Review Article

Spirituality, a Neglected Dimension in Improving the Lifestyle of Coronary Artery Patients by Nurses: A Scoping Review

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Abstract

Background: By modifying the lifestyle of patients, the risk factors of Coronary Artery Diseases (CADs) are adjusted. This study was performed with the aim to investigate the role of nurses in the lifestyle of coronary artery patients. **Materials and Methods:** This scoping review was conducted with the question of the role of nurses in improving the lifestyle of coronary artery patients. This study was conducted in databases and search engines of ScienceDirect, Springer, Scopus, PubMed, MEDLINE, and Google Scholar for English texts, and in the Magiran and Scientific Information Database (SID) databases and search engines for the texts printed in Persian. The search for articles printed from 2012 to 2022 was conducted based on the keywords used in the title and abstract of the articles. The keywords used to search domestic databases included nursing, lifestyle and healthy lifestyle, and heart diseases (based on MeSH). **Results:** Nurses have made significant efforts and performed interventions to improve the lifestyle of coronary artery patients through guidance and education regarding the improvement of their diet and mobility, compliance with their treatment regimen, and reduction of the risk factors of CAD. In the psychological dimension, they had a positive effect in some fields such as stress management and mental health. However, in the spiritual dimension, effective studies and interventions have not been conducted by nurses. **Conclusions:** The role of nurses in the lifestyle of coronary artery patients is effective in the physical dimension, limited in the psychological dimension, and neglected in the spiritual dimension.

Keywords: *Healthy lifestyle, ischemic heart diseases, nursing*

Introduction

According to the report of the World Health Organization (WHO), non-communicable diseases, including Cardiovascular Diseases (CVDs), are the main causes of death worldwide. An important subject in this regard is the role of risk factors such as smoking, unhealthy diet, insufficient physical activity, and high-risk alcohol consumption in these patients. About 75% of CVDs and type 2 diabetes, and 40% of cancer cases can be prevented through the elimination of these risk factors.[1-3] Currently, about 54% of deaths due to non-communicable diseases in the eastern Mediterranean region are due to CVDs. There is an alarming increase in cardiovascular risk factors in Iran.[4] At present, the increase in the incidence of chronic diseases is challenging even in high-income countries with advanced and modern health facilities, and in low-income countries, the prevention and management of these diseases face greater challenges. Limited healthcare facilities, high costs of treatment, insufficient knowledge of patients, and lack of guidelines are all barriers to their effective management.[5-7] Evidently, changing the direction of health care is challenging and requires lifestyle interventions in current health care.[8]

Health promotion measures in health care are of high priority in the effort to achieve equal health opportunities among the population. The WHO supports new methods of health promotion in health and medical care at the global level to reduce the occurrence of non-communicable diseases. Health promotion measures are a priority in health care globally, and the international efforts of the WHO to promote health are the basis of laws and regulations in its member countries.[3] Health-promoting actions are a combination of the six dimensions: belief in God's power, feeling responsible for health, preserving

How to cite this article: Abedini F, Mokhtari Nouri J, Moradian ST. Spirituality, a neglected dimension in improving the lifestyle of coronary artery patients by nurses: A scoping review. Iran J Nurs Midwifery Res 2024;29:381-8.

Submitted: 04-Jan-2023. **Revised:** 16-Dec-2023. **Accepted:** 16-Dec-2023. **Published:** 24-Jul-2024.

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Access this article online

Website: https://journals.lww.com/jnmr

DOI: 10.4103/ijnmr.ijnmr_3_23

Quick Response Code:

interpersonal relationships to promote the social dimension of health, managing stress to prevent physical and mental diseases, exercising physical activity, and observing a healthy diet with the goal of achieving correct behavioral changes.[9-11] Lifestyle modification programs place great emphasis on modifying behaviors such as nutrition, sleep, physical activity, responsibility in the field of health, stress management, and support and spiritual growth in patients with coronary diseases.[12,13] This issue is that in lifestyle interventions, the role of healthcare workers and care systems in the effective management of chronic diseases has been emphasized. Knowledge, skills, support, time, and organizational limitations affect the care of this group of diseases. Moreover, the lack of joint efforts of healthcare workers has been mentioned as an important obstacle to improvement of interprofessional collaboration in healthcare teams and an integrated medical approach in the management of chronic diseases.[7,14] To reduce the risk of recurrent cardiovascular events, improve Quality of Life (QOL), and prolong survival, atherosclerotic patients should have access to programs provided by interdisciplinary teams of healthcare professionals: nurses, nutritionists, physiotherapists or physical activity specialists, psychologists, and physicians, so that all aspects of lifestyle are included in the program.[15] Despite the importance of lifestyle issues to cardiovascular patients, asking questions or offering advice about lifestyle habits is underreported. Thus, it seems that a gap exists between the declared importance of this issue by healthcare professionals and the clinical work performed by them to promote healthy lifestyle habits.[16]

Nurses believe that health promotion is the main essence of their work in primary health care. Health promotion must be focused on interventions of chronic patients by nurses. The implementation of health promotion in CVD prevention is supported by community health nurses.[17] In this regard, nursing-led programs in patients with Coronary Heart Disease (CHD) improve health behavior, QOL, cognitive and psychological factors, and clinical outcomes.[18] By teaching lifestyle modification, nurses improve factors such as self-management and re-hospitalization in patients with chronic diseases.[19,20] Interventions and strategies in the nursing profession should be reviewed and provided as general and public guidelines. Among health care, regarding the knowledge and expertise, working with lifestyle interventions is observed, but structures for working with lifestyle interventions are rare.[21-23]

To maximize and optimize the role of nurses in the lifestyle of coronary artery patients, it is necessary to study the role of nurses at present, and to plan and implement effective solutions based on the existing conditions. This study was conducted with the aim to investigate the role of nursing in improving the lifestyle of coronary artery patients.

Materials and Methods

This scoping review study was conducted in 2022. In scoping reviews, a detailed review of the texts in a specific field of study is performed.[24] Scoping reviews can be useful to investigate the conduct of research on a particular topic. When we are interested in identifying some of characteristics in articles or studies, reporting in these cases, scoping is a better choice. The purpose of scoping review is not to produce a critically appraised and synthesized result/answer to a particular question, and rather aim to provide an overview or map of the evidence. Due to this, an assessment of methodological limitations or risk of bias of the evidence in scoping review is generally not performed.[25] The study was conducted in the framework of the five-step Arksey and O'Malley method, which includes the five steps of designing the research question, identifying related studies, selecting related studies, recording and collecting data, and concluding and summarizing the findings of previous researches[26,27] The study was conducted in 2022 with the question: "How is the role of nurses in improving the lifestyle of coronary artery patients?" For this purpose, we studied clinical studies conducted by nurses. The ScienceDirect, Scopus, and PubMed (MEDLINE) databases and search engines were searched for texts printed in English, Google Scholar for texts printed in English and Persian, and Magiran and SID for texts printed in Persian. The search for articles printed from 2012 to 2022 was undertaken based on the keywords used in the title and abstract of the articles. The keywords used to search internal databases included nursing, lifestyle and healthy lifestyle, and heart diseases, and those used to search international databases included Nursing, Healthy Lifestyle, and Ischemic Heart Diseases (based on MeSH) using AND/OR operators.

Ethical considerations

In this review study, the gathered information was only used with a mere focus on scientific goals. The researchers tried to act in an unbiased analysis of information. Research ethics confirmation (ethical approval code: IR.BMSU.BAQ.REC.1401.004) was received from the Ethics Committee of the Baqiyatallah University of Medical Sciences.

Results

In the search phase, 9273 articles were obtained. Duplicate and unrelated articles were removed based on the title, and 252 articles remained at this stage. Then, the abstracts of the articles were studied and 62 related articles were obtained. Finally, after reading the text of the articles, 10 clinical studies conducted by nurses that related to the research question were included in the study [Figure 1]. The study inclusion criterion was interventional studies related to nurses in the lifestyle of coronary artery disease (CAD) patients. Articles with at least 70% compliance with the Consolidated Standards of Reporting Trials (CONSORT)

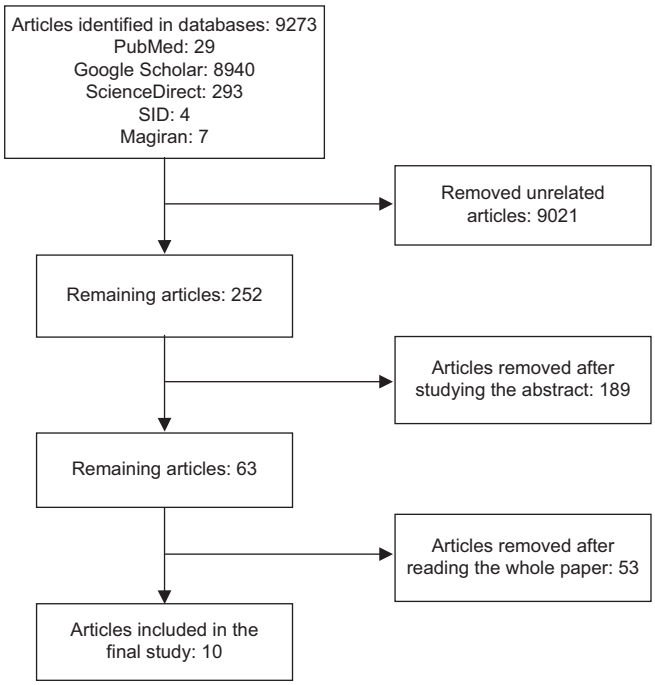

Figure 1: Steps of the search strategy in this study

checklist for clinical studies were included in the study.[27-29] Articles that were a letter to the editor, a short report, and articles whose full text was not available were excluded from the study. The selected articles were read completely, and a summary including the name of the first author, year of publication, type of study, and study method and findings was prepared [Table 1].

Based on that, lifestyle modification programs are placed on modifying behaviors such as nutrition, sleep, physical activity, responsibility in the field of health, stress management, and support and spiritual growth in patients with coronary diseases; so, we categorized final articles that were included in the study in three areas: 1) the role of guiding and implementing nursing interventions related to physical health such as diet, activity and mobility, medication use, and reducing risk factors and some health indices such as Body Mass Index (BMI), waist circumference, blood fat, and blood pressure; 2) the role of nursing guidance and education related to mental health such as stress, anxiety, and depression; and 3) the role of nursing related to spirituality health such as believe God.

Discussion

This study was conducted with the aim to investigate the role of nursing in improving the lifestyle of coronary artery patients. Based on the results, the role of nurses in the lifestyle of coronary artery patients will be discussed in three areas: First is the role of guiding and implementing nursing interventions related to physical health. Nursing measures and interventions based on nursing guidance and management lead to improvement in parameters related to lifestyle such as smoking cessation, better adherence to medications, improvement in physical activity, adherence to dietary changes, and satisfaction with health care, as well as a significant reduction in triglyceride levels and physiological indicators (reduction in systolic blood pressure, reduction in body weight, and BMI).[30,32,34,38] Nurse-led services in adults showed that coordinated interventions and continuity of care for people with chronic disease in both primary and secondary healthcare settings have been associated with reduced hospitalizations or readmissions, and improved patient experiences, lifestyles, and satisfaction.[38,39] Moreover, the provision of lifestyle intervention using group counseling method led to improvement of the perceived health and well-being of patients, along with weight loss, and showed better clinical control in blood pressure, fasting blood sugar, cholesterol and triglyceride levels, and BMI. In addition, improving knowledge, better physical health status, higher mental health status in CAD, and cost-effective care were shown.[37,40] Lifestyle modification programs for patients with CAD are effective in improving risk factors and their related health behaviors, QOL, disease progression, and mortality. These programs have positive effects on related lifestyle behaviors after treatment, and some of these benefits require long-term follow-up.[41]

Training by nurses is effective on following the treatment, nutrition, exercise, and risk factors of CAD in patients, and its impact is significant.[4,31,33] Education is the best strategy to improve self-management behaviors and follow-up. It can effectively improve various aspects of lifestyle in heart patients. It helps medical staff, including nurses, to self-management interventions in the care plan of these patients and prevents many physical, psychological, and social problems that negatively affect patients and their lifestyles.[42] Furthermore, previous studies have shown that nursing is the most appropriate profession for the implementation of self-care education, including prevention and management of chronic diseases, and recovery from situations such as post-surgery needs. Nurses currently promote health and are skilled in teaching self-care to patients.[43] Bagheri *et al*.[44] examined the effect of counseling and nursing education with a person-centered care approach on short-term self-efficacy in 120 patients with acute coronary syndrome as a parallel randomized and controlled trial. The intervention group, in addition to routine care, a counseling and training program was conducted under the guidance of a nurse including two face-to-face sessions and two telephone counseling sessions with a person-centered care approach. In the post-intervention results, self-efficacy, including perceived self-efficacy to control symptoms and maintain function, was statistically significantly higher in the intervention group than in the control group.

Second of them is the role of nursing guidance and education related to mental health. Zhang *et al*. reported

Table 1: Final articles that were included in the study

No.	First author, year of publication	Type of study	Method	Findings
1	Premkumar *et al*., 2022[30]	Clinical trial without blinding	Sixty-two adult patients who underwent coronary angioplasty were randomly divided into two, intervention and control groups. Improvement of behavioral parameters, including medication adherence, diet, lifestyle change, and discharge counseling, was performed individually under the guidance of a nurse from the intervention group. Follow-up was conducted for 3 months by phone. The control group received standard care. Pretest and post-test were conducted in both groups.	Empowering coronary artery patients with nurse guidance led to improvement in lifestyle parameters such as smoking cessation, medication adherence, mobility, diet adherence, and healthcare satisfaction. There was also a significant reduction in triglyceride levels and systolic blood pressure, body weight, and BMI in the intervention group.
2	Khodaveisi *et al*., 2022[31]	Quasi-experimental study with convenience sampling method	A total of 116 patients with Myocardial Infarction (MI) were divided into intervention and control groups through the block allocation method. For the intervention group, on the day of discharge, an in-person training session was held with pamphlets and training Cardiac Diseases (CDs). Lifestyle items such as following medication orders, following diet, physical activity range, risk factors for recurrence of heart attack, warning signs, effects of stress, modulating the effect of stress variables, and unauthorized care were included in the session. Telephone follow-up with training was performed immediately after discharge, twice a week in the first month and once a week in the second month in the intervention group.	Nurses improved self-care behaviors related to lifestyle in patients with MI through training and telephone follow-up.
3	Gaudel *et al*., 2021[32]	Randomized controlled trial	A total of 224 coronary artery patients (112 patients in each group) were included in the study. In the intervention group, three to five patients along with their family members participated in a group session with an average time of 45 minutes under the guidance of a nurse. Face-to-face interviews and 1-month telephone follow-up in relation to risk factors related to lifestyle; modification and the importance of lifestyle changes, were performed. In addition, informative pamphlets with visual explanations on smoking cessation, healthy diet, physical activity for heart health, stress management, weight control, limiting alcohol consumption, and adherence to drug therapy were provided for each patient.	As a result of face-to-face intervention and follow-up under the guidance of a nurse, a significant improvement was achieved in lifestyle risk factors in the intervention group compared to the control group, including diet, physical activity, medication adherence, and stress management.
4	Doğan and Ovayolu, 2022[33]	Randomized controlled trial	The study was conducted with the aim of investigating the effect of nurse training to CAD patients on adherence to medication and healthy lifestyle habits. The study was performed on 58 patients hospitalized in the heart department of a government hospital (30 interventions and 28 controls). The participants received education including basic information about CAD, its risk factors (hypertension, diabetes, obesity, smoking, alcohol, stress, and sedentary lifestyle), adherence to treatment (medication use and clinical examination appointments), and healthy lifestyle behaviors (exercise and weight control). Data collection was conducted using a questionnaire and index (weight, BMI, waist circumference, and hip circumference) measurement.	The training planned by nurses in coronary artery patients improved their adherence to medication and healthy lifestyle, weight, BMI, waist circumference, and hip circumference indices.

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No.	First author, year of publication	Type of study	Method	Findings
5	Karataş and Polat, 2021[34]	Single-blind randomized clinical trial	The study included 62 coronary artery patients: 32 people were in the intervention group and 30 people were in the control group. The intervention group received a lifestyle-related program guided by a nurse based on Pender's health promotion model in sports behaviors, sports training, and counseling. Health perception, perceived exercise self-efficacy, perceived exercise benefits and barriers, exercise-related effect, and exercise frequency and time were evaluated at baseline, and in 4, 8, and 12 weeks.	With the guidance of nurses, programs related to lifestyle, such as sports training and counseling, increased sports behaviors in the intervention group.
6	Jiang *et al*., 2020[35]	Quasi-experimental clinical trial with convenience sampling	The study was conducted on 112 patients in a control group (56 people) and an intervention group (56 people) with acute MI who underwent angioplasty. An individual self-management program was implemented with nursing guidance on health behaviors, control of cardiac risk factors, and health-related quality of life and lifestyle.	Individual self-management with nursing guidance showed positive effects on health behaviors, control of cardiac risk factors, and quality of life related to health and lifestyle among patients with acute MI.
7	Khodabandehlooie *et al*., 2019[4]	Randomized clinical trial	This study was performed on 57 patients who underwent coronary angioplasty (29 in the control group and 28 in the intervention group). Lifestyle education was conducted in six sessions. The program consisted of intense health educational and behavior change activities, including lectures, discussions, and practical skills training. Healthy lifestyle areas—including diet and nutrition, exercise, physical activity and weight loss, stress management, and smoking cessation—were taught in these sessions. The training materials were slideshows, pamphlets, and booklets; the lifestyle of patients was evaluated using healthy lifestyle questionnaire at the beginning of the study, and 1 and 3 months after the educational intervention.	Nurses' educational interventions promoted healthy lifestyle, healthy nutrition, exercise, and physical activity in the intervention group compared to the control group in 1 and 3 months after the training program. Moreover, a significant increase was observed in tobacco and alcohol avoidance, health responsibility, health-based shopping, and healthy lifestyle in the intervention group after the training program.
8	Jepma *et al*., 2020[36]	Clinical trial	This lifestyle-based study was conducted by nurses. A complete set of three lifestyle interventions (physical activity, weight loss, and smoking cessation) was performed along with routine care in 824 coronary artery patients in two groups (over 65 years and under 65 years). These programs were conducted by experienced and trained nurses during 12 weeks.	Despite the greater risk and mortality factors in older cardiovascular patients, lifestyle-based interventions in younger patients have been as successful in improving the risk factors as in older people.
9	Zhang *et al*., 2017[37]	Randomized controlled trial	The study was conducted by planning and implementing structured care programs and lifestyle-based health education with the guidance of a nurse in 199 patients with CAD. The intervention group (n=100) received nurse-led care interventions in addition to routine care. The control group (n=99) received routine care and follow-up. Assessments were performed at baseline and after completion of the interventions using the perceived knowledge scale for CHD, medical outcomes of 36 short-form health surveys, and clinical indices (blood pressure, blood glucose, lipids, and BMI.	The intervention group showed better clinical results in blood pressure, fasting blood sugar, cholesterol and triglyceride levels, and BMI compared to the control group after receiving lifestyle-based care under the guidance of a nurse. In addition to knowledge scores, better physical health status and higher mental health status were observed in coronary artery patients.

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No.	First author, year of publication	Type of study	Method	Findings
10	Lachman *et al*., 2015[38]	Randomized clinical trial	This study was conducted on 800 coronary artery patients over 18 years of age by nurses in outpatient nursing clinics in 15 centers within 8 weeks after discharge from the hospital. Patients were divided into intervention and control groups. The control group received routine care. In the intervention group, lifestyle programs were conducted with the goals of smoking cessation, weight loss, and activity improvement.	The primary results after 12 months in the studied patients showed that, in the intervention group, none of the studied cases had worsened and an improvement of over 30% was achieved in at least one of the cases.

lifestyle improvements in clinical results related to physical health and mental health in patients with CAD, and the study by Khodaveisi and Gaudel showed the stress factor was discussed as a risk factor for CAD.[31,32,37] In a meta-analysis study with the aim of systematically comparing anxiety and depression reported among 3110 coronary heart patients who received support and lifestyle management programs through nurses, compared to patients who were placed in a usual care environment, no significant reduction was observed in depression and anxiety in these patients. Thus, according to this analysis, even though a nursing-directed support and lifestyle management program may be clinically effective, no effect was observed on the psychological well-being of these patients.[45] In Jordan, the nonhospitalized patient population with CAD is affected by high prevalence of depression. However, depression is not routinely diagnosed or treated.[46] Poor mental health was related to a higher excess weight prevalence and an unhealthy lifestyle, that is, disordered eating, more smoking, sleep problems, and alcohol consumption, while less fruit/vegetables and physical activity and even lower snack intake.[47]

Third is the role of nursing related to spirituality health. Extensive activity of nurses in nursing clinics, such as patient assessment, admission, providing health-related education, treatment and monitoring, discharge and referral to other healthcare professionals, as well as providing psychological support for patients, is based on the desire of the community. So, influences of specific social, cultural, and spiritual factors, cultural diversity, and the issue of maintaining dignity should receive more attention. Paying attention to cultural differences is also emphasized by international nursing institutions.[48]

In addition, despite the numerous studies in the cultural field, few studies have been conducted to examine the relationship between cultures and their impact on disease outcomes. There are no randomized controlled trials and few interventional studies in this regard. A consistent trend for most studies is that positive cultures are associated with better patient outcomes. In some countries, where religion is synonymous with spirituality, paying attention to patients' spirits and individual and religious value system is one of the vital aspects of providing care. In monotheistic religions such as Islam and Christianity, which believe in God Almighty, human dignity is one of the most important emphasized. In the Bible, God has created humans in a superior position, and the dignity of patients is expressed as a religious principle. Belonging to a religion that emphasizes a healthy lifestyle is a contributing factor to a better lifestyle, and physical and mental health.[49-51] In a research at the Isfahan University of Medical Sciences, Iran, a significant relationship was observed between the total score of health-improving behaviors and the total score of Islamic lifestyle, as well as the total score of Islamic lifestyle and the score of the whole range of health-enhancing behaviors with Islamic lifestyle dimensions except beliefs, health, and security.[12]

Therefore, nurses have an important and effective role in the health and treatment team. Effective studies and interventions have been performed by nurses on the improvement of the lifestyle of coronary artery patients in terms of diet, mobility and exercise, adherence to treatment, adjustment of risk factors of ischemic diseases, stress management, and improvement of mental health, but there are no interventions and studies in some topics such as spiritual dimension. The limitation of this article was access to all articles and the full text of the articles.

Conclusion

Nurses have made significant efforts and performed interventions to improve the physical health in lifestyle of coronary artery patients. Nurses have had a positive impact on the psychological dimension in some fields such as stress management and mental health, which requires more studies. Nevertheless, the studies showed that the promotion of the spiritual dimension of lifestyle has been neglected by nurses. Considering the importance of all dimensions of lifestyle and the important role of nurses, it is suggested that this important dimension be addressed in research, education, management, policymaking, and treatment.

Acknowledgements

We would like to thank the Baqiyatallah University of Medical Sciences for its support. This article was derived from a Ph.D. thesis with project number 99000542.

Financial support and sponsorship

Baqiyatallah University of Medical Sciences

Conflicts of interest

Nothing to declare.

References

1. WHO G. Global status report on noncommunicable diseases 2010.
2. Brobeck E, Bergh H, Odencrants S, Hildingh C. Lifestyle advice and lifestyle change: To what degree does lifestyle advice of healthcare professionals reach the population, focusing on gender, age and education? Scand J Caring Sci 2015;29:118-25.
3. Parashar A, Willeboordse M, Gupta AK, van Schayck OC. Effect of brief interventions to promote behavior change on clinical outcomes of selected non-communicable diseases: The World Health Organization (WHO) Package of Essential Non-communicable disease (PEN) Interventions for primary health care settings–study protocol of a quasi-experimental study. Contemp Clin Trials 2022;113:106675. doi: 10.1016/j.cct.2022.106675.
4. Khodabandehlooie S, Estebsari F, Rohani C, Shaarbaf Eidgahi E. Effects of educational intervention on lifestyle among Iranian patients after coronary angioplasty: A randomized controlled trial. Iran Heart J 2019;20:38-45.
5. Leiter LA, Berard L, Bowering CK, Cheng AY, Dawson KG, Ekoé J-M, *et al*. Type 2 diabetes mellitus management in Canada: Is it improving? Can J Diabetes 2013;37:82-9.
6. Gyawali B, Ferrario A, van Teijlingen E, Kallestrup P. Challenges in diabetes mellitus type 2 management in Nepal: A literature review. Global Health Action 2016;9:31704. doi: 10.3402/gha.v9.31704.
7. Sapkota S, Brien J-aE, Aslani P. Diabetes-related healthcare services in Nepal—a qualitative exploration of healthcare professionals' opinions. Pharmacy 2020;8:131. doi: 10.3390/pharmacy8030131.
8. Calderón C, Balagué L, Cortada JM, Sánchez Á. Health promotion in primary care: How should we intervene? A qualitative study involving both physicians and patients. BMC Health Serv Res 2011;11:1-11. doi: 10.1186/1472-6963-11-62.
9. Oshvandi K, Salavati M, Ahmadi F, Soltanian A. The effect of training on hemodialysis patients' lifestyle promotion. Sci J Hamadan Nurs Midwifery Faculty. 2018;2008:2819.
10. Eldredge LKB, Markham CM, Ruiter RA, Fernández ME, Kok G, Parcel GS. Planning Health Promotion Programs: An Intervention Mapping Approach. John Wiley and Sons; San Francisco. 2016.
11. Borzou R, Bayat Z, Salvati M, Homayounfar S. A comparison of individual and peer educational methods on quality of life in patients with heart failure. Iran J Med Educ 2014;14:767-76.
12. Shahriari M, Abbasi S, Moghzi P, Moeini M. Relation between health promotion behaviors lifestyle and Islamic life-style in patients with acute coronary syndrome. J Clin Nurs Midwifery 2018;7:126-37.
13. Guasch-Ferré M, Li Y, Bhupathiraju SN, Huang T, Drouin-Chartier J-P, Manson JE, *et al*. Healthy lifestyle score including sleep duration and cardiovascular disease risk. Am J Prev Med 2022;63:33-42.
14. Hollenberg D, Bourgeault IL. Linking integrative medicine with interprofessional education and care initiatives: Challenges and opportunities for interprofessional collaboration. J Interprof Care 2011;25:182-8.
15. Kotseva K, De Backer G, De Bacquer D, Rydén L, Hoes A, Grobbee D, *et al*. Lifestyle and impact on cardiovascular risk factor control in coronary patients across 27 countries: Results from the European society of cardiology ESC-EORP EUROASPIRE V registry. Eur J Prev Cardiol 2019;26:824-35.
16. Ek A, Ekblom Ö, Ekström M, Börjesson M, Kallings LV. The gap between stated importance of and clinical work in promoting healthy lifestyle habits by healthcare professionals in a Swedish hospital setting: A cross-sectional survey. Health Soc Care Community 2021;29:385-94.
17. Istifada R, Rekawati E. The health promotion of cardiovascular disease prevention by community health nurse in primary health care: A Systematic review. Int J Nurs Health Serv 2019;2:22-31.
18. Afik A, Nursalam N, Sufyanti AY, Fikriana R. Effect of nurse-led program in coronary heart diseases patients: A systematic review. Open Access Maced J Med Sci 2021;9:109-14.
19. Taghadosi M, Hossieni F. Challenges of nursing quality improvement in Iran: A systematic review. Sci J Nurs Midwifery Paramed Faculty 2018;4:6-16.
20. Rizzuto N, Charles G, Knobf MT. Decreasing 30-day readmission rates in patients with heart failure. Crit Care Nurse 2022;42:13-9.
21. Kardakis T, Weinehall L, Jerdén L, Nyström ME, Johansson H. Lifestyle interventions in primary health care: Professional and organizational challenges. Eur J Public Health 2014;24:79-84.
22. Kardakis T, Jerdén L, Nyström ME, Weinehall L, Johansson H. Implementation of clinical practice guidelines on lifestyle interventions in Swedish primary healthcare–a two-year follow up. BMC Health Serv Res 2018;18:1-13. doi: 10.1186/s12913-018-3023-z.
23. Noordman J, de Vet E, van der Weijden T, van Dulmen S. Motivational interviewing within the different stages of change: An analysis of practice nurse-patient consultations aimed at promoting a healthier lifestyle. Soc Sci Med 2013;87:60-7.
24. Shahmari M, Hasanpour M. Impact of language barriers on patient education: A scoping review. Payesh (Health Monitor) 2021;20:301-10.
25. Munn Z, Peters MD, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Med Res Methodol 2018;18:1-7. doi: 10.1186/s12874-018-0611-x.
26. Daudt HM, van Mossel C, Scott SJ. Enhancing the scoping study methodology: A large, inter-professional team's experience with Arksey and O'Malley's framework. BMC Med Res Methodol 2013;13:1-9. doi: 10.1186/1471-2288-13-48.
27. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, *et al*. PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. Ann Intern Med 2018;169:467-73.
28. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: A synthesis of recommendations. Acad Med 2014;89:1245-51.
29. McCormick F, Cvetanovich GL, Kim JM, Harris JD, Gupta AK, Abrams GD, *et al*. An assessment of the quality of rotator cuff randomized controlled trials: Utilizing the Jadad score and CONSORT criteria. J Shoulder Elbow Surg 2013;22:1180-5.
30. Premkumar S, Ramamoorthy L, Pillai AA. Impact of nurse-led cardiac rehabilitation on patient's behavioral and physiological parameters after a coronary intervention: A pilot randomized controlled trial. J Family Community Med. 2022;29:17.
31. Khodaveisi M, Amini R, Tapak L. The effect of post-discharge telephone training and follow-up on self-care behaviors of myocardial infarction patients. Avicenna J Nurs Midwifery Care

2022;30:98-106.

32. Gaudel P, Neupane S, Koivisto A-M, Kaunonen M, Rantanen A. Effects of a lifestyle-related risk factor modification intervention on lifestyle changes among patients with coronary artery disease in Nepal. Patient Educ Couns 2021;104:1406-14.
33. Doğan U, Ovayolu N. The effect of training on treatment adherence in coronary artery patients: A single-blind randomised controlled trial. J Clin Nurs 2022;31:744-54.
34. Karataş T, Polat Ü. Effect of nurse-led program on the exercise behavior of coronary artery patients: Pender's health promotion model. Patient Educ Couns 2021;104:1183-92.
35. Jiang W, Feng M, Gao C, Li J, Gao R, Wang W. Effect of a nurse-led individualized self-management program for Chinese patients with acute myocardial infarction undergoing percutaneous coronary intervention. Eur J Cardiovasc Nurs 2020;19:320-9.
36. Jepma P, Jorstad HT, Snaterse M, Ter Riet G, Kragten H, Lachman S, *et al*. Lifestyle modification in older versus younger patients with coronary artery disease. Heart 2020;106:1066-72.
37. Zhang P, Hu Y-D, Xing F-M, Li C-Z, Lan W-F, Zhang X-L. Effects of a nurse-led transitional care program on clinical outcomes, health-related knowledge, physical and mental health status among Chinese patients with coronary artery disease: A randomized controlled trial. Int J Nurs Stud 2017;74:34-43.
38. Lachman S, Minneboo M, Snaterse M, Jorstad HT, Ter Riet G, Reimer WJSO, *et al*. Community-based comprehensive lifestyle programs in patients with coronary artery disease: Objectives, design and expected results of randomized evaluation of secondary prevention by outpatient nurse specialists 2 trial (response 2). Am Heart J 2015;170:216-22.
39. Davis K, Eckert M, Hutchinson A, Harmon J, Sharplin G, Shakib S, *et al*. Effectiveness of nurse–led services for people with chronic disease in achieving an outcome of continuity of care at the primary-secondary healthcare interface: A quantitative systematic review. Int J Nurs Stud 2021;121:103986. doi: 10.1016/j.ijnurstu. 2021.103986.
40. Gibson CA, Mason C, Stones CJ. Living well with lifestyle medicine: A group consultation approach to delivering lifestyle medicine intervention in primary care. Lifestyle Med 2021;2:e19. doi: 10.1002/lim2.19.
41. Janssen V, Gucht VD, Dusseldorp E, Maes S. Lifestyle modification programmes for patients with coronary heart disease: A systematic review and meta-analysis of randomized controlled trials. Eur J Prev Cardiol 2013;20:620-40.
42. Rakhshan M, Najafi H, Valizadeh GA. Lifestyle of patients with atrial fibrillation following self-management interventions: A randomized clinical trial. J Caring Sci 2019;8:83.
43. Barr JA, Tsai LP. Health coaching provided by registered nurses described: A systematic review and narrative synthesis. BMC Nursing 2021;20:1-18. doi: 10.1186/s12912-021-00594-3.
44. Bagheri H, Shakeri S, Nazari AM, Goli S, Khajeh M, Mardani A, *et al*. Effectiveness of nurse-led counselling and education on self-efficacy of patients with acute coronary syndrome: A randomized controlled trial. Nurs Open 2022;9:775-84.
45. Luo Z-C, Zhai L, Dai X. Does a nurse-led program of support and lifestyle management for patients with coronary artery disease significantly improve psychological outcomes among the patients? A meta-analysis. Medicine 2018;97:e12171. doi: 10.1097/MD.0000000000012171.
46. AL-Zaru IM, Alhalaiqa F, Dalky HF, Arramadan KA, Batiha A-M. Depression in nonhospitalized Jordanian patients with coronary artery disease. J Nurs Res 2020;28:e66.
47. Michels N. Poor mental health is related to excess weight via lifestyle: A cross-sectional gender- and age-dependent mediation analysis. Nutrients 2021;13:406. doi: 10.3390/nu13020406
48. Randall S, Crawford T, Currie J, River J, Betihavas V. Impact of community based nurse-led clinics on patient outcomes, patient satisfaction, patient access and cost effectiveness: A systematic review. Int J Nurs Stud 2017;73:24-33.
49. Braithwaite J, Herkes J, Ludlow K, Testa L, Lamprell G. Association between organisational and workplace cultures, and patient outcomes: Systematic review. BMJ Open 2017;7:e017708. doi: 10.1136/bmjopen-2017-017708.
50. Cheraghi MA, Manookian A, Nasrabadi AN. Human dignity in religion-embedded cross-cultural nursing. Nurs Ethics 2014;21:916-28.
51. Abdala GA, Meira MDD, Rodrigo GT, Fróes MBdC, Ferreira MS, Abdala SA, *et al*. Religion, age, education, lifestyle, and health: Structural equation modeling. J Religion Health 2021;60:517-28.