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Diabetic Patients' Experiences in Lifestyle Management: Evaluating the Impact of a Structured Program on Health Behaviors and Quality of Life

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Abstract: Diabetes Mellitus is a serious and growing public health problem in Iraq, just like it is in the rest of the Middle East and North Africa, where it has some of the highest rates of incidence in the world. Many Iraqi patients (Especially oil employees) have trouble controlling their blood sugar levels and face many barriers that are often specific to their situation. This is despite the fact that managing their lifestyle is very important for avoiding serious complications. There is a lot of research on the benefits of Diabetes Self-Management Education (DSME), but not much on the specific lifestyle management problems that Iraqi diabetic patients face. There is also not enough evidence to support the idea that structured, culturally-sensitive educational programs can help this group of people live healthier lives and improve their quality of life (QoL). The goal of this study is to use numbers to look at how adult Iraqi workers with diabetes manage their lifestyles and to see

how a structured educational program affects their ability to adopt healthy habits and their own quality of life.

Keywords: Diabetes Mellitus, Patients' experiences, Lifestyle, Self-Administration, Quality of Life, Educational Program.

Introduction

The rise in diabetes around the world is a big health problem that is closely linked to lifestyle, behaviour, and socioeconomic factors. In Iraq, the number of people with diabetes jumped from one million in 2011 to more than 2.5 million in 2024, and it is expected to reach almost 6 million by 2050. This trend is putting a lot of strain on the economy, as the cost of caring for patients around the world was over $900 billion in 2021. More than 80% of people with diabetes live in low- and middle-income countries, which shows that there are big differences in resources and outcomes. There are many things that make it hard to manage diabetes well, such as problems with the healthcare system, the environment, social and cultural factors, and mental health issues. In Iraq, not always being able to get basic services like electricity can make it harder to manage diabetes because it can affect how electronic glucose monitoring devices work and how insulin is stored. To come up with good ways to help people, it's important to see these barriers from the patient's point of view (Hossain et al., 2024; IDF, 2025; Mansour, 2008).

This means we need to change how we help patients take charge of their own daily care, which can lead to better self-management and a better quality of life. The first and most important step is to look at how people with Type 2 diabetes take care of themselves right now. To understand how patients act, it is important to do studies that keep track of their medication adherence, foot care, blood glucose monitoring, and exercise. Nurses are very important for teaching and empowering patients, and they need enough skilled help to improve their clinical judgement when caring for patients with chronic diseases (Seidi et al., 2014b; Sharifirad et al., 2015; Shojaeezadeh et al., 2012).

Research Aim and Research Questions

The goal of this research is to find out how adults with diabetes in Iraq manage their lifestyles and how a planned educational program affects their ability to live a healthy life and their subjective quality of life. The following research questions guide the study:

1. What are the real-life experiences of adult diabetes patients in Iraq when it comes to managing their lifestyle, especially when it comes to nutrition, exercise, and self-monitoring?

2. How does taking part in a structured, culturally appropriate diabetes education program affect how adults with diabetes in Iraq take care of themselves?

3. What effect does the diabetes education program have on the reported quality of life of adults with diabetes in Iraq?

Research Methodology

This study will use a quantitative, pre-test/post-test design to find out how well a structured educational program improves people's quality of life and healthy lifestyle habits.

Setting and Sample

People who work for oil companies in Iraq will be chosen to take part. We will use either a convenience or purposive sampling method to choose adult patients with Type 2 Diabetes Mellitus who meet certain criteria for inclusion. A power analysis will be used to figure out the sample size so that there is enough statistical power to find important changes.

Intervention

The intervention will be a planned and organised course of instruction taught by a researcher. The program's content will be based on local eating habits and environmental factors. It will focus on improving knowledge and practical skills related to healthy eating, regular exercise, taking medications as prescribed, monitoring blood sugar levels, and finding solutions to problems related to managing diabetes.

Data Collection

Validated questionnaires will be used to collect data at the beginning (pre-test) and right after the educational program (post-test).

- **Healthy Lifestyle:** Standardised tools will be used to check on things like eating habits, levels of physical activity (for example, the International Physical Activity Questionnaire, or IPAQ), and how well people stick to their medication and self-monitoring schedules.
- **Quality of Life:** The Short Form Health Survey (SF-36) or the Diabetes Quality of Life (DQOL) questionnaire, which have been shown to be accurate, will be used.
- **Demographic and Clinical Data:** We will gather information about the person's age, gender, level of education, how long they have had diabetes, what treatment they are currently receiving, and their baseline HbA1c.

Data Analysis

Data will be analyzed using statistical software such as SPSS. Descriptive statistics will be used to summarize sample characteristics and baseline scores. Paired-samples t-tests or Wilcoxon signed-rank tests will be employed to compare pre- and post-intervention scores for healthy lifestyle behaviors and quality of life. Statistical significance will be set at $p < 0.05$.

Expected Outcomes

It is thought that taking part in the educational program will lead to a statistically significant rise in healthy lifestyle scores (H1) and overall health-related quality of life ratings (H2) from before the test to after the test. The baseline evaluation is likely to show that the study group has common lifestyle management problems that are statistically significant.

Conclusions

This study is likely to give us important numbers about the specific problems that Iraqi diabetes patients have with managing their lifestyles. It will also give real-world proof of how well a focused educational intervention works in this particular situation. The results should help nurses do their jobs better by showing them which areas of patient education and support are most important. This study will help create diabetes management programs in Iraq that are culturally appropriate and based on evidence. It will also add to the general knowledge about diabetes care in places with few resources and after a conflict. The family-centered empowerment model has been shown to affect self-efficacy and self-esteem, which are important parts of managing your health over the long term. In the end, this research could help people in Iraq by encouraging them to live healthier lives, improving their quality of life, and lowering the long-term effects of diabetes (Alhani et al., 2022; Zareiyan et al., 2020; Sanaie et al., 2016).

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