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The Effects of a Basic Psychosomatic Course on Knowledge and Practice of Family Medicine Residents

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Quantitative Study

Abstract

Background: Psychosomatic medicine is a systemic model of care based on the biopsychosocial model in which the physical, emotional, and social aspects of clinical conditions are considered. Family Medicine (FM) and psychosomatic medicine have many similarities in their community-based and family-based approaches. Studies have shown the necessity and effectiveness of psychosomatic medicine training for general practitioners (GPs) and family physicians.

Methods: We designed a psychosomatic course for FM residents. This semi-experimental study was performed at Isfahan University of Medical Sciences, Iran, in 2018. The target population included 11 FM residents. A compact 20-hour module (4 days, 5 hours each) was designed for the training. The Knowledge and Practice of Psychosomatic Medicine Questionnaire (self-administered) for the concepts and skills of psychosomatic medicine was filled out by each of the FM residents before and after the intervention. For each resident, caring for patients was monitored and a Performance Appraisal Checklist was completed by the supervisor. Finally, the questionnaire scores before and after the intervention were compared using paired t-test.

Results: The total knowledge and practice score increased significantly after the intervention (258.5 ± 40.3 vs. 174.6 ± 62.9; P = 0.002). There was also a significant increase in the mean psychosomatic care performance scores after the intervention (28.65 ± 3.52) compared with baseline (21.18 ± 5.94) (P = 0.001).

Conclusion: This study showed that basic psychosomatic care training for family physician residents, even in short courses, can have a positive effect on their clinical knowledge and performance.

Keywords: Psychosomatic Medicine; Family Practice; Residency; Curriculum

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Introduction

Psychosomatic medicine is a systemic model of care based on the biopsychosocial model. In this model, the physical, emotional, and social aspects of each clinical condition are considered and managed in an integrative approach. The doctor's task is to recognize not only the organic components, but also the psychosocial processes involved in the disease and to take these into account. Only in the framework of a psychosocial anamnesis can psychosocial stressors be identified by the doctor (Fritzsche et al., 2019). Comprehensive psychosomatic medicine has presented this idea that the interaction between mind, body, and environment can lead to better knowledge on physical symptoms and patient's illness (Zipfel, Herzog, Kruse, & Henningsen, 2016).

The combination of paying attention to physical and mental problems with the purpose of better diagnosis and treatment, and using psychosomatic approaches in educating nurses, health workers, and physicians (from general practitioners to different groups of specialists) is one of the great developments in the field of psychosomatic medicine in recent decades (Deter, Orth-Gomér, Wasilewski, & Verissimo 2017).

Family medicine (FM) and psychosomatic medicine have many similarities in their approaches and methods; both treat patients through biological, psychological, social, cultural, and spiritual aspects. Moreover, both fields have community-based and family-based approaches. Furthermore, when we look at their history, they both have their roots in system theory. Therefore, it seems that psychosomatic approaches to FM only emphasize some of its fundamental principles (Goli, Afshari, Zamani, Ebrahimi, & Ferdosi, 2017).

Many studies all over the world have shown the necessity and effectiveness of psychosomatic medicine training for general practitioners (GPs) and family physicians. The biopsychosocial approach is one of the key values for most physicians. Previous researches show that this approach has its own benefits like more doctor-patient satisfaction and less complaint due to medical malpractice (Zipfel et al., 2016; Wortman et al., 2019 ;Rothermund et al., 2012, Andersen, Kiecolt-Glaser, & Glaser, 1994).

Psychosomatic researches have also been able to determine the predictors of non-compliances, a problem that could deprive the patient from maximum care (Roter & Hall, 1992).

Many universities and medical educators in the world are exploring psychosomatic teachings as well as trying to increase the knowledge, attitude, and practice of their graduates about psychosomatics.

For instance, Fritzsche et al. (2019) conducted a study about performing a training program in China, Vietnam, and Laos. This program was implemented in 3 courses for 3 years, and during this time, 200 physicians with different specialties participated in the training. At the end of the training, 30 physicians were chosen as future teachers. Doctors were convinced that the course had a positive impression on their profession (Fritzsche et al., 2019).

US universities' curriculum also covers psychosomatic concepts at some level, but Waldstein, Neumann, Drossman, and Novack (2001) believe that improving medical curriculum for more comprehensive patient management and is a necessity.

The approach to psychosomatic medicine varies in different countries. For example, it has entered the medical and nursing curriculum in some countries like Germany. It is defined as a specialty in some European countries, but at the same time is not considered noteworthy in many other parts of the world (Scheidt, 2017).

A brief history of the Family Physician Program (FPP) in Iran shows dramatic changes over 13 years. The subjects to be considered in this program are the implementation of FPP in megacities after providing the required infrastructures such as electronic health records, the appropriate training of skillful family medicine physicians, and private sector participation in implementing the FPP (Ferdosi, Goli, Aghili, & Daneshvar, 2018). It seemed that psychosomatic medicine is the absent factor in this program and could cover at least the family physicians' knowledge and practice deficits, especially in biopsychosocial assessment and psychotherapeutic methods. Previously, an educational program named "Mental Health in Family Medicine in Iran" (2015-2018) was designed by Isfahan University of Medical Sciences and Danesh-e Tandorosti Institute under the supervision of the Department of Psychosomatic Medicine and Psychotherapy of Albert-Ludwig's University, Freiburg, and support of the German Academic Exchange Service. The main goal of this program was to facilitate the integration of psychosomatic medicine into the FM curriculum.

With regards to the increasing importance of attention to psychosomatic aspects in the approach to patients in primary and secondary health care, starting and generalizing the education on this matter seems necessary. To reach this goal, it seems that considering psychosomatic medicine in medical training is a necessity. The importance of collaboration between clinical medicine and psychosomatic medicine has been in the spotlight for many years in Isfahan, Iran. Therefore, the aim of this study was to evaluate the effect of training a patient approach with a psychosomatic perspective on knowledge and practice of FM residents in routine visits of outpatients and to compare their score of knowledge and practice regarding the concept of psychosomatics before and after the training course.

Methods

This semi-experimental study was conducted in Isfahan University of Medical Sciences in 2018. Our target population consisted of FM residents studying at this university. Due to the small number of residents studying in this field, all 11 subjects were included in the study after obtaining informed consent. After holding an expert panel consisting of 5 individuals including specialists, trainers, and researchers in FM and psychosomatic medicine and performing some pilot educational programs for community medicine and FM residents, and also considering the limitations in the FM residency schedule, we designed a compact 20-hour module (4 days, 5 hours each day) for the training. Since the present study is the result of training in the form of a residency curriculum, there were no ethical considerations. The topics of the sessions' are presented in table 1.

The Knowledge and Practice of Psychosomatic Medicine Questionnaire was filled out (self-administered) by each of the FM residents before and after the intervention. This questionnaire included residents' demographic profile such as age, gender, work experience (as a GP) and an executive history as a family physician. After that, 40 questions were asked in 7 fields and each question was scored in a range of 1-9. Therefore, a score between 40 and 360 can be obtained from the whole questionnaire. The 7 fields include understanding, cognition and attention (2 Qs), prevention (4 Qs), diagnosis and treatment (9 Qs), consultation (4 Qs), relationship and empowerment (9 Qs), disorder management (6 Qs), and patient referral (6 Qs). The scores of all the questions were added together and the final score of knowledge and performance as well as the score of each domain was obtained. The performance appraisal questionnaire was previously validated in another study using the Delphi technique (Ferdosi Massoud, Goli Farzad, Scheidt, 2021).

Table 1. Training module

Topic	Sub Topics	Axises	Lectures and Activities	Duration (minutes)
I. What is psychosomatic medicine?	Psychosomatic medicine: Bases, Scope, Method	Bases; Mind-Body Connections	Psychoneuroimmunology/ Epigenetics Biosemiotics	45
		Scope	Placebo response/Coping with stress and illness/healing relationship and communication	45
		Method	Integrative/Interpersonal/ Narrative/Contextual/Functional	45
	Balint group	Principles and rationales	Fostering Doctor-Patient relationship	45
	Balint group	Groupwork	Balint group	60
Feedbacks of the assignments				20
II. Emotions, Behaviors and Relations	The origins of emotion and behaviour; An overview	Genes	- Polyvagal theory - Mind modules	40
		Memes	- Attachment styles - Conditioning (classic, operant, abstract) - Cognitions & web of belifes	40
	Doctor-patient Communication	Basic Skills	Active listening/ Paraphrasing/ reflection/ summarizing	35
		Content	Anamnesis/ Genogram/ Timeline	
	Role Play		D-P communication	45
	Balint group	Groupwork	Balint group	60
Feedbacks of the assignments				20
III. Coping and Problem Formulation	Coping with Stress		- Homeostasis and Allostasis - General adaptation syndrome - Illness and stressor - Relaxation response and training	35
	Progressive Relaxation Training	- Training - Feedbacks	Progressive Relaxation training	45
	Problem Formulation		- Lifeworld Vs biomedical discourse - Patient attributions and expectations - Co- Constracting a problem: intro	35
	Role play		Giving Voice to the patients lifeworld	45
	Balint group	Groupwork	Balint group	60
Feedbacks of the assignments				
IV. Positive way to change	Resistance to change		- Change rehearsal - Compassion vs. Shame - Self-acceptance and immature defence mechanism	45
	Questioning and resource-based approach	solution-focused brief psychotherapy	- Scaling/Exception/Miracle Questions - Positive contextualization of the problem	45
	Role play		Questioning; more descriptive, more positive explanation	60
	Balint group	Groupwork	Balint group	60

Moreover, for each resident, 2 cases of patient care were observed and a Performance Appraisal Checklist was completed by the supervisor. The checklist contains 6, 14, 9, and 2 items regarding doctor-patient relationship, doctor-patient communication, adjustment-related disorders, and psychological factors affecting medical conditions, respectively (fulfilling the item = 1, not fulfilling the item = 0). The residents knew that they were being observed, but did not know the items being examined.

Finally, each questionnaire's scores were calculated in different fields and in general before and after the intervention, and were compared using paired t-test and Mann-Whitney U test (if they did not have a normal distribution) in SPSS software (version 16; SPSS Inc., Chicago, IL, USA).

Results

In total, 11 residents with an average history of 14 ± 1.36 years of working as a GP participated in the training course. They consisted of 4 men and 7 women with an average age of 48 ± 4.41 and 43 ± 2.16 years, respectively. Before the intervention, 9 of them filled out the Knowledge and Practice Questionnaire and the Performance Appraisal Checklist was completed for 16 cases. After the intervention, 11 questionnaires and 23 cases were completed. Pre-intervention and post-intervention knowledge and practice scores are presented in table 2 and the Performance Appraisal Checklist scores (before and after the intervention) are presented in table 3.

Discussion

This study was conducted to investigate the effect of holding psychosomatic courses on the knowledge and skills of FM residents at Isfahan University of Medical Sciences.

The results of the Knowledge and Practice Questionnaire showed that the 20-hour basic psychosomatic care program was positively effective in all domains. The participants' sensitivity in sign recognition and cognitive abilities was higher after the course. Their applied and interactive training can explain these cognitive changes. Their prevention, and diagnosis and treatment competencies had also evidently increased. The curriculum was focused more on the methodological points and systemic view that demonstrates their promotion in the above-mentioned items. The consultation and empowerment knowledge and practice of the family physician residents had also improved after the course, which can be explained by their training on communication skills and resource-based and solution-focused approach. Their improvement in the management of stress-related disorders and patient referral can be attributed to the integrative care instructions of the program. The course was significantly effective on the overall promotion of the assessed psychosocial competencies.

The performance observations showed findings consistent with the data collected using the questionnaire. The significant promotion of their doctor-patient relationship and communication, management of the adjustment-related disorders and psychological factors affecting medical conditions, and their overall promotion in psychosomatic basic care can be explained by the related topics, role-playing, case discussions, and balint groups in the course they took part in.

Table 2. Residents' mean scores on essential psychosomatic knowledge and practice for family physicians (mean ± SD) (Part I)

Field	Understanding, Cognition, and Attention	Prevention	Diagnosis and Treatment	Consultation
Before the Intervention	9.2 ± 2.8	15.5 ± 5.3	37.6 ± 12.5	17.1 ± 6.3
After the Intervention	11.8 ± 2.2	24 ± 4.5	57 ± 8.9	25.9 ± 4.9
P-value*	0.035*	0.001*	0.001*	0.003*

Table 2. Residents' mean scores on essential psychosomatic knowledge and practice for family physicians (mean ± SD) (Part II)

Field	Empowerment	Disorder Management	Patient Referral	Total Score
Before the Intervention	41.6 ± 18.4	25.4 ± 7.7	28 ± 10.7	174.6 ± 62.9
After the Intervention	59.2 ± 11.8	39.7 ± 6.8	40.8 ± 8.5	258.5 ± 40.3
P-value*	0.019*	0.001*	0.008*	0.002*

*significant at 0.05, using paired t-test

Table 3. Residents' mean performance scores in psychosomatic care before and after the intervention (mean ± SD)

Field	Doctor-Patient Relationship	Doctor-Patient Communication	Adjustment -related Disorders	Psychological Factors Affecting Medical Condition	Total Score
Before Intervention	4.43 ± 1.36	9.50 ± 3.11	6.25 ± 1.69	1.00 ± 0.81	21.18 ± 5.94
After Intervention	5.65 ± 0.71	13.00 ± 1.83	8.17 ± 1.99	1.82 ± 0.49	28.65 ± 3.52
P-value*	0.001*	0.001*	0.001*	0.001*	0.001*

*significant at 0.05, using Mann-Whitney U test

These findings are in line with previous studies on the effectiveness of psychosocial training for physicians, though the duration of the training course was longer in some of these studies (Zipfel et al., 2016). Applying diagnostic tests and mental health issues are some of the aspects evaluated in other similar researches, which showed improvements in knowledge and practice of participants (Waldstein et al., 2001; Stewart et al., 2000).

The results of this study showed that basic psychosomatic care training for family physician assistants, even in short courses, can have a positive effect on their clinical knowledge and performance. Scores in all areas of prevention, diagnosis, counseling, communication skills, patient management, and patient referrals increased after a short course of psychosomatic medicine training.

However, in some similar researches it was expressed that psychosomatic courses should be integrated into the general medicine curriculum to further improve the knowledge, attitude, and practice of graduating physicians (Fritzsche et al., 2012). In addition, other studies suggest the use of psychosomatic medicine training not only in primary care, but also in hospitals, which can be mentioned as one of our study's limitations (Fava, Sonino, & Wise, 2012). Another limitation of the study was the small sample size due to the limited number of residents. Moreover, the lack of a control group can be considered as another limitation.

Conclusion

It is suggested that the present study be conducted at a larger scale in FM residents in primary care as well as hospital care in order to obtain more reliable results. Furthermore, our proposed brief program on psychosomatic basic care is applicable in general medicine students and even residents. Of course, the main psychosomatic skills can be embedded in different clinical courses.

Conflict of Interests

Authors have no conflict of interests.

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