Website: http: jebhpme.ssu.ac.ir
EBHPME 2021; 5(1): 4-10 pISSN: 2538-5070

EBHPME

PERSPECTIVE ARTICLE

Evidence Based Health Policy, Management & Economics
Health Policy Research Center, Shahid Sadoughi University of Medical Sciences

Teamwork Approach in Lifestyle Modification in a Health Clinic: A Perspective Study

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ARTICLE INFO

Article History:
Received: 21 Dec 2020
Revised: 29 Jan 2021
Accepted: 2 Mar 2021

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ABSTRACT

Chronic diseases have become an acute challenge in health. Providing a framework for the transformation of services could be very helpful. In this study, the teamwork services based on lifestyle modification used in a series of Health Clinics in Isfahan (Iran); have been reported as a desirable method in the treatment of metabolic Syndromes. "Iranian Health Clinics" have been providing services in the fields of lifestyle modification, promoting healthy lifestyles, diagnosing and treating metabolic syndromes such as diabetes, hypertension, hyperlipidemia, as well as weight regulation and stabilization. This clinic series offers its services as a team of psychologists, nutritionists, physical trainers, and physicians. Treatment of metabolic syndromes by the team-based method as well as continuing contact with patients in the courses of treatment, stabilization, and training of health ambassadors can be instrumental in consolidating the results using this framework in the control of metabolic syndromes.

Key words: Health care management, Lifestyle, Behavioral modification, Non-communicable disease, Metabolic syndrome

Citation

This paper should be cited as: Ferdosi M, Kolahdouzan M, Nikkar Isfahani B, Kolahdouzan A, Kolahdouzan MSh. **Teamwork Approach in Lifestyle Modification in a Health Clinic: A Perspective Study.** Evidence Based Health Policy, Management & Economics. 2021; 5(1): 4-10.

[DOI: 10.18502/jebhpme.v5i1.5641]

Introduction

One of the biggest challenges facing the new generation of health systems in the world is the increasing burden of chronic diseases (especially metabolic syndromes) (1). Reducing the risk factors for metabolic syndrome is a challenging issue in controlling metabolic syndromes, and costly programs are not necessarily more effective than others (2). Several studies have shown that lifestyle modification intervention with a team of a nutritionist and a physical trainer is generally associated with improvements in blood lipid, blood pressure, and blood sugar parameters (3). Modern health services have gradually shifted their focus from studying mortality due to the health consequence to broad categories such as health promotion, lifestyle, and quality of life (4). The results of several intervention studies with a lifestyle modification approach for people with metabolic syndrome have shown that the team approach (including the physician, nutritionist, physical trainer, and psychologist) has significantly reduced the prevalence of metabolic syndrome in individuals (5–7). On the other hand, studies have shown that teamwork services interventions have better and more persistent effects. It also provides new opportunities for patient-centered care by providing more personalized, timely, participatory, and empowering patient care, allowing physicians to spend more time managing more complex and immediate issues as they occur (8,9). To reduce the burden of non-communicable diseases (NCDs) and their associated risk factors, the Ministry of Health and Medical Education (MoHME) has prepared and compiled a national document for the prevention and control of NCDs and risk factors. The committee was set up with the overall goal of a 25 percent reduction in non-communicable disease mortality by 2025. The action plan of the National Committee for the prevention and control of NCDs and the related risk factors in the Islamic Republic of Iran includes seven activities:

1.Prioritizing NCDs at the national level and integrate the prevention and control of these diseases in the policies

2.Establishing and strengthening national policies and programs for the prevention and control of NCDs.

3.Promoting interventions to reduce the main common and modifiable risk factors for NCDs, such as smoking, unhealthy diet, physical inactivity, etc.

4.Increasing research for the prevention and control of NCDs

5.Increasing the cooperation to prevent and control NCDs

6.Monitoring NCDs and their determining factors and evaluating progress at the national level

7.Preparing and compiling a provincial document for the prevention and control of NCDs in the country

Unfortunately, the model presented by the MoHME is more theoretical and does not show well how to provide services to reduce the burden of NCDs. However, many studies found that the most common lifestyle modification interventions included diet, exercise, health education, personal counseling, and behavior change (10). In this study, the service delivery method in the Iranian Health Clinics in Isfahan, a province in Iran based on lifestyle modification and teamwork method, has been reported as a desirable and practical method in this field.

Case Presentation

The Iranian Health Clinics started their activities in 2002 and was officially registered in 2008. The main purpose of these series of clinics is to improve people's lifestyles, promote a healthy lifestyle, diagnose and treat metabolic diseases such as diabetes, hypertension, high blood lipids, and weight regulation and stabilization. The clinics currently have four medical clinics in Isfahan and Najafabad, a counseling and psychological center, a sports club, and a specialized health academy. With more than 80 specialized and experienced staff, these centers have been able to provide their special services to nearly 35,000 patients. In this study, we studied the method of providing services

[DOI: 10.18502/jebhpme.v5i1.5641]

to patients in the clinics, the success of which has been proven.

Using the results of related studies and also based on their experiences, the managers of the clinics concluded that lifestyle modification intervention as teamwork consisting of at least two fields of nutrition and physical training has been accompanied with improvement in blood lipid, blood pressure, and blood sugar parameters in the general public. Thus, in the health clinics series, two units were set up under the title of nutrition and physical training. Gradually, it was felt that a psychologist should be added to the series to help identify patients' motivations for improving and maintaining a new lifestyle. Along the way, patients also faced other issues and problems, including family problems, personality problems, and mental illness, which highlighted the need for a psychologist on the team. Physicians can pave the way for other experts by monitoring the healing process in patient's bodies. Therefore, the simultaneous use of knowledge and experience of four groups of physicians, nutritionists, physical training experts, and psychologists can significantly reduce the prevalence of metabolic syndrome in individuals.

Lifestyle change begins with learning knowledge and skills. Therefore, in this clinic, there is room for education and training. It is assumed that someone who first receives the necessary theoretical training, then in the intervention phase, applies the training under the supervision of the treatment team. The basis of lifestyle modification in health clinics is based on the Knowledge-Attitude-Performance (KAP) model. Firstly, educational books and DVDs are provided to achieve this, and then in the training courses, sufficient knowledge is given to the patient. After that, by holding meetings with successful patients who have already used the clinic service package (as a successful example) and psychological counseling, the attitude is improved. Furthermore, by frequent visits and follow-up consultations along with a specific treatment protocol, habit change, and ultimately performance improvement will occur. Health clinics' services should be provided as a service package.

Introduction session

All patients who want to enter the health clinics and use service packages should firstly attend an introduction session. In the introduction session, which usually lasts 2 to 3 hours, patients have introduced the approach to treating NCDs. They will also learn about lifestyle modification as the most important way to deal with chronic NCDs and learn the principles of a healthy lifestyle. These principles fall into four categories: what they should and what they should not eat, increased mobility and physical activity, and stress management.

Health Academy

Patients are divided into six groups, and a special training course has been developed for each group. These groups include:

1. Overweight and obese patients (BMI above 25)
2. Excessive obesity patients (BMI above 35)
3. Diabetic patients
4. Other Metabolic Disorders (hypertension, hyperlipidemia, fatty liver)
5. Underweight patients (BMI less than 18)
6. Children

Training courses are being offered by graduated mentors in the fields of nutrition, physical training, psychology and medicine based on lifestyle modification and in the form of two courses. The first course lasts for 10 to 15 hours (depending on the patient group) and starts immediately after registration. These courses are scheduled for 3 to 5 days (preferably in the afternoon). The second training course should be held when the patient enters the stabilization period. During the 12-hour course of stabilization period, they learn the knowledge and skills necessary to create a sense of self-sufficiency in planning and to maintain a healthy lifestyle. In all training courses, patients are fully involved in developing the program using a variety of educational techniques to transfer knowledge and change attitudes. Several practical courses, including "healthy shopping" and "healthy

[DOI: 10.18502/jebhpme.v5i1.5641]

cooking" skills, are planned to improve patients' behavioral skills.

Personal Health Record

During the patient's first visit, a personal health record should be made for him to record all the necessary information. Besides, all recommendations and changes in health indicators such as body size, BMI, and blood variables testing are recorded according to the patient's needs. Moreover, the amount of protein, water, fat, etc., in patients' bodies should be measured and recorded using the Body Composition device.

Continuous Teamwork Services

In health clinics, the service provision is based on teamwork. According to the above grouping and based on the available information of the patients' personal health records, the patient is first visited by a nutritionist. They are then visited by a psychologist. Then it is time to visit a physical trainer. Finally, they are visited by a physician specially trained in Lifestyle Medicine. The patient goes through these four stages of the visit every week. At each visit, the relevant specialist or physician reviews the patient's performance from the previous week and explains new instructions for the following week. All training and recommendations, as well as changes in indicators, are recorded in the patient's health record. Treatment protocols are developed and approved by the Scientific Council of the Clinic based on the latest scientific findings. Scientific research recommends a minimum acceptable time to make a lasting habit change of 10 to 16 weeks. Therefore, in 13 weeks, "Continuous Multidisciplinary Services" should be designed for patients at this health clinic.

Referring to a Specialist

In addition to trained general practitioners in the health clinic, there are also internal medicine specialists who provide specialized services to patients (especially diabetic and metabolic patients) if necessary. In cases where obese or very obese patients fail in their treatment, a special scientific council is formed for them with the presence of specialists and doctors. The result of the Scientific Council will be feedback to the patient management system.

Sport Club

Due to the importance of physical activity in lifestyle modification, health clinics should establish a special sports club. This club will be run under the supervision of expert physical trainers. All exercises are chosen appropriately to the age, sex, and type of patients.

Psychology Clinic

In addition to the weekly psychological visits for patients, the Psychology Clinic affiliated with the Health Clinics will provide a variety of specialized services that are necessary for the patients. In fact, if the disorder is found in the initial tests, the patient is referred to a psychological clinic for further examination.

Stabilization Period

One of the salient advantages of the health clinic is to develop a stabilization period for patients who have completed their treatment. According to statistics, more than 90 % of people that lose weight develop a recurrence of obesity after two years (9). To prevent this issue, the health clinic has developed a special period as a stabilization period for patients, including a series of training classes and a series of special team visits for them. In this period, the patient learns skills that would lead to self-sufficiency, weight stability, and the ability to manage the number of calories consumed by patients in different conditions. The patient's clinical pathway in health clinics is summarized in Figure 1.

[DOI: 10.18502/jebhpme.v5i1.5641]

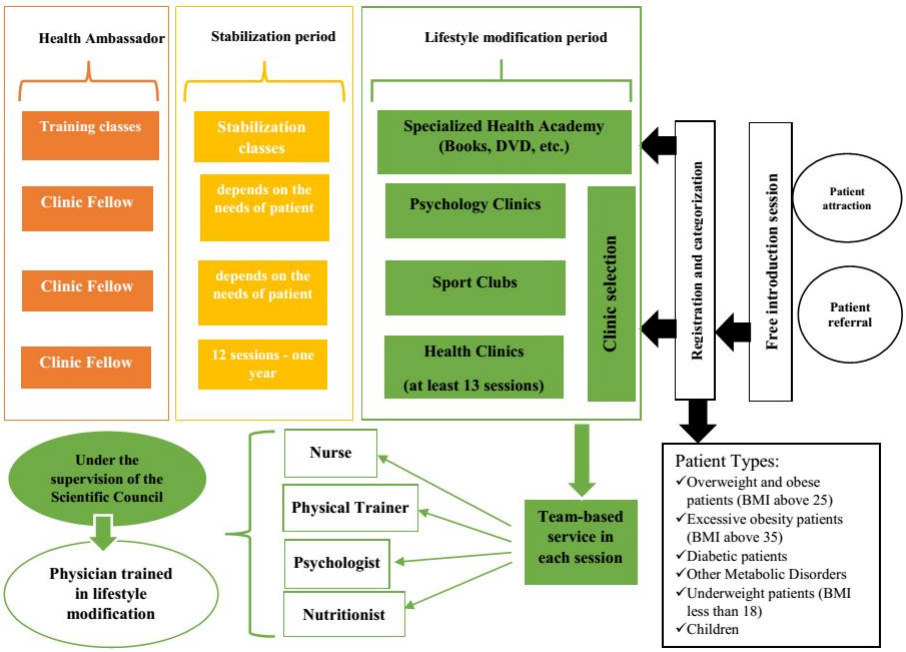

Figure 1. The patient's clinical pathway in the collection of health clinics

Discussion

In the proposed model, the two processes of education and intervention (treatment) are considered together. It is assumed that the person who first sees the necessary theoretical training in the intervention phase applies the training with the treatment team's help and supervision.

If the goal is to improve a person's lifestyle, a psychologist's presence in the treatment team will be a priority. Having a psychologist on the team helps to learn and change one's behaviors. However, if the only goal is to treat a person with metabolic syndrome, nutritionists, and physical therapists have a higher priority than others, and the psychologist can play a facilitating role (5). Digenio et al. (11) showed that more repetitive interactions with the individual, either face-to-face or over the phone, can increase the likelihood of lifestyle modification. Dansinger et al. (5) showed that the relationship between weight loss and motivation was more significant than the relationship between weight loss and a particular diet type. Busnello et al. (11) established intervention and control groups and found that motivated individuals were more likely to have a decreased body mass index in the post-study period. Boer et al. (9) also showed in their study that lifestyle modification intervention by a trained nutritionist in an interview reduces the prevalence of metabolic syndrome, and this difference will remain constant after four years. However, in systematic review studies, researchers have acknowledged that teamwork interventions in lifestyle modification can have long-term effects, which are consistent with our proposed model.

The length of lifestyle modification courses ranged from 4 to 24 weeks, and the duration of the 12 weeks significantly improved quality of life (12). In our model, a 13-week (4-month) continuous visit period is recommended for the first stage. In our model, after this stage, two stages of consolidation and health ambassador are also considered.

Most people usually follow bad eating habits and behaviors. Based on past studies and experiences, it can be said that the biggest problem in treating these cases is the recurrence of the disease. This problem will be solved when we can improve these people's lifestyles in terms of nutrition and physical activity (13). This study found that lifestyle modifications could reduce fasting plasma glucose levels in overweight and

[DOI: 10.18502/jebhpme.v5i1.5641]

obese children. The researchers also found that the effects of lifestyle modification on the prevention of type 2 diabetes are greater, especially in Asian countries (14). In Hirsch et al.'s study (15), team-centered lifestyle modification in collaboration with a physician and pharmacist reduced blood pressure in the intervention group. One of the strengths of this model is that this model can produce lasting results in people due to permanent corrections in patients, as the results of the studies have shown that team interventions can have more lasting effects on lifestyle modification (9). This should be done under the supervision of a team consisting of a physician, psychologist, nutritionist, and physical therapist. Furthermore, this method provides better immunity to most chronic diseases that can have lasting effects because lifestyle modification can cure many diseases. Lifestyle modification interventions are usually slower than pharmacological interventions because they have to affect the patient for a long time, but the disadvantage of this model is for those who are not accustomed to long-term work and want to get results quickly. Usually, these people leave the treatment, and the presence of a psychologist in the team can improve the continuity of treatment for them.

Conclusion

Considering the plans of MoHME for chronic diseases, the model of "continuous multidisciplinary services plus patient training" is considered to be an effective method. In general, the team-based approach, including the nutritionists, physical trainers, and psychologists under the supervision of trained General Practitioners, is an effective approach to lifestyle modification. Treatment of metabolic syndrome by a team-based method as well as regular patient contacts in the process of "treatment, stabilization, and training of health ambassadors" can be instrumental in consolidating the results.

Acknowledgments

The authors would like to thank all the Iranian Health Clinics staff who helped in this research.

Conflict of interests

The authors declared no conflict of interests.

Authors' contributions

Ferdosi M designed research; Kolahdouzan M, Ferdosi M and Nikkar Isfahani B analyzed data; and Kolahdouzan M wrote manuscript; Kolahdozan MSh and Kolahdozan A collected data. Kolahdouzan M had primary responsibility for final content. All authors read and approved the final manuscript.

Funding

Non applicable.

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[DOI: 10.18502/jebhpme.v5i1.5641]