

Original Research

Studying of the Role of Practice in the Organization of effective Medical Education

Botir Yu. Ulliev, Shakhnoza T. Iskandarova

Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan

ABSTRACT:

The article deals with the study role of practical exercises in organization of effective medical education in Higher Educational Institutions (HEIs) with use the experience of Tashkent Pediatric Medical Institute (TashPMI). To assess the employment of graduates in context of shortage of personnel in primary health care sector the sociological study was carried out. The analysis of results in survey of Employed Graduates of 2017/2018 academic year of TashPMI in Primary Healthcare Facilities (PHF) where the graduates of the 7th grade of 2017/2018 academic year were carried out analyzed. The results of survey, were the material of the study. Thus, during the training as a general practitioner for many graduates. 77,0% had the lack of practical skills or skills that were not related to academic practice and it was the cause of difficulties at the beginning of their professional career.

Key words: graduates, practical training, health care system, medical education.

Received: 12 September, 2020

Accepted: 12 November, 2020

Corresponding author: Botir Yu. Ulliev, Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan

This article may be cited as: Ulliev BY, Iskandarova ST. Studying of the Role of Practice in the Organization of effective Medical Education. J Adv Med Dent Scie Res 2020;8(12):1-3.

INTRODUCTION

The system of training personnel for health care, namely, clinically minded young professionals, requires major changes. Today the personnel issue in this area is acute in the Republic and there is an obvious shortage of personnel. A survey of employed graduates of the 2017/2018 academic year of TashPMI conducted by the marketing department of the Tashkent Pediatric Medical Institute (TashPMI) showed that graduates during the years of study did not have enough academic hours to develop and train practical skills, this led to various difficulties early in their professional careers. In this article, we tried to assess the role of practical training, as well as to consider the types of practical training that can be, and how we think it is necessary to implement for the development and setting of clinical skills among students of medical universities. The purpose of the work is to study the role of practical training in the organization of effective medical education in higher educational institutions on the example of the Tashkent Pediatric Medical Institute.

MATERIALS AND METHODS

The analysis of the results of the survey of employed graduates of the 2017/2018 academic year of the Tashkent Pediatric Medical Institute (TashPMI) was carried out by the marketing department of TashPMI. The practice of higher educational institutions of the near and far abroad, as well as regulatory documents related to the introduction of new technologies and the reform of medical education in the Republic of Uzbekistan, have been studied.

RESULTS AND DISCUSSION

The object of the questionnaire to obtain the scientific material necessary for this study are graduates of TashPMI who were employed in January 2018 at primary health care facilities who have work experience (6 months) for that period, this was the last graduation of 7 years of training. Each graduate was sent a questionnaire consisting of a list of questions. 150 graduates were interviewed. In this article, we tried to evaluate the results of the survey as a platform for introducing various pedagogical technologies into the education process, which are based on the development of students' practical skills. Since it is

practical skills, according to the WISE survey “School in 2030” (School in 2030), are among the three most valuable assets of students, among which “students' interpersonal relations” and “academic knowledge” also have a valuable role [12].

Referring to the results of the survey conducted by the marketing department of TashPMI, which is the material of the study, we can say that during the period of training as a general practitioner, many graduates, and specifically 77%, had difficulties at the beginning of their professional career, the lack of practical skills or skills, which are not related to the academic knowledge of students. This fact may reflect the state of the educational system and shows that the current system of medical education is focused on the upbringing of theoretically savvy young specialists, which creates many problems for the health care system, for example, in the lack of practical training of graduates. Two-thirds of the surveyed graduates do not want to work in the primary health care sector, which can be attributed to the reason for the shortage of personnel, namely, young personnel in polyclinics of the Republic. According to the approximate calculations of the marketing department of TashPMI, more than 75% of primary health care workers are general practitioners aged at least 40 years. We do not deny and have information that due to the shortage of doctors in remote rural medical centers, the situation is no less sad.

According to the Ministry of Health, today there is a shortage of 12,916 workers in the country, including 2,894 general practitioners and 10,022 specialists in narrow specialties. In particular, there is a need for 851 pediatricians, 465 therapists, 326 dentists, 273 anesthesiologists-resuscitators, 269 obstetricians-gynecologists, 216 psychiatrists, 198 radiologists, 192 phthisiatricians, 172 surgeons and 5383 other specialists.

According to the results of the questionnaire survey of employed graduates of the 2017/2018 academic year of the Tashkent Pediatric Medical Institute (TashPMI), graduates (53%) recommend the management and teaching staff of TashPMI regarding improving the quality of education and training qualified specialists, to increase the number of academic hours for obtaining practical knowledge, to reduce the number of social and humanitarian subjects - 8%, as well as a number of other measures.

By the Decree of the President of the Republic of Uzbekistan (No. PP-4310) dated 06.05.2019 on the further development of the system of medical and pharmaceutical education and science, the introduction of a number of changes in the educational system was ordered. A special place in solving this problem, namely the lack of “hours” for training practical skills, was proposed “to introduce into the structures of medical and pharmaceutical higher educational institutions the position of rector (deputy director) for medical (practical) work and the formation of departments for work with clinical

(training) bases with a staffing of two units, financed from extrabudgetary funds of these institutions”. The decree clearly states the need to strengthen the practical component in the educational process by increasing teaching hours in preclinical and clinical modules, including for clinical training practice, as well as introducing the control of practical knowledge in the form of a practical exam and control of educational practice (qualitative and quantitative) [13].

Large studies show that the introduction of “theater medicine” has a special place in the development and training of practical skills among students of medical schools and universities. For example, Gerard J. Gormley et al. [3] write that such improvised teaching methods were powerful methods that helped students comprehend the essence of clinical manifestations. Theatrical medicine is not practiced in the medical education system of our medical universities. I would like to note the role of using the methods of simulation technologies in medical education, which are gaining momentum recently and have a firm position in the organization of medical education. This education technology plays a big role in development and training, and most importantly for consolidating various skills that a particular narrow or broad specialist in a medical profile should possess. According to AMEE Guideline # 82 by Ivette Motola et al. Simulation technologies in medical education “Medical education using simulation has great potential to be used throughout the entire educational process, from senior university courses to postgraduate studies. Simulation can also be used to train medical workers of various specialties, from young professionals to experts” [4].

Medical simulation technologies or modeling, as a rule, are aimed at imitating real patients, anatomical areas or clinical tasks and / or at reflecting the real circumstances in which medical services are provided [8], which accordingly has a beneficial effect on the level of practical training students of medical schools and universities.

M. Akaike et al [1] point out that simulation-based medical education (SBME) is superior to the traditional style of medical education in terms of active teaching of medical students. Since SBME offers students a safe environment for practice and mistakes [1,9]. In a fully immersive simulation, learners can acquire not only technical skills but also non-technical skills such as leadership, teamwork, communication, situational awareness, decision making, and understanding personal constraints [7]. This approach shows us that simulation training develops not only practical skills, but can also prepare specialists with trained personal qualities. For the sustainable implementation of simulation technologies, universities need, firstly, the purchase of SBME simulators, as well as the training of specialists who will monitor the training process and control,

ensure the continuous adequate operation of these technologies.

According to M. Akaike et al, SBME is expected to become an integrated medical educational center for continuous professional development, comprehensive study of fundamental and clinical medicine [1]. The role and place of simulation technologies are also reflected in the decree of the President of the Republic of Uzbekistan (No. PP-4310) dated 06.05.2019 on the further development of the system of medical and pharmaceutical education and science. According to the decree, simulation technologies have been introduced into the system of continuing professional education [13].

Clinical skills in medical consultation and physical examination remain vital to effective patient care, but our survey results and realities point to gaps in clinical skills among students. According to E.S. Holmboe (2004), standardized patients and other modeling technologies are important and reliable tools for teaching clinical skills and assessing competence [10]. No one can deny the role of practical skills in the education of young professionals. As the results of many large studies have shown, a well-done diagnostic search, a skill that should be trained during the student period, was able to bring the young specialist closer to an accurate diagnosis in most cases [5, 11], while laboratory research provided a final diagnosis only in one of 80 consultations.

Thus, medical interviews, physical examinations and counseling remain the most important and effective diagnostic and therapeutic tools. But for the successful implementation of these procedures, careful practical training of young specialists from the student's bench is required [2,5,6,].

CONCLUSION

1. To solve many of the problems that are ripe in the health sector, it is possible to solve by reforming the personnel training system, namely, the system of medical education. For this, we can propose to focus the attention of the organizers of medical education on the improvement of pedagogical technologies that develop and consolidate students' clinical skills.

2. Such technologies include the introduction of "theatrical" medicine, when a student works with a specially trained actor to develop the skills of medical interviewing and consultation; Implementation of SBME technologies for modeling clinical cases and working with immersion in the clinical environment.

ACKNOWLEDGEMENTS

We are grateful to the staff members of Tashkent Pediatric Medical Institute for the cooperation and

support in our research. The participants kindly gave full written permission for this report.

CONSENT

Written informed consent was obtained from all participants of the research for publication of this paper and any accompanying information related to this study.

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

FUNDING

No funding sources to declare.

REFERENCES

1. Akaike M. et al. Simulation-based medical education in clinical skills laboratory. *The Journal of Medical Investigation*. 2012;(59):1,2:28-35.
2. Issenberg SB, McGaghie WC, Hart IR, et al. Simulation technology for health care professional skills training and assessment. *JAMA*. 1999;282:861–6.
3. Gormley G. J., Murphy P. Teaching clinical skills in the theatre of medicine *Perspectives on medical education*. 2018;7(4):226-227.
4. Ivette Motola, Luke A. Devine, Hyun Soo Chung, John E. Sullivan & S. Barry Issenberg *Simulation in healthcare education: A best evidence practical guide*. AMEE Guide No. 82, *Medical Teacher*, 2013;35:10:1511-1530, DOI: 10.3109/0142159X.2013.818632
5. Johnson BT, Boohan M. Basic clinical skills: don't leave teaching to the teaching hospitals. *Med Educ*. 2000;34:692–9.
6. Engel GL. Are medical schools neglecting clinical skills? *JAMA*. 1976;236:861–3.
7. Makoul G. Communication skills education in medical school and beyond. *Jama*. 2003;289(1):93-93.
8. Tucker K. et al. Learning together: clinical skills teaching for medical and nursing students. *Medical Education*. 2003;37(7):630-637.
9. Scaless R. J., Obeso V. T., Issenberg S. B. Simulation technology for skills training and competency assessment in medical education. *Journal of general internal medicine*. 2008;23(1):46-49.
10. Holmboe E. S. Faculty and the observation of trainees' clinical skills: problems and opportunities. *Academic Medicine*. 2004;79(1):16-22.
11. Hampton JR, Harrison MJG, Mitchell JRA, et al. Relative contributions of history-taking, physical examination, and laboratory investigation to diagnosis and management of medical outpatients. *BMJ*. 1975;2:486–9.
12. 2014 WISE Survey: "School in 2030" <https://www.wise-qatar.org/app/uploads/2019/04/wise-survey-school-in-2030.pdf>