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Original Article

A Survey of Special Training Round on Performance of Pediatric Residents

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Abstract

Introduction

Clinical settings and teaching methods play a key role in students' learning. So, the present study aimed to investigates the effect of holding special training rounds on performance of pediatric residents.

Methods and Materials

This quasi-experimental study was conducted on 30 residents. They were randomly divided into two case (n=15) and control (n=15) groups. Two groups received pretest and posttest. Case group received a period of one month of special training rounds by professors. Special training round was one hour training a day. The control group received no intervention. Data was analyzed using SPSS 13 and descriptive and analytic statistical tests.

Results

100% of all residents in case group were satisfied with training round. Mean scores of control residents were as followed: pretest 37.9$\pm$5.1 and post-test 55.2$\pm$7.0 ($P > 0.05$). Mean scores of intervention residents were as followed: pretest 37.5 $\pm$3.7 and post-test 65.6 $\pm$6.7 ($P < 0.05$). There was a significant increase in residents' scores after holding a training round ($P < 0.05$).

Conclusion

findings confirmed the efficacy of special training round on achievement and increase of residents' satisfaction with learning in Pediatric Gastroenterology Department.

Keywords: Training round, Performance, Pediatric Residents.

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Received date: Jul 20, 2014 ; Accepted date: Nov 12, 2014

Introduction

Universities must train students who are able enough to prevent, treat and enhance health in the community. Students acquire required knowledge and information in theoretical classes in order to having maximum efficiency, and gain necessary capabilities in clinical settings by practice and experience (1).

Ironside et al (2010) classified barriers of effective clinical education in five important factors: loss of qualified clinical settings, lack of experienced faculties, ratio of faculty to students, difficulties related to students number, negative modeling of clinical settings and students who are working in different policy get exposed to various clinical settings (2).

Clinical settings play an essential and key role in students' learning (3), as it gives them the opportunity to work with clients and deal with the real problems. Furthermore, clinical settings are suitable for applying students' knowledge in practice and development of psychomotor skills (4). Clinical teachers play a fundamental role in quality of students' clinical learning. Conducted studies

indicate that there are problems such as underrate the clinical training, lack of availability of sufficient numbers of clinical teachers, lack of proper coordination between clinical training of faculty and practice facilities at the hospital, etc (5).

Vallent et al declared that students' learning in clinical education setting is an essential component of teaching and helps the students to link theory with practice at the bedside (6).

In recent decades, it is felt to revise traditional teaching methods and use of modern and active methods of learning by educational systems and the application of these methods in various fields including medical sciences expanded (7).

Various teaching methods have different outcomes and functions. Study the effectiveness of teaching methods has been the focus of education professionals in higher education for more than half a century. Teaching behavior reflects the beliefs and values of the teacher to the learner in the teaching and learning activities (8, 9).

The learning rate and learners' behavior are also affected by the interaction of learners with learning environments, teaching methods and their expectations of what happens during the learning (9, 10). One way to improve education is to determine the effect of teaching methods on student success and teaching efficiency in faculties. Nowadays, it is emphasized to change from traditional teaching methods to new methods that make students' active learning. Besides teachers' interest in improvement of student achievement and assessment teaching quality has increased (11, 12). So, the present study aimed to investigates the effect of holding special training rounds on performance of pediatric residents.

Methods and Materials

This quasi-experimental study was conducted on all residents of Pediatric Gastroenterology Department in Ghaem Hospital of Mashhad, Iran. Sample size was 30 residents determined by census. Written informed consents were obtained from all participants. The residents were randomly allocated into two groups case (n=15) and control (n=15). In control group, the residents were tested with a 65-question specific taxonomy pretest (20% difficult questions, 40% moderate questions, 20% simple questions, 10% very easy and 10% very difficult questions) at entry time to Department of Pediatric Gastroenterology. Then, at the end of this period, the residents

were tested with a 65-question specific taxonomy posttest (the questions were matched and were almost identical with pretest).
The method was implemented in the intervention group; the residents were tested with a 65-question specific taxonomy pretest at entry time to Department of Pediatric Gastroenterology. Then they received a period of one month of special training rounds by professors besides to conventional general rounds (Trainee-Intern and Resident). Special training round was one hour training a day by professors with training methods including Question-Answer, problem-solving, lecture).

Finally, at the end of this period, the residents completed a 65-question specific taxonomy posttest (the questions were matched and were almost identical with pretest).

Validity of used questionnaires were confirmed by four faculties of Pediatric Gastroenterology department and their reliability confirmed by test retest (r=0.84).

Data were analyzed using SPSS 13 and descriptive (mean ± S.D) and analytic (independent T test) statistical tests. $P < 0.05$ was considered significant.

Results

15 residents participated in each group. 100% of all residents in case group were satisfied with training round. Demographic characteristics such as age and gender were not significantly different between two groups ($P > 0.05$). 60% of participants were female.

According to the findings, mean scores of control residents were as followed: pretest 37.9+5.1 and post-test 55.2+7.0 ($P >0.05$). Mean scores of intervention residents were as followed: pretest 37.5 +3.7 and post-test 65.6 +6.7 ($P<0.05$) (Table.1). There was a significant increase in residents' scores after holding a training round ($P<0.05$) (Table. 2).

Tables 1: Mean of pretest- posttest score in pediatric residents in two groups

Group	n	Mean ± S.D		P-value
		Pretest	Post-test	
Control	15	37.9+5.1	45.2+7.0	P >0.05
Case	15	37.5 +3.7	65.6 +6.7	P=0.01

Tables 2: Mean difference of residents' scores after holding special round

Group	n	Mean ± S.D	P-value
Before holding training round	15	17.1+4.2	P=0.00
After holding training round	15	28.1 +5.4	

Discussion

Nowadays, teachers investigate teaching methods which enable students to learn actively (13).

Experts believe that teaching and learning of medical sciences at all levels requires educational planning, experienced teachers, suitable educational environment and required technical equipment and facilities. Mentioned factors interact with and influence on each other. The purpose of clinical teaching is to get competencies and professional skills in order to guarantee the quality of care provided with graduates of medical professionals for various patients. Hence, the clinical competence has been proposed as a key element in providing medical and nursing care (14). Clinical competence is to provide necessary cares in accordance with professional standards of performance (15, 16).

The present study showed that holding special educational round has had a positive effect on enhancing learning and satisfaction of residents. Lander believes that a solution to eliminate the gap between education and practice is the presence of effective teachers in the learning environment who use their time the best way in clinic to educate the students and integrate theoretical knowledge with practical skills (17).

Karimi Munaghi (2010) emphasized the use of a model for clinical teaching by teachers. He also defined components of modeling for a clinical teacher as a clinical instructor should be competent in carrying out the procedures and show his efficiency and self-confidence at the bedside. He must have a professional behavior and show a sense of professionalism with the students (18).

Anbari et al (2010) also introduced applying educational policies based on experience and learning objectives of students, formative assessments continuously throughout the course, and provide effective and timely feedback to students, as the most effective strategies in order to enhance the quality of medical education and growth capabilities (19).

The present study showed that the residents were satisfied with this educational round and they know it effective in enhancing their learning. Richardson also believes that the essential key of effective teaching method is active participation of learner in learning process (20). Furthermore, active learning of students makes learning more enjoyable for student, causes more motivation and finally makes deep learning (21).

Schaefer et al believed that effective teaching requires teachers change teacher-centered teaching to student-center approach. This innovation causes students' indecency in learning and helps to develop creative skills in Problem-Solving and Critical Thinking (22).

Conclusion

The findings confirmed the efficacy of special training round on achievement and increase of residents' satisfaction with learning in Pediatric Gastroenterology Department. So it is proposed to increase residents' learning by a goal-based training with coordinating teachers in addition to the general round.

Conflict of interests: None

Acknowledgments

The authors would like to acknowledge all professors and residents who participated in this study.

References

1. Anderws M, Poberts D. Supporting student nurses leaning in and through clinical practice: the role of the clinical guide. Nurse educ today 2003,23(7): 474-81.

2. Ironside PM, Mcnelis AM. Clinical Education in Prelicensure Nursing Programs: Findings from a National Survey. Nursing Education Perspectives 2010;31(4):264-65.
3. Astin F, Newton J, McKenna L, Moore-Coulson L. Registered nurses expectations &experience of first year undergraduate students clinical skills & knowledge 2005; 18(3): 279-291.
4. Champ man R, Orb A. The nursing students lived experience of clinical practice .Australian Electronic Journal of Nursing Education (AEJNE) 2000; 5(2):227-232.
5. Williams A F. An Antipodean evaluation of problem– base learning by clinical education. nurse education today 1999;19(5):659-67.
6. Vallent S, Noville S. The relationship between students nurse and nurse clinician:impact on students learning. Nurse Prax N Z 2006: 22(3) :23-33.
7. Love RR. Methods for increasing active medical student participation in their own learning: experience with asingle 30-hour course for 111 preclinical students. J Cancer Educ 1990; 5(1):33-6.
8. Rasoulynejad A, Rasoulynejad V. Learning styles of paramedical students of Kashan University of Medical Sciences 2005. SDME 2006; 3(1): 26-32.
9. Heimlich JE, Norland E. Teaching style: where are we now? New Direc Adult Contin Educ2002; 93: 17-25.
10. Wallace BA, Truelove JE. Monitoring student cognitive-affective processing through reflection to promote learning in high-anxiety contexts. J Cogn Affect Learn 2006; 3(1): 22-7.
11. Alexander J, McDaniel G, Baldwin M, Money B.Promoting, applying and evaluating problem-based learning in the undergraduate nursing curriculum. Nurs Educ Perspect 2002;23(5):248-53.
12. Abu Hasheesh M, Al-Mostafa O, Obeidat H. Traditional versus nontraditional methods of teaching: The impact on nursing teaching effectiveness and student‘s achievements at nursing colleges. Najah Univ J Res 2011;25(1):255-75.
13- Russelt A, Comello R, Wright D. Teaching strategies promoting active learning in health care education. J Educ Human Dev 2007;1(1):1.
14. Khodayarian, M. Vanaki, Z. navipoor, H. Vaezi, AA. The effect of nursing management development program on clinical competency in coronary care unit. Behbood Journal 2011; 15(1): 40-50.
15. Australian Nursing Federation. Competency standards for registered and enrolled nurses in general practice 2005: 361 .
16. The ANCI National Competency Standards for The Registered Nurse. May 2000. Australian Nursing Council Incorporated. P: 1 28 Available at URL: www.nursesreg.nsw.gov.au.
17. Landers MG. The theory-practice gap in nursing: the role of the nurse teacher. Journal of Advanced Nursing 2000; 32: 1550–56.
18. Karimi Munaghi H. Mohammad hosseinzadeh M. Binaghi T. Akbari Lake M. Applied guidance for effective clinical teaching. Publishing institution of Ferdowsi University of Mashhad. 1st edition; 2010. P:12,106-7.
19. Anbari Z, Ramezani M. The obstacles of clinical education and strategies for the improvement of quality of education at Arak University of Medical Sciences in 2008. Arak Medical University Journal (AMUJ). Summer 2010; 13(2). P: 110-118.
20. Richardson D. Don’t dumps the didactic lecture: Fix it.Adv Physiol Educ 2008;32:23-4.
21. Petress K. Critical thinking: An extended definition.Education 2004;124(3):461-6.
22. Schaefer K, Zygmont D. Analyzing the teaching style of nursing faculty. Nurs Educ Perspect 2003;24(5):238-45.