

Evaluation of the Effect of Implementing Health Promoting Hospitals Program on the Level of Attitude of Cardiac Patients

ARTICLE INFO

Article Type

Original Research

Authors

Askari R.¹ *PhD*, Mir Hosseini R.S.*² *BSc*, Montazeral Faraj R.S.¹ *PhD*, Jambarsang S.³ *PhD*

How to cite this article

Askari R, Mir Hosseini R S, Montazeral Faraj R S, Jambarsang S. Ev-aluation of the Effect of Implement-ing Health Promoting Hospitals Pr-ogram on the Level of Attitude of Cardiac Patients. Health Education and Health Promotion. 2022;(10)(2):341-346.

¹"Health Policy & Management Research Center" and "Department of Healthcare Management, School of Public Health", Shahid Sadoughi University of Medical Sciences, Yazd, Iran

²School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

³"Center for Healthcare Data Modeling" and "Department of Biostatistics and Epidemiology, School of Public Health", Shahid Sadoughi University of Medical Sciences, Yazd, Jean

*Correspondence

Address: School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran. Phone: +98 (913) 7756896 Fax: -

rs.mirhoseini@gmail.com

Article History

Received: May 10, 2021 Accepted: Aprile 12, 2022 ePublished: June 15, 2022

ABSTRACT

Aims Health promotion is the future perspective of hospital services in the health system. Thus, the study aimed to examine the effect of the implementation of a health promotion program on the attitudes of cardiac patients.

Material & Methods The study was an interventional before-after study, conducted on 62 cardiac patients admitted to two selected teaching hospitals from July to September 2019, including 31 patients from Shahid Sadoughi Hospital (control group) and 31 patients from Afshar Hospital (experimental group) using a purposive sampling method. Besides the routine training of the ward, the samples in the experimental group received face-to-face and group training interventions based on the health belief model and the guideline of the the american association of cardiovascular and pulmonary rehabilitation and received the training package at the end. Moreover, the samples in the control group received routine training. Data was collected using a questionnaire based on the health belief model and analyzed in SPSS 23 using Chi-square, independent t-test, and analysis of covariance.

Findings The total scores of attitude dimensions in the experimental and control groups before the intervention were 117.41 ± 31.49 and 155.80 ± 33.31 , respectively, and after the intervention 234.70 ± 16.90 and 164.54 ± 33.54 , respectively. The mean of these scores did not significantly differ before the intervention, but the mean of attitude dimensions significantly differed after the intervention (p=0.001).

Conclusion The educational program implemented based on the health belief model and the american association of cardiovascular and pulmonary rehabilitation guideline in the study was effective and these programs proved a key role in promoting health and preventing cardiovascular disease.

Keywords Health Promoting Hospital; Attitude; Heart; Health Promotion

CITATION LINKS

[1] Health promotion in hospitals, the challenges ... [2] Study of expert opinion on health promotive services for patients ... [3] The organisational diagnosis of a health promoting hospital ... [4] Development and validation of the WHO self-assessment tool ... [5] Healthpromoting hospitals in Estonia: what are they doing ... [6] An evaluation of a model for the systematic ... [7] Working well with a disability: Health promotion as ... [8] Partnerships and coalitions for community-based ... [9] A health promoting hospital: A strategy in the re-design ... [10] The European health promoting hospitals (HPH) project ... [11] The effect of health promoting hospital s' standards ... [12] The health promoting hospital movement in ... [13] Health promoting hospitals model in ... [14] Health promoting ... [15] Effectiveness of an HIV prevention program ... [16] An evaluation of the "Entre nous jeunes" peer—educator ... [17] The readability of American Academy of Pediatrics ... [18] Patient education and the nursing process ... [19] Study of behavioral models in health ... [20] Preventive health behaviours during coronavirus ... [21] The Effect of an Educational Intervention ... [22] The quality of life of patients with diabetes from ... [23] The effect of education about the risk factors of myocardial ... [24] Health promoting hospital: a pilot study in ... [25] The effects of e-learning based on the dimensions ... [26] The effect of educational intervention on knowledge, perceived ...

Evaluation of the Effect of Implementing Health Promoting ... Introduction

In the present age, health is one of the main concerns of most states with global changes creating new challenges in the health sector, especially in hospitals [1]. Hospitals are the most important service providers in the health system and health promotion services are the future prospects of hospital services in the health system. Thus, it is necessary to change the attitude towards the role and capabilities of hospitals to become healthpromoting structures [2]. Here, hospitals have a key role in promoting health and disease prevention and providing rehabilitation services. Thus, more attention has to be paid to the systematic provision of educational and medical services and the provision of appropriate and effective communication strategies to enable patients to accept and actively participate in disease control. To this end, the implementation of standards and indices of health promotion in hospitals is essential to ensure the quality of services provided [3]. Hospitals can enhance health in society by participating in the whole health cycle [4]. The purpose of hospitals is to provide medical services to patients at the highest level [5]. Health promotion services are an essential dimension of the treatment chain and the provision of clinical services [6].

Based on the definition of the World Health Organization (WHO), health promotion means empowering people to recognize the factors affecting individual and social health and make the right decision in selecting health behaviors and thus adopting a healthy lifestyle [7]. According to the Ottawa Charter, the process of empowering people is to increase control and improve and enhance their health, thus, health promotion includes the concepts of health education, disease prevention, and rehabilitation services [8]. Health-promoting hospitals seek to institutionalize the concept of health prevention and promotion, empower patients in the hospital, and appropriate hospital interaction with the community [9].

Currently, in more than 23 countries, four dimensions of the health-promoting hospital (HPH)s including patient health promotion, staff health promotion, organizational management, and hospital environment) have been used, and separate studies have been conducted in each of the four dimensions of this concept. For instance, 363 studies have been conducted on patient health, 348 studies on staff health, 218 studies on community health around the hospital, and finally 223 studies on the organizational dimension of the hospital [10].

In Iran, the hospitals play only the traditional roles of diagnosis and treatment, and there are no defined structures to provide many health promotion services in hospitals and improve the health of the community and pursue sustainable and desirable results [2]. This will be possible with the

establishment of HPHs [11]. HPH is a hospital that focuses on health promotion and using health promotion strategies by reviewing and changing health services and treatment at three levels prevention, treatment, and rehabilitation to patients, staff, and society [12]. The mission of healthpromoting hospitals is to change the traditional treatment-oriented attitude to a health-oriented attitude [13]. In HPHs, the patient and his family members and healthcare providers play a participatory role in the decision-making and healthcare delivery process. Respected values in HPHs include patient rights, staff rights, health justice, participation in decision-making, and accountability [14]. Education plays a vital role in improving people's health and is one of the basic pillars of changing inappropriate behaviors. Proper education and regular educational programs, measuring the knowledge and attitude of the target population, and explaining the effective elements in the educational process are important factors in preventing diseases in society [15, 16]. Patient education increases client satisfaction, improves the quality of life, increases participation in health care programs, and increases client independence in performing daily activities [17, 18]. One of the most practical models of health education in the field of prevention is the health belief model (HBM) [19]. Considering the effectiveness of HBM in various

Considering the effectiveness of HBM in various studies to prevent dangerous behaviors and promote healthy behaviors and improve patients' attitudes toward lifestyle factors and the lack of study on HPHs in Iran and the effectiveness of implementation in promoting the health of cardiac patients, hospital staff, and the community, we decided to conduct the study to examine the effect of this project on the attitude of cardiac patients in selected teaching hospitals in Yazd city.

Material and Methods

The study was an interventional before-after study, conducted on 62 cardiac patients diagnosed with stable and unstable heart failure and angina pectoris admitted to the cardiac ward of Afshar and Shahid Sadoughi hospitals in Yazd city for medical treatment and diagnostic-therapeutic measures hospitalized in July 2019. After approving the proposed plan and obtaining the license and code of ethics from Shahid Sadoughi University of Medical Sciences and obtaining a letter of introduction, the researcher visited the selected hospitals and obtained written consent from the officials of the mentioned hospitals to conduct the study. Then researcher visited the cardiology ward in those centers, and after introducing himself and stating the purpose of the study, and obtaining informed consent from the patients selected the sample using the purposive sampling method according to the inclusion criteria in both hospitals until reaching a

sufficient volume. The sample size using the below formula is 62 people and it is 31 patients for each hospital. In addition, a pilot sample was used for the initial values of the formula.

$$\alpha = 0.05$$

$$\beta = 0.20$$

$$Z_{1-\alpha/2} = 1.96$$

$$Z_{1-\beta} = 0.84$$

$$n = \frac{2(z_{1-\alpha/2} + z_{\beta})^2 \sigma^2}{d^2}$$

$$\sigma = 7$$

$$d = 5$$

Thus, 31 samples were considered for each hospital and the samples were matched in age, gender, and type of disease. Having informed and written consent, the ability to receive educational interventions, cardiac patients with no history of hospitalization in another hospital implementing a health-promoting program, and native patients in the 18-70 years age range were the inclusion criteria. And exclusion criteria were illness or unwillingness to continue attending training classes, death, and patients' lack of informed consent.

A questionnaire based on the HBM was developed to collect data and evaluate the factors affecting the lifestyle of cardiac patients. The questionnaire has 5 demographic questions, 29 patient background information questions, and 52 questions related to the model constructs (perceived sensitivity, severity, and so on). HBM is a model used to solve health problems and behavior change. It introduces some theories from the behavioral sciences into the health field, and this model is used to develop messages motivating people to make the right decisions. The questions of this questionnaire in the attitude dimensions (perceived sensitivity, perceived severity, perceived benefits, and perceived barriers) are scored based on a 5-point Likert scale (1 to 5) and in the action section (guide) the attitude section, yes answer to the question gets a score of 2 and no gets 1. In the attitude section, 7 questions were related to the dimension of perceived sensitivity, 19 questions were related to perceived severity, and 11 questions were related to perceived barriers. The face and content validity of this questionnaire was confirmed based on the content validity of Zarei et al. and its reliability was calculated by Zarei et al. using Cronbach's alpha as 0.7%.

The samples in both hospitals completed a questionnaire based on the HBM at the time of admission of patients before any routine training by the inpatient ward. In the second phase of the study, the patients of the intervention group, selected based on the purposive sampling method and based on the inclusion criteria in the first phase, underwent educational interventions related to the

implementation of the project to enhance lifestyle in a period of three months from July to September 2019. Necessary coordination was made with each of them by phone and mentioned the time and duration of attending the class to participate in training sessions. Educational interventions to enhance their lifestyle and control the disease were done both face to face and in group. Face to face training program based on the American association of cardiovascular and pulmonary rehabilitation guideline on patient risk factors was to control the disease. The group training program was based on the HBM to change their behavior during six sessions of a group of 5-6 people in the ward for two hours. Finally, they were given a training package containing a pamphlet and a CD. Educational interventions were done by the researcher and a team under his supervision. The team was composed of a nurse, a physician, a physiotherapist and a nutritionist. The samples were seen in the training period of three months (July to September). No interventions were made in the control group, and they received the same routine training from the staff, which was the case in both groups.

In the third phase of the study, the same questionnaire was completed again by the same patients selected in the first phase by purposive sampling method in both hospitals three months after admission to evaluate their attitude (the researcher had received the patients' demographic information and contacted the patients to fill out the questionnaire).

Finally, the data were analyzed by SPSS 23 using descriptive statistics (frequency, mean and standard deviation); an independent t-test to evaluate the mean and standard deviation of control and intervention groups before the intervention; and the Chi-square test to compare demographic variables and underlying questions in the two groups.

Finding

The mean age of cardiac patients participating in the study was 54.08±9.09 years. There were no statistically significant differences between the two groups at the beginning of the study and they were similar in terms of age (p=0.59).

According to the results of Table 1, the most of participants was 41-50 years old, married, male, had high school diploma, and self-employed and retired. As Table 2 shows, the minimum mean attitude score was in the intervention group and at the beginning of the admission. There was no significant difference between the intervention and control groups at the beginning of the study in terms of mean attitude score (p=0.86) but there was a significant difference three months after admission in the two groups (p=0.001).

Table 1) Distribution of participants based on demographic qualitative characteristics in the control and intervention groups

Variable		Control	Intervention	Total	p-value
Age (Year)	20-30	0	0	0	0.4
	31-40	3 (9.7)	4 (12.9)	7 (11.3)	
	41-50	11 (35.5)	11 (35.5)	22 (35.5)	
	51-60	9 (29.0)	8 (25.8)	17 (27.4)	
	>60	8 (25.8)	8 (25.8)	16 (25.8)	
Gender	Male	26 (83.9)	26 (83.9)	52 (83.9)	0.1
	Female	5 (16.1)	5 (16.1)	10 (16.1)	
Marital status	Single	3 (9.7)	2 (6.5)	5 (8.1)	0.64
	Married	28 (90.3)	29 (93.5)	57 (91.9)	
Employment	Public	5 (16.1)	3 (9.7)	8 (12.9)	0.1
	Self-employed	16 (51.6)	8 (25.8)	24 (38.7)	
	Retired	8 (25.8)	16 (51.6)	24 (38.7)	
	Housewife	2 (6.5)	4 (12.9)	6 (9.7)	
Education	Under diploma	7 (22.6)	8 (25.8)	15 (24.2)	0.7
	High school diploma	22 (71.0)	19 (61.3)	41 (66.0)	
	Bachelor	1 (3.2)	3 (9.7)	4 (6.5.0)	
	Higher education	1 (3.2)	1 (3.2)	2 (3.2)	

Table 2) Mean±SD scores of attitude dimensions in the intervention and control groups before and three months after admission

Dimensions	Admission	Control	Intervention	p-value
Perceived severity	Beginning	39.16±7.42	37.25±7.74	0.63
	3 months after	41.54 ±7.48	54.38±3.69	0.001
Perceived sensitivity	Beginning	22.00±7.38	15.32±6.20	0.32
	3 months after	23.45 ±7.59	31.67±3.40	0.001
Perceived benefits	Beginning	22.77±5.22	17.32±5.44	0.90
	3 months after	24.61±5.42	32.12±2.37	0.001
Perceived barriers	Beginning	29.93±8.59	23.70±7.78	0.62
	3 months after	31.58±9.63	47.19±4.28	0.001
Health control center	Beginning	21.12±7.58	21.06±7.92	0.19
	3 months after	15.16±5.45	29.35±4.17	0.001
Guide for action	Beginning	17.12±5.78	11.54±4.42	0.23
	3 months after	17.77±6.27	26.09±2.86	0.001
Total attitude in all dimensions	Beginning	155.80±33.31	117.41±31.49	0.86
	3 month after	164.54±33.54	234.70±16.19	0.001

Discussion

The purpose of the study was to examine the effect of health promotion programs on the attitudes of cardiac patients in selected hospitals in Yazd city.

The results regarding determining and comparing the mean score of cardiac patients in Afshar Hospital with Shahid Sadoughi three months after admission showed a significant difference between the control and intervention groups (p=0.001). The mean score of patients' attitudes after the intervention was significantly higher in the intervention group in terms of sensitivity, severity, and perceived benefits, and the guide for the operation was significantly higher than the control group (p=0.001) and significantly decreased in obstacles (p=0.001). In explaining this, one can state that despite the limitations in the study of the effect of education on cardiac patients on their empowerment to implement the HPH program. The results of the present study were in line with those of Barakat et al. entitled "Preventive health behaviors during the 2019 Coronavirus epidemic based on HBM among Egyptians concluding that perceived intensity and the benefits of HBM constructs in the second interview and then in the third interview showed a

significant decrease (p<0.001) [20]. Our results are also in line with their conclusion that adapting communication strategies for various groups by emphasizing how different individuals can lead to effective preventive behaviors increase the perception of benefits. Moreover, both studies have used HBM to adopt preventive behaviors and examined the mean knowledge and constructs of this model and both managed to reduce the perceived barriers. Also, the results of the present study are consistent with the study of Dadkhah Tehrani et al., entitled the effect of educational intervention based on the health belief model on nutritional behaviors of type 2 diabetic patients. Results show a significant increase in the mean score of nutritional behaviors in the intervention group and Patients' knowledge and attitude which shows the effectiveness of education based on the health belief model on patients' nutritional behaviors and diet and change their behavior [21, 22].

The study is also in line with Borji *et al.* who conducted a study on the effect of education based on HBM on the knowledge and attitude of heart attack patients about risk factors for heart disease and the results. The result of Borji *et al.* was the

345 Askari *et al.*

recommendation of using effective models in promoting and improving the performance of cardiac patients [23].

The mentioned results are in line with the present study regarding the significance of the attitude scores and using HMB educational model and enhancing and bettering the patients" performance.

However, it is different from the present study in terms of mean age, age range, and the number of participants. Therefore, given the importance of performance in cardiac patients and considering the results of this study, using effective models in promoting and improving the performance of cardiac patients is recommended. Also, the results of the present study are in line with Zarei et al. conducted for empowering the patient based on the HPH approach in the cardiac ward of Bu Ali Sina Hospital. According to the results, there was a significant correlation between the mean scores of knowledge, sensitivity, benefits, barriers, and perceived severity in patients before and after training [24]. Both studies are similar in that the participants are cardiac patients, the questionnaire used in both is based on HBM and the educational intervention was both in groups and face-to-face based on HBM. The difference is that Zarei et al. [24] had no control groups.

In a study aimed to examine the effect of e-learning based on the dimensions of health literacy in ischemic cardiac patients on 60 ischemic cardiac patients, Falahi et al. concluded that e-learning intervention can improve health literacy in ischemic cardiac patients [25]. The results of this study are in line with the present study and both could increase the mean of patients' attitudes and promote health in cardiac patients. Both studies were almost similar in terms of the number of participants, except that educational interventions involved in person, face to face, and in groups in the present study in addition to giving a compact disc to the patients. Also, the results of the present study were in line with those of Daneshpajhooh et al., aimed at examining the effect of education on knowledge, perceived barriers, and the admission status of patients to the heart rehabilitation ward of Shahid Chamran Hospital Isfahan. Results show the educational intervention aimed to increase knowledge could increase the frequency of patients' admission to the rehabilitation ward relative to the beneficial effects of rehabilitation programs and reduce perceived barriers for patients to participate in these programs [26].

Problems and limitations of the study were lack of study in the field of HPHs, lack of access to some similar foreign papers in databases, because of which similar Iranian articles on similar available sites were used. Moreover, the long period of patient education and their coordination and monitoring, and data collection made the study time-consuming.

Given the results and expressing the effect of education to cardiac patients on their empowerment to implement the HPH (health promotion program) program, a similar study with more samples in more hospitals on patients with different diagnoses and a wider range of underlying diseases is suggested.

Conclusion

The results of the present study show the positive effect of the training program designed based on HBM and AACVPR guidelines on increasing sensitivity, severity, perceived benefits and advantages, the guide for action and reducing perceived barriers in the intervention group and subsequently increasing behaviors preventing the cardiovascular diseases in this group.

Acknowledgments: Hereby, the authors of the paper feel obliged to thank all the officials of Afshar and Shahid Sadoughi hospitals in Yazd who have helped us in the implementation of the project.

Ethical Permissions: It was approved by Shahid Sadoughi University of Medical Sciences in Yazd in 2018 with the code number (IR.SSU.REC.1397.160) obtained from the National Ethics Committee in Biomedical Research.

Conflicts of Interests: This article is the result of a part of the master thesis.

Authors' Contributions: Askari R (Firs Author), Assistant Researcher (25%); Mir Hosseini R (Second Author), Introduction Writer (35%); Montazeralfaraj R (Third Author), Discussion Writer (20%); Jambarsang S (Forth Author), Statistical Analyst (20%)

Funding/Support: This study was conducted with the financial support of Shahid Sadoughi University of Medical Sciences, Yazd, Iran.

References

- 1- Didarloo A, Ahmadi D. Health promotion in hospitals, the challenges facing the health care system. Healthy Work J. 2008;2:19-27. [Persian]
- 2- Heydarnia M, Abachzadeh K, Damari B, Azargashb E, Vosoughmoghaddam A. Study of expert opinion on health promotive services for patients at hospitals affiliated to Shahid Beheshti University of Medical Science. PAJOOHANDEH. 2009;14(4):183-90. [Persian]
- 3- Lin YW, Huang HL, Tung SC. The organisational diagnosis of a health promoting hospital in Taiwan. Patient Educ Couns. 2009;76(2):248-53.
- 4- Groene O, Alonso J, Klazinga N. Development and validation of the WHO self-assessment tool for health promotion in hospitals: results of a study in 38 hospitals in eight countries. Health Promot Int. 2010;25(2):221-9.
- 5- Põlluste K, Alop J, Groene O, Härm T, Merisalu E, Suurorg L. Health-promoting hospitals in Estonia: what are they doing differently?. Health Promot Int. 2007;22(4):327-36.
- 6- Tønnesen H, Christensen ME, Groene O, O'Riordan A, Simonelli F, Suurorg L, *et al.* An evaluation of a model for the systematic documentation of hospital based health promotion activities: results from a multicentre study. BMC Health Serv Res. 2007;7:145.

Evaluation of the Effect of Implementing Health Promoting ...

- 7- Ipsen C, Ravesloot C, Arnold N, Seekins T. Working well with a disability: Health promotion as a means to employment. Rehabil Psychol. 2012;57(3):187-95.
- 8- Green L, Daniel M, Novick L. Partnerships and coalitions for community-based research. Public Health Rep. 2001;116 Suppl 1 (suppl 1):20-31.
- 9- Masiello MG. A health promoting hospital: A strategy in the re-design of the US health care system. Commonw J Polit Sci. 2008;14(1):125-35.
- 10- Whitehead D. The European health promoting hospitals (HPH) project: how far on?. Health Promot Int. 2004;19(2):259-67.
- 11- Naderi S, Amiri M, Khosravi A, Riahi L. The effect of health promoting hospital s' standards on hospitals performance: case study in Fatemieh hospital 1392. Hospital. 2015;14:101-9. [Persian]
- 12- Lee CB, Chen MS, Chu CMY. The health promoting hospital movement in Taiwan: recent development and gaps in workplace. Int J Public Health. 2013;58(2):313-7.
- 13- Yaghoubi M, Javadi M, Bahadori M, Ravangard R. Health promoting hospitals model in Iran. Iran J Public Health. 2016;45(3):362-9.
- 14- Sansoni J. Health promoting hospital. Prof inferm. 2004;57(1):56-9. [Italian]
- 15- Cartagena RG, Veugelers PJ, Kipp W, Magigav K, Laing LM. Effectiveness of an HIV prevention program for secondary school students in Mongolia. J Adolesc Health. 2006;39(6):925.e9-16.
- 16- Speizer IS, Tambashe BO, Tegang SP. An evaluation of the "Entre nous jeunes" peer—educator program for adolescents in Cameroon. Stud Fam Plann. 2001;32(4):339-51.
- 17- Freda MC. The readability of American Academy of Pediatrics patient education brochures. J Pediatr Health Care. 2005;19(3):151-6.
- 18- Wingard R. Patient education and the nursing process:

- meeting the patient's needs. Nephrol Nurs J. 2005;32(2):211-4.
- 19- Shojaeezadeh D. Study of behavioral models in health education. Tehran: Assistance of Ministry of Health. 2000:29-30. [Persian]
- 20- Barakat AM, Kasemy ZA. Preventive health behaviours during coronavirus disease 2019 pandemic based on health belief model among Egyptians. Middle East Curr Psychiatry. 2020;27(1):1-9.
- 21- Dadkhah Tehrani B, Tavakoli R, Jazayeri S A. The Effect of an Educational Intervention Based on Health Belief Model on Nutritional Behaviors in Type 2 Diabetics. Mili Caring Sci J. 2019;5(4):303-11. [Persian]
- 22- Solimani Z, Barati H, Mozafari Join A, Ershadi Moqadam H, Mohammadi M. The quality of life of patients with diabetes from the City of Sabzevar during year 2016. Mil Caring Sci J. 2017;3(4):264-71.
- 23- Borji M, Azami M, Amirkhani M, Bastami E, Salimi K, Sayehmiri A. The effect of education about the risk factors of myocardial infarction based on Health Belief Model on knowledge and attitudes of patients with myocardial infarction in Shahid Mustafa Hospital in Ilam. Nurs J Vulner. 2016;3(6):37-47. [Persian]
- 24- Zarei F, Taghdisi MH, Keshavarz Mohamadi N, Tehrani H. Health promoting hospital: a pilot study in Bo-Ali hospital, Qazvin, Iran. J Fasa Univ Med Sci. 2013;3(3):215-23. [Persian]
- 25- Falahi M, Miri M. The effects of e-learning based on the dimensions of health literacy in patients with ischemic heart disease. Nurs Dev Health. 2017;8(1):29-36. [Persian] 26- Daneshpajhooh F, Hadavi MM, Hasanzadeh A, Mostafavi F. The effect of educational intervention on knowledge, perceived barriers, referral status, and adherence to the coronary rehabilitation ward program in Shahid Chamran Hospital, Isfahan, Iran. Health Syst Res. 2016;12:272-7. [Persian]