

Comparing the Effectiveness of Traditional and Electronic Learning on Empowerment, from Viewpoints of Nurses

Mohammad Abdi¹, Fariba Dehghani², Akram Heidari³, Jamal Salimi⁴

¹Spiritual Health Research Center, Qom University of Medical Sciences, Qom, Iran, ²PhD Student of Higher Education Development Planning In Kurdistan University, Iran, ³PhD Student of Higher Education Development Planning In Kurdistan University, Kurdistan, Iran, ⁴Associate Professor In Curriculum Studies, University Of Kurdistan, Kurdistan, Iran

Abstract

Introduction: Today, education as a program and its role in increasing the effectiveness and improving the intellectual and vocational level of staff is of most interest to managers. The aim of this study was to evaluate the effectiveness of e-learning method compared to traditional methods on empowering nurses.

Method: This cross-sectional study was conducted on 402 nurses who had attended in electronic and traditional training courses the data collection tool was a standard training effectiveness questionnaire. Data were analyzed using SPSS software, version 21 and by chi-square tests, Fisher and Unpaired-Test.

Findings: the level of Proficiency and practice between electronic and traditional teaching methods was significant ($p < 0.05$), but the scale of the access and reaction was not significant ($p > 0.05$). There was no significant difference ($p > 0.05$) in terms of empowerment in both electronic and traditional teaching methods, significant sense, sense of competence, a sense of choice and self-efficacy, but within the sense of participation was a significant difference between both methods ($p < 0.05$).

Conclusion: E-learning can be used as traditional teaching methods and in some areas even be used effectively to provide continuing education programs. Therefore, it is suggested to be considered as an effective teaching method in medical universities and related hospitals.

Key words: Electronic, Effectiveness, Training, Empowerment

INTRODUCTION

Today, education as a program and its role in increasing the effectiveness and improving the intellectual and vocational level of staff is of most interest to managers (1). Continuing education programs are an important part of the growth process and empowerment of staff. Studying indicators of empowering staff through in-service training is effective basis for evaluating the performance of training units of organizations (3, 2). The aim of these programs

is to enable nurses to continue to grow professionally, performing safely and competently, creative review of clinical performance and identifying their training needs (4). On the other hand since empowerment is known as a life-saving and tool factor in the management. It has become as one of the most important issues of day. Since nurses are one of the groups that are willing to participate in continuing education programs and the demand for participation in these courses is on the rise (5), however, several factors such as a family business, fatigue from shift work, lack of motivation and lack of alternatives have caused that nurses access to these programs are faced with serious challenges, on the other hand, traditional training methods will only be a passive learning and individual differences and needs of learners have not been considered and it has not paid attention to the problem-solving, creative thinking and other cognitive skills and therefore are not typically effective (6,7). Therefore, many experts

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Corresponding Author: Fariba Dehghani, PhD Student of Higher Education Development Planning In Kurdistan University, Kurdistan, Iran.
E-mail: faribadehghan@gmail.com

have recommended the need to change or supplement traditional teaching methods (8). With the arrival of the information age, the educational institution as one of the first institutions which have been undergone radical changes, using e-learning as a new paradigm has changed this area. Due to the high capability of the educational system and the enormous demand for education and the inability of the current education system in responding to it, there is no doubt about the urgency and importance of adopting e-learning. Therefore, the objective of this study is to compare the effectiveness of e-learning and traditional methods on empowering nurses, it is provided to compare the quality and explain the relationship of traditional and e-learning with the quality of training materials, the usefulness of the content of the training offered, with the ability of facilitating and the quality of educational facilities, with the achievement rate of the objectives, with the ability to dominate the objectives of the training course, attractiveness and to provide scientific information, with the usefulness rate, validity, desirability, training needs assessment, with the appropriateness of the time of training course, and with to empower nurses. In the empowerment 5, the aspect of feeling to be the job significant, sense of competence on the job, the feeling of having a choice, feeling to be effectiveness, and Feeling partnerships with others were examined.

Analysis Method

This cross-sectional study was conducted on 402 nurses who had attended training courses in electronic and traditional methods in Shahid Beheshti Hospital, Qom, in 1394. The data collection tool was a standard training effectiveness questionnaire. Data were analyzed using SPSS software, version 21 and by chi-square tests, Fisher and Unpaired-Test. The tool of collecting data were two standard questionnaires of effectiveness and empowerment in combined. The questionnaire had three sections that in the first part there were demographic specifications and in the second part were related items to evaluate the effectiveness of training courses (Electronic and traditional separately), and in the third part there were questions related to empowerment. The standard questionnaire of effectiveness of training course (traditional electronic) included the level of scientific expertise and skills of staff, the rate of access to training goal, Improving job performance and training the staff, the staff reaction to training that were set in the twenty items based on the five-item Likert scale (poor, average, good, very good, excellent). The standard empowerment questionnaire of Spritzer was used in this study which has been designed based on staff empowerment model that its English equivalent is Psychological Empowerment Questionnaire, the questionnaire examines five aspects. Feeling to be job significant, sense of competence on the job, the feeling

of having a choice, feeling to be effectiveness, and Feeling partnerships with others were examined, it has been set in 5 items based on the five-item Likert scale (1 = strongly disagree, 2 = disagree, 3 = Neutral, 4 = agree, 5 = strongly agree). In this study, the effectiveness of e-learning and traditional methods were evaluated through standardized questionnaire, then the effectiveness rate of each of e-learning and the traditional methods on empowerment of nurses was measured who had participated in the training course. To describe the results, it was used of tables and charts and scattering indicators. For data analysis the software SPSS was used with version 1. Also the chi-square test was used to compare percentages between groups and the Unpair-Ttest used to compare means and non-parametric tests were used, too.

Findings

As can be seen in Table 1; Background variables such as age, sex, education, work experience, type of employment in both groups were not significantly different for traditional and e-learning methods and the variables of e-learning and traditional education on participant's empowerment were evaluated.

It is provided in Table 2, the efficacy and empowerment using two traditional and e-learning systems in various fields. According to the findings of the research, for participants the use of electronic learning has a role in increasing the academic proficiency and staff skills that there are significant differences in both factors than the use of conventional traditional training ($p < 0.05$), and therefore these two aspects of e-learning method was shown to be more effective than traditional training. But there were significant differences between the two methods

Table 1: Distribution of the characteristics of the subjects studied

Variables	Traditional education	E-Learning
Age	88 (44.0%)	33.7%) 68
20-30	102 51.(0%)	53.0%) 107
31-40	10 (5.0%)	24 (11.9%)
41-50	0 (0.0%)	3 (1.5%)
51-100	156 (78.0%)	159 (78.7%)
Sex	44 (22.0%)	43 (21.3%)
Man		
Female		
Studying	3 (1.5%)	8.9%) 18
Diploma or Above	27 (13.5%)	3.0%) 6
Diploma		
Bachelor	170 (85.0%)	(84.7%) 171
Masters	0 (0.0%)	3.5%) 7
P.H.D	136 (68.0%)	(60.4%) 122
Years of service	61 (30.5%)	(29.2%) 59
Less than 10 years	3 (1.5%)	10.4%) 21
Between 10 and 20 years		
More than 20 years		

Table 2: Comparison of the mean of effectiveness and empowerment variables in both e-learning and traditional education (T)

Variables	Mean		Std. Deviation		P value
	T	E	T	E	
Scientific and skillfulness of employees	2.3163	2.4653	0.64945	0.7137	0.029
Effectiveness	2.49	2.396	0.70327	0.70959	0.183
Achievement of educational goal	2.3675	2.5099	0.7194	0.73422	0.05
Improve job performance and transfer education to employees					
Staff response to training	2.3175	2.427	0.70431	0.75963	0.135
Sensitive meaning in the job	1.7383	1.7954	0.62328	0.61665	0.357
Empowerment	1.7238	1.7896	0.63374	0.61362	0.29
Feeling worthy of a job	2.605	2.4769	1.14989	0.85406	0.205
Feel free to choose	2.4438	2.3156	0.74788	73325	0.084
Feeling Effective (Self-Efficiency)	2.6892	2.4546	0.77035		0.002
Feelings of partnership with others				0.74108	

in response to the access rate to training goal and staff reaction ($p > 0.05$). In the study of nurses empowerment there was no significant difference in significance, competence, choice and self-efficacy ($p > 0.05$), but the partnerships rate in the use of e-learning method has increased that was statistically significant compared to the conventional use of traditional training ($p = 0.002$).

DISCUSSION

This study is a comprehensive study on the status of e-learning in the area of continuing education for nurses to evaluate the effectiveness of the empowerment of nurses and its comparison with conventional continuing education. Based on the literature review, most research has been conducted about the impact of traditional and e-learning on learning rate, and a few research have used enabling factors in different fields such as significance and competence feeling on the job, effectiveness feeling, and the feeling of participation with others.

The results showed that participants in both groups were similar in terms of background features such as education, access to computers, and in terms of gender, age, marital status, employment in using computers, there was no significant difference between the two groups. Therefore, we can say that the results of the two groups are not affected by these features. In a study by Bahadori et al that have examined the learning capability of nurses, from 7 demographic Variables there is significant relationship between the work experience variable and management commitment (9) improving the knowledge and skills needed staff with the creation of conditions and learning opportunities a way for that is establishing the workshops and e-learning with providing equipment and facilities that will make things easier for employees' participation, and improve empowerment in organizations. The results of the research by Rabie et al on studying the effectiveness of

virtual training courses in higher education of Iran showed that for teachers Virtual Courses were satisfactory and the students have met the effectiveness at an average level. Also comparing the views of teachers and students showed that teachers have a more positive opinion about the effectiveness of virtual training courses than their students (10). Zolfaghari et al (1389) examined the effectiveness of e-learning system in training nursing and midwifery students of Tehran University of Medical Sciences. In a research action with participatory approach after examining the views of all faculty members and Nursing and Midwifery students in relation to the electronic combined system its effectiveness (in terms of satisfaction, learning and participation) was evaluated. The findings showed that from 181 students who replayed the questionnaire 67/4% were strongly satisfied with the program execution. And 88/2% of teachers were satisfied from the use of this teaching method. The students and teachers preferred using this method than the common method (11). Case Beer and Stritzer stated with numerous medical resources on the web the components such as organizing content and applying motivational factors do not have appropriate training design (12), that the problem was solved in Qom University of Medical Sciences in training packages, videos, and electronic test and the access rate to training goal has been considered as a effectiveness factor in e-learning method. In addition, most research conducted in the field of electronic continuing education of medical community and its comparison with traditional training only study one of the elements in the motivational questionnaire of Claire that is how satisfied or interested participants in this training approach. Each of these indicators are only one of the four main motivation components of Claire (attention, relevance, confidence and satisfaction) (15-13) McDonald's (2001) Mouse and Broskuvitz (2006) Mature and Stanton (2005); in a study they compared learning by computer with traditional training and concluded that participants were satisfied and more interested in computer-assisted

instruction (18-16). Despite the strengths of E-learning, considering the organizational potential shortcomings in holding electronic training, Ruiz emphasizes that e-learning should not replace the classroom but it should be used as supplement in addition to other common methods.

CONCLUSION

Focusing on promoting learning factors by the organizations such as hospital, followed by providing facilities for empowerment fields to succeed in increasing human productivity is an undeniable necessity.

REFERENCES

- Ross HM. The Use of Technology In Education and Professional Development For Health Care Providers.
- DeMong NC, Assie-Lussier LL. Continuing education: an aspect of staff development relating to the nurse manager's role. *Journal for Nurses in Professional Development*. 1999;15(1):19-22.
- Griseti O, Jacono J. Effectiveness of continuing education programmes in nursing: literature review. *Journal of advanced nursing*. 2006;55(4):449-56.
- Flores Peña Y, Alonso Castillo M. Factors influencing nursing staff members' participation in continuing education. *Revista latino-americana de enfermagem*. 2006;14(3):309-15.
- Atack L. Becoming a web-based learner: registered nurses' experiences. *Journal of advanced nursing*. 2003;44(3):289-97.
- Curran VR, Fleet L, Kirby F. Factors influencing rural health care professionals' access to continuing professional education. *Australian Journal of Rural Health*. 2006;14(2):51-5.
- Johnson SD, Aragon SR, Shaik N, Palma-Rivas N. Comparative analysis of learner satisfaction and learning outcomes in online and face-to-face learning environments. *Journal of interactive learning research*. 2000;11(1):29.
- Howatson-Jones L. Designing web-based education courses for nurses. *Nursing Standard*. 2004;19(11):41-4.
- Bahadori M, Hamouzadeh P, Qodoosinejad J, Yousefvand M. Organizational learning capabilities of nurses in iran. *Global Business and Management Research*. 2012;4(3/4):248.
- Fathi Vajarkhah K, Hassan Pardakhtchi M, Rabie M. Evaluating the Effectiveness of Virtual Education Courses in Iran's Higher Education System (Case Study: Ferdowsi University of Mashhad). *Journal of Information and Communication Technology in Educational Sciences*. 2011; 1 (4): 5-21
- Ahmadi F. The evaluation of a blended e-learning program for nursing and midwifery students in Tehran University of Medical Sciences. *Iranian Journal of Medical Education*. 2011;10(4):398-409.
- Casebeer LL, Strasser SM, Spettell CM, Wall TC, Weissman N, Ray MN, et al. Designing tailored Web-based instruction to improve practicing physicians' preventive practices. *Journal of Medical Internet Research*. 2003;5(3):e20.
- Collins J. Education techniques for lifelong learning: Lifelong learning in the 21st century and beyond. *Radiographics*. 2009;29(2):613-22.
- Peterson MW, Galvin JR, Dayton C, D'Alessandro MP. Realizing the promise: delivering pulmonary continuing medical education over the Internet. *CHEST Journal*. 1999;115(5):1429-36.
- Jeffries PR. Computer versus lecture: a comparison of two methods of teaching oral medication administration in a nursing skills laboratory. *Journal of Nursing Education*. 2001;40(7):323-9.
- MacDonald PJ. Integrating multimedia technology into continuing nursing education: Examining the effectiveness 2001.
- Mathur S, Stanton S, Reid WD. Canadian physical therapists' interest in web-based and computer-assisted continuing education. *Physical therapy*. 2005;85(3):226-37.
- De Muth JE, Bruskiwicz RH. A comparison of the acceptability and effectiveness of two methods of distance education: CD-ROM and audio teleconferencing. *American journal of pharmaceutical education*. 2006;70(1):K1.
- Ruiz JG, Mintzer MJ, Leipzig RM. The impact of e-learning in medical education. *Academic medicine*. 2006;81(3):207-12.

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