

ORIGINAL RESEARCH

Effect of Dietary Habits and Lifestyle on Type 2 Diabetic Patients at University of Medical Centre in Tripoli

Ambarka Eid.H Kreim

Department of Nutrition, Faculty of Public Health, Benghazi University, Department of Public Health, Faculty of Medical Technology, Tripoli University, Tripoli, Libya. Email: ambarkakreim@duo.edu.ly

Received: 15 April 2023

Accepted: 19 May 2023

Published: 20 June 2023

ABSTRACT:

Diabetes is a serious illness dealing with the body's inability to produce or regulate insulin, which controls the level of glucose in the blood. According to International Diabetic Federation, diabetes is the most common significant chronic metabolic illness that causes morbidity and mortality in those who are affected, with an expected 5 million deaths worldwide in 2015. This study aims to estimate the effect of diet, and lifestyle habit on type 2 DM patients in Western-Libya. This was descriptive cross-sectional study, which was carried out at Clinics and Hospitals in Tripoli (Salah-Alden clinic) during the period from June to November 2022. A total of 100 type 2 DM patients joined this study. A standard structure questionnaire including demographic data such as (age, sex) was anthropometric measurement like height, weight, BMI, physical activities, ideal diet intake, type of treatment, mental stress. Data were analysed by frequency count and percentage by using Microsoft Excel and SPSS program, version 24. Variables are reported as frequencies and percentages. Qualitative variables were compared using the chi-square and Fisher test. P value < 0.05 was considered statistically significant. The participants' age, more than half of them (63%) were 45-60 years old. Out of 100 diabetic patients (57%) were male and (43%) were female. (48% from male and 29% from female their BMI more than 25 kg/m² which classified as obese (66%) of patients having mental stress, 43% their duration of diabetes were more than 10 years. Related to type of treatments the majority of patients were used insulin injection for diabetic treatment (72%)



This observe changed into found out that from 100 members of male type 2 DM fifty-three (53%) patients have no longer taken a super weight-reduction plan, even as 37 females have been not having an excellent weight-reduction plan (37%). Most of the people of diabetic patients did no longer do exercise (92%) which very high percentage and tobacco use (58%) from individuals had been not smoke. From evaluation there was a high huge relation among sex and BMI, nutritional reputation and doing exercising (p value= 0.0.5, 0.000, 0.000) respectively. In conclusion, the majorities of individuals with type 2 diabetes were overweight, due to lack of physical activity, and did not follow dietary guidelines for fats, fruits and vegetable consumption. Dietary habits, early identification, and effective intervention are integral components of effective T2D care in Libya. These strategies may reduce the expanding economic burden associated with T2D care.

KEYWORDS: Type 2 Diabetes Mellitus, Nutritional Status, Lifestyle Habit, Tripoli.

INTRODUCTION

Diabetes mellitus (DM) is defined as a heterogeneous group of diseases, characterized by a state of chronic hyperglycaemia, resulting from a diversity of aetiologies, environmental and genetic, acting jointly. The underlying cause of diabetes is the defective production or action of insulin, a hormone that controls glucose, fat, and amino acid metabolism DM is a significant health problem affecting major population worldwide (Abougalambou & Mohamed, 2012).

A dangerous condition known as diabetes is caused by the body's inability to create or control the hormone insulin, which regulates the amount of glucose in the blood. With an estimated 5 million deaths globally in 2015, diabetes is the most prevalent severe chronic metabolic disorder that causes morbidity and mortality in people who are affected. DM is a serious health issue that affects a large population globally (Abougalambou et al., 2012, Ashraf, 2017).

In Libya, diabetes now accounts for the majority of non-communicable diseases. Up to 90% of patients with diabetes have type 2 diabetes. Diabetes has major side effects that can affect the kidney, eye, and nervous system (Ahmad & Islahudin, 2014, Ashraf, 2017).

The average lifespan is decreased by 7 years, and the risk of cardiovascular disease has more than

doubled overall (5). The importance of current diabetes care standards is highlighted by the condition's expanding prevalence and the variety of dangerous complications that can occur. Many legislative entities, professional organizations, and national and international organizations have created comprehensive guidelines.

The prevalence of diabetes is particularly high in the Middle East and North Africa (MENA) region (Abougalambou et.al, 2012).

According to statistics from the International Diabetes Federation, the prevalence of diabetes among adults in Libya, one of the MENA nations, is 9.86%. (Abougalambou et.al, 2012; Chiu & Wray, 2010).

Diabetes prevalence increases significantly with age and is expected to increase at a much faster rate in the future. Diabetes can have serious consequences, including heart and kidney disease, poor circulation leading to limb amputation, eye complications leading to blindness, poor quality of life and premature death.

Despite evidence that the risk of diabetes-related mortality and cardiovascular disease(CVD) has decreased overtime, diabetes remains a risk,

thanks in part to improved health care (Souza et.al, 2013).

A recent study by the World Health Organization(WHO) estimated that 170 million people worldwide had diabetes in 2002 and that number is expected to rise to over 366 million by 2030. The epidemic is believed to be primarily due to adoption of a sedentary lifestyle, consumption of non-traditional foods, and a genetic predisposition to the disease. India has a dubious reputation for having more people with diabetes than any other country (Khan & Saxena, 2010).

Despite major advances in understanding and treating diabetes, the disease and its associated complications continue to grow. DM is associated with long-term vascular complications that contribute to increased morbidity and mortality in diabetic patients.

A recent addition to these complications is thyroid dysfunction, supported by recent studies (Ahmad & Islahudin, 2014, Maskarinec & Grandinetti, 2009).

In 2013, 382 million adults worldwide were diagnosed with diabetes. This number is expected to rise to 592 million in 2035. Patients with diabetes are at increased risk of macro vascular and micro vascular complications and early death. For example, people with diabetes are two to four times more likely to have a fatal or non-fatal coronary event or stroke. Nearly 70-80% of T2D patients die from one of these two conditions.

The American Heart Association considers diabetes to be one of the top six controllable risk factors for cardiovascular disease. Researchers believe that T2D is as risky as previous heart attacks. Additionally, approximately 40% of people with diabetes have chronic kidney disease, and nearly 60% to 70% of people with diabetes have mild to severe neurological damage. Additionally, diabetes comes with significant medical costs. Approximately 11% of all health care costs

world wide are spent on diabetes (Maskarinec & Grandinetti, 2009, Maysa & Al-Tawalbeh, 2022).

In Libya, obesity, especially visceral obesity and lack of exercise, are the main risk factors for diabetes. The Egyptian Demographic Survey (2008), which assessed the nutritional status of the population aged 15 to 59, found that approximately 50% of Libyan men and 65% to 80% of Libyan women were overweight to obese. In 2010 World Health Organization (WHO) report indicates that 30.3% of adults in Libya are obese.

Libya currently has the third highest obesity rate in the MEN A region after Egypt, Saudi Arabia and the United Arab Emirates. Similar to Hispanic and Native American populations, central obesity is particularly common among Libyans and likely to be hereditary (Maysa & Al-Tawalbeh, 2022).

The Egyptian National Hypertension Study Programme, conducted in her six provinces in Libya and involving 2413 adults aged 25 years and older, found that 50% of those surveyed suffered from central obesity.

It has been found to be strongly associated with an increased risk of diabetes and cardiovascular disease. Obesity is primarily associated with unhealthy eating habits that have emerged in recent decades (Maysa H Almomani & Al-Tawalbeh S, 2022, Palaian & Chhetri, 2005).

Smoking is prevalent in the MEN A region, especially in Tunisia, Egypt, Jordan, Syria and Lebanon. About 39.7 % of adult males in Libya are smokers.

Smoking among Egyptian women is still rare compared to their Middle Eastern and Mediterranean countries. As previously mentioned, smoking is directly associated with an increased incidence of micro-and macro vascular disease in diabetic patients (Papazafiropoulou A., 2010).

Libya is a Mediterranean country and shares much of the eating habits of the Mediterranean

region. The Libyan diet is traditionally high in protein, carbohydrates and fish, with small to moderate amounts of fruits and vegetables. However, the Libyan diet is rich in glycaemic load and high glycaemic index foods, especially white bread and cultured rice (Maysa H Almomani, 2022, Papazafiropoulou A., 2010). Another bad eating habit in Libya is the high consumption of trans fats.

In addition, Libyans often use under-cured margarine for everyday cooking and general frying preparations. Higher trans-fat intake has been shown to increase the risk of cardiovascular disease.

Associated with sedentary lifestyles, increased numbers of cars and hot weather contribute to decreased daily physical activity. Culturally, Libyans have tendency toward dodging exercise in public areas, although few are able to afford membership in athletic facilities.

There are several strong social factors that prevent women from exercising in public areas (Refaat Hegazi, 2015).

Several studies have shown a low incidence of good glycaemic control in patients with type 2 diabetes. A multinational study of her insulin-treated type 2 diabetic patients in 28 countries showed that failure to achieve optimal glycaemic control is a global problem (Ruelas V & Roybal GM, 2009).

In Africa, a study from Ethiopia reported a prevalence of 81.7% in insulin-treated diabetic patients with poor glycaemic control (Papazafiropoulou A., 2010).

Diabetes self-care behaviours are key strategies for effective T2DM management, requiring patients' compliance to a healthy diet, regular physical activity, blood sugar testing (BST), foot care, and treatment regimen to achieve optimal glycaemic control.

Observance to self-care behaviours is complex and stimulating, especially among patients with financial constraints who may not afford diabetes

supplies, such as meter testing strips, medications, or healthy foods,^{26,28} leading to a failure in realizing optimal glycaemic control (Raghuwanshi & Rajput, 2015, Ruelas & Roybal, 2009).

Some studies could not show the impact of some self-care practices on diabetes control.

For instance, in a Malaysian study among type 2 diabetics, self-care behaviours like exercise and dietary engagement were not associated with glycaemic control status (Palaiian. & Chhetri, 2005, Refaat, 2015, Raghuwanshi, & Rajput, 2015).

In an Ethiopian study among insulin-treated diabetics, adherence to dietary recommendations of eating vegetables and fruits contributed to glycaemic control.

But being adherent to insulin and self-care was not a predictor of good glycaemic control status (Ruelas & Roybal, 2009).

STATEMENT OF THE PROBLEM

Diabetes has become a global disease that affects both adults and children as well. In Libya, the percentage of people with diabetes is very high.

People should have full knowledge of this disease and how to deal with it. Although this issue is very important to be researched, there is a significant lack of studies that have been done.

Because of this gap, I decided to conduct a research on the prevalence of diabetes among men and women in terms of causes, symptoms and how to deal with it and manage it.

OBJECTIVE

To estimate the effect of diet, and lifestyle habit on type 2 DM patients in Tripoli.

RESEARCH QUESTIONS

This study is conducted to answer the following questions;

1. Is nutrition status and life style are influencing on degree of sickness?
2. Who are more influenced by the differences in diet men or women in Libya?

SIGNIFICANCE OF THE STUDY

This study will profit the community members especially the families that were involved in providing care for diabetic patients and generate information on the cause and prevention of diabetics.

The study will generate information that were a basis in guiding policy formulation that will institute policies aimed at mitigating diabetics among the population.

PREVIOUS STUDIES

A study conducted by Firouzi et.al in Malaysia, 2015. Results were illustrated that, the mean of BMI were 26.9-30.7, only 10.6% of subjects exercised daily.

Another study was done by Ashraf M. Albakoush et.al, in Tripoly, Libya, 2017. Their results revealed that, 59.2% were female and 40.8% male. 63.2% were overweight, 71.5% were not do physical activity, 62.3% were have mental stress and 62.45 followed ideal diet and 42.3% were not.

A research was done by Maysa H. Almomani et.al in Jordan, 2022. The results of this research discovered that, 79.2% of participants were had performed self-care activities 4-days/week. Greater adherence to diabetic self-care behaviors was associated with better glycemic control.

A study accompanied by Refaat Hegazi et.al in Egypt, 2022. The results of this study shown that,

the prevalence of T2DM in Egypt was triple over the last 2 decades due to increased obesity and physical inactivity.

MATERIALS AND METHODS

Population

This was across-sectional descriptive study conducted from June to November 2022 in Tripoli clinics and hospitals (Salah-Aden, University Hospital).

Total of 100 of type 2DM patients participated in this study.

Method and Study Design

The sampling system used according to the method for fasting blood glucose and HbA1c using a spectrophotometer and body mass index (BMI) was calculated by calculating the patient's weight and dividing by the square size.

BMI=body weight (kg/m²).

A standard structure questionnaire including demographic data such as (age, sex) was anthropometric measurement like height, weight, BMI, physical activities, ideal diet intake, type of treatment, mental stress.

Data Analysis

Data were analysed by frequency count and percentage by using Microsoft Excel and SPSS program, version 24.

Variables are reported as frequencies and percentages. Qualitative variables were compared using the chi-square and Fisher test. $P < 0.05$ was considered statistically significant.

RESULTS

Table 1 & figure 1 presents the ages of the participants, with more than half (63%) between

the ages of 45 and 60. Of the 100 diabetics, (57%) were male and (43%) were female

(Figure1). 48% of men and 29% of women had a BMI greater than 25kg/m² and were classified as obese.

Sixty-six percent of patients were with psychological stress, and 43 % had her 10-year or longer diabetic duration.

terms of treatment type, the majority of patients used insulin injections to treat diabetes (72%), with the lowest percentage using tablets (28%).

Table1: Age distribution among population study.

Age (years)	No. of subjects	%
18-30 yr.	11	11%
30-45 yr.	26	26%
45-60 yr.	63	63%
Total	100	100%

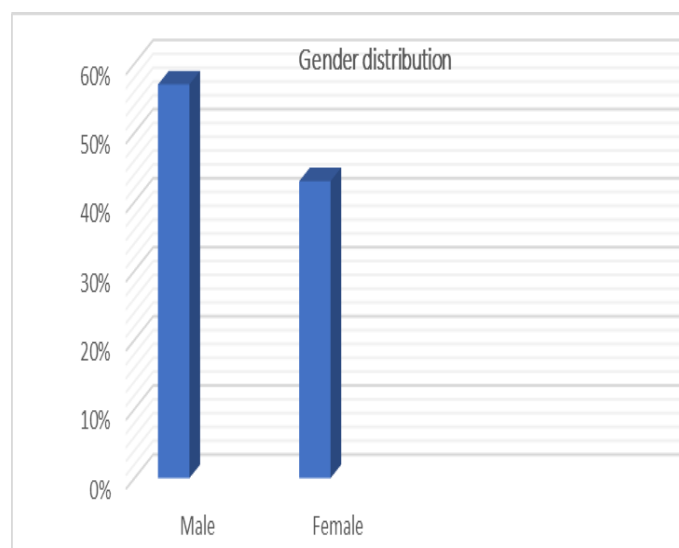


Figure1: Distribution of diabetic patients according to gender.

Table2, figure 2,3,4 shows that a total of 100 people with type 2 diabetes were included in the study to assess ideal diet, physical activity, mental stress, and type of treatment.

Selected 100 Of the patients, 9 men had normal BMI (9%),48 were overweight (48%), only1 was underweight (1%), and 12 women were of normal weight (12%), and 31(31%) were overweight.

In this study, of 100 male participants with type2 diabetes, 53(53%) patients did not eat the ideal diet, whereas 37females (37%) didn't.

It turns out that they were not eating regular meals.

Depending on nutritional status and lifestyle, out of a total of 100 diabetics on an ideal or healthy diet (10%), the majority don't follow an ideal or healthy diet (90%).

Most of the diabetics did not exercise (a very high percentage and a minority of them exercised regularly (8%), used tobacco (58%), and the participants never smoked. (42%) smoked.

There were highly significant associations between gender and BMI, nutritional status, and exercise (p-values=0.065,0.000,0.000).

One of our finding that Table 2 showed the distribution of the diabetic responds according to personal and clinical characteristics.

Table2: Distribution of diabetic responds according to personal & clinical characteristics.

Personal Characteristics		Male (%)	Male p value	Female (%)	Female p value
Type 2DiabetesPatients		56%	0.013	44%	0.047
Body Mass Index (Kg/m ²)	<18 (18 – 25) >25	1 9 48	0.013	0 11.2 31	0.013
Duration of Diabetes Mellitus (Years)	(1-5) (6-10) >10	29 28 43	0.049	29 13.9 43	0.049
Ideal Diet		2		8	
Doing exercise	Yes No	53	0.056	37	0.056
Mental Stress	Yes No	5 51	0.039	3 40	0.000
Using smoke	Yes No	43 13	0.020	40 22.3	0.017
Drinking coffee	Yes No	42 35	0.000	0 43	0.000
Type of Treatment	Yes No	55 1	0.08	0	0.000
	Tablet Insulin	21 35	0.054	39 4	0.08

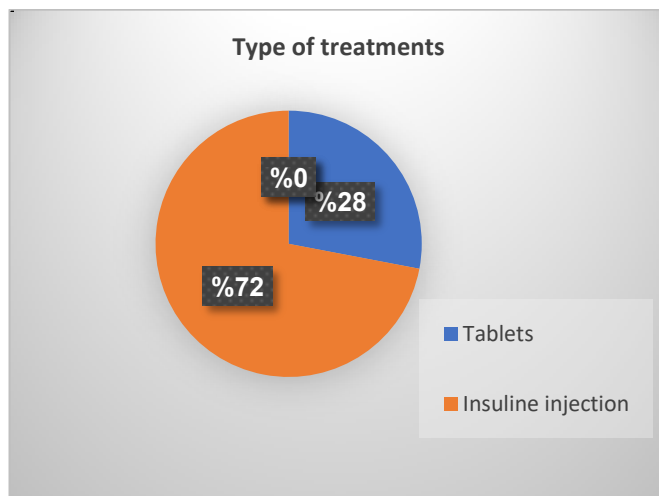


Figure 2: Distribution of diabetic patients according to type of treatments.



Figure 3: Nutritional status among population study.

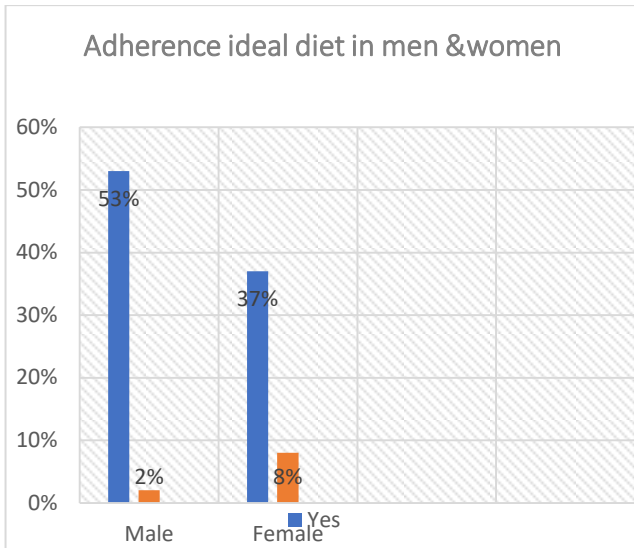


Figure 4: Relationship with adherence to ideal dietary habits in men and women with diabetes

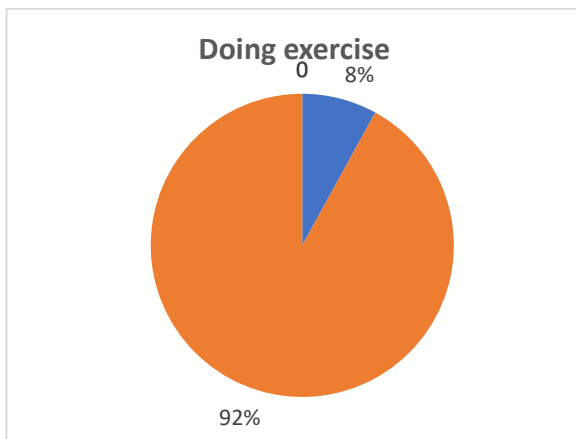


Figure 5: Distribution of patients according to doing exercise.

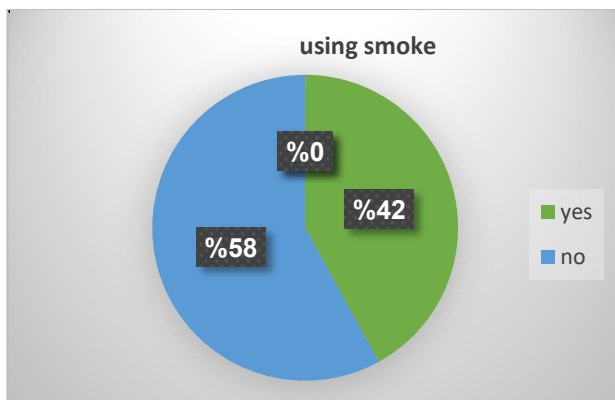


Figure 6: Distribution of patients according to tobacco use.

In table 3, there was a high significant relation between sex and BMI, nutritional status and doing exercise (p value= 0.065, 0.000, 0.000) respectively.

Table3: Relation between sex, BMI, doing exercise with ideal diet.

Diet	Mean Square	df	Sig.
Sex	25.225	2.820	.065
BMI	20.554	23.796	.000
Do you do exercise?	7.360	21.189	.000

DISCUSSION

Treatment of diabetes mellitus requires not only proper nutritional and pharmacological prescriptions by a doctor, but also intensive information and advice to the patient. Diabetes is a chronic disease that alters carbohydrate, fat and protein metabolism. Various factors such as patient understanding of the disease, dietary adjustment, and blood glucose self-monitoring are known to play important roles in diabetes management (D'souza MS, Venkatesaperumal R, 2013).

This study was conducted to assess the impact of nutritional status and lifestyle in patients with type2 diabetes in western Libya. A total of 100 patients were enrolled in the study to assess ideal diet, physical activity, type of treatment, and psychological stress. Among men with BMI (9%), 48 were overweight (48%) and only 1 was underweight (1%). The study showed that of his 100 participants with type2DM, 10 had an ideal diet (10%) and 90 did not (90%). In addition, only 8 of her patients (8%) and 92 patients did not (90%) did physical activity. The study also showed that 46 patients were exposed to psychological stress (46%). Patients 'awareness of lifestyle changes was also low. In this study, lifestyle-induced psychological stress has a significant advisory effect on her type2diabetic

patients in western Libya. According to WHO (1994), the risk of type 2 diabetes increases continuously with her BMI and decreases with weight loss. The people of the Indian subcontinent have faced malnutrition for generations and the Indian baby is one of the smallest babies in the world. However, diabetes is more common in urban Indians than in rural Indians, despite the higher birthweight of urban babies. BMI, Indians have higher percentage body fat and more visceral fat than other populations (Ruelas V & Roybal GM, 2009, Roaeid RB & Kadiki OA, 2011). Compared to the 2017 national survey, 53 (40.8%) were male and 77 (59.2%) were female. Of the 130 participants, 47 had a normal BMI (36.2%), 81 were overweight (62.3%), 88 DM patients had an ideal diet (67.6%), 42 This was not the case (32.4%). As we found, 93% did not do this research.

Another study was published by Firouzi, S. et.al. Conducted in Malaysia, 2015, subjects were 56.7±9.9 years old, mean diabetes duration was 6.5±5.0, mean body mass index was 26.9±4.7kg/m², 86.5% were both overweight or obese). As a comparative study with only 10.6% of exercised subjects, Maysa, H. Almomani et.,al (2022) found that 79.2% of participants engaged in self-care activities four days per week. This is a higher percentage than ours.

Our study found highly significant associations between gender and BMI, nutritional status, and physical activity (p-values=0.065,0.000,0.000). Comparison of studies by Maysa, Almomani et.al.(2022), they found that between BMI (p<0.00, HbA1c (p<0.001) followed by general diet (p<0.001) and blood glucose test (p<0.001), type of treatment (p<0.001) suggested that there is a strong significance in and income (p=0.03) were significant predictors, also found that, in our opinion, the initial meal plan was reviewed by a nutritionist for height, weight, diabetes management, lifestyle changes, developments Stages, and Recognition of Specific Nutrition Issues Because weight loss, obesity, eating

disorders, and exercise offer many health-enhancing benefits, with or without diabetes, which are not followed by professionals.

CONCLUSION

In summary, the majority of patients with type 2 diabetes were overweight due to lack of physical activity and did not follow dietary guidelines for consuming fats, fruits and vegetables. Targeted interventions are an integral part of effective T2D care in Libya. These strategies can alleviate the growing financial burden associated with T2D care.

RECOMMENDATIONS

The present study recommends the following tips:

- 1-Glucose self-monitoring.
- 2-Advise the patient to have an ideal diet and exercise for at least 1 hour/day.
- 3-Avoid mental stress as much as possible.
- 4-Awareness of the complications and risks of uncontrolled DM through mass media such as television, seminars, lectures, group discussions and Libyan posters.

ACKNOWLEDGEMENT

The source of financial support must be acknowledged. Authors must declare any financial support or relationships that may pose conflict of interest in the covering letter submitted with the manuscript. Technical assistance may also be acknowledged.

ETHICS

Authors may need to address any ethical issues that may arise after the publication of this manuscript.

REFERENCIES

- 1- Abougambou SS, Mohamed M, Sulaiman SA, Abougambou A.S. and Hassali MA., 2012. Current clinical status and complications among type 2 diabetic patients in University Sains Malaysia hospital. *Int J Diabetes Mellit* 2:184-8.
- 2- Ahmad NS, Islahudin F and Paraidathathu T., 2014. Factors associated with good glycemic control among patients with type 2 diabetes mellitus. *J Diabetes Investigation*; 5: 5639.
- 3-Ashraf M. and Albakoush. 2017. Effect of Nutritional Status and Life Style on Type 2 Diabetes Mellitus Patients in Western Libya. *Journal of Biotechnology and Bioengineering* V1, 11.
- 4- Bhati K, and Goyal, M. 2013. Nutritional and health status of diabetic patients. *Stud Home Comm Sci*, 7(1): 45–48.
- 5-Chan JC, Malik V, Jia W, Kadowaki T, Yajnik CS and Yoon KH. 2009. Diabetes in Asia: Epidemiology, risk factors, and pathophysiology. *JAMA* 301:2129-40.
- 6-Chiu CJ & Wray LA. 2010. Factors predicting glycemic control in middle-aged and older adults with type 2 diabetes. *Prev Chronic Dis.*; 7: A08
- 7-D'souza MS, Venkatesaperumal R, Karkada SN and Amirtharaj A 2013. Determinants of glycosylated hemoglobin among adults with type 2 diabetes mellitus. *J Diabetes Metab.* ; 4: 256. doi: <http://dx.doi.org/10.4172/2155-6156.1000265>.
- 8- Khan NA, Saxena S, Handa S, Habib A, Abid M, and Patra AKK. 2010. Impact of Counseling on Diabetic Patients. *Int. J. Pharm. Clin. Res.* 2: 72– 77.
- 9-Maskarinec G, Grandinetti A, Matsuura G, Sharma S, Mau M and Henderson BE. 2009. Diabetes prevalence and body mass index differ by ethnicity: The Multiethnic Cohort. *Ethn Dis.*; 19:49-55
- 10- Almomani MH. and Al-Tawalbeh S. Glycemic Control and Its Relationship with Diabetes Self-Care Behaviors Among Patients with Type 2 Diabetes in Northern Jordan: A Cross-Sectional Study. *Patient Prefer Adherence.* 2022 Feb 19; 16:449-465. doi: 10.2147/PPA.S343214. PMID: 35221675; PMCID: PMC8865859.
- 11-Palaian, S., Chhetri, A. K., Prabhu, M., Surulivelrajan, M. and Ravi Shankar, P. 2005. Role of pharmacist in counseling diabetes patients. *Journal of Pharmacology*, 4(1).
- 12-Papazafiropoulou A., 2010. Prevalence of thyroid dysfunction among Greek Type 2 diabetic patients attending an outpatient clinic. *J Clin Med Res*, 2 (2):75-78.
- 13-Refaat Hegazi, 2015. Epidemiology of and Risk Factors for Type 2 Diabetes in Egypt. *Annals of Global Health* .Vol. 81, NO. 6, ISSN 2214-9996 <http://dx.doi.org/10.1016/j.aogh.2015.12.011>
- 14-Raghuwanshi, P. K., Rajput, D. P S., Ratre, B. K., Jain, R., Patel, N., and Jain, S. 2015. Evaluation of thyroid dysfunction among type 2 diabetic Patients. *Asian J Med Sci*, 6(3), 33-37.
- 15-Ruelas V, Roybal GM, Lu Y, Goldman D. and Peters A. 2009. Clinical and behavioral correlates of achieving and maintaining glycemic targets in an underserved population with type 2 diabetes. *Diabetes Care.* ; 32: 546.
- 16-Roaeid RB, Kadiki OA. 2011. Prevalence of long-term complications among Type 2 diabetic patients in Benghazi, Libya. *J Diabetes.* ; 3: 5
- 17-Sana T., Ashur and Shamsul A. Shah. 2006. Glycemic control status among type 2 diabetic patients and the role of their diabetes coping behaviors: A clinic-based study in Tripoli, Libya.

Libyan Journal of Medicine,
DOI:10.3402/ljm.v11i.31086.

18- Swamy RM, Kumar N, Srinivasa K, Manjunath GN, Prasad Byrav DS and Venkatesh G. 2012. Evaluation of hypothyroidism as a complication in Type 2 Diabetes Mellitus” Biomedical Research, 23 (2): 170-172..

19- Steyn NP, Mann J, Bennett PH, Temple N, Zimmet P, Tuomilehto J, and Louheranta A. 2004. Diet, nutrition and the prevention of type 2 diabetes. Pub health Nutr, 7(1a): 147-165.

20- Shah KJ and Shekar A. 2015. Effect of nutritional status and life style modification on pre-diabetic patients in Mumbai, Inter J Pure App Biosci, 3(3): 81-86.

من 10 سنوات. فيما يتعلق بنوع العلاج، استخدم غالبية المرضى حقن الأنسولين لعلاج السكري (72%). أظهرت هذه الدراسة أن 53 مريضاً (53%) من الذكور المصابين بالسكري من النوع الثاني لم يتبعوا نظاماً غذائياً فعالاً لإنقاص الوزن، بينما لم تتبع 37 مريضة (37%) نظاماً غذائياً فعالاً لإنقاص الوزن. معظم مرضى السكري لم يعودوا يمارسون الرياضة (92%)، وهي نسبة مرتفعة جداً، كما أن 58% منهم لم يكونوا مدخنين. أظهر التقييم وجود علاقة قوية بين الجنس ومؤشر كتلة الجسم، والحالة التغذوية، وممارسة الرياضة (قيمة $p = 0.05$ ، 0.000 ، 0.000 على التوالي). في الختام، يعاني غالبية مرضى السكري من النوع الثاني من زيادة الوزن نتيجة قلة النشاط البدني، ولا يلتزمون بالإرشادات الغذائية المتعلقة بالدهون والفواكه والخضراوات. تُعدّ العادات الغذائية، والتشخيص المبكر، والتدخل الفعال عناصر أساسية في الرعاية الفعالة لمرضى السكري من النوع الثاني في ليبيا. قد تُسهم هذه الاستراتيجيات في الحد من العبء الاقتصادي المتزايد المرتبط برعاية مرضى السكري من النوع الثاني.

الكلمات المفتاحية: داء السكري من النوع الثاني، الحالة التغذوية، نمط الحياة، طرابلس.

المخلص

داء السكري مرض خطير يتمثل في عجز الجسم عن إنتاج الأنسولين أو تنظيمه، وهو الإنسولين المسؤول عن التحكم في مستوى الجلوكوز في الدم. ووفقاً للاتحاد الدولي للسكري، يُعدّ داء السكري أكثر الأمراض الأيضية المزمنة شيوعاً وخطورة، إذ يُسبب اعتلالاً ووفيات بين المصابين به، مع توقعات بوفاة 5 ملايين شخص حول العالم في عام 2015. تهدف هذه الدراسة إلى تقدير تأثير النظام الغذائي وعادات نمط الحياة على مرضى السكري من النوع الثاني في غرب ليبيا. أُجريت هذه الدراسة الوصفية المقطعية في عيادات ومستشفيات طرابلس (عيادة صلاح الدين) خلال الفترة من يونيو إلى نوفمبر 2022. شارك في هذه الدراسة 100 مريض بالسكري من النوع الثاني. استُخدم استبيان معياري يتضمن بيانات ديموغرافية (العمر، الجنس)، وقياسات أنثروبومترية (الطول، الوزن، مؤشر كتلة الجسم)، ومستوى النشاط البدني، والنظام الغذائي الأمثل، ونوع العلاج، والضغط النفسي. حُللت البيانات باستخدام برنامجي Microsoft Excel و SPSS، الإصدار 24، وذلك من خلال حساب التكرارات والنسب المئوية. وعُرِضت المتغيرات على شكل تكرارات ونسب مئوية. تمت مقارنة المتغيرات النوعية باستخدام اختبار مربع كاي واختبار فيشر. واعتُبرت قيمة $P > 0.05$ ذات دلالة إحصائية. كان عمر المشاركين أكثر من النصف (63%)، حيث تراوحت أعمارهم بين 45 و60 عامًا. من بين 100 مريض سكري، كان 57% منهم ذكوراً و43% إناثاً. كان مؤشر كتلة الجسم لدى 48% من الذكور و29% من الإناث أكثر من 25 كجم/م²، مما يصنفهم ضمن فئة السمنة (66%). كان لدى 43% من المرضى ضغط نفسي، وكانت مدة إصابتهم بالسكري أكثر

