

Research Article

The Assessment of Effectiveness of the Training Sessions at the Research –Training Consultative-Diagnostic Centre (Rtcdc) of Family Medicine and Pre-Medical Training

Kolesnik P

Director of Educational Research Training Center of Family Medicine and First Care, USA

Shushman I

Family Medicine and Therapy Department, Ukraine

Kedyk A

Family Medicine and Therapy Department, Ukraine

Hosam Mansour

October 6th University, 6th of October City, Giza Governorate, Egypt

Ahmed Masoud

Benha University, Banha, Al Qalyubia Governorate, Egypt

ABSTRACT

This article provides the information on the effectiveness of the training sessions in the system of the Family Doctors studies. Before the training over a third of the would be trained doctors has not reached the average level of the required knowledge on the chosen topic. Training, as a practical means of Family

Doctors education proved to be almost 100% effective as to the level of the information assimilation.

Keywords: training center, innovative teaching methods, training-seminar, family medicine.

Introduction

According to the direction selected by Ukraine as to the primary health care it is based on the family medicine. So it became necessary to introduce innovative methods of studying including trainings. Trainings are practical seminars for family medicine doctors which significantly differ from the traditional classical format of lectures, seminars and workshops and can increase the efficiency of representation and effectiveness of practical knowledge of doctors in Ukraine.¹

According to the international data on the effectiveness of different forms of education, the classical lecture presentation of information has the lowest percentage in assimilating knowledge, namely 5%. The most effective are teaching others (90%) and practical skills training (75%).²

Training seminars as a form of group work envisages the active participation and creative interaction among the members and with the tutor.

As a form of pedagogical influence training primarily involves the active methods of group work (Table 1)

The innovative active learning methods are used in order to train and develop the creative thinking the same as to create appropriate practical skills.

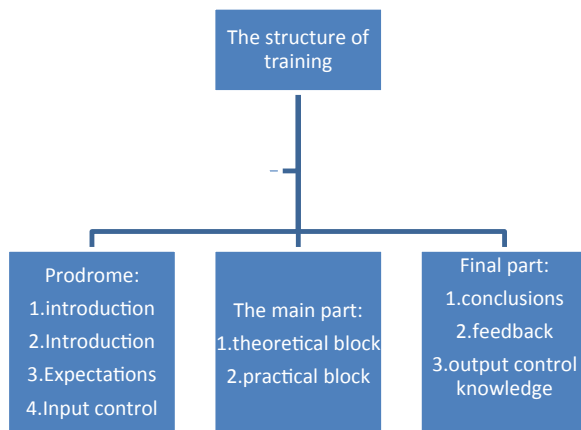
The training process is carefully planned to provide or replenish knowledge, testing skills, change or update certain attitudes, opinions and beliefs (Table 2).^{2,3}

The Educational Research Training Center of Family Medicine and First Care was launched in 2013 and in a short time became popular among family doctors of Transcarpathian region of Ukraine due to innovative forms of practical education. Short-term (one day) training seminars were organized for family doctors and were aimed to increase their practical knowledge in the main important topics. Participants were able to get credits for 8 hour seminar training.

The training seminar under the name “Acute respiratory diseases and their complications - a practical approach of a family doctor” organized within the Project “Non-stop professional development and education of the Ukrainian doctors” can be a good example of such successful teaching of the family doctors. First, the participants of the training were familiarized with the structure of the training day: they were given the duration and location of the workshops and the input test on the subject of the training day. The seminar has started with the introductory lecture on the selected themes, which was not only informative but also motivational. The material was presented using the following techniques: brainstorming, work in small groups, analysis of clinical cases. Any training is implemented through the interactive learning, i.e. learning in the course of training. Thus, to improve the effectiveness of the classes all the trainees were divided into two groups, 15 people in each. The division was made not at random but by the purposeful organization of heterogeneous groups according to the age of the participants. According to the organizers’ point of view, such division allows to regard the issue both from practical and theoretical points of view. Besides, it gives the chance to share experience. Due

Table 1: Active teaching methods.

Method	Purpose
"Brainstorming"	To collect diversity of ideas on specific topics in the group
Work in small groups	To increase the degree of involvement of students and allow them to learn from each other
Demonstration	To show to students the correct ways of the ideas fulfillment
Situational tasks	To ground the knowledge using concepts and new information when considering the real life situations.
RPG Games	To show the specific activities or certain skills of practical work
Feedback	To assess the rate of the educational and emotional reaction of listeners to what they heard or saw

Table 2: Structure of the training sessions.

to the coaches' facilitation skills, they managed to level the age differences within the group, so that the participants could express their views freely. Two organized groups held the seminars on the topical issues of the respiratory diseases and their approaches to diagnosis and treatment simultaneously. The duration of the seminars was the same - 45 minutes, enabling the most effective rotation of the groups, so that every participant could alternately participate in each workshop. To reduce the intellectual load and restore mental capacity each seminar was interrupted by 5-15 minutes coffee breaks.^{4,5}

With a general theme of the seminar, the methods of presentation were significantly different that increased interest and attention of the trainees. Thus, the workshop №1 (topic "Nebulizer therapy") was conducted by the method of working in small groups. This method helps to increase the degree of involvement of students. There is always an opportunity of learning from each other and of creating a feeling of collectivity in the group. The demonstration technique was used too. Each group was given an individual problem the final solution of which was presented to the audience followed by the discussion. In order to transform the theoretical information into practical action the trainer demonstrated the technique himself teaching the trainees how to use the nebulizer. In order to consolidate the acquired knowledge and to apply it in practice, the trainees were offered the case studies close to the real life situations.

Workshop №2 (topic: "Otoscopy in the practice of the family doctor") was held in a form of the video - photographs session with explanations and interactive reporting, which allowed the trainees not only recognize the different pathologies during otoscopy but also differentiate the diagnosis in various clinical cases. The systematization of the material helped to facilitate the assimilation of the large amount of information. Besides, the trainees had the opportunity to master the technique of otoscopy and to work out their skills on their colleagues- volunteers.

The workshops were followed by another interactive lecture "The practical approach of treating complications of the respiratory diseases", concluded by the initial testing.

The training day was concluded by the feedback to discuss the positive and negative points of the training. Everyone had the opportunity to share their experiences, suggestions and highlight points that were new and most interesting for them personally.

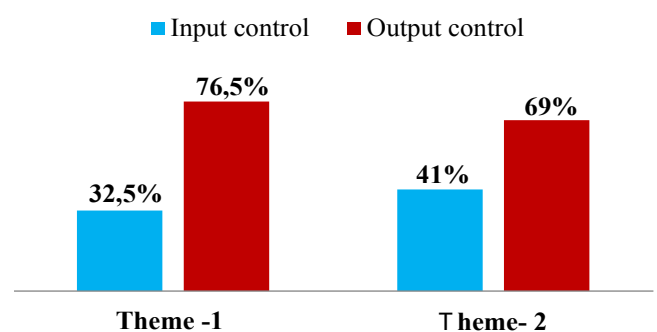
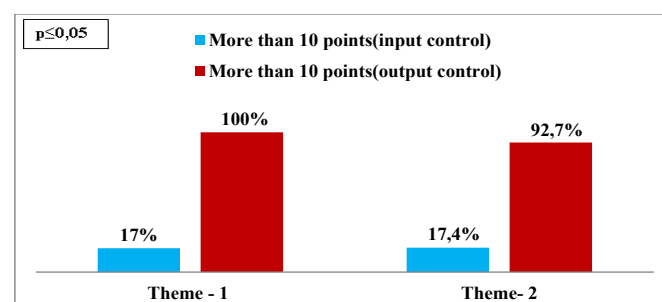
Materials and methods

To evaluate the effectiveness of the training sessions and assimilated knowledge of the Family Doctors from Transcarpathian region we conducted the input and output testing. The tests included 20 questions within the studied training subjects with 4 answers, only one of which was correct. Each correct answer was evaluated as one point, so the total number of points was 20. The questions at the beginning and at the end of the training were identical.

The statistical analysis of the data, including the definition of the T-test was conducted using Microsoft Excell 2007.⁶

Results and comments

We managed to conduct 10 training sessions, five of which were on " Acute respiratory diseases and their complications - a practical approach of a family doctor " (theme - 1) and five on

**Figure 1:** The level of knowledge before and after the training been conducted.**Figure 2:** Efficiency of training sessions.

"Metabolic syndrome in the practice of a family doctor" (theme- 2).

The total number of the trainees who participated in the test was 134, 65 people for the theme 1, and 69 for the theme 2.

The average result of the input testing for the 1 st theme was 6.5 points (32.5% correct answers) and for the 2- nd theme it was 8.2 points (41% correct answers). Thus, the level of knowledge shown by the trainees was below average even though the subject chosen for the seminar was very relevant.

The average output test result for the theme- 1 was 15.3 points (76.5% correct answers) and for the theme 2 - 13.7 points (69% correct answers, Figure 1). The level of knowledge of the trainees has increased by 44% (8.8 correct answers more), and 28% respectively (5.5 correct answers more).

The number of the trainees who correctly answered half of the test questions (received 10 or more points) for the theme - 1 input control test was 11 people (17%), while at the output test practically all the trainees have given more than half of the correct answers out of 100%.

The number of the trainees who correctly answered at least half of the input test questions for the theme - 2 was 12 people (17.4%) while at the output control 64 people received more than 10 points (92.7%). So after the trainings the knowledge of almost all the trainees was more than average (Figure 2).

Conclusions

1. The output level of the trainees' knowledge shown for Theme-1 and Theme-2 was 6.5 and 8.2 points respectively that corresponds to the below average level and at the same time confirms the relevance of the chosen training themes.

2. The increase in the average score after the training constituted 44% for Theme - 1 and 28% for Theme - 2.
3. After the training almost 100% of the trainees had shown the knowledge above average that proved high efficiency of the training sessions.

REFERENCES

1. Gurevich R.S. ICT in professional education of future professionals / R.S. Gurevich, M. Y.Kademiya, M.N.Kozyar; red.member for corporations. NAPS Ukraine Gurevich R.S. - Lviv: LSU BC, 2012; 380 p.
2. Kademiya M. ICT training: Glossary / Kademiya M., M. Kozyar, T. Rak. - Lviv, Spolom, 2011; 136 p.
3. Encyclopedia of Education / Acad. ped. Sciences of Ukraine [Ch. Ed. VG Kremen]. - K: Yurinkom Inter, 2008; 1040 p.
4. The new pedagogical and informational technologies in the system of education: Textbook. Manual for students of pedagogical high schools and systems of qualification of ped. personnel / [E. Polat S., M. Buharkyna, M. Moiseev, A.E. Petrov]; under. Ed. ES Polat. - 2nd ed., Erased. - Moscow: Publishing center "Academy", 2005;272 p.
5. Furs M.V. Interactive forms of learning - Increase funds of the levels of professional Preparation students / M.V. Furs // Vestnik High society school. - № 10. -November. – 2011; S. 29.
6. Steimle Y., Gurevych I. Muhlhauser M. Notetaking in Universite Corses and its Implications on e-learning Systems. In: Tagungsband der 5.e. - Learning Fachtagung Informatik, Siegen, Germany, pp. 45-56.

ADDRESS FOR CORRESPONDENCE

Pavlo Oleg Kolesnyk, PhD, Director of Educational Research Training Center of Family Medicine and First Care, USA, Tel/ fax: (380312)650833, e-mail: dr.kolesnyk@gmail.com