
EXPERIENCE WITH SIMULATION EDUCATION AT THE UNIVERSITY OF THE THIRD AGE AT JFM CU IN MARTIN

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ARTICLE HISTORY

Received 25 May 2015

Revised 27 August 2015

Accepted 23 November 2015

Available online xx December 2015

KEYWORDS

histology

virtual microscopy

computer-assisted learning

e-learning format; assessment



ABSTRACT — Background: Considering current demographic trends in society, education of seniors has become real needs and a challenge for the field of education and training institutions. Universities of the Third Age (UTA) represent one option for senior education allowing them to study various fields at university level. Within UTA studies, the seniors are interested in studying mainly the issues of health and disease, aging and the social and legal issues. Seniors represent a group of students with specific educational needs. In teaching them it is therefore important to choose teaching methods that take account of developmental changes of the period, contain elements of clearness, and provide the space for communication and activity with the use of previous experiences of seniors. In the framework of elderly education at the UTA at Jessenius Faculty of Medicine in Martin (JFM CU) the simulation methods are also used that bring elements of clarity and attractiveness into the teaching and serve to bridge theoretical education and practical training.

Objective: The aim of the study was to determine the UTA senior students' views on the use of simulation models and simulations in education and to find out what is their satisfaction with the training in the Simulation Center at JFM CU in Martin.

Methods: Questionnaire of own construction was used to gather empirical data. The study involved 30 senior students of the third year of studies in the program "Elderly Care", out of which 25 were women and 5 men. The average age of respondents was 67.3 years (SD 5.6).

Results: Within education and training in Simulation Center, the seniors most positively evaluated preparedness, presentation and interpretation of the lecturer (4.96) and the way in which information were administered (4.76). They had the opportunity of hands-on work with the simulation models and practical training of their skills and such experience was evaluated as excellent (4.70). Seniors also acclaimed the opportunity of active discussion with the lecturers and with each other that was also rated to be excellent (4.70). Results of the study proved overall evaluation of teaching and training in the Simulation Center was highly positive (4.80).

Conclusions: Using appropriate educational strategies within senior education at UTA at JFM CU in Martin contributes to formation of the proper attitude to the health of the elderly and healthy aging.

INTRODUCTION

The current demographic trends point to the numerous representation of seniors in the population, and in respect of the development the issue of the active aging concept has become the focus. Active aging is often associated with lifelong learning as well as the education of seniors [1]. Seniors become a specific target group in pedagogy with specific educational needs. From a pedagogical perspective, education of

seniors is the process focusing on intentional, i.e. deliberate education in old age and also emphasizing the educational modes of action on the senior population. Educational activities for seniors contribute to their sense of dignity, satisfaction and fulfillment of social needs, the integration of individuals into society, and the easier coping with new tasks and activities. They help to maintain and improve the mental health thus head towards a higher quality of life [2,3].

One of the options by which modern society aims to address the issue of senior education is the establishment of the Universities of the Third Age (UTA). UTA contribute to offsetting deficits in educational background of the elderly, thereby a raise of their social importance and prestige in society will be achieved. These universities belong to the more challenging forms of study that allow seniors to study at university level in various fields [4]. Senior education has gradually become a “standard” service of traditional universities and colleges for the society. There is a growing interest in this type of educational activities of seniors as a consequence of increasing proportion of people of retirement age [5]. Organizational form of UTA is based on the maternal university, using its structure and facilities, and particularly the potential of university lecturers and teachers. Topics suitable for senior education should be based primarily on the needs and interests of seniors themselves. As it has turned out the seniors consistently have the greatest interest in the issues of health and disease, aging and the social and legal issues [5,6].

As a part of the UTA at Jessenius Faculty of Medicine in Martin (JFM CU) education is provided within two study programs - “General Medicine” and “Elderly Care”. The aim of these study programs is to get to know ourselves better and deeper in terms of health, to raise awareness about elderly health care, to improve health literacy of the seniors and mastering the critical health situations by the elderly with potential provision of a non-professional assistance after a health problem is recognized.

In teaching them it is therefore important to choose teaching methods that take account of developmental changes of the period, contain elements of clearness, and provide the space for communication and activity with the use of previous experiences of seniors. In teaching the elderly it is important to choose appropriate teaching methods reflecting the specific features of the audience - the seniors, thus benefit from the correct didactic methods with respect to the developmental changes that are brought around by physiological

aging [7,8]. In the education of seniors it is also appropriate to use teaching methods that contain elements of clearness, motivate them and provide the space for communication and activity with the use of previous experiences of seniors [9]. In the framework of elderly education at the UTA at JFM CU in Martin the simulation methods are also used that bring elements of clarity and attractiveness into the teaching and serve to bridge theoretical education and practical training. In medical education, simulation is a teaching method by which a clinical experience is established through interactive activities in a safe environment that is conducive to learning without fear of personal failure or injuring the patient [10,11]. Simulation is teaching strategies in nurses’ education, which is identified as very effective and efficient method [12]. Simulations of various critical health situations and practical training of appropriate techniques to solve health problems help the seniors in development of critical thinking, making the decisions, and self-confidence and to improve health literacy. Using appropriate educational strategies within senior education at the UTA at JFM CU in Martin contributes to formation of the proper attitude to the health of the elderly and healthy aging.

Several high sophisticated mid-fidelity and high-fidelity models and different specialized models and simulators for training the medical and healthcare skills and procedures are available for the purposes of practical training of students [13,14]. Within practical education and training at the Simulation Center the seniors of UTA at JFM CU in Martin had opportunity to use the models for application of subcutaneous and intramuscular injections, model for taking venous blood samples (Figure 1), cardiopulmonary auscultation simulator Harvey (Figure 2) and simulators of adult and a child to practice basic and advanced first aid.

The study aimed to determine the UTA senior students’ views on the use of simulation models and simulations in education and to find out what is their satisfaction with the training in the Simulation Center at JFM CU in Martin.



FIGURE 1. A model for taking blood venous sample



FIGURE 2. Cardiopulmonary auscultation simulator Harvey

METHODS

The survey was conducted lecturers from UTA in collaboration with the professional staff of the Simulation Center, who wanted to get feedback on ongoing learning UTA at JFM CU in Martin in the study program “Elderly Care”. It was a quantitative cross-sectional study.

Questionnaire of own construction was used to gather empirical data among students of the UTA after completion of the course in the winter semester. The questionnaires contained 10 items in total, the content of which was oriented on pedagogical skills of the lecturer, technical and didactic support for the teaching (teaching aids), scheduling of the teaching and respondents’ subjective assessment of knowledge and skills acquired on a given topic of practical training during a course. As for demographic data, the age, gender, level of education, and social status of the UTA students were assessed. For each item, respondents marked one of the options with which they identified most closely. Responses for each item were made on a 5-point Likert type scale (5 – excellently; 4 – very well; 3 – well; 2 – satisfactory, 1 – unsatisfactory). Filling out the questionnaire took about 15 minutes.

Sampling of the respondents was intentional. The inclusion criteria were willingness to cooperate (filling out the questionnaire), and respondent had to participate in practical training within the UTA.

For evaluation of empirical data we used program Microsoft Excel 2010. Descriptive statistics was used for evaluation of empirical data – absolute numbers (n), the relative numbers (%), mean (M), and standard deviation (SD) were calculated.

RESULTS

The sample consisted of the UTA senior students from the 3rd year of the study program “Elderly Care”. The average age of respondents was 67.3 years (SD = 5.6). In a sample of 30 respondents there were 25 women and 5 men. Sixteen respondents had

completed secondary education and 14 respondents were university graduates. Of the total sample, two were of working age.

Table 1 presents the results of evaluation of lecturers’ teaching skills, the course and material and didactic arrangement of education at the Simulation Center at JFM CU in Martin.

The seniors very positively evaluated preparedness, presentation and interpretation of the lecturer (4.96) and the way in which new information were administered (4.76). Respondents indicated that simulators and simulation models were clearly and easy visible for them (4.66) and lecturer was heard excellently (4.70). Seniors had the opportunity of hands-on work with the simulation models and practical training of their skills and this experience was evaluated as excellent (4.70) by them. They actively discussed with the lecturers and with each other that was also rated to be excellent (4.70). Results of the study proved overall evaluation of teaching and training in the Simulation Center was highly positive (4.80).

All respondents accepted and acclaimed the time when simulation training was conducted at the Simulation Center as well as its duration (120 min.). Two respondents would welcome even longer training.

Respondents expressed requests for the opportunity to attend lectures and practical training courses together with the students of full time studies (nursing, medicine). Only three respondents reported they are not interested in such an offer from the faculty.

DISCUSSION

Within the classes held in the Simulation Center, the seniors very positively evaluated preparedness, presentation and interpretation of the lecturer and the way in which new information were administered. Lecturers involved in the education of seniors have to be fully aware of the specifics of education of this age group and implement them into the educational process. In that case lecturer cannot act only as an informant or an expert who conveys information, but should act more

TABLE 1. Evaluation of lecturers’ teaching skills, the course and arrangement of education

Evaluated items	M*	SD
Pedagogical skills, preparedness, presentation and interpretation of the lecturer	4.96	0.18
Route of administration of new information on a given topic	4.76	0.50
Lecture / explanation I’ve heard	4.70	0.53
Lecturers and simulation models I’ve seen	4.66	0.54
The possibility of practical training on the simulation model	4.70	0.65
An opportunity to discuss presented topic / issue	4.70	0.53
Subjective assessment of knowledge and skills acquired during the course	4.60	0.62
Overall evaluation of education in the Simulation Center	4.80	0.48

SD – standard deviation, M – mean, * 5-point Likert type scale used: 5 – excellently; 4 – very well; 3 – well; 2 – satisfactory, 1 – unsatisfactory

like a facilitator who supports and facilitates learning of the students [15]. Lecturer must be fully competent in the clinical situations and for them is very important to study literature oriented on simulation teaching [13]. In teaching the seniors lecturer must take into account the specific needs and requirements of the age group, often related to physical, psychological and social changes brought by senior age. For example, visual and aural problems are common among senior students, which may pose a barrier to the education of seniors. Prior the classes, lecturers had prepared the room in the Simulation Center in terms of material and didactic aids and ensured senior students could be close enough to the simulation models and the lectures. Namely, the chairs were placed in a semicircle, the space around the simulation models was arranged to be large enough for seniors to move around freely and safely, appropriate and adequate lighting was ensured and fall risk factors were eliminated (e.g. cords and cables on the floor). The lecturers had been provided with the microphone during presentation of the topic / issue.

Seniors had the opportunity of hands-on work with the simulation models and practical training of their skills during their lessons in the Simulation Center. Such experience was evaluated as excellent by them. From a didactic point of view, discussion included to the presentation of each topic / issue in addition to lectures and practical skills training. In the discussion seniors used previous experience and knowledge, and tried to think critically about situations simulated and to evaluate them.

In educating seniors, simulation methods are suitable as they cover not only the transfer of theoretical knowledge and information, clarification of concepts and theories, but in particular they can also motivate the students, mobilize and activate them, respect their individuality and specific learning styles and enhance critical thinking skills [15]. Our experience of the use of simulation methods in the group of the UTA senior students at JFM CU in Martin is highly positive, as evidenced by positive evaluation of lecturers' teaching skills, the course and material and didactic arrangement of education at the Simulation Center. Results of the study proved overall evaluation of teaching and training in the Simulation Center was highly positive and respondents positively evaluated lecturers' teaching skills, the course and material and didactic arrangement of education.

Within evaluation of education the seniors should express themselves also on the issue of intergenerational learning. Respondents would welcome such an opportunity and have expressed their interest in the possibility to attend some lectures with students of full-time studies (4.30 - rather yes). Respondents agreed students of full-time studies can participate in selected lectures of the UTA studies together with them (3.87 - rather yes). Intergenerational learning is

defined as the reciprocal learning relationships and interactions between young people and seniors [16]. In the framework of senior education at the UTA held at JFM CU in Martin the possibility of such a form of learning can be considered including simulation education. In the process of teaching the students of study programs general medicine and nursing the UTA senior students can act directly as a source of information to create case reports or clinical case studies and scenarios describing certain specific situations in the lives of seniors. At the same time in the case of their interest and willingness they can be a "model" to describe and demonstrate individual perception of any particular specific (e.g. health related) situation in their life and also the way to cope with it after the discharge from institutional care. The process of such an interaction of nursing students and senior citizens is established in the education at the University of Salford in the UK, where there is a group of seniors, their significant others and primary caregivers to cooperate with, the so-called Service Users and Carers Group. Within such an interaction the seniors' needs to be accepted and appreciated as well as the need of self-realization are saturated. On the part of nursing students it supports their attitude to elderly generation in terms of intergenerational tolerance and solidarity and their learning with the use of alternative, experiential teaching methods, with the possibility of confrontation of theoretical knowledge with real practice, the situation or real experience of seniors [17].

LIMITATION OF THE STUDY

Our research study has several limitations as are number of study sample and inclusion criteria, thus our findings cannot be generalized. Due to the special topic which is solved, we suppose that report similar like it has not been published in Slovak Republic.

CONCLUSION

At present, the seniors have the option to generate new information quite easily through the availability of information and communication technologies, but the problem may arise in relation to their ability to understand that information, sort them and critically reflect them, therefore not consider them automatically as obvious and true. The process of effective education of the elderly should therefore be active with the use of activating educational methods, since learning of seniors is based on their own experience reflected and experience of others shared [15].

Using appropriate educational strategies within senior education at UTA at JFM CU in Martin contributes to formation of the proper attitude to the health of the elderly and healthy aging.

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ACKNOWLEDGEMENTS

Our acknowledgements belong to the UTA senior students who participated in the study.

CONFLICT OF INTEREST

At the beginning of the questionnaire, the respondents were informed about the study aim. Anonymity and voluntary nature of study participation were respected. Authors of the report are not aware of any conflict of interest. The authors declare the study has no conflict of interest.

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