



## The use of role-play as a model of teaching palliative care to interns in general medical practice

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Contemporary medical higher education, especially the postgraduate training of physicians, requires a creative teaching approach to train a competent health care professional. The use of interactive role-play teaching method assists in strengthening the link between practical and theoretical skills, which is especially relevant in teaching of palliative medicine.

The paper is aimed at evaluation of the possibility of improving the effectiveness of the training of medical interns, using the role-play technique. To evaluate the impact of such interactive teaching methods as role-play in teaching of palliative care, we analyzed the effectiveness of teaching of 162 interns from 2014 to 2020. Subgroup I (n=82) involved medical interns who had in-class experience with role play technique. Subgroup II (n=80) involved interns for whom role-play teaching approach was not utilized. The findings of the analysis have revealed that the use of role-play teaching model in Subgroup I increased the academic success rate of interns to 94.7% ( $p \leq 0.05$ ) in contrast to 81.3% ( $p \leq 0.2$ ) in Subgroup II. Moreover, interns of Subgroup I rated the work of the teacher higher (8.2 points), compared to Subgroup II, where the score was 6.9 points. Therefore, the use of role-play as one of the interactive teaching methods in the postgraduate training of interns can improve the basic knowledge in patient care management in both theoretical and practical part of the training, which further improves professional progress and necessitates greater use of this method of interactive training in the postgraduate study.

**Keywords:** *interactive teaching methods; medical interns; role-play; palliative care.*

### Introduction

Contemporary medical higher education in Ukraine and worldwide requires training of a competitive specialist who can effectively use the acquired knowledge in practice. Apparently, theoretical knowledge is crucial in the formation of a competent physician, though the ability to use the acquired skill and abilities in individual medical practice is also important. Once a medical graduate enters the workforce, it is quite often that a young specialist is faced with fears that arise when dealing with patients and their relatives or more experienced and expert colleagues, especially after the first, not very successful, experience [1]. That is why it is crucial for contemporary educators to use the state-of-the-art techniques in teaching medical interns to

feel them confident while using the acquired knowledge in practice.

In the era of advanced technologies, it is quite difficult for the educators to make medical interns interested in the subject and keep their attention for a long time, given the need for the development of professional mobility, self-study in the acquisition of knowledge and a high level of competence [2]. It is especially important to utilize interactive teaching methods in postgraduate internship training that can disclose the potential of future physicians, modeling specific situations, analyzing behavior in different real-life situations more deeply, and evaluating the work of their peers [3]. Application of interactive techniques in teaching aid to use not only acquired professional knowledge, but also to express feelings and emotions, which

allow to take a more creative approach to the use of practical and theoretical skills in contemporary medicine [4].

One of the most effective variations of interactive teaching is the use of role play, which can simulate various aspects of human activity and interaction in society. The main objective of this model of teaching is to eliminate those possible confrontations that arise when applying practical skills and acquired theoretical fundamental knowledge. Moreover, role-play aids in consolidation of the acquired skills and is used to demonstrate certain activities [4,5]. In addition, a favorable atmosphere of communication between an educator and medical intern, positive relationships during the simulated game contribute to better acquisition of the learning material by future physicians and development of confidence in application of theoretical skills in practice.

Role-play, used in the in-class simulation of medical intern's professional activity that imitates the most real case of interaction of a physician with a patient or his/her relatives, allows to optimize the training of a medical professional to be prepared for individual activity, accustoming to the most correct, adequate, qualified behavior in difficult real life situations [6].

The advantages of the use of role-play activity in training of interns are the creation of the most realistic clinical cases to better understand the proper behavior during interaction with a patient and his or her relatives being civil and courteous to one another. This type of interactive learning allows an educator to optimally correct an intern's acquired knowledge and skills, applied in modeled situation. In addition, when interns take turns being a patient in the role-play, an educator promotes developing compassion and sympathy in future physician [7]. However, for the most effective use of this teaching approach in training interns, the modeled situation must involve the largest number of participants, as for the observers, this type of activity may be seemed as far-fetched, unrealistic and boring in case of unsuccessful acting.

To be prepared for a role-play a tutor should first set the objective and intention of the activity and then explain the scenario with roles to play by the participants and tasks for observers. Tutor's support during acting of modeled situation in the form of asking questions is necessary, as well as performance summary feedback [4,5].

The peer feedback during communication and individual approach to each participant, involved into the role-play, is crucial. One of the key roles of a tutor is to point out the mistakes in behavior, made during the acting, and emphasize the best moments, encouraging the most prominent ones. It is a modeled situation that can assist future physicians in real world clinical cases. A well-planned scenario, prepared by an educator ahead of time, is crucial. A tutor should create a complex scenario by describing a specific problem that medical professionals are working on. A role-play scenario should not contain clear-cut instructions for solving the problem, leaving the opportunity to practice the acquired skills and knowledge by the participants [1,8]. Role-play in postgraduate study of physicians assists in evaluation a young professional's readiness for professional activity, and to refine application of the acquired skills and abilities in practice.

The use of role-play is of particular importance in teaching of palliative care to medical interns. It is the primary care physician who often has to coordinate and provide palliative care to the patient. It is often necessary to assess the condition of the patient by organs and systems, evaluate emotional state and provide appropriate psychological assistance, assess pain syndrome and provide symptomatic therapy and appropriate care. Moreover, one of the most difficult aspects of a practitioner activity is communicating with family members, teaching them the skills of provision of care to patients with severe diseases [9]. Palliative care requires a comprehensive multidisciplinary approach that aims to ensure the optimal quality of life of a patient with incurable progressive diseases that limit life expectancy prognosis. Owing to the qualified diagnosis of emerging problems and the provision of adequate treatment, social, psychological and emotional support, the patient is relieved and prevented from suffering the disease [10,11].

For example, role-play in teaching palliative care to medical interns can be used to model the situation of interaction with relatives of an incurable oncology patient who needs constant care and symptomatic treatment at home. In this case, it is especially important to emphasize not only on qualified medical care, but also psychological assistance to the relatives of the patient. In addition, when acting this situation, it is necessary to try the possibility of using non-verbal communication, active listening, as well as methods of linguistic influence on a patient and prevention of physician's own emotional burnout in real world practice. Consequently, in the scenario of the above situation the emphasis should be made on the assessment of pain severity, adequate pain relief and provision of appropriate psychological support to the patient. Thus, the use of role-play as one of the interactive teaching methods in the postgraduate training of interns seems promising in the complex training and requires a deeper study of the effectiveness of its application.

Purpose: to evaluate the possibility of improving the effectiveness of the training of medical interns, using the role-play technique in medical practice.

## **Material and Methods**

To evaluate the possible impact of such interactive teaching methods as role-play in teaching of palliative care to medical interns majoring in family medicine, we analyzed the effectiveness of teaching of 162 interns (30 groups) from 2014 to 2020. All groups were divided into subgroups. Subgroup I (n=82) involved medical interns who had in-class experience with role play technique. Subgroup II (n=80) involved interns for whom role-play teaching approach was not utilized. In both subgroups, all possible advanced pedagogical approaches, both theoretical and practical, to training of medical interns have been used. In Subgroup I, in addition to the applied teaching techniques, role-play was used in modeling the situations related to palliative care. The scenarios on provision of assistance to oncology patients who needed symptomatic therapy and patients with severe neurological diseases acted more often, reflecting interaction with relatives of patients, requiring palliative care and psychological support. The average age of

interns in Subgroup I was  $23.7 \pm 3.9$  years and  $23.9 \pm 4.6$  years in Subgroup II without significant differences, with predominant number of women in both groups (92.7% in Subgroup I and 93.8% in Subgroup II) with no significant difference. When analyzing the data of the success of the interns of both subgroups, no significant difference was found. The average score of physicians' success in the course of palliative medicine was 71.8% in 1 subgroup, and 72.4% in 2 subgroups (without significant difference). Interns at the beginning of the palliative care course were asked to write tests to assess the initial level of knowledge. The positive answer to all test questions was rated as 100%. The analysis of the academic performance of the medical internes of both groups has shown no significant difference. The average score of academic performance of medical interns of Subgroup I and Subgroup II before learning of palliative medicine was 71.8% and 72.4%, respectively in 2 subgroups (without significant difference). Prior to learning the discipline of palliative care interns were asked to write tests to assess the initial level of knowledge. A positive answer to all test questions was rated as 100%.

### Results and Discussion

The analysis of the behavior of interns, getting into role playing, has revealed their high interest in realistic presentation of modeled situation, successful interaction and provision of adequate, timely assistance to the "virtual" patient and full support to relatives of patients. Quite often, participants of the role-play independently conducted a diagnostic search in providing qualified care, expressed interest in the full psychological support of the "virtual" patient and relatives of the incurable patient, more often asked versatile questions that could be helpful in real world practice, and were more concerned about theoretical training.

Following the completion of the study of palliative care, both subgroups of interns were re-interviewed and tested for palliative care provision for population. It has been found that medical interns, who were engaged into role-play activities, had significantly better results in acquiring the learning material. Thus, in Subgroup I the rate of successful performance increased to 94.7% ( $p \leq 0.05$ ) compared to Subgroup II with 81.3% ( $p \leq 0.2$ ). That is, in Subgroup I, the use of role play technique facilitated the rise of interest and more thorough presentation of the study material, based on the practical application and modeling of the theoretical knowledge, as well as significant increase of academic performance, which substantiates the need for the use of this teaching approach in the postgraduate training of medical interns. Subsequently, the interns were surveyed on the evaluation of pedagogical activity of the educator, responsible for teaching of palliative medicine. Noteworthy, interns of Subgroup I, who experienced role playing rated the work of the teacher higher (8.2 points on the scale from 1 to 10 points, where 1-3 points were evaluated as satisfactory teaching of the subject, 4-7 points - good, 8-10 - excellent), compared to Subgroup II, where the score was 6.9 points.

### Conclusions

Therefore, the use of role-play as one of the interactive teaching methods in the postgraduate training of interns can improve the basic knowledge in patient care management in both theoretical and practical part of the training, which further improves professional progress and assists in application of the previously acquired knowledge. Interactive teaching methods provide an excellent opportunity for the educators to make the lessons more interesting and improve the academic performance of interns, which will help them in their future medical practice, add confidence and responsibility in communication with patients, their relatives and colleagues.

Perspectives of further research will encompass the use of other variations of interactive study, depending on specialization and level of prior training with subsequent analysis of the outcomes to broaden the possibilities of postgraduate study of medical interns, applying the acquired knowledge to deepen and more rapid formation of clinical thinking, reinforcement of relationship between theoretical and practical training of the young medical professionals.

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