

e-LEARNING AMONG FIRST YEAR MEDICAL STUDENTS, KAP STUDY

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Short terms:

KAP-knowledge ,attitude and practice

FYMS- First year medical students

Abstract:

Objective: To find out the knowledge ,attitude and practice of computer and internet based learning , computer skills in using e-learning modalities among FYMS in one medical college in Ahmadabad **Method:** Questionnaire and personal interview . **observations:** Among the 150 FYMS ,80 were males and 70 were females, mean age was 18.3 years . Significant females students have to rely on sharing computer &/or internet if they wish to access e learning. 63.5 % of students are using web based learning weekly or occasionally and 5.3 % of students have not explored to internet themselves independently. An average of 52.5 % males versus 35.8 % of females feel e learning experience enjoyable while equally 40% of both the groups indicated to be e leaning beneficial. By self assessed confession, the computer and web base skills are inadequate among 31.4 % of overall students. **Conclusion:** Use and benefit of e learning medical modalities and resources amongst FYMS is not cent percentage and literacy and skills related to computer and internet based technologies is not adequate to get maximum benefit of e learning a model of adult leaning of incoming future. Based on the findings medical educators should act intensively in order to maximize the use of available internet-based sources of e learning. Special measures should be taken to achieve satisfactory literacy of computer and web based technologies to get maximum benefit of e learning recourses to FYMS . In context to Computer literacy among medical students medical education should take necessary intervention for first year medical students to keep ready for the foreseeable omnipresence of computers in the future medical education and profession. The results indicate teaching of basic information technology needs to be integrated into medical studies, and that this need does not seem likely to disappear in the near future. Special measures should be taken to prevent students who lack computer skills to get benefited from e learning recourses and future demand of e learning . . It is recommended that the e learning content and resources should be peer-reviewed. The e learning process should achieve learner satisfaction, content usability, and demonstration of learning. Faculty' skill in creating digital-learning materials is also incoming demand in era of e learning. The integration of e-learning into undergraduate, graduate, and continuing ,medical education will promote an adult learning in medical education, where as the original philosophy of education the

educators no longer serve solely as distributors of content, but become facilitators of learning and assessors of competency.

Keyword: First year Medical students, e-learning, computer literacy , Web-based Learning, KAP study

Introduction:

There are an evidences for the effectiveness and acceptance of e-learning within the medical education community, especially when combined with traditional teacher led activities. Several repositories and e learning material are created and uploaded and available free and paid format. First year medical students get benefit of such e learning resources from a practical knowledge of computer and internet literacy. Given to the wide range of computer and web based skills among FYMS, they can get benefit of resources. In this context it worth to remind the corner stones of medical education 1] discipline based education , 2] system based education in 1950s, 3] problem based learning (PBL) in 1970s .Since 1990s, a new approach called “e-learning” is gradually being adopted by higher education institutions including medical colleges. E-learning is a learning process where teacher and students are in different places and with the help of internet and computer technology student learn and enhance self responsibility to learn and also supports individuals to gain lifelong learning attitudes. E learning is used to support other instructional methods of traditional education technology and it should begin with teaching of basic sciences. E learning can be a class room based but truly it meant for distance learning , flexible learning, and usually self-paced learning where computer or its equivalent i.e. laptop, i-pad, tablet or smart phones act as an instructor .For greater globalization, for the development of a global common core curriculum, for improving access to training, for more flexible and student-centered training programmers it is an essential element of medical education .The article is focused on to study the current Knowledge attitude and practice of e learning among first year medical students with the help of questionnaire.

Material and method

Knowledge, Attitude, Practices (KAP) of use of computer and internet technologies were surveyed among **FYMS** with the help of questionnaire and personal interview of first-year medical students during year 2013 during various viva voice examinations.

Observations and results:.

Table 1

Distribution of gender and computer, Internet usage KAP among FYMS indicated in Table 1;

				n1=Male	%	n2=Female	%	P
1	Gender							
		150	100	n=80	53.3	n=70	46.7	
2	Age	18.3		18.5			18.3	
3	Living space							
	Home with family	71	48	34	42.5%	37	52.8	0.2516
	Hostel	79	53	46	57.5%	33	47.2	
		150	100	80	100.0%	70	100	
			0					
4	Availability of computer/Laptop							
	Personal	30	20	22	27.5	8	11.4	0.0003
	Home with family	71	48	43	53.7	28	40	0.2377
	Sharing	49	33	15	18.8	34	48.6	
		150	100	80	100	70	100	
5	Availability of internet							
	Personal	34	23	22	27.5	12	17.2	
	Home with family	44	29	24	30	20	28.6	
	Sharing	72	48	34	42.5	38	54.2	
		150	100	80	100	70	100	
6	Frequency of use							

	Daily	64	43	42	52.5	22	31.4		
	Once a Weekly	54	36	26	32.5	28	40	0.0465	
	Occasionally	28	19	11	13.5	17	23.3		
	Never	4	3	1	1.5	3	5.3		
		150	100	80	100	70	100		
7	Computer literacy and skills	Self analysis							
	Adequate	113	76	65	81.3	48	68.6	0.0884	
	Weak	37	25	15	18.7	22	31.4		
		150	100	80	100	70	100		
8	Overall experience								
	Enjoyable	67	45	42	52.5	25	35.8		
	Beneficial	60	40	32	40	28	40	0.0106	
	Neural	14	9	2	2.5	12	17		
	Dislike/Stress full/waste of time /Not helpful	9	6	4	5	5	7.2		
		150	100	80	100	70	100		
9	Types use								
	Animations/PP P	40	27	26	32.5	14	20.0		
	Images	64	43	38	47.5	26	37.1		
	web-based text /ebook	23	15	14	17.5	9	12.9	NS	
	E dictionaries/ Encyclopedias	103	69	58	72.5	45	64.3		
	MCQ/Quiz	55	37	32	40	23	32.8		
			0						
10	Technical difficulty in assessing net								
	Yes	68	106	71	58	72.5	48	68.6	NS

No	32	44	29	22	27.5	22	31.4
		150	100	80	100	70	100

NS : Not significant

Statistical tests: The X² test was used to compare frequencies. Among the 150 students in survey of FYMS, 80 students were males and 70 students were females, mean age was 18.3 years. Significant females students have to rely on sharing computer &/or internet if they wish to access e learning. 63.5 % of students are using web based learning only weekly or occasionally and 5.3 % of students have not explored to internet themselves independently. An average of 52.5 % males versus 35.8 % of females feel e learning experience enjoyable while equally 40% of both the groups indicated to be e leaning beneficial. By self assessed confession, the computer and web base skills are inadequate among 31.4 % of overall students More male students have personal or home access to computer and internet compared to female students. Significant females students have relies on sharing computer &/or internet if they wish to access e learning. 5.3 % of all students have never explore to internet them selves independently. By self assessed confession, 25% of all students are weak and poor in term of computer and web literacy. An average of 52.5 % males versus 35.8 % of females feel e-learning experience enjoyable, while equally 40% of them indicated to be beneficial. 9 % of students feel web based technology as dislike/Stress full/waste of time or Not helpful, indicated that they would not like to replace traditional teaching with use of computers if possible. Students who prefer to use e learning as learning model use e dictionaries/ encyclopedias, animations/PPP, images, web-based text /ebook in various percentages including MCQ and other similar self assessment quizzes. 72.5 % of females and 58 % of males students find Technical difficulty in assessing internet ether in campus or outside campus. Sometimes problems are nets related, waiting, very slow downloading images and time consuming.

Discussion:

Use and benefit of e learning medical modalities and resources amongst FYMS is not cent percentage and literacy and skills related to computer and internet based technologies is not adequate to get maximum benefit of e learning a model of adult leaning of incoming future in medical education. Based on the findings medical educators should act intensively in order to maximize the use of available internet-

based sources of e learning. Special measures should be taken to achieve satisfactory literacy of computer and web based technologies to get maximum benefit of e learning recourse to FYMS . In context to Computer literacy among medical students ,medical education should take necessary intervention for first year medical students to keep ready for the foreseeable omnipresence of computers in the future medical education and profession. The results indicate teaching of basic information technology needs to be integrated into medical studies, and that this need does not seem likely to disappear in the near future. Special measures should be taken to prevent students who lack computer skills to get benefited from e learning recourse and future demand of e learning . One study suggested that those students who need develop the computer skill the most will hesitate to learn it voluntarily. It is difficult to say how these students could be persuaded despite the benefit of e learning. Most students agree that e-learning could serve as a additional tool for MCQ-based self evaluation and self assessment. They also acknowledged the net support with respect to images and -2D & 3D visualization, simulation, self-fast information retrieval from several sources such as e-dictionaries and encyclopedias .

A typical web based e learning recourse include subject information, notice board, time line ,Curriculum, teaching method and materials such as slides, handouts, articles, communication via email and discussion forum ,formative and summative assessments ,Student management tools (records, statistics, student tracking),useful resources and links ,library, and journals, and quick feedback on their performance evaluation. It should satisfy learners' educational needs ,enjoyable and meaningful .This e learning is exploring an innovative thinking and approaches to the new learning technologies including virtual reality. E learning is inevitable too for international globalization on medical education Many students would benefit from a basic introduction to computers and to the relevant computer-based technologies in the medical colleges. Given to the wide range of computer skills among students, a single computer course for all students would not be useful nor would it be accepted. Special measures should be taken to prevent students who lack computer skills from being disadvantaged or from developing computer-hostile attitudes.

Gender differences:

Studies have shown that more females than males would prefer not to have to use computers in their studies. The consistency of this finding, corroborated in several earlier studies suggests there is a need for training in basic IT and information-handling skills as an optional element in medical training. Men make more frequent and faster use of computers and internet. Experts have suggested that although women have less experience with forums, there are differences in online communication behavior but this does not necessarily result in worse examination outcomes. Female students are at a disadvantage due to different attitude and patterns of computer usage, e.g. a less dominant in web-based communication. These gender differences observed in students' computer-related attitudes and computer-based and web-based learning is also observed in many studies also. In a Danish study, Dørup³ reported that among first-year students, 46% of the men were in favor of replacing "traditional teaching with use of computers if possible" while only 22% women agreed with this statement. Another example, in one study roughly 50% of males versus 25% of females responded that they would like to replace some traditional teaching with IT-based activities. Communications with the medical students indicate that most female students are not directly opposed e learning; however, female students may be more pragmatic and more focused on examinations, whereas some male students may favor the freedom of time and space offered by e-learning.

Conclusion:

Use and benefit of e learning medical modalities and resources amongst FYMS is not cent percentage and literacy and skills related to computer and internet based technologies is not adequate to get maximum benefit of e learning a model of adult leaning of incoming future in medical education. Based on the findings medical educators should act intensively in order to maximize the use of available internet-based sources of e learning. Special measures should be taken to achieve satisfactory literacy of computer and web based technologies to get maximum benefit of e learning recourses to FYMS. In context to Computer literacy among medical students, medical education should take necessary intervention for first year medical students to keep ready for the foreseeable omnipresence of computers in the future medical education and profession. The results indicate teaching of basic information technology needs to be integrated into medical studies, and that this need does not seem likely to disappear in the near future. Special measures should be taken to prevent students who lack computer skills to get benefited from e learning recourses and future demand of e learning.

Based on the findings medical educators should act intensively in order to maximize the use of available internet-based sources of e learning Though it is

understood that computer is a compulsory subjects in higher secondary schools it can be questioned about achieving competency and skills required for e learning. The problem is not more in urban areas but is always questioned in remote especially the rural areas .While the good number of students possesses sufficient computer skills and acknowledge the advantages of interactive and multimedia-enhanced learning material, about one third of students lacks basic computer skills. We found a sizable number of students, make little or no use of existing e-learning recourses.

Further work and studies are needed for expert evaluation validity of content of e-learning materials. It should include a peer-reviewed process .The e learning process must achieve an learner satisfaction, content usability, and demonstration of learning. Faculty' skill in creating digital-learning materials is also incoming demand in era of e learning .The integration of e-learning into undergraduate, graduate, and continuing, medical education will promote an adult learning in medical education. And this is the way the original philosophy of education ,the educators no longer serve solely as distributors of content, but become facilitators of learning and assessors of competency become true .

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