

METHODS OF IMPLEMENTING THE OPERATIONAL PHASES OF THE HEALTH PROFESSIONALS EDUCATION PROJECT- ISFAHAN HEALTHY HEART PROGRAM (IHHP-HPEP)

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Abstract

BACKGROUND: Knowledge, attitude and practices of health professionals influence the health awareness of clients presenting to the centers for health and treatment. This project was designed and conducted to increase the knowledge and improve the attitudes and practices of health professionals at all levels of the health system, towards prevention and control, as well as diagnosis and treatment of non-communicable diseases, especially cardiovascular diseases.

METHODS: The study consisted of three phases: situation analysis, intervention, and re-evaluation. To perform situation analysis, we applied randomized cluster sampling and selected 2000 health workers from the target population. Identical methods were used in control and intervention communities. We designed a questionnaire and determined its reliability and validity.

RESULTS: Essential training on risk factors, healthy nutrition, and ways of coping with stress and maintaining adequate physical activity were taught to the target groups via seminars integrated into the health professionals' in-service continuing education program. The educational materials consisted of books and leaflets.

CONCLUSION: Awareness, attitude and practices of health professionals affect the outcome of efforts towards prevention and control of non-communicable diseases and their risk factors both in the society, and in the health professionals' community. Multiple educational interventions in this study can help to rein in non-communicable diseases.

Keywords: Cardiovascular disease, Risk factors, Health education, Prevention, Community-based interventions.

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Introduction

Various studies on cardiovascular diseases (CVD) in Iran have demonstrated them as the leading cause of death in the country, accounting for 46% of all deaths.¹ Cardiovascular diseases have a prevalence of 19.4% in the city of Isfahan alone.² In light of the available statistics and the multitude of epidemiological studies conducted by Isfahan Cardiovascular Research Center (ICRC),³⁻⁶ a large and comprehensive community-based intervention program was designed to improve lifestyle, increase awareness and practices

of the community towards cardiovascular disease risk factors. The first phase of the program, known as Isfahan Healthy Heart Program (IHHP), entailed situation analysis; it was implemented in 2001 in the cities of Isfahan, Najaf Abad and Arak (all in central part of Iran). Later, the collected evidences were used to implement interventions in the cities of Isfahan and Najaf Abad, which lasted through 2007. The outcome of interventions was compared with the situation at the end of the study in Arak, where the country's usual healthcare services were in place. The study consisted

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of three main phases, namely assessing the prevalence of CVDs and their risk factors in intervention and control communities, implementing integrated community-based interventions in cities of intervention, and then repeating the phase one.⁷ The interventions were designed for implementation within a number of projects tailored for the target groups. Among these projects was the Health Professionals Education Project (HPEP), designed for the health professional, including primary healthcare workers, nurses, junior/senior health workers, and physicians. This project was designed in view of the central role of health professionals within the health system in increasing the health awareness of the communities they work in. Initially, the health professionals working at different levels of the system had to be trained and their knowledge, attitude and practices towards healthy living and non-communicable disease risk factors improved, before they could pass on their knowledge to the community. The targets of this intervention project were physicians (general and specialist), nurses, junior/senior health workers, and primary health workers.

Materials and Methods and Results

This study was conducted as a part of IHHP, a community-based study with two intervention cities (Isfahan and Najaf Abad) and a control city (Arak). The study consisted of three phases: situation analysis, intervention, and re-evaluation. To perform situation analysis, we applied randomized cluster sampling and selected 2000 general physicians, nurses, junior/senior health workers, and primary health workers from the target population. Identical methods were used in control and intervention communities. We designed a questionnaire and determined its reliability and validity. Following situation analysis, project managers (including those from the provincial health centers, Vice-Chancellery for Treatment of Isfahan University of Medical Sciences, and the Education Development Center, among others) participated in several meetings to design the following interventions, which were implemented between 2001 and 2006.

1) Training groups were formed and tasked with training the target groups. The training groups were to match the needs of the target groups. Interested health professionals with a background in medical education were enlisted. For example, the training group for nurses comprised faculty members of the Nursing and Midwifery schools. The training group for primary health worker and junior health workers comprised physicians and health experts from Isfahan

Health Centers 1 and 2. The training group for hospitals consisted of physicians and experts who did not work in hospitals. The required training materials were prepared (details below). Training group members participated in a 3-day training course on prevention and control of non-communicable diseases and lifestyle modification at the outset of the program. The training course was held annually as a part of reeducation programs and included seminars on health eating, maintaining adequate physical activity, learning about CVD risk factors and prevention, coping with stress, and smoking cessation. The training groups were involved in training not only their colleagues but also individuals involved in other projects. The central aim of the training groups was to provide training on prevention and control of non-communicable diseases and their risk factors, as well as lifestyle modification and ways of caring for at-risk individuals/patients.

2) Educational materials consisted of three titles of books targeting health professionals involved in the interventions:

a) A guide to prevention of cardiovascular diseases (for junior and primary health workers)

This title was compiled in view of the significant educational value of junior and primary health workers, as the interface between the health system and its clients and within the context of the communities they work in. Junior and primary health workers regularly attend reeducation seminars at health centers in their respective cities. The book was integrated into the curriculum of centers for training junior and primary health workers in Isfahan and Najaf Abad. All entry-level primary health workers were henceforth trained on prevention and control of non-communicable diseases, especially CVDs. The educational needs of junior and primary health workers throughout the entire health system in areas of intervention were also assessed and they were also required to attend reeducation seminars taught by members of training groups with a focus on the above title. Pre- and post-tests were administered to assess participant uptake.

b) A nurse's guide to prevention of cardiovascular diseases

Following the formation of training groups for nurses, an initiative was launched by members of the Nursing and Midwifery Faculty of Isfahan University of Medical Sciences and Isfahan Cardiovascular Research Center to integrate the above title into the teaching curriculum of nursing and midwifery schools of the faculty.

C) *A physician's guide to prevention of cardiovascular diseases*

This title was prepared jointly by Isfahan Health Center 1 and Isfahan Cardiovascular Research Center and given to pertinent training groups.

3) Training the health personnel

a) *General and specialist physicians*

The cooperation of the Education Development Center (EDC) of Isfahan University of Medical Sciences was enlisted to hold regular reeducation seminars for all general physicians, i.e. in public and private practice. The seminars were held bimonthly in the first year of interventions and the participants earned reeducation credits/certificates. Similarly, one-day training seminars were integrated into the continuing education curriculum of internists, cardiologists and neurologists practicing in Isfahan. The seminars were held at Isfahan University of Medical Sciences and affiliated teaching hospitals.

b) *Nursing staff*

Appropriate permissions were obtained from the Vice-Chancellery for Treatment of Isfahan University of Medical Sciences to integrate 30 hours worth of seminars into the existing annual reeducation curriculum for nurses. Training groups were tasked with training nurses working at teaching hospitals.

c) *Junior and primary health workers*

Twenty hours worth of seminars on prevention and control of non-communicable diseases and their risk factors, as well as lifestyle modification for healthy individuals and patients were integrated into the annual reeducation curriculum of junior and primary health workers.

5) Reaching out to the public

In addition to training tailored for the health professionals, the program envisaged training for the public at large. Every year, appropriate occasions, e.g. the World Hypertension Day, the World No Tobacco Day, etc. were used to educate the public. The activities included arranging for the broadcast of radio and television chat shows on the local networks addressing a range of topics related to healthy living, setting up health information kiosks at different city spots, setting up stalls showcasing healthy food products, booths offering free measurement of blood pressure and body weight, height and body mass index (BMI), displaying banners and posters with health messages, organizing public seminars on healthy living and distributing leaflets. Many of these activities continued for a week.

6) Publishing the journal of "Nursing Today"

This bimonthly publication aims to improve the knowledge, attitude and practices of nurses and other health professionals towards prevention and control of CVDs and their risk factors. The journal was distributed in hospitals and health centers.

7) Authoring a CD containing health messages for use in switchboards

The CD included hundreds of audio messages on prevention and control of non-communicable diseases and their risk factors, healthy nutrition, smoking cessation, exercise, coping with stress and the economic burdens of non-communicable diseases. These were used as on-hold telephone messages in health centers and a number of hospitals. The initiative went beyond a temporary intervention and was integrated into routine operations of the centers involved.

8) The "149" health advice line

The "149" health advice line is operated by the Iranian Ministry of Health and Medical Education throughout the country. ICRC, in cooperation with Isfahan Province Health Center, added and integrated further advice on CVD prevention and control to the content already in use by the advice line.

Discussion

IHHP's goal is to promote a healthy lifestyle in the community, the health professionals, as the primary interface between the national health system and its clients were provided with training on prevention and control of non-communicable disease and their risk factors.

A study in Australia used trained nurses to prevent childhood obesity.⁸ Mothers were trained via home visits or telephone consultations. The target group only included first-time mothers. The target group in IHHP, however, is the entire community.

In the NOURISH study in Australia, the health personnel trained parents towards promotion of healthy nutrition in childhood.⁹ The NOURISH study is also different from IHHP in respect of the target population.

In a US study, a Diabetes Prevention Program (DPP) was implemented to promote healthy lifestyle in students and reduce diabetes risk factors.¹⁰ Another study in the US used trained health personnel to reduce CVD risk factors and train subjects on CVD signs and symptoms.¹¹

A study conducted in the Netherlands which implemented community-based interventions to pro

mote a healthy lifestyle, used printed guides, daily television shows, billboards, leaflets and pamphlets. The IHHP also used pamphlets to train health professionals.¹²

A study in Japan which attempted to reduce CVD risk factors via interventions such as public lectures, face-to-face counseling, training workshops and exercise programs also used health professionals to educate the public.¹³

The US Preventive Services Task Force (USPSTF) and Community Preventive Services (CPF) have strongly recommended that interventions towards promotion of healthy lifestyle be performed at the primary care level.¹⁴

The "Choose to Move" project, which aimed to promote health living, also enlisted health professionals, written communication, and public media to reach its intended targets; here too, the health professionals played a prominent role.¹⁵ The stakeholders of the Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) project maintained that interventions towards promotion of a healthy lifestyle should be made by centers for health and treatment.¹⁶

We believe that health professionals working within the health system can play a pivotal role towards promotion of healthy living. Thus, investing in training programs for health professionals could lead to healthy lifestyle promotion in the community.

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