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OPEN PEER REVIEW

Evaluation of the Quality of Care of Type 2 Diabetic Patients and Some Related Factors Using Structural Equation Modeling

Kazem Alizadeh-Barzian, Meysam Amyanpoor, Ali Jamshidi, Somayeh Parvin, Mehdi Jamshidi

SUBMITTED	REVISED	ACCEPTED	DOI
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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

2 comments · 25 Oct 2024 – 30 Oct 2024

Referee 1 Reviewer

MAJOR REVISION 25 Oct 2024

• Subject
• 1) Is the article within the scope of the journal? Yes
• 2) Does the article have novelty? No
• Title
• 3) Does the title reflect the content appropriately? No, because the methods evaluate the quality of life of patients with type 2 diabetes. Therefore, it is necessary to use the phrase quality of life in the title of the research.
• 4) Is there any abbreviation in the title? No
• Abstract
• 5) Is there a structured abstract? Yes
• 6) Are keywords (3-10) selected from MESH? Yes
• Introduction
• 7) Clarity of the objectives/hypotheses? (Are the objectives clearly stated?) No
• 8) Does the Introduction include: “What we know,” “What we don’t know” and “Aims”? No
• In this study, the phrase "quality of care" is mentioned in the introduction and in the research title, whereas the methods evaluate the quality of life of patients with type 2 diabetes. Therefore, it is necessary to use the phrase quality of life in the title of the research. In the introduction section, the quality of life of patients with type 2 diabetes should be discussed.
• Materials And Methods
• 9) Clearly describe the selection of participants (patients or laboratory animals, including controls)? Yes
• 10) Study design described sufficiently? No. The present study is descriptive-analytical and correlational.
• 11) Adequacy of the sample studied? Yes
• 12) Subjects representative of target population? Yes
• 13) Provided sample size calculation or justification? Yes
• 14) Control subjects appropriate? Yes
• 15) Power of study declared? No
• 16) Reported actual P values for primary analyses? No
• 17) Blinding of investigators (if applicable)? It was not necessary.
• 18) Blinding of subjects (if applicable)? It was not necessary.
• 19) Identify the methods and apparatus (give the manufacturer’s name and address in parentheses)? It was not necessary.
• 20) Identify procedures in sufficient detail to allow other workers to reproduce the results? Further explanation is needed.
• 21) Identify precisely all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration? It was not necessary.
•
• 22) Inclusion/exclusion criteria explained? No
• 23) Appropriate statistical analysis? Yes
• Results
• 24) Appropriateness, clarity, and adequacy of the tables and figures? Yes
• 25) Present results in logical sequence in the text, tables, and illustrations, giving the main or most important findings? Yes

• 26) Duplicate data in graphs and tables? Yes
• 27) Use technical terms as nontechnical terms in statistics, such as “random” (which implies a randomizing device), “normal,” “significant,” “correlations,” and “sample.”? Yes
• Discussion
• 28) Conclusion justified & substantiated? Yes
• 29) Analysis supports conclusion? Yes
• References
• 30) Proper writing of the references? Yes
• 31) References from the last five years? No—only a few: 5 of the articles.

Referee 2 Reviewer

MAJOR REVISION 30 Oct 2024

Dear editor/ author
In the title of the manuscript, the term quality of care is used, while quality of life is evaluated. Also, the quality of life questionnaire was used. The tool for measuring the quality of patient care is different from the tool for measuring quality of life. Quality of care is also mentioned in the conclusion of the abstract. It is better to replace it with quality of life.
Please match the keywords with MeSH.
The method of determining the sample size, the sample size formula, and the sampling method are not mentioned, and the methodology is weak.
Line 134: The types of statistical tests and the acceptable level of significance are not specified.
There are no explanations about the quality of life measurement tool, scale score, and subscales.
Table 4: In the results, it is better to draw the paths in the form of a routine shape.
Quality of care is repeated in the discussion. Please replace it.
Old references can be seen among the references. Please use studies from the last 5 years.

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear Editor-in-chief,

We are grateful to the editors and reviewers for their time and constructive comments on our manuscript **ID 154592 entitled " Evaluation of the quality of care of type 2 diabetic patients and some related factors using structural equation modeling"** . Changes in the manuscript are either highlighted for added, corrected or moved sentences and strikethrough for deleted sentences in the .revised(edited) version

Regards

Jamshidi and colleagues

Reviewer 1:

We would like to thank our reviewer for his/her positive review and the constructive comments.

Subject

1) Is the article within the scope of the journal? Yes

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2) Does the article have novelty? No

While accepting that innovation in the study is one of the important factors, it should be considered that the purpose of this study is to investigate the quality of care of diabetic patients in Behbahan city, and the result can be influenced by factors related to the region. This study is necessary to know the quality of patient care in each region.

• Title

• 3) Does the title reflect the content appropriately? No. because in the working method, the quality of life of type 2 diabetic patients has been evaluated. Therefore, it is necessary to use the word quality of life in the title of the research

The main goal of this study was to examine the quality of patient care, and quality of life (including physical, psychological, social, and social environment dimensions) was examined as one of the factors influencing the quality of care. In addition to quality of life, other variables such as annual examinations, physical activity, concurrent illness, psychological distress, family history, and marital status were examined and their relationship with the quality of patient care was also considered in structural equation modeling.

• 4) Is there any abbreviation in the title? No

.....

• Abstract

• 5) Is there a structured Abstract? yes

• 6) Are Keywords (3-10) selected from MESH? yes

• Introduction

• 7) Clarity of the objectives/hypotheses? (Are the objectives clearly stated?) no

it has been corrected and highlighted in the manuscript.

• 8) Does Introduction include: “What we know,” “What we don’t know” and “Aims”?no

it has been corrected and highlighted in the manuscript.

• In this study, the word "quality of care" is mentioned in the introduction and in the research title. While in the working method, the quality of life of type 2 diabetic patients has been evaluated. Therefore, it is necessary to use the word quality of life in the title of the research. And in the introduction section, the quality of life of type 2 diabetic patients should be discussed.

The main goal of this study was to examine the quality of patient care, and quality of life (including physical, psychological, social, and social environment dimensions) was examined as one of the factors influencing the quality of care. In addition to quality of life, other variables such as annual examinations, physical activity, concurrent illness, psychological distress, family history, and marital status were examined and their relationship with the quality of patient care was also considered in structural equation modeling.

• Materials And Methods

• 9) Clearly describe the selection of participants (patients or laboratory animals, including controls) ?yes

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• 10) Study Design Described Sufficiently? No. The present study is descriptive-analytical and correlation type

it has been corrected and highlighted in the manuscript.

• 11) Adequacy of the sample studied? Yes

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• 12) Subjects Representative of Target Population? Yes

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• 13) Provided sample size calculation or justification? Yes

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• 14) Control Subjects Appropriate?yes

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• 15) Power of study declared? No

it has been corrected and highlighted in the manuscript.

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• 20) Identify procedures in sufficient detail to allow other workers to reproduce the results? It needs further explanation

it has been corrected and highlighted in the manuscript.

• 21) Identify precisely all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration? It was not necessary

.....

• 22) Inclusion/Exclusion Criteria Explained? No

it has been corrected and highlighted in the manuscript.

• 23) Appropriate Statistical Analysis? yes

• Results

• 24) Appropriateness, clarity, and adequacy of the Tables and Figures? Yes

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• 25) Present results in logical sequence in the text, tables, and illustrations, giving the main or most important findings?yes

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• 26) Duplicate data in graphs and tables?yes

it has been corrected and highlighted in the manuscript.

• 27) Use technical terms as non-technical in statistics, such as "random" (which implies a randomizing device), "normal," "significant," "correlations," and "sample."?yes

.....

• Discussion

• 28) Conclusion justified & substantiated? Yes

.....

• 29) Analysis supports Conclusion? Yes

.....

• References

• 30) Proper Writing of the References? Yes

.....

• 31) References for the last five years? No-just a little 5 of the articles

There were some changes in the references and a number of old references were replaced with new ones. However, as mentioned in the text of the article, the proposal for this study was approved in 2018 and therefore the majority of the references used are from that time and before. At the same time, a number of references are also from after the Covid19 pandemic and its impact on the quality of care for diabetic patients.

Reviewer 2

We would like to thank our reviewer for his/her positive review and the constructive comments.

In the title of the manuscript, the word quality of care is written while the quality of life is evaluated. Also, the quality of life questionnaire was used. The tool for measuring the quality of patient care is different from the quality of life . The quality of care is also mentioned in the conclusion of the abstract. It is better to replace it with quality of life

The main goal of this study was to examine the quality of patient care, and quality of life (including physical, psychological, social, and social environment dimensions) was examined as one of the factors influencing the quality of care. In addition to quality of life, other variables such as annual examinations, physical activity, concurrent illness, psychological distress, family history, and marital status were examined and their relationship with the quality of patient care was also considered in structural equation modeling.

Please match the keywords with the mesh.

The main goal of this study was to examine the quality of patient care, and quality of life (including physical, psychological, social, and social environment dimensions) was examined as one of the factors influencing the quality of care. In addition to quality of life, other variables such as annual examinations, physical activity, concurrent illness, psychological distress, family history, and marital status were examined and their relationship with the quality of patient care was also considered in structural equation modeling. Therefore, keywords are correctly based on mesh.

The method of determining the sample size, the formula of the sample size, the method of sampling is not mentioned and the methodology is weak.

The sample size required for the study was determined based on the studies conducted, which included 310 patients. Therefore, given that the sample size constitutes a suitable percentage of all patients and the sampling was done randomly, the sample is representative of the study population and the results of this study are worthy of generalization to all patients.

it has been corrected and highlighted in the manuscript.

Line 134, type of statistical tests, acceptable level of significance is not written.

it has been corrected and highlighted in the manuscript.

There are no explanations about the quality of life measurement tool, scale score and subscales.

it has been corrected and highlighted in the manuscript.

Table 4 In the results, it is better to draw the paths in the form of routine shape.

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The quality of care is repeated in the discussion. Please replace it.

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Old references can be seen among the references. Please use the studies of the last 5 years.

There were some changes in the references and a number of old references were replaced with new ones. However, as mentioned in the text of the article, the proposal for this study was approved in 2018 and therefore the majority of the references used are from that time and before. At the same time, a number of references are also from after the Covid19 pandemic and its impact on the quality of care for diabetic patients.

2 Revision 1

2 comments · 16 Dec 2024 – 27 Jan 2025

Referee 2 Reviewer

MINOR REVISION 16 Dec 2024

The manuscript has been greatly improved.
The most important research results should be presented in the abstract.
Regarding sample size determination based on other articles, the relevant reference should be provided.
The conclusion of this manuscript has not been written.

Associate Editor

MINOR REVISION 27 Jan 2025

The manuscript has been greatly improved.
The most important research results should be presented in the abstract.
Regarding sample size determination based on other articles, the article reference should be provided.
The conclusion of this manuscript has not been written.

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

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We are grateful to the editors and reviewers for their time and constructive comments on our manuscript **ID 154592 entitled " Evaluation of the quality of care of type 2 diabetic patients and some related factors using structural equation modeling"** . Changes in the manuscript are either highlighted for added, corrected or moved sentences and strikethrough for deleted sentences in the .revised(edited) version

Regards

M.J and colleagues

Reviewer 1:

We would like to thank our reviewer for his/her positive review and the constructive comments.

The manuscript has been greatly improved.

Thank you for your attention.

Q*)The most important research results should be presented in the abstract.*

R) **it has been corrected and highlighted in the manuscript.**

The mean and standard deviation of the HBA1C value as one of the most important variables of diabetes care was 9/71±2/13.(Added in the last line of the abstract)

Q*)Regarding sample size determination from other articles, the article reference should be written.*

R) **Relevant references have been added to the manuscript and corrections have been made and highlighted.**

The sample size required for the study was determined based on the studies conducted(17-19).

17.Ghorbani Behrooz H, Yazdanbood A, Amini Sani N, Islam Panah S, Shokrabadi M. Quality of care in 100 diabetic patients in a diabetes clinic in Ardabil. Journal of Ardabil University of Medical Sciences. 2012;12(3):239-47.

18. Ataei J, Shamshirgaran S, Iranparvar Alamdari M, Safaeian A. Evaluation of diabetes quality of care based on a care scoring system among people referring to diabetes clinic in Ardabil. Journal of Ardbil University of Medical Sciences. 2015;15(2):207-19.

19. DELAVARI A, Alikhani S, Nili S, Birjandi RH, Birjandi F. Quality of care of diabetes mellitus type II patients in Iran. 2009.

Q)The conclusion of this manuscript has not been written.

it has been corrected and highlighted in the manuscript.

The present study shows the unfavorable quality of care for patients with diabetes, which needs to be given special attention due to its chronic complications. Strengthening the care programs for diabetes patients, especially in the framework of the Irapen program, which includes psychosocial interventions, can improve the quality of care Type 2 diabetic patients.

Associate Editor 1:

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3 Revision 2

0 comments

No public comments in this round.