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Investigating healthcare workers' understanding of lifestyle modifications in type 2 diabetes care: Insights from Mirbat Hospital

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Abstract

This study aims to investigate the knowledge and attitudes of healthcare workers at Mirbat Hospital regarding the influence of lifestyle factors on managing Type 2 Diabetes Mellitus (T2DM). With the rising incidence of T2DM in Oman, effective lifestyle interventions, including diet and physical activity, are crucial for improving patient outcomes. The study will utilize a cross-sectional survey design, distributing a structured questionnaire to doctors, nurses, dietitians, and other healthcare staff involved in diabetes care. By assessing healthcare workers' understanding of dietary recommendations, their perceptions of the effectiveness of lifestyle interventions, and the barriers they face in implementation, this research seeks to identify trends and gaps in knowledge. The findings will inform strategies to enhance healthcare workers' capacity to support patients in managing diabetes through lifestyle changes, ultimately aiming to improve the quality of care provided to T2DM patients in the region.

Keywords: Lifestyle interventions, healthcare workers, perceptions, barriers, Oman, type 2 diabetes mellitus

1. Introduction

One of the most prevalent chronic illnesses in modern society is type 2 diabetes mellitus (T2DM), and its prevalence is rising both globally and in Oman. It impacts many facets of a person's life and frequently necessitates consistent assistance from medical professionals in order to be effectively managed. Many individuals with type 2 diabetes are treated at Mirbat Hospital in Wilayat Mirbat. Only 59 of the 363 diabetic patients the hospital presently treats are anticipated to have their condition under control by the middle of 2024, according to local data. This demonstrates the difficulty of managing diabetes and indicates the need for greater care and assistance, particularly in encouraging healthy lifestyle modifications.

Healthy nutrition, regular exercise, and stress management are lifestyle choices that assist people manage type 2 diabetes. However, patients require the right guidance, encouragement, and follow-up from medical professionals for these lifestyle modifications to be beneficial. Patients are assisted in navigating these changes by physicians, nurses, pharmacists, and health educators. Patients are more likely to stick with healthy habits when healthcare providers are assured and informed.

The opinions of patients and medical professionals regarding the treatment of diabetes have been the subject of numerous research conducted in Oman. For instance, a survey conducted in 2013 by Al-Shafae and associates examined the opinions of physicians and nurses regarding the treatment of type 2 diabetes in primary care facilities. According to a different study by Subhi *et al.* (2016) ^[1], patients' beliefs were significantly impacted by their culture, family, and personal experiences. Due to emotional difficulties or cultural customs, some people preferred using traditional treatments or found it difficult to follow medical recommendations. Similar qualitative findings from Oman showed that systemic barriers to diabetes treatment delivery affect physicians and nurses (Abdulhadi *et al.*, 2013) ^[1].

2. Methodology

The methodology employed in this research involves a cross-sectional survey design will be employed to gather data from healthcare workers.

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The setting of the Study: The study will be conducted at Mirbat Hospital, a primary healthcare facility serving T2DM patients.

Population and Sampling

- The target population includes: 10 Doctors, 23 Nurses,
- 6 School Health Staff, 6 Pharmacists.

Total Sample Size: A total of 45 healthcare workers will be included in the study. A stratified random sampling method will be used to ensure diverse representation from different healthcare roles.

Research Tool and Pilot Study

A structured questionnaire will be developed, including multiple-choice and Likert-scale questions. A pilot study will be conducted with a small group of healthcare workers to test the questionnaire's clarity and reliability.

Data Analysis and Presentation

Data will be analyzed using descriptive and inferential statistical methods, and results will be presented through tables and graphs for clarity.

Ethical Consideration

Ethical approval will be obtained from the relevant ethics committee, and informed consent will be secured from all participants to ensure confidentiality and ethical conduct in the research process.

3. Results

Results showed that dietary guidance rated highest (mean = 4.27), physical activity knowledge was moderate (mean = 4.17), and stress management was lowest (mean = 3.85). Significant differences were found by profession ($p = 0.031$). These findings emphasize the need for tailored training and culturally sensitive interventions in diabetes care.

4. Conclusions

This study evaluated the knowledge, attitudes, and difficulties of healthcare professionals at Mirbat Hospital in putting lifestyle strategies for the management of Type 2 Diabetes Mellitus (T2DM) into practice. The main conclusions indicated that while healthcare professionals knew a lot about nutritional and physical activity therapies, they knew relatively little about stress management. Professional positions were substantially correlated with confidence in delivering lifestyle treatments; physicians and health educators reported higher levels of confidence than nurses and pharmacists.

The study also identified time restrictions, patient motivation, resource limits, and cultural opposition as important obstacles to the successful use of lifestyle treatments. These results highlight the need for focused training initiatives and institutional assistance to enable healthcare professionals to overcome these obstacles.

Although some healthcare professionals encounter operational and systemic challenges, the study shows that they possess a basic understanding of lifestyle strategies for diabetes treatment. In primary and secondary care settings, removing these obstacles is essential to enhancing patient outcomes and promoting long-term chronic illness management.

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References

1. Abdulhadi MN, Al-Shafae MA, Wahlström R, Hjelm K. Doctors' and nurses' views on patient care for type 2 diabetes: an interview study in primary health care in Oman. *Primary Health Care Research and Development*. 2013;14(3):258-269.
2. Al-Ghafri TS, Al-Harthi S, Al-Farsi Y, Craigie AM, Bannerman E, Anderson AS, *et al*. Changes in self-efficacy and social support after an intervention to increase physical activity among adults with type 2 diabetes in Oman: a 12-month follow-up of the MOVEdiabetes trial. *Sultan Qaboos University Medical Journal*. 2021;21(1):1-9.
3. Asmri MA, Almalki MJ, Fitzgerald G, Clark M. The public health care system and primary care services in Saudi Arabia: a system in transition. *Eastern Mediterranean Health Journal*. 2020;26(4):468-476.
4. Al-Riyami A. Type 2 diabetes in Oman: can we learn from the Lancet editorial? *Oman Medical Journal*. 2010;25(3):153.
5. Al-Shookri A, Khor G, Chan Y, Loke S, Al-Maskari M. Type 2 diabetes in the Sultanate of Oman. *Malaysian Journal of Nutrition*. 2011;17(1):1-9.
6. Alghafri T, Alharthi SM, Al Farsi YM, Bannerman E, Craigie AM, Anderson AS. Perceived barriers to leisure time physical activity in adults with type 2 diabetes attending primary healthcare in Oman: a cross-sectional survey. *BMJ Open*. 2017;7(11):e016946.
7. Alrahbi HH, Alghenaimi SA. Factors influencing diabetes self-management among Omani patients with type 2 diabetes: patients' perspectives. *Journal of Nursing Education and Practice*. 2017;7(12):64-71.
8. Alyaarubi S. Diabetes care in Oman: obstacles and solutions. *Sultan Qaboos University Medical Journal*. 2011;11(3):343-348.
9. American Diabetes Association Professional Practice Committee. Improving care and promoting health in populations: Standards of Medical Care in Diabetes 2022. *Diabetes Care*. 2022;45(Suppl 1):S8-S16.

10. Ashrafzadeh S, Hamdy O. Patient-driven diabetes care of the future in the technology era. *Cell Metabolism*. 2019;29(3):564-575.
11. Subhi Y, Forshaw TR, Sørensen TL. Macular thickness and volume in the elderly: A systematic review. *Ageing Res Rev*. 2016 Sep;29:42-49. doi:10.1016/j.arr.2016.06.002.

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