

The impact of health education based on PEN-3 pattern in prevention of cardiovascular disease in people over 35 years of Amol city in 2014

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Abstract: The main purpose of this research was investigation the impact of health education based on PEN-3 pattern in prevention of cardiovascular disease in people over 35 years of Amol city in 2014. Most major non-communicable diseases are known risk, it can prevent and eliminate or control more than 80% of heart disease, stroke, diabetes and cancer is 40%. The most important risk factors for cardiovascular disease include poor nutrition, obesity, insufficient physical activity, smoking, high blood pressure, lipid disorders, diabetes, and old age. Fortunately, non-communicable diseases, particularly cardiovascular diseases can be prevented to a large extent with the design and implementation of effective interventions deaths from these diseases can be reduced by up to 80%. One of the proposed educational model in health education is PEN-3 models.

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1. Introduction

In recent years, considerable success has led to the discovery and production of vaccines and drugs of the contagious diseases and infectious diseases as the leading causes of death and disability will be reduced, especially in children and the elderly population increases with the increase in life expectancy (1). These changes, along with the increasing use of technology and rapid changes in lifestyles has led to chronic non-communicable diseases and causes of death and disability to be top of the table 1.

There are usually certain communicable diseases prevention and control. This feature makes it easier. While non-communicable disease rather than a cause of certain risk factors are present. Known risk factors include social factors, environmental and behavioral factors that increase the risk of an illness or injury (1).

Most major non-communicable diseases are known risk, it can prevent and eliminate or control more than 80% of heart disease, stroke, diabetes and cancer is 40%. The most important risk factors for cardiovascular disease include poor nutrition, obesity, insufficient physical activity, smoking, high blood pressure, lipid disorders, diabetes, and old age (1).

In studies that in 86 years the risk of non-communicable diseases surveillance system was found that 92% of people in the age group 15-44 years and 82% of those in the 25-64 year old age group between one to three risk factors for heart disease, and the order of 6.3% and 3.17% of this age group has 4 to 5 had risk factors (1).

Fortunately, non-communicable diseases, particularly cardiovascular diseases can be prevented to a large extent with the design and implementation of effective interventions deaths from these diseases can be reduced by up to 80% (1).

A group of risk factors by improving the environment and lifestyle behavior change or are modified (modifiable risk factors) and other categories such as age, gender, ethnicity or race cannot be corrected by changing behavior or environment (non-modifiable risk factors) (1).

In Iran, chronic non-communicable diseases, particularly cardiovascular, most of the leading causes of death and disability to be allocated. The first cause of death in the country with the 3/39% of all deaths due to cardiovascular diseases. From this percentage, 5.19% for heart attack, 3.9% of strokes and 1.3% is related to high blood pressure (1).

The nature of the disease and its complications, causing heavy economic burden and reduces the quality of life and his family (2).

Have the right information through educational programs offered to these patients. Today, education to patients as part of the activities of all employees accepted health care system (3).

The researchers believe that the implementation of training programs for heart patients can follow the diet and physical activity and to be effective (3).

In this context, health education model training using theory to raise awareness, change attitudes and adopting healthy behaviors in this group of patients is essential (4). Select a template for the first step in the

process of planning health education and health education programs and a model program started in the right direction and keeps it in the correct direction. One of the proposed educational model in health education is PEN-3 models (4).

It seems that non-compliance with health behaviors exist in every society, because health is part of the culture of right and wrong form (5).

According to the culture in a society interventions, in reducing health risk behaviors in a variety of behaviors and population groups will be effective (3).

Clearly, the design model for the prevention of cardiovascular disease in people over 35 years in the accurate knowledge of the problem and analyze the situation with the views of the community. Otherwise, real evidence-based intervention was designed and is less likely to get into position. Sociologists and anthropologists and human psychology, different theoretical models to explain the factors influencing behavior have suggested (4).

In educational programs, evaluation of the relationship between education and cultural power is especially important given the need to look at sociological and social processes influencing behavior. Respect for cultural diversity birth PEN-3 model and design model suggests that a community plan for education, these differences are taken into account (6).

PEN-3 model has three aspects that each of them within the content of the letters of dedicated PEN and interdependent. The first dimension, health education PEN is the following:

P (Person): emphasis on the principle that health education should be a sensitive and committed to improving the health behavior.

E (Extended Family): Health education is not only the individual but also should consider the person's relatives.

N (neighborhood): In this component, emphasize the fact that the neighborhood and community health education programs should also be considered for this purpose the involvement of community leaders to plan culturally appropriate care is essential.

The second dimension model of health behavior is detected PEN-3 include:

P (perception): Perceived in this model includes knowledge, beliefs, attitudes and values that could be such as to facilitate or prevent the motivation to change a behavior to be determined.

E (Enablers): in fact social force that can help increase health behaviors affect or prevent them by creating intercept.

N (Natures): In this model means that the person affected are people who care and they comply.

The third dimension Model PEN-3 cultural beliefs related to health. This means the community cultural beliefs can affect their behavior. Therefore this model in working with special populations and minorities, is a useful model.

P (positive) cultural beliefs, enabling and reinforcing those positive impact on the health behavior of individuals, families and society

E (Exotic): a certain impact on the performance of those functions not related to public health and indeed the need to change behavior are not neutral.

N (negative): practices, beliefs and culture of the society in aspects of perception, capable of instruments and amplifiers that negative aspects of performances by negative individual, family and community, resulting in bringing the health damage (7).

In Iran, many studies have been done on the causes of cardiovascular disease, since it is still a gap between our understanding and the knowledge, attitudes and beliefs of people feel, so to understand the views of the target group before any intervention, and education, to carry out such a study is necessary.

Vision program (Vision)

Increase awareness of all people over 35 years of community preventive factors of cardiovascular disease and changing their attitude toward patients and create sustainable behavior change and lifestyle through health education PEN-3 Model.

Mission

The program plans to implement the educational model PEN-3, the target group of the factors preventing increased awareness and sustainable behavior change in their cause.

Target Group

100 people older than 35 years with potential risk factors for cardiovascular disease, but so far have had no cardiovascular disease.

The overall goal of the program (goal)

Determine the effect of health education on the prevention of cardiovascular disease pattern PEN-3 in people over 35 years of Amol city in 2014

Specific goals (objectives)

- Increase awareness of the target group of risk factors for cardiovascular disease
- Increase awareness of the target group of the factors preventing cardiovascular disease
- Determine the impact of health education on the prevention of cardiovascular disease pattern PEN-3.

Solutions (strategies)

- planning
- Performance
- Improvements

Adapting strategies with specific goals (Adaptation of strategies with objectives goal)

General goals	Specific objectives	solutions
Determine the effect of health education on the prevention of heart disease and vascular PEN3 pattern in people over 35 years of Amol city in 2014	Raise awareness of the target group, from factors preventing cardiovascular disease.	Planning Performance
	The effect of health education on cardiovascular disease prevention in the pattern PEN3	Promotion

Identify partners program (identifying partnership a community participation).

• One doctor or one who cardiovascular diseases have enough information to teach the subjects.

• To identify and implement a health education specialist PEN-3 models during the study.

• A statistician for the statistical work.

• An IT expert to perform computer tasks.

Table schedule according to the Gannett (Timeline)

Time of Executive activities	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Preparation of samples for study		*	*									
Providing training package to train target groups				*	*							
Scheduled to run classes					*							
Run training classes					*	*	*					
Conclusion and effect								*	*	*		

Enforcement activities in accordance with the guidelines (Action Plan) and assessment (Evaluation)

No.	Strategy	Executive activities	Target group	Responsible for implementation	Runtime	Run location	Equipment needed
1	Planning	Preparation of samples for study	People over 35 years	Researcher	May and June	Amol Health Network	-
2		Providing training package for target group	People over 35 years	Researcher	July and August	Amol Health Network	Booklet Pamphlet
3		Scheduled to run classes	People over 35 years	Researcher	August	Amol Health Network	-
4	Implementation	Run training classes	People over 35 years	Researcher	August, September, October	Amol Health Network	PowerPoint
5	Promotion	Summary and effect	People over 35 years	Researcher	November, December, January	Amol Health Network	Computer Software SPSS

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