A Systematic Review Study on Self-Care in Diabetic Patients: The Most Important Factors Affecting the Self-Care of These Patients

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ABSTRACT

Introduction: Diabetic patients are aware of the principles of proper nutrition, choice of foods, careful observation of treatment pattern, foot care, exercise and appropriate physical activity along with lifestyle changes and mental and health care. They play a role in preventing short-term complications. Observing these will also delay the progression of long-term complications of diabetes. Achieving such goals undoubtedly requires patient participation in self-care and dynamic and continuous education, so that without self-care training for diabetic patients and their participation in self-care, more expensive health care, and impaired quality of life. Therefore, this systematic review study was done on most important factors affecting self-care in diabetic patients.

Materials and Methods: In this systematic review, in order to achieve the goal of the study and to improve the study's precision and its comprehensive understanding, this integrated overview study was conducted based on the Broome method. Broome's method is based on three stages of the search of texts, data evaluation and data analysis, so that in the search phase, the texts of post-retrospective studies are examined in terms of the criteria for entering the study in four stages and after obtaining entry conditions The content of the study is evaluated and the data is analyzed at the end. In the first stage, 43 papers were found. Of these, 12 articles related to the topic that were published in the last 23 years were reviewed.

Results: In this article, 12 studies were reviewed. In one of these studies, there was a significant relationship between self-care and patient visit in the clinic that Knowledge and education in the referring subjects increased their mean self-care score.

Conclusion: According to the results of the studies, diabetic patients have poor self-care, and this poor self-care imposes huge costs on affected individuals each year. Therefore, it is necessary to find ways to improve the care of these patients.

Keywords: Diabetic Patients, Diabetes, Self-Care, Most Important Factors

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Introduction
Until recently, contagious diseases were considered the biggest health problem in third world countries. But now the increasing role of non-communicable diseases in mortality,
especially in developing countries, is a serious threat, one of which is diabetes. Diabetes is one of the most important global challenges as the most common disease caused by metabolic disorders. It is a chronic, metabolic disease, and is clinically and genetically heterogeneous. And a major cause of morbidity and mortality in the industrialized and developing world (1-7).

At present, the prevalence of type 2 diabetes in Iran is 7.7%. People with diabetes with a body mass index (BMI) above a "normal" classification are at increased risk of secondary complications of diabetes (8-11).

Complications of diabetes are extremely common among patients, including ocular, renal, peripheral neuropathy, and peripheral arterial disease (12-16).

Because of its chronic nature, diabetes has affected the quality of life of these patients. Complications of this disease impose heavy economic burden and decrease the quality of life of these patients (17,18).

Diabetic patients are aware of the principles of proper nutrition, choice of foods, careful observation of treatment pattern, foot care, exercise and appropriate physical activity along with lifestyle changes and mental and health care. They play a role in preventing short-term complications. Observing these will also delay the progression of long-term complications of diabetes. Achieving such goals undoubtedly requires patient participation in self-care and dynamic and continuous education, so that without self-care training for diabetic patients and their participation in self-care, more expensive health care, and is impaired quality of life. There will be more. Implementing a self-care program will improve the care and quality of life of diabetic patients (19, 20).

Therefore, this systematic review study was done on most important factors affecting of self-care in diabetic patients.

**Materials and Methods**

Criteria for entry were articles, including published articles in Persian and English, full access to their full text, published over the past 23 years, and interventional studies that focused on the impact of peer education on patient self-care behaviors. Exclusion criteria include unspecified and unscientific studies as well as articles that do not have the full text of the article.

In this systematic review, in order to achieve the goal of the study and to improve the study's precision and its comprehensive understanding, this integrated overview study was conducted based on the Broome method. Broome's method is based on three stages of the search of texts, data evaluation and data analysis, so that in the search phase, the texts of post-retrospective studies are examined in terms of the criteria for entering the study in four stages and after obtaining entry conditions The content of the study is evaluated and the data is analyzed at the end.

This study uses the published articles in the last 23 years on the effects of some factors on self-care in diabetic patients. It was conducted in English and Persian by searching articles in search engines, authoritative scientific sites and databases Google Scholar, PubMed, Springer. In the first stage, 43 papers were found. Of these, 12 articles related to the topic that were published in the last 23 years were reviewed.

To achieve relevant studies, a wide range of keywords including Diabetic patients, Diabetes, Self-care and most important factors was used as a one-to-one search, combined with the method "And" and "OR".
Results
Diabetic patients are aware of the principles of proper nutrition, choice of foods, careful observation of treatment pattern, foot care, exercise and appropriate physical activity along with lifestyle changes and mental and health care. Observing these will also delay the progression of long-term complications of diabetes. Achieving such goals undoubtedly requires patient participation in self-care and dynamic and continuous education, so that without self-care training for diabetic patients and their participation in self-care, more expensive health care, and is impaired quality of life. There will be more. Implementing a self-care program will improve the care and quality of life of diabetic patients (19, 20).

In some studies, comparing the mean scores of behaviors in different aspects of self-care showed that the mean behaviors in terms of diet and proper use of medications had the highest and least effect on blood glucose control and physical activity (21-28).

A study of trained individuals by untrained physicians and health personnel found that the mean score of self-care in trained individuals was 3.66 points higher than those who did not receive training (22).

Also, in some studies, there was a significant relationship between self-care and patient referral in the clinic, which increased the level of knowledge and education in clients, increasing the mean score of self-care (22, 27).

Also, self-care status was significantly correlated with the duration of education, so that self-care increased as self-care increased and illiterate people had good self-care. According to the results of this study, the type of treatment and marital status relates only to foot care (29, 30).

Also, the results of some studies showed that 47.2% of the subjects had a poor self-care and there was a significant relationship between self-care and sex and physical activity (31).

In diabetic patients, self-care education is one of the key approaches to successful diabetes management. Teach Back is an interactive educational tool that can enhance knowledge and understanding of the patient and improve their self-management.

In a study (32), that was done with aims determining the effect of Self-care education through Teach Back method on self-care behaviors in type 2 diabetic patients, showed that after the intervention, the patients in the experimental group had a good performance and control group had a moderate performance on blood glucose control.

According to the results of this study, after the intervention, the mean score of awareness of the case group in comparison with the control group increased significantly. This is in line with the level of awareness of type 2 diabetic patients about self-care in the study of neonates and cohorts (33).

Discussion
Until recently, contagious diseases were considered the biggest health problem in third world countries. But now the increasing role of non-communicable diseases in mortality, especially in developing countries, is a serious threat, one of which is diabetes. Diabetes is one of the most important global challenges as the most common disease caused by metabolic disorders. It is a chronic, metabolic disease, and is clinically and genetically heterogeneous. And a major cause of morbidity and mortality in the industrialized and developing world (1-7).
The importance and the crucial role that self-care has in controlling, promoting the health and quality of life of diabetic patients, and preventing the development of complications and disabilities, is well known (33). Therefore, this systematic review study was done on most important factors affecting of self-care in diabetic patients.

In a study (33), before education, there was no significant difference between the case and control groups regarding the knowledge of diabetic patients about self-care. But patients' awareness after training was significantly increased in both case and control groups, which was higher and more significant in case group. Also in the case group, there was a significant difference after regular training compared to before, but no significant difference was observed in the control group before and after training. Exercise in the case group increased significantly after training compared to the previous group. But in the control group, no significant difference was observed before and after the intervention.

Diabetes self-care may be a function of the individual, psychological, and social factors that understand health care providers to develop effective interventions to promote diabetes self-care behaviors (28).

According to study (29), Based on the results of this study, the type of treatment and marital status were related only to the foot care dimension, it can be said that due to the results of the study and the differences in some characteristics of the patient, patients with different dimensions of self-care and knowledge need training in diabetes centers more practical.

Conclusion

According to the results of the studies, diabetic patients have poor self-care, and this poor self-care imposes huge costs on affected individuals each year. Therefore, it is necessary to find ways to improve the care of these patients.

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