

Evaluation of Health-Related Quality of Life in Patients with Type 2 Diabetes Mellitus through EQ-5D-3L: in public sector hospitals of Quetta, Pakistan

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ABSTRACT

Background: Diabetes mellitus (DM) is a chronic metabolic illness associated with substantial morbidity and mortality worldwide. It affects physical activity, social life, and mental health. In our country, most diabetes research has focused on morbidity and mortality. This study assessed the quality of life (QOL) of type 2 diabetes mellitus (DMT-2) patients in Quetta, Pakistan.

Methods: This cross-sectional study examined 440 DMT-2 patients from public hospitals in Quetta between July and November 2021. The EuroQoL 5-Dimension 3-Level (EQ-5D-3L) scale was used to assess the health-related quality of life (HRQoL) of DMT-2 patients. Inferential statistical analyses were performed using SPSS version 22.

Results: Most participants (73%) were aged between 35 and 55 years, with 246 (55.9%) males. The largest group of respondents (30.3%) had completed secondary school. Most patients (79.4%) reported no mobility issues, and 61.8% reported no difficulties with self-care. However, a substantial proportion (41.8%) experienced some difficulties with their usual activities. Additionally, 46.3% of patients reported moderate pain and discomfort. Significant correlations were found between HRQoL scores and gender ($p=0.016$), marital status ($p=0.003$), age ($p=0.001$), unemployment ($p=0.001$), and education ($p=0.001$). The time trade-off (TTO) and visual analog scale (VAS) scores were 0.496 and 0.555, respectively.

Conclusion: The quality of life of DMT-2 patients depends on education, occupation, gender, and marital status. Therefore, these key factors influencing HRQoL should be prioritized when designing and implementing strategies to improve diabetes treatment and the quality of life of diabetic patients in this region.

Keywords: Quality of life; QoL; DMT-2; Quetta; Pakistan; EQ-5D-3 L

1. Introduction

Diabetes mellitus (DM) is caused by a high level of blood glucose disrupting normal cellular functions and disrupting cellular metabolism on each level to such an extent that damaging almost any organ in the body. Diabetes impairs functional capacities and quality of life, resulting in substantial morbidity and premature mortality.

Recent concerns highlight that over one-third of diabetes-related deaths occur in individuals under the age of 60 ¹. Diabetes accounts for over 1 million deaths annually, positioning it as the ninth leading cause of mortality, diabetes was estimated to have caused four million deaths worldwide in 2017 ². The global burden of diabetes mellitus is increasing, particularly rapidly in developed regions such as Western Europe. The condition affects men and women equally, with incidence peaking around 55 years of age. The global prevalence of type 2 diabetes is projected to rise to 7,079 per 100,000 individuals by 2030, indicating a continued increase worldwide³.

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According to the International Diabetics Federation (IDF), DM affects 415 million people globally in 2015 and will reach to affect 642 million people with DM by 2040 ⁴. In Pakistan, some regional diabetes surveys have been conducted through the associations formed in the country, one such is the Diabetic Association of Pakistan (DAP) which was established in 1966 and became associated with the International Diabetes Federation (IDF) in 1967. DAP, since its inception, Pakistan has worked to enhance diabetes care and prevention. The first four National Diabetes Action Plans were established by DAP between 1996 and 1998, 1999–2001, 2001–2004, and 2005–2009, even though its field operations are primarily limited to the city of Karachi and Sind province ⁵. DAP stated the prevalence of diabetes is between 0.95% and 32.9% ⁶. DM, like any other chronic illness, is linked to several personal, familial, societal, and economical problems, and an even higher risk of mortality ⁷. Poor food choices, elevated glucose levels in the blood and activity restrictions, the need for insulin injections daily, musculoskeletal movement difficulties and disorders, physical limitations, sexual dysfunction, and vascular abnormalities are just a few of the issues that individuals with DM can face ⁸. Loss of employment, recurring hospitalization, continued increased the need for medical and clinical outcomes, economic impacts associated with early mortality, deterioration in developing and maintaining social relationships and relationships with the family, and a decline in the standard of living of individuals are just a few of the main challenges confronting these patients' familial, social, and financial situations ⁹.

Health-related quality of life (HRQoL) is among the most extensively and thoroughly studied clinical outcomes and analyzes the physical, cognitive, and interpersonal aspects of human health to self-assess the impact of chronic illness management on individual health and its outcome on living standards ¹⁰. A reliable instrument for assessing the overall impact of health on an individual's well-being is the HRQoL scale. The HRQoL measure

offers numerous strengths that make it particularly advantageous for use in various research contexts, especially when compared to other scales such as the SF-36, EQ-5D, and WHOQOL. In research settings, the HRQoL scale stands out as a more appropriate tool for evaluating health-related quality of life. Its comprehensive yet efficient methodology ensures that it encompasses all relevant health domains, making it valuable to both researchers and respondents. This makes the HRQoL scale highly pertinent and significant for studies aiming to understand and improve quality of life outcomes. Expectations, beliefs, perceptions, and experiences of individuals all have an impact on a person's standard of living and coping with day-to-day stressors. DM patients have a worse quality of life than healthy persons, according to studies, the variables influencing this are unknown. Some factors, such as diabetes type including other types, insulin usage and its availability, age, DM-related complications, socioeconomic status, psychological disorders leading to adherence and multiple problems, ethnicity, and educational level to one which could a considerable understanding of the depth of disease, knowledge of the condition and coping with it, and the type of care they received from others, may influence these patients' outcomes QoL ¹¹.

The EQ-5D is amongst the most often practical instruments for assessing people's quality of life, it evaluates their physical condition, psychological perception, and social capabilities ¹². Several research have examined QoL in chronic illnesses like diabetes mellitus, its comorbidities, chronic lung disease, cerebrovascular disease, and chronic mental disorders. EQ-5D comes in three dimensions: 5L, 3L, and y. The 3L has been thoroughly tested in many settings and groups ¹³.

The general quality of life questionnaire has been supplanted in epidemiological research and clinical assessments of diabetes patients by the EQ-5D-3L, a concise and user-friendly instrument. Assessing the standard of living and its contributing factors can help

diabetes mellitus (DM) patients improve their quality of life (QoL). Due to the geographic and cultural context of the region, patients' QoL and its influencing factors may vary significantly. Therefore, a shorter, validated questionnaire that can be quickly administered is essential for assessing patients' QoL. Health professionals can evaluate DM-related metabolic abnormalities and physiological dysfunctions, but patients' health perceptions and well-being are influenced by more than just symptoms, functional limitations, and physiological and pathological conditions. Psychological, social, and cultural factors also moderate the effects of biological disorders on HRQoL. Consequently, this study evaluated type 2 diabetes mellitus (DMT-2) patients in Quetta, Pakistan, using the EQ-5D-3L questionnaire.

2. MATERIALS AND METHODS

2.1 Study population and study settings

A total of 440 individuals diagnosed with type 2 diabetes mellitus (DMT-2) from two public hospitals in Quetta, Baluchistan, were selected to participate in this cross-sectional study. The steps of selection are presented in the flow chart (figure 01). The Sandeman Provincial Hospital (SPH) in Quetta, Pakistan, has a capacity of 780 beds. Founded in 1939, it is located in the heart of Quetta. SPH is the preferred healthcare facility for local residents as it is a public healthcare institution providing quality medical services. Another setting involved Bolan Medical Complex Hospital (BMCH) with a capacity of 1,062 beds. Verbal and written consent was obtained from the subjects, who were assured that their responses would be kept confidential and that they could withdraw from the study at any time without any impact on their healthcare services.

2.2 Study Instrument

The EQ-5D (EQ-5D-3L) form was utilised in this research study due to its simplicity and the brief time required for participants to complete it. In 1990, as the European association expanded to a broader audience, the EuroQol group released the EQ-5D-3L questionnaire, a three-level

version of the earlier EQ-5D. The EQ-5D-3L is divided into two main pages: a descriptive system called EQ-5D and a visual analog scale called EQ-5D-3L (EQ-VAS). The EQ-5D-3L descriptive system comprises five key dimensions: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. Each dimension is categorized into three levels: no problems, moderate problems, and severe problems. The questionnaire was self-administered. After obtaining permission, we utilized the questionnaire for data collection. The questionnaire was in English, and if participants encountered any difficulties, the data collector translated the specific questions for them. The patient is asked to tick the box next to the most appropriate statement in each of the five dimensions to describe their health state. Each selection corresponds to a single-digit number representing the level chosen for that dimension. These five scores can be combined to produce a five-digit value representing the patient's overall condition. The EQ visual analog scale (VAS) is used to assess the participant's health on a linear scale with endpoints labeled 'Best imaginable health state' and 'Worst imaginable health state.' The VAS provides a numerical measure of health status, reflecting the patient's subjective evaluation.

2.3 Inclusion and Exclusion criteria

Participants were assessed according to departmental protocols, which included a comprehensive medical history and physical examinations. Individuals under 18 years of age, pregnant women, those planning to become pregnant, individuals with known psychiatric conditions, and those with communication barriers (e.g., hearing impairments, cognitive disabilities, severe psychiatric disorders, or chronic renal failure) were excluded from the study. All eligible participants who met the criteria were invited to participate, and informed consent was obtained from them prior to data collection.

2.4 Scoring the EQ-5D-3 L descriptive system

The EQ-5D-3L, developed by the European Association, encompasses five dimensions: mobility, self-care, usual activities, pain/discomfort, and

anxiety/depression. Each dimension is rated on a scale with three levels: no problems (1), mild problems (2), and severe problems (3). Patients were instructed to select the most accurate descriptor for each of the five dimensions to represent their health status. The health status codes are represented by five-digit numbers. The combined scores from the five dimensions generate a five-digit code that reflects the patient's condition. For instance, a code of 11,111 indicates no problems in any of the five dimensions, while a code of 12,233 signifies no issues with mobility, mild difficulties with self-care, significant pain or discomfort, and severe anxiety or distress. A value set is required to convert an individual EQ-5D health state into a composite index. Due to the absence of a locally relevant value set, the EQ-5D score was calculated using threshold values provided by the EuroQol Group's standardized valuation technology (EQ-VT), where 1 represents the highest quality of life (1 = highest QoL) and 0 represents the lowest (0 = lowest QoL). According to the EQ-5D-3L instruction booklet, data is typically presented in a table format to illustrate the health profile. The EQ-5D-3L categories are divided into "no issues" (level 1) and "difficulties" (levels 2–5), forming a profile that reflects the frequency of problems. We have converted the profile into frequency distributions for data reporting.

2.5 Scoring the EQ-5D-3 L VAS

The EQ visual analog scale (VAS) measures subjects' self-reported health on a linear scale ranging from 0 to 100, with endpoints labeled 'The best health you can imagine' and 'The worst health you can conceive'. Specifically, on the EQ-VAS, a score of "100" represents the highest possible health status, while a score of "0" indicates the most severe health condition.

2.6 Statistical analysis

Data were entered into SPSS version 22 and analyzed using various tests. After the confirmation of normal

distribution, ANOVA, Chi-Square, independent sample t-tests, and logistic regression were performed. A p-value of 0.05 was considered statistically significant. For each classification of the EQ-5D-3L, the dependent variable (QoL) was divided into two groups: 'no difficulties' (level 1) and 'having varying degrees of difficulties' (levels 2–3) in the regression analysis model. Independent variables such as age, sexual identity, educational status, profession, duration of DMT-2, HbA1c levels, medication, renal dysfunction, diabetic retinopathy, and diabetic peripheral neuropathy were included in the regression model. Only variables strongly associated with EQ-5D-3L categories were included in the final summary of the data.

RESULTS

2.2 Sociodemographic characteristics

A total number of 440 patients with a confirmed diagnosis of DMT-2 between the age range of 30-80 years participated in this research. The majority of respondents were male, accounting for 246 individuals (55.9%). Moreover, a significant portion of the participants were married, with 414 individuals (94%) reporting marital status. In terms of residency, 248 respondents (56.3%) were from rural areas shown in Table 1. Additionally, the age group of 41-50 represented 132 individuals (30.4%) of the total respondents. Patients with a family history of DM included 140 (31.8%) of the study participants. Of most of the patients 164 (37.25%), we're taking at least two different medications as anti-diabetic treatment. Exercise control of DM was noticed in 45.4% of the patients, the majority of patients (47.2) had their blood glucose levels between 150-200mg/dl as shown in Table 2. The box plot (Figure 01) shows the differences in the readings of the patient's sugar levels in response to age and gender. The sugar level differences are visible.

Table 1: Patients' Sociodemographic (n= 440)

Demographic Characteristics	n (%)
Age group (Years)	
30 – 40	120 (27.6)
41 –50	131 (30.4)
51 – 60	120 (27.6)
61 – 70	53 (11.5)
71 – 80	14 (2.8)
Gender	
Male	246 (55.9)
Female	194 (44.1)
Marital Status	
Married	414 (94.0)
Single	26 (5.9)
Locality	
Urban	192 (43.6)
Rural	248 (56.3)
Qualification	
No formal education	100 (22.7)
Religious education	52 (11.9)
Primary	54 (12.5)
Matric	132 (30.3)
Intermediate	58 (13.3)
B.A\B.S.C	22 (5.0)
Graduation	16 (3.7)
Occupation	
Unemployed	112 (25.7)
Government Employed	36 (8.3)
Private Employed	108 (24.8)
Self Employed	178 (40.8)

Table 2: Patients' Clinical data (n= 440)

Variables	n (%)
Family History	
Yes	140 (31.8)
No	300 (68)
Is there any diet change due to diabetes?	
Yes	178 (39)
No	262 (59.9)
Do you exercise to control diabetes?	
Yes	200 (45.4)
No	240 (54.5)
In your opinion your diabetes is	
Controlled	242 (55)
Uncontrolled	198 (45)
Is current treatment your first consultation?	
Yes	50 (11.3)

Variables	n (%)
No	376 (85.4)
Don't know	14 (3.1)
On average how much capital (in PKR) do you spend on your medication?	
1000 – 1500	250 (56.8)
1600 – 2400	190 (43.1)
On average how much capital (in PKR) do you spend on lab/home tests?	
1000 – 1500	140 (31.3)
1600 – 2400	300 (68.1)
Three last readings of blood glucose (mg/dl)	
70 – 140	112 (25.4)
141 -190	160 (36.3)
191 -280	168 (38.1)
Current blood glucose readings (mg/dl)	
70 – 150	100 (22.7)
151 – 200	208 (47.2)
<200	132 (30)

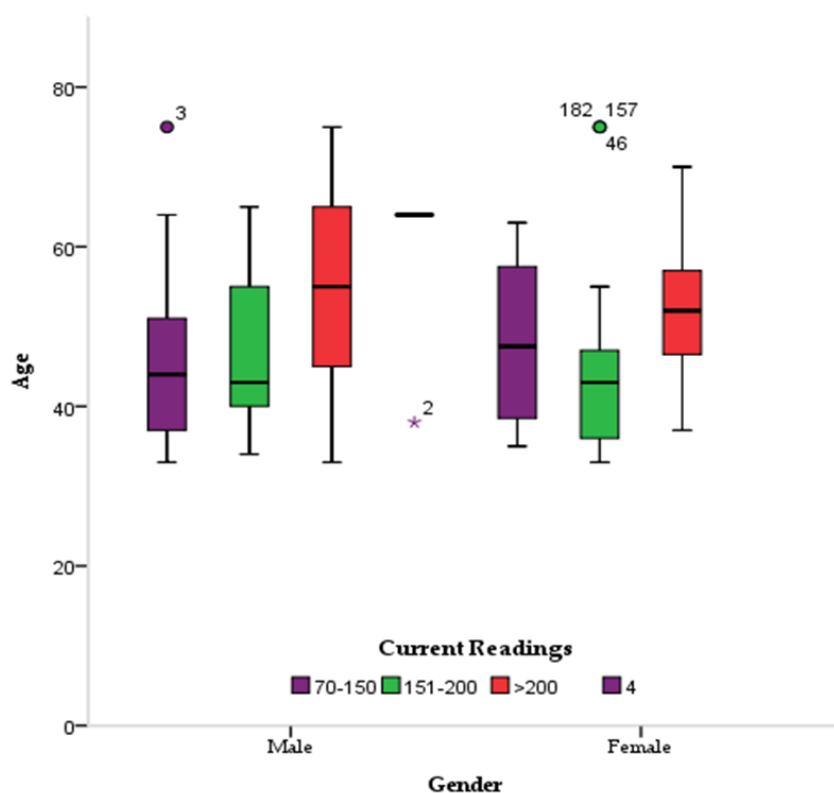


Figure 02: Current sugar level measurements in diabetic patients, including age and gender disparities.

The majority of patients (79.4%) reported no issues with mobility. Among the study participants, 61.8% experienced no difficulties with self-care. A substantial proportion (41.8%) had some degree of difficulty with usual activities. Additionally, moderate pain and discomfort were observed in 46.3% of the patients. As illustrated in Tables 3, each patient's reported issue was assessed based on both clinical and demographic parameters. Regarding mobility, the age group of 35–65 years exhibited the highest incidence of difficulties. Specifically, 71 individuals (17.2%), females (18.8%), married subjects (18.4%), those with education beyond the intermediate level (22.8%), unemployed individuals (24.8%), persons with a monthly income of $\leq 10,000$ PKR (88.8%), and those residing in urban areas (20.2%) reported significant mobility challenges. In the anxiety dimension, a higher prevalence of problems was observed among females (95%), individuals aged 35–65 years (93.5%), and urban residents (96.1%). Increased issues in the self-care category were noted within the 35–65 age range. The majority of this population included males

(24.3%), unmarried individuals (40.9%), those with education beyond the intermediate level (31.7%), unemployed individuals (33.9%), those with monthly incomes under 10,000 PKR (28%), and urban residents (26.4%)—amounting to 71 individuals (17.2%). In the pain/discomfort dimension, a higher incidence of problems was observed among individuals aged 66–80 years (96.3%), education greater than Intermediate (66.7%), unemployed (71.6%), individuals with monthly income less than or equal to 10,000 PKR (66.7%), females (67.4%), a higher prevalence of issues was noted among unmarried individuals (90.9%) and those residing in urban areas (66.9%). In the term of regular activities, more difficulties were reported by females (56.9%), individuals aged 66–80 (59.3%), urban inhabitants (52.2%), those with education above the intermediate level (54%), the unemployed (55%), and individuals with a monthly income of less than 10,000 PKR were (58.5%). Additionally, anxiety and depression levels related to type 2 diabetes mellitus (DMT-2) were higher in males (Figure 2).

Table 3: The abundance of problems (percentage) reported by the patients in terms of their demographic and clinical characteristics

Variables	Mobility n (%)		LOS	Anxiety n (%)		LOS	Self-care n (%)		LOS
	Yes	No		Yes	No		Yes	No	
Gender									
Male	212 (81.9)	47 (18.1)	0.865	18 (6.9)	241 (93.1)	0.395	196 (75.7)	63 (24.3)	0.339
Female	147 (81.2)	34 (18.8)		9 (5)	172 (95)		144 (79.6)	37 (20.4)	
Age (years)									
35-65	342 (82.8)	71 (17.2)	0.010	25 (6.1)	388 (93.9)	0.776	324 (78.5)	89 (21.5)	0.021
66-80	17 (63.0)	10 (37)		2 (7.4)	25 (92.6)		16 (59.3)	11 (40.7)	
Marital status									
Married	341 (81.6)	77 (18.4)	0.977	27 (6.5)	391 (93.5)	0.219	327 (78.2)	91 (21.8)	0.037
Unmarried	18 (81.8)	4 (18.2)		0 (0)	22 (100)		13 (59.1)	9 (40.9)	
Education									

Variables	Mobility n (%)		LOS	Anxiety n (%)		LOS	Self-care n (%)		LOS
≤ Intermediate	213 (84.9)	38 (15.1)	0.041	9 (3.6)	242 (96.4)	0.010	211 (84.1)	40 (15.9)	<0.001
>Intermediate	146 (77.2)	43 (22.8)		18 (9.5)	171 (90.5)		129 (68.3)	60 (31.7)	
Employment									
Unemployed	82 (75.2)	27 (24.8)	0.048	14 (12.8)	95 (87.2)	0.001	72 (66.1)	37 (33.9)	0.001
Employed	277 (83.7)	54 (16.3)		13 (3.9)	318 (96.1)		268 (81)	63 (19)	
Income									
≤10,000 PKR	182 (74)	198 (88.8)	<0.001	22 (8.9)	224 (91.1)	0.006	177 (72)	69 (28)	0.003
>10,000PKR	177 (91.2)	11 (78.6)		5 (2.6)	189 (97.4)		163 (84)	31 (16)	
Residency									
Urban	142 (79.8)	36 (20.2)	0.418	7 (3.9)	171 (96.1)	0.112	131 (73.6)	47 (26.4)	0.129
Rural	217 (82.8)	45 (17.2)		20 (7.6)	242 (92.4)		209 (79.8)	53 (20.2)	

LOS: level of significance ($P < 0.05$);

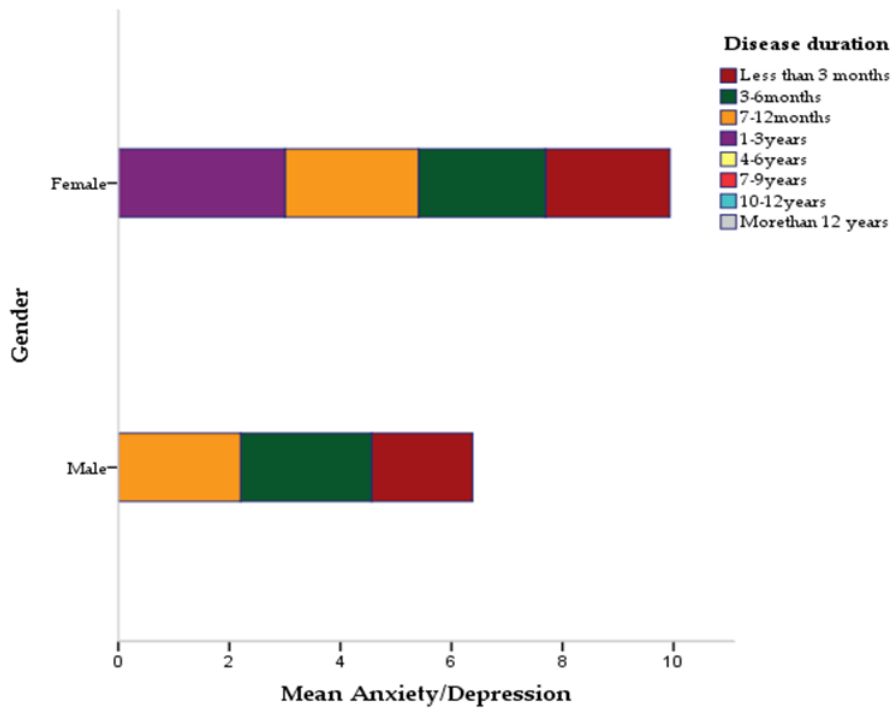


Figure 03: The mean anxiety/depression scores in males and females as per the duration of the disease.

3. Discussion

HRQoL is a key indicator of how long-term illness treatment affects health. To the best of our knowledge, this is the first Quetta study to use the EQ-5D-3L tool to assess DMT-2 patients' health-related quality of life. EQ-5D-3L, Visual analogue scale, and socio-demographic disparities in health-related quality of life in DMT-2 patients were examined. The majority of participants were aged between 35 and 55 years, with 55.9% being male. Most respondents had completed secondary school. The majority of patients reported no mobility issues, while 61.8% experienced no difficulties with self-care. However, 41.8% of participants faced some difficulties with usual activities, and 46.3% reported moderate pain and discomfort. The EQ-5D was used to assess diabetics' health-related quality of life.^{14,15} For this project, we selected the EQ-5D-3L questionnaire due to its ease of use and shorter completion time compared to other similar tools used in this type of research.¹⁶ Several socio-demographic factors also affect the health-related life quality of DMT-2 individuals. There was a striking difference in health-related life quality comparing males and females in our studies. Female patients had a substantially lower EQ-5D-3L score than male patients. This is in line with the result of earlier research, which found that men with diabetes have superior HRQoL than women^{14,17}. Additionally, there was better control of diabetes in males as compared to females with lesser exposure to depression or anxiety¹⁸.

A significant association was observed in the age group 65 and above. Increased age with lower HRQoL was quoted in several scientific studies previously as well^{17,19}. Age-related physical and mental decline negatively impacts HRQoL scores. Marital status also influences HRQoL, with married individuals demonstrating better HRQoL in our study. This finding is consistent with the results observed by Amer et al.²⁰.

Studies conducted in Adama and Gondar cities in Ethiopia also reported a clear association between health-related quality of life and the level of education of the

subjects^{4,21}. Level of academic education was directly and positively associated with diabetic education i.e., those with higher education were more aware of diabetic care as compared to subjects with lower education, and increased education in any field increases health literacy as well²². Other significant variables in this context included unemployment and monthly income, both of which exhibited a positive association with HRQoL. Previous studies have also reported similar findings^{4,23}. HRQoL and employment status are linked because unemployment causes financial hardship. Patients can't afford medicine, nutrition, or lifestyle. All these causes will lower HRQoL. This study was conducted in Pakistan, a developing nation. Our findings contrast with those from developed countries. In England, patients with type 2 diabetes mellitus (DMT-2) and renal disease experienced the greatest reduction in health utility, while in Sweden, patients with DMT-2 and cerebrovascular disease faced the largest increase in health costs²⁴. Patients with the diagnosis of DMT-2 who were using medications taken orally were studied in a cross-sectional survey in a city in Bangladesh, where outpatient clinics depicting to have high rates of hypertension, obesity, and dyslipidemia²⁵. Eye difficulties were the most common consequence, followed by long-term diseases such as chronic renal failure and chronic diseases mostly involving heart failure, congestive heart failure, and cerebrovascular accidents.

Despite our research participants being individuals diagnosed with type 2 diabetes mellitus (DMT-2) who were receiving continuous oral medication in outpatient clinics, the most prevalent comorbidity was hypertension, followed by dyslipidemia and heart disease, as reported by Zhang et al.²⁶. In the United States, healthcare providers have observed that diabetes control is compromised by sequelae such as coronary artery disease, painless peripheral neuropathy, cardiomyopathy, and neuropathic pain, which collectively diminish health-related quality of life. Zhang et al. reported similar findings in Singapore²⁶. Comorbidities include cardiac illness, high glucose-

induced nephropathy, nerve damage from blood supply reduction, and serious eye difficulties like blindness had significantly poorer physical component assessments. In an Australian study, cerebrovascular accidents, eyesight loss, and kidney illness were substantially associated to health-related quality of life ²⁷.

Limitations

4. This study had several notable limitations. As an observational cross-sectional analysis, it highlighted the complex temporal relationship between diabetes and HRQoL. To enhance generalizability, a more rigorous sampling approach should be employed to gather data from a diverse range of respondents, as the convenience sampling method used may have omitted critical aspects. Additionally, self-reported questionnaires may potentially overestimate HRQoL values. Finally, the study, conducted at a few public hospitals in Quetta, does not represent the entire country and would benefit from a larger sample size and inclusion of more healthcare settings.

5. Conclusions

To improve diabetes management and patient outcomes in Pakistan, it is essential for policymakers to address factors such as education, career, gender, and marital status that significantly impact the quality of life for individuals with type 2 diabetes mellitus. This involves integrating HRQoL factors into diabetes care, including the management of complications, promotion of physical activity, and encouragement of proper nutrition and foot hygiene practices. Rigorous lifestyle coaching should be implemented, with a focus on older adults and rural populations who face additional challenges. Regular

HRQoL assessments should be incorporated into routine care to monitor and enhance patient well-being. Furthermore, policies should support the integration of HRQoL factors into diabetes management programs and ensure that healthcare systems are equipped to provide necessary resources and support for effective interventions. By adopting these measures, policymakers can significantly enhance diabetes care and improve the overall quality of life for patients.

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Data Availability Statement: Data related to this manuscript can be provided upon reasonable request.

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تقييم جودة الحياة المتعلقة بالصحة لدى مرضى السكري من النوع الثاني من خلال أداة EQ-5D-3L في مستشفيات القطاع العام في كويته، باكستان

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ملخص

الخلفية: داء السكري هو مرض استقلابي مزمن يسبب معدلات عالية من المراضة والوفيات على مستوى العالم. يؤثر المرض على النشاط البدني، والحياة الاجتماعية، والصحة النفسية. في باكستان، ركزت معظم الدراسات المتعلقة بداء السكري على المراضة والوفيات، بينما تهدف هذه الدراسة إلى تقييم جودة الحياة لدى مرضى السكري من النوع الثاني في مدينة كويته.

المنهجية: أجريت دراسة مقطعية شملت 440 مريضاً بالسكري من النوع الثاني في مستشفيات القطاع العام في كويته خلال الفترة من يوليو إلى نوفمبر 2021. تم استخدام مقياس EQ-5D-3L (أداة يوروكوال ذات الأبعاد الخمسة والمستويات الثلاثة) لتقييم جودة الحياة المرتبطة بالصحة لدى المرضى. تم استخدام برنامج SPSS الإصدار 22 لإجراء التحليل الإحصائي الاستنتاجي لمتغيرات الدراسة.

النتائج: كان أغلب المشاركين (73%) تتراوح أعمارهم بين 35 و55 سنة، وبلغ عدد الذكور 246 (55.9%). أتم 30.3% من المشاركين المرحلة الثانوية، و79.4% منهم لم يعانون من مشاكل في الحركة. وذكر 61.8% من المرضى أنهم لا يواجهون صعوبات في العناية الذاتية، بينما أبلغ 41.8% عن وجود بعض الصعوبات في أداء الأنشطة اليومية المعتادة. كما أفاد 46.3% من المرضى أنهم يعانون من ألم وانزعاج بدرجة متوسطة. لوحظت علاقات ذات دلالة إحصائية بين درجات جودة الحياة المتعلقة بالصحة وكل من الجنس ($p=0.016$)، والحالة الاجتماعية ($p=0.003$)، والعمر ($p=0.001$)، والبطالة ($p=0.001$)، والتعليم ($p=0.001$). بلغ متوسط درجات أسلوب مبادلة الوقت (TTO) 0.496، ودرجة مقياس التماثل البصري (VAS) 0.555.

الاستنتاج: تعتمد جودة حياة مرضى السكري من النوع الثاني على التعليم، والمهنة، والجنس، والحالة الاجتماعية. لذا يجب التركيز على العوامل المؤثرة الرئيسية في جودة الحياة عند تصميم وتنفيذ استراتيجيات لتحسين علاج السكري وجودة حياة المرضى في هذه المنطقة.

الكلمات الدالة: جودة الحياة؛ QoL؛ السكري من النوع الثاني؛ كويته؛ باكستان؛ EQ-5D-3L.

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