2]. Different means of communication play a key role in most communities. They are present everywhere and are employed by different social classes. They have changed people's communication in public and private contexts and created a new experience in communication [3]. It should also be reminded that new methods have been used today intermingled with different aspects of IT for communication. Among them is the mobile technology whose impact on society is 100%. As a new technology, cell-phones are new tools which can facilitate learning [4]. An instance

of the mobile technology which has been warmly received by the public is the cell-phone which can contribute to learning through a high possibility of interacting with learners and academics, high access and low infrastructural costs [5-6]. The wide popularity and use of cell-phones indicates that no other technology has so far prevailed over the globe. Within ten years, cell-phones have been used three times as fast as such other means of communication as telephone or the internet [7]. The most frequent applications of cell-phones have been the calculator, text messages and the English dictionary. In addition, such capabilities as more lasting batteries and the net coverage have affected the wide use of this technology worldwide [8]. Manteghi et al. classified the usage and applications of cell-phones in six groups: use of the phone to strengthen social relations, advanced communicative usage, technical usage, and software usage, use the phone to know about the time and date, and entertainment. Some other research has pinpointed the different uses of cell-phones by male and female users and found that girls used cell-phones significantly more frequently than boys in strengthening social relations and knowing the exact time. Boys, on the other hand, used cell-phones significantly more than girls in advanced uses, software and entertainment [7]. Among the factors significantly affecting education so far is information and communication technology. Therefore, its integration into the educational process has facilitated learners' communication and social and cultural promotion and has led to electronic learning [1]. At the beginning of the third millennium, especial attention was paid to using new technology in education. The result has been an information boom in through such new technologies as computer, internet, worldwide web, satellite and cell-phones [5]. Recent publications about the use of cell-phones and software have mostly aimed to find solutions to key learning and educational issues [9]. In another investigation by Salari et al. on factors related to the adoption of electronic learning, the researchers observed that the two factors, perceived ease of use and practicality and electronic learning were correlated [10]. Moreover, the possibilities created by cell-phone technology enable learners to access academic subjects without attending the class or using the computer system [10]. Cell-phone technology also contributed greatly to learning literature, educational projects and conferences [11]. As reported by the American Society of Education

and Development, the public use of technology changed from 14% in 1999 to 40% in 2006. However, in this period, teacher-based learning was reduced for 38% [9]. University students showed to use their cell-phones increasingly for communication, exchanging images, voice tracks, texts and videos. They currently use their cell-phones for wireless calculations and connecting to weblogs wherever they are and whenever they want. Learning via cell-phones facilitated through various hardware and software contributed greatly to educational communications in different formats. These active members of society create a real chance of integrating learning with daily routine activities. A body of recent research by BBC indicated that the cell-phone is an essential part of life today and not just a luxury for routine life. Therefore, cell-phones have been designed for communicating information as well as learning [8]. National and international investigations revealed that no research has been yet conducted to look into the extent to which university students use cell-phones in learning their academic stuff. The afore-mentioned gap motivated the conduction of present research. It has been acknowledged that present technologies motivate people to use mobile technologies in learning and this has removed many concerns and made learning possible everywhere at any time. Considering the great many benefits of learning facilitated through cell-phones and its ever-increasing popularity in the world, there was a need for investigating the challenges involved in using this technology so as to make up for the probable defects and prepare for the probable problems. This can motivate the integration of this technology in the educational system of Iran. Therefore, the overall purpose of the present research is to investigate the extent to which cell-phones are used by university students in learning.

MATERIALS AND METHODS

As a descriptive-analytical study, the present research had all students of Paramedicine, Nursing or Midwifery entering university in 2015 as its research population. The sample consisted of 282 subjects. The data collection instrument was a questionnaire of attitude towards learning through cell-phones comprised of 13 items developed by Zare *et al.*, [1]. A 5-level Likert scale was used: totally agree: 5, agree: 4, undecided: 3, disagree: 2, totally disagree: 1. The sample selection method was randomized simple

stratified since every major was taken as a stratum. The inclusion criteria were full consent to participate. Those who filled out the form incompletely or disorderly were excluded. The data were analyzed statistically through SPSS ver.19.0 and the descriptive tables and figures were reported.

RESULTS

The results indicated that from among 282 subjects, 128 (45.4%) were male and the rest were female (54.7%). The majority of the subjects belonged to the age group 21-23 years. The majority of subjects studied Nursing (n=63, 22.3%) and were mostly single (75.2%) and resided in the dorm (78.4%). Their demographic information is presented in table 1 and figures 1 and 2.

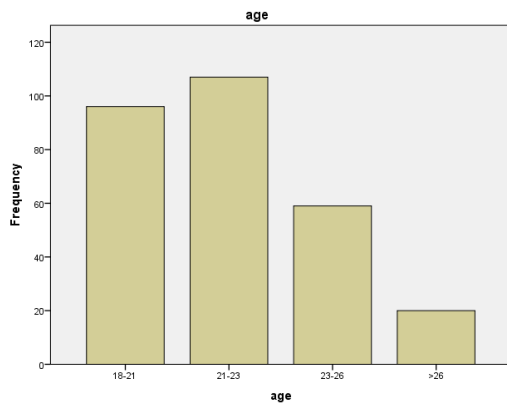


Figure 1: Distribution of subjects in age groups

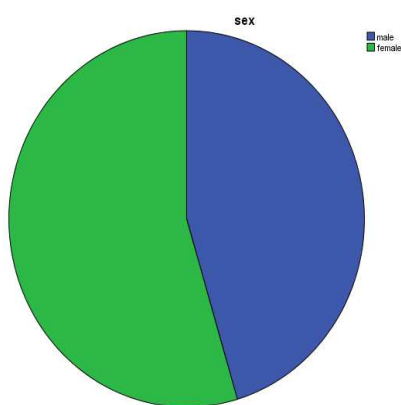


Figure 2: Distribution of subjects according to sex

About 45.4% of the subjects used cell-phones to learn their academic stuff. 135 subjects (47.9%) maintained that using cell-phones in learning

saved time and 122 (43.3%) believed that it facilitated learning. Chi-squared test revealed a statistically significant correlation between using cell-phones and saving time (p<.05).

Table 1: Demographic information

	Variable	f.	%
	Total	282	100
Major	Health IT	37	13.1
	Radiology	33	11.7
	Medical Emergency	24	8.6
	Operation Room	32	11.3
	Nursing	63	22.3
	Anesthesia	29	10.3
	Midwifery	33	11.7
	Lab sciences	31	11
Residence	Local	61	21.7
	Dorm	221	78.4
Marital status	Single	212	75.2
	Married	70	24.8

DISCUSSION

Today, cell-phones are powerful tools that play a key role in individual and social life. Since the communication technology is expansive and widely accessible by the public, its proper use can be effective in learning [1].

The present findings indicated that using cell-phones in education managed to save time, increase motivation and facilitate learning. This was consistent with the findings of a body of research [1, 6, 9, 10].

All the aforementioned body of literature attested to the efficacy of cell-phones in education. However, it needs to be reminded that using this technology should not impede learning. Moreover, for more efficiency, academics' as well as learners' interest and awareness should also be taken into account since they are the two ends of this tool [1].

However, the present findings were inconsistent with those reported by Altafi Dadgar who concluded that although the impact of cell-phone on individuals was close to 99%, the extent to which this technology was used by 51.3% of university students in learning was next to zero. In other words, those who had educational software on their cell-phones, did not use it [5]. One probable reason is students' not being motivated enough to learn and welcome knowledge [10]. Another reason could be inadequate instructions on how to use the software and estrangement from technology-mediated learning. On the other

hand, it needs to be acknowledged that cell-phones cannot be used on their own in learning certain subjects. Yet, it can be hoped that human advancement can make up for many of these limitations. It should also be pinpointed that a proper use of any tool for learning besides using various methods adds to learners' interest and motivation. Considering the significance of learning through portable technologies such as cell-phones and its increasing popularity especially among the youth requires that policy-makers contrive certain plans to 1: provide for the proper culture of technology-mediated learning, 2: develop applications tailored to every academic major and 3: Hold conferences and workshops to educate people especially university students to use cell-phones effectively in learning.

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