

Impact of COVID 19 Pandemic on the Mental Health of Diabetic Patients in Jordan: An Online Survey

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ABSTRACT

It is envisioned that the COVID-19 pandemic has influenced the mental health of many individuals, especially those who have diabetes. The present study evaluated the effect of the COVID-19 pandemic on diabetics' mental health. A pretested online questionnaire was developed to assess the concern related to COVID-19, anxiety and depressive symptoms, and resilience to stress of people with diabetes during the COVID-19 pandemic. Data from 371 surveys was collected. The majority (71.2%) of the responders' aged between 41 to 64 years. Chronic disease was present in 69.3% of respondents, while 76.8% indicated overall good health. Most respondents (82.5%) were worried a lot or worried about the economic recession, whilst 53.9% of respondent were worried a lot or worried about frightening media messages. Around 35% of those surveyed were feeling depressed for at least three days a week for the previous two months, and 30.5% were fearful for at least three days a week for the previous two months. Approximately 60% of respondents agreed or strongly agreed that they had difficulty getting through stressful events. The current study revealed elevated rates of fear and depression symptoms, and noticeable difficulties in managing stressful situations associated with the COVID-19 pandemic within diabetes patients. These results highlight the importance of addressing the mental health issues within the chronic diseases patients at the time of crises. Which can be realized via specific interventions at the time of pandemics, which would reflect on the overall mental well-being and ability to adapt in stressful situations.

KEY WORDS: COVID-19; Mental health; Diabetes Mellitus; Jordan

INTRODUCTION

Diabetes is increasing in prevalence in the Middle East and Eastern Mediterranean countries and has been described as an “epidemic” in propagation by the World Health Organization [1, 2]. It is characterized as a progressive chronic disease with potentially severe complications. These characteristics, among others, can evoke various

emotions in individuals with diabetes, notably depressive symptoms. Research has shown a higher incidence of depression among diabetic patients compared to non-diabetics [3, 4].

A particularly challenging reality is that depression exacerbates the deterioration of diabetics' health, quality of life, and overall functionality [5-9]. Co-existing diabetes and depression significantly increase the burden of the disease, adversely affecting social and vocational functioning, increasing functional disability, and heightening the risk of complications and mortality. These outcomes are influenced, in part, by psychological factors

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and issues related to medication adherence and lifestyle behaviors [3, 6, 7, 10].

During the outbreak of COVID-19, managing the pandemic was challenging due to its unique characteristics, specifically its rapid spread and highly contagious nature, which significantly impacted daily life in both developed and developing countries, including Jordan [11]. To successfully control the epidemiological situation during the outbreak and in the future, it is crucial for the average person in Jordan to adhere to infection control measures. These measures were disseminated to the public through various channels in collaboration with the mass media, government, Ministry of Health, community institutions, private companies, and other stakeholders.

Insights gained from previous outbreaks, such as the SARS outbreak in 2003, revealed that fear and panic could complicate efforts to address public health crises. To avoid irrational fear, it is essential to communicate accurate information about outbreaks and place such fears in the proper perspective [12, 13].

Patients with diabetes and other chronic diseases are considered at higher risk for complications from COVID-19. Research indicates that diabetics are more likely to experience severe medical complications from COVID-19, such as respiratory issues. COVID-19 progresses more rapidly in high blood glucose environments and can trigger diabetes-related complications, such as diabetic ketoacidosis. However, it is important to note that patients with diabetes do not have a higher risk of contracting COVID-19 itself [14].

Given this context—and the extensive media coverage of COVID-19 cases, deaths, quarantine interventions, and public education on protective measures such as face masks and social distancing—there is an increased likelihood that the pandemic may amplify the expression of various emotions, particularly in diabetic patients. This study assessed the impact of the COVID-19 pandemic and quarantine interventions on the mental health of diabetic individuals, focusing on symptoms of fear, anxiety, and

depression, as well as associated risk factors.

METHODS

An online survey using Google Forms was created to collect data from diabetics in Jordan. The survey was efficiently distributed through a specific Facebook page, *Diabetes and Life*, which includes Jordanian diabetics who regularly post health-related messages, offer support, and provide helpful resources to patients with diabetes. During the COVID-19 period, similar surveys were conducted by other authors [15-17].

The instrument consisted of 28 items designed to assess the impact of COVID-19 on the mental health of diabetic patients. It included:

- Demographic information: (8 items) such as age, employment status (employed, unemployed, student, retired), area of residence (rural, urban), health insurance status (yes, no), educational level (school, university, postgraduate studies), presence of chronic diseases, and overall health status.
- An adapted version of the validated Worry Domains Questionnaire (WDQ), which measures non-pathological worries [18]. The current level of worry was assessed using an adapted Likert scale with the following responses: *worry a lot*, *worry*, and *not worry at all*. This scale focused on bespoke worry items (10 items) envisioned to arise from the COVID-19 pandemic, such as losing a loved one due to COVID-19, increased pressure on the health system, and restrictions on freedom (e.g., restricted movement).

A summated fear score (ranging from 0 to 20) was calculated for each participant. Responses were weighted as follows: 0 for *don't worry*, 1 for *worry*, and 2 for *worry a lot*. The scores were then summed, with higher scores indicating more severe fear symptoms.

- A set of six items addressing the degree of anxiety and depression over the past two months was selected from the validated Center for Epidemiological Studies Depression Scale (CES-D) [19]. This scale, commonly used for screening depression in previous research, was adapted to provide a

brief insight into depressive symptoms while minimizing the questionnaire burden. The selected items focused on symptoms of depression and anxiety, including fear, restlessness, and feelings of depression.

The scale responses were provided on a Likert scale with the following options: *rarely* (<1 day per week), *sometimes* (1–2 days), *very often* (3–4 days), and *mostly* (5–7 days).

A measure of respondents' resilience (3 items) was based on an adapted version of the Brief Resilience Scale, encompassing dimensions such as recovery, resistance, adaptation, and thriving [20]. The items included questions about difficulty in coping with stressful events caused by COVID-19, the ability to quickly adapt to COVID-19-related events, and challenges in returning to a usual lifestyle after controlling COVID-19. Responses were also based on a Likert scale with the following options: *strongly agree*, *agree*, *disagree*, and *strongly disagree*. A summated resilience score (range: 0–9) was calculated for each participant by assigning a weight of 0 to *strongly disagree*, 1 to *disagree*, 2 to *agree*, and 3 to *strongly agree*, and then summing the responses. Higher scores indicated greater resilience, with the scoring reversed for negatively worded items.

The survey was distributed, and the collected data remained anonymous. No geolocation data of the respondents were collected. The final survey was composed and administered in Arabic after a brainstorming session and a thorough review of relevant literature published in English. The survey development involved faculty from two pharmacy schools and one medical school. Initial brainstorming sessions were followed by focused discussions among researchers.

Since the items, concepts, and ideas originated in English, relevant scales identified in the literature were used to develop the survey in English before translation. The selected items were translated into Arabic using a back-translation methodology to ensure accuracy. One of two faculty members fluent in both Arabic and English, with experience in translating research materials,

translated the English items into Arabic. This process avoided literal translations, ensuring that the meaning was clear and consistent with the original English items. The second faculty member, also fluent in both languages, performed an independent back-translation into English. This allowed the two English versions to be compared, ensuring the accuracy and retention of the original concepts and ideas.

The developed survey underwent review by additional faculty members within the relevant research area. Feedback from these reviews was incorporated, and minor revisions were made to finalize the survey.

The survey was pilot tested with 10 diabetic patients. During this phase, participants were asked to think aloud as they responded to the survey items. This allowed researchers to identify potential issues with the translated items and ensure their accuracy, clarity, and cultural appropriateness. Feedback from the pilot testing was used to make minor modifications to the survey.

Validity and Reliability Assessments

Several assessments were conducted to confirm the validity and reliability of the final survey used in the study. These included internal consistency analysis, the content validity index (CVI), and principal component analysis (PCA).

- **Internal Consistency:**

Internal consistency was assessed using Cronbach's alpha, which was 0.801. This value is acceptable as it exceeds the cut-off point of 0.6.

- **Face and Content Validity:**

Faculty members conducted face and content validity tests to ensure the quality of the survey instrument.

- *Face validity:* Faculty members evaluated whether the survey items appeared to measure the intended concepts and were understandable and relevant to the research questions.
- *Content validity:* Faculty members assessed whether the survey items adequately represented the constructs under study.

The content validity index (CVI) for the survey was

calculated based on feedback from six faculty members from the School of Pharmacy with clinical experience and postgraduate qualifications. The resulting CVI was 0.910, indicating excellent content validity.

- **Principal Component Analysis (PCA):**

PCA was conducted to establish the validity of the instrument measuring the impact of COVID-19 on the mental health of diabetic patients. The sample size was deemed adequate based on the Kaiser-Meyer-Olkin (KMO) measure of 0.893, which exceeds the acceptable threshold of 0.6. Bartlett's test of sphericity yielded a p -value of <0.001 , confirming the suitability of PCA.

In the PCA, three factors were retained based on the scree plot, representing the instrument's domains. The variance explained by the instrument was 56.3%, and high item loadings (>0.4) supported the domain labels. No items had low communalities (i.e., less than 0.3).

- **Sample Size**

The target sample size of 368 responses was calculated to provide a representative sample of diabetic patients in Jordan. This calculation assumed a 5.11% margin of error and a 95% confidence interval, using an online sample size calculator (<http://www.raosoft.com/>).

- **Ethical Approval and Consent**

The study protocol was reviewed and approved by the Institutional Review Board (IRB) of King Abdullah University Hospital in Irbid, Jordan (IRB reference number: 2020/428). Patient consent to participate in the study was obtained through a consent form embedded within the survey. Respondents who did not agree to participate were unable to access the survey.

- **Data Analysis**

Standard statistical methodologies were employed to assess the impact of COVID-19 on the mental health of diabetics. Statistical analyses were conducted using SPSS.

- **Descriptive Statistics:**

Descriptive statistics were used to summarize the data.

- **Multivariate Analysis:**

A multivariate model was used to identify factors

associated with the impact of COVID-19 on the mental health of diabetic patients. Univariate analysis was conducted using the Chi-square test and independent-sample t -test, depending on variable distribution. Statistically significant variables were included in a backward logistic regression model to identify independent predictors.

- **Correlation and Group Comparisons:**

Pearson correlation coefficients were calculated to examine relationships among the resilience, fear, and anxiety/depression scales. One-way ANOVA was performed to compare the means of the fear and anxiety/depression scales across employment status groups. Statistical significance was set at $p = 0.05$.

RESULTS

A total of 371 surveys were completed. The majority (70.9%) of the respondents were between the ages of 41 and 64 years. There were more male respondents than female respondents. A total of 37.7% of the respondents were employed, and one-quarter were retired. The majority (83.4%) of the respondents lived in urban areas. Medical insurance covered 66.8% of the respondents, and 52.8% had only completed secondary education. Chronic disease was present in 69.3% of the respondents, and the majority (76.8%) reported good health status. Table 1 summarizes the demographic variables of the respondents.

The prevalence and causes of worry among diabetics in relation to the COVID-19 pandemic are summarized in Table 2. A total of 82.5% of respondents were very worried about the economic recession, and 78.2% were concerned about the health of their loved ones. Almost 74% of respondents were afraid of losing someone they care about due to COVID-19, 73% were concerned about not being able to pay for their basic needs, and 72.5% were worried about limited freedom (movement restrictions). Furthermore, 66.1% of respondents were concerned about increased pressure on the health system, and 63% were worried about difficulties accessing food supplies.

Additionally, 58.3% of respondents were concerned about losing their job or being laid off. Almost half of the participants were also worried about their physical and mental health, the spread of COVID-19, and the number of deaths reported in the media.

In addition to worry, Table 2 illustrates the anxiety and depressive symptoms related to the COVID-19 pandemic over the past two months. A total of 36.3% of respondents experienced depressive symptoms three days per week or

more, and 26.1% felt depressed even when family and friends provided support three days per week or more. Regarding anxiety symptoms, 30.5% of respondents felt fear three days per week or more, 36.7% experienced restlessness three days per week or more, 35.3% felt tense or anxious about the pandemic three days per week or more, and 28.5% were unable to stop or control their worry three days per week or more.

Table 1: General characteristics of the study sample

	Variable	Frequency (%)
Age (year)	Less than 40	76 (20.5)
	41-64	263 (70.9)
	above 65	263 (8.6)
employment status	Yes	140 (37.7)
	No	123 (33.2)
	Student	17 (4.6)
	Retired	91 (24.5)
Area of living	Rural	61 (16.4)
	Urban	310 (83.6)
Medical insurance	Yes	248 (66.8)
	No	123 (33.2)
Levels of Education	School (primary and secondary)	196 (52.8)
	College degree	64 (17.3)
	University degree	74 (19.9)
	High studies	37 (10)
Chronic diseases	Yes	257 (69.3)
	No	114 (30.7)
Chronic diseases	HTN, CVD	123 (48.1)
	Thyroid disorder	5 (1.9)
	Kidney disease	7 (2.6)
	Hyperlipidemia	104 (40.5)
	Asthma, COPD	17 (6.6)
Health status	Very bad	9 (2.4)
	Bad	50 (13.5)
	Good	285 (76.8)
	Very good	27 (7.3)

Table 2 also presents the degree of resilience of the responders in relation to the COVID-19 pandemic and its effects. A total of 60.1% of the respondents reported that they agreed or strongly agreed that they had difficulty

getting through stressful events caused by COVID-19. Additionally, 72.8% of the respondents agreed or strongly agreed that they could quickly adapt to the events of COVID-19, and 49.6% of the respondents agreed or

strongly agreed that they had difficulty returning to their usual lifestyle after controlling COVID-19.

Correlation analysis revealed that those who had more resilience to stress experienced lower fear (Pearson coefficient = -0.238; p-value < 0.001). Those with more resilience to stress also had lower anxiety/depression (Pearson coefficient = -0.316; p-value < 0.001), and those who scored higher on the fear scale were more likely to have higher anxiety and depression (Pearson coefficient =

0.558; p-value < 0.001) (Table 3).

One-way ANOVA showed that the mean score for the fear scale was 7.03 for students, 9.07 for the unemployed, 9.72 for the employed, and 10.23 for retired participants (p-value < 0.001). The mean score for the anxiety/depression scale was 4.86 for students, 5.90 for the unemployed, 6.67 for the employed, and 9.41 for retired participants (Table 4).

Table 2: Emotions expressed by the diabetics related to COVID-19 pandemic

Prevalence and causes of worry feelings of the diabetics related to COVID-19 pandemic				
	Worry a lot N (%)	Worry N (%)	Don't worry at all N (%)	
Losing someone you love as a result of corona	154 (41.5)	120 (32.3)	97 (26.1)	
Increased pressure on the health system	77 (20.8)	168 (45.3)	126 (34.0)	
Your physical and mental health	73 (19.7)	141 (38.0)	157 (42.3)	
The health of your loved ones	135 (36.4)	155 (41.8)	81 (21.8)	
Restricted freedom (restricted movement)	115 (31.0)	154 (41.5)	102 (27.5)	
Economic recession	184 (49.6)	122 (32.9)	65 (17.5)	
Difficulty obtaining food supplies	91 (24.5)	143 (38.5)	137 (36.9)	
You become unemployed	139 (37.5)	77 (20.8)	155 (41.8)	
Inability to pay for life	167 (45.0)	105 (28.3)	99 (26.7)	
Scary messages in the media about the spread of COVID 19 and the number of deaths	53 (14.3)	147(39.6)	171 (46.1)	
The degree of anxiety and depressive symptoms during the past two months				
	rarely (<1day) N (%)	Sometimes (1-2 days) N (%)	very often (3-4 days) N (%)	mostly (7-5 days) N (%)
Feeling depressed	123 (33.2)	113 (30.5)	84 (22.6)	51 (13.7)
Afraid	151 (40.7)	107 (28.8)	82 (22.1)	31 (8.4)
Feeling depressed even with family and friends help.	200 (53.9)	74 (19.9)	69 (18.6)	28 (7.5)
became restless	131 (35.3)	104 (28)	95 (25.6)	41 (11.1)
Feeling tense or anxious about the Corona epidemic	143 (38.5)	97 (26.1)	84 (22.6)	47 (12.7)
Not being able to stop or control worry	177 (47.7)	88 (23.7)	74 (19.9)	8.6)
The degree of resilience with the pandemic and its effects				
	Strongly agree N (%)	Agree N (%)	Disagree N (%)	Strongly disagree N (%)
Difficulty to get through the stressful events caused by COVID19	72 (19.4)	151 (40.7)	121 (32.6)	27 (7.3)
Ability to quickly adapt to the events of COVID19	78 (21)	192 (51.8)	73 (19.7)	28 (7.5)
Difficulty to go back to the usual lifestyle after controlling Corona.	75 (20.2)	109 (29.4)	123 (33.2)	64 (17.3)

Table 3 Results of correlation analysis using Pearson Correlation (Pearson coefficient)

scales	Fear scale (the higher values associated with higher fear) Mean score: 8.8 Maximal possible score: 20	Anxiety/depression scale (the higher values associated with higher anxiety and depression) Mean score: 6.1 Maximal possible score: 18
Resilience scale (higher values better resilience) Mean score: 4.6 Maximal possible score: 9	-0.238 (p-value <0.001)	-0.316 (p-value <0.001)
Fear scale	-	0.558 (p-value <0.001)

Table 4 results of the associations using one way ANOVA method

Employment status	Fear		Anxiety/Depression	
	Mean	p value	Mean	p value
Employed	9.72	<0.001	6.67	0.002
Unemployed	9.07		5.90	
Student	7.03		4.86	

Table 5 describes the independent predictors associated with depressive symptoms occurring more than 3 days per week during the past two months (COVID-19 pandemic period) using multivariate logistic regression analysis. The statistically significant independent

predictors included younger age, difficulty accessing care during the COVID-19 pandemic, and anxiety symptoms lasting more than 3 days per week during the past two months.

Table 5: Independent predictors associated with depressive symptoms more than 3 days per week in the past two months, based on a single, self-rated item.

Variable	B (S.E.)	p value	Odds ratio	95% C.I. for odds ratio
Age	-0.024 (0.011)	0.03	0.977	0.956-0.998
Difficulty in access to care	0.703 (0.29)	0.015	2.02	1.145-3.565
Anxiety symptoms for more than 3 days per week	2.906 (0.3)	<0.001	18.284	10.164-32.889
Constant	-0.81 (0.596)	0.174	0.445	

DISCUSSION

Depressive and anxiety symptoms are among the most common emotional responses to stressful situations [21]. The current study aimed to assess the emotions provoked by the COVID-19 pandemic in diabetics using an online

survey methodology. To address this health priority and meet the need for mental health data [22, 23], the study monitored mental health issues and found that one-quarter to one-third of the respondents experienced depressive and anxiety symptoms for 3 or more days per week during the

COVID-19 pandemic. The results of this study indicate a high burden on mental well-being due to the COVID-19 pandemic and associated interventions. It highlights the importance of implementing support systems and interventions to minimize the mental health impact of COVID-19 on patients with chronic diseases, as emphasized by health decision-makers and clinicians.

It is worth noting that resilience to stress is a protective factor present in some individuals, depending on their psychological makeup.

In situations like the COVID-19 pandemic, it is expected that feelings of fear can develop in individuals due to factors related to the seriousness, contagiousness, rapid spread, and high mortality of the virus [11]. The COVID-19 pandemic was classified as a Public Health Emergency of International Concern (PHEIC) [24, 25]. Surprisingly, the economic recession was found to be the most frequent source of worry among respondents. Typically, people fear dying, becoming sick (as reported in previous research), becoming helpless, or being stereotyped [26].

This finding can partly be explained by the fact that the majority of respondents were aged between 41 and 64. This demographic is more likely to be employed or own businesses, with their livelihoods heavily reliant on the economic system. Indeed, there have been significant negative effects on Jordan's economy arising from governmental interventions to address the COVID-19 pandemic. A review conducted by a research group found that, due to these governmental restrictions, many jobs were lost, leading to a reduction in the workforce.

Additionally, there was an increased demand for essential and COVID-19-related supplies, such as medical supplies, and a decreased demand for petroleum and manufactured products. Panic-buying has also been identified as a major contributing factor [27].

Due to the relatively low number of COVID-19 cases reported in Jordan, along with a lower number of deaths compared to other countries around the world [28] (Al-

Smadi et al., 2021), the smallest proportion of worry in the present study was related to alarming media messages about the spread of COVID-19 and the number of deaths, despite the fact that most media messages were distressing. To maintain the viability of the economic system, the government did not enforce drastic infection control measures during the further waves of COVID-19 in Jordan. Thus, it is expected that feelings of worry would increase as a result of messages from the mass media. A follow-up investigation using a similar instrument could address this issue. It is well established that both traditional media and social media provide messages to the public that can inform health decisions, which are considered among the external factors affecting health beliefs. The quality of the former has been scrutinized in research studies due to the lack of control over the quality of reporting [29], while the latter is extensively criticized for major quality issues [30].

Depression and anxiety are common among individuals with chronic illnesses, such as diabetes, and it is expected that the COVID-19 pandemic would exacerbate this challenge. Anxiety and depressive emotions result from the stress posed by the rapid spread of the virus and fear of the future. These emotions are expected to vary depending on an individual's susceptibility to stress, pre-existing conditions (e.g., depression), resilience to stress, and genetic factors. Other overriding factors include lack of knowledge about infectious diseases and health behaviors, sleep problems, economic difficulties, inadaptability, problems with psychological coping strategies, and quarantine-related stress [31]. Depressive symptoms are further exacerbated in diabetics due to the increased risk of serious complications from COVID-19. Other notable mental health issues that can be exacerbated by the COVID-19 pandemic, as reported in research studies, include symptoms of psychosis, suicidal thoughts, post-traumatic stress, and panic attacks [32-36]. The prevalence of depressive and anxiety symptoms in the present study was

similar to that reported in a systematic review, where the pooled prevalence of anxiety was 31.9% and depression was 33.7% [31]. The prevalence was also similar to a study conducted in China [37]. Other studies reported an increase in negative emotions, such as anxiety and depression, due to the pandemic [38]. The prevalence of psychological consequences was also comparable to that observed in a previous study from Taiwan, which focused on the SARS outbreak [39].

Resilience to stress is a major mechanism for reducing the impact of stressful situations. Individuals with resilience are better able to cope with stress and are more immune to its effects [40]. These individuals typically put risks into perspective, using known facts to control their worries, meaning they do not worry illogically, nor do they neglect the worrying situation. In response to disease threats, people generally practice avoidant behaviors, such as social distancing and avoiding contact, with strict compliance to other interventions [41].

The results indicated that depressive symptoms were more common in younger individuals, which is surprising since elderly patients in the present study, who are all diabetic, have an increased risk for serious complications associated with COVID-19. This finding can partly be explained by the fact that increased depressive symptoms in younger individuals may be related to movement restrictions, preventing them from mingling and interacting with others. The streets being vacant and the restrictions on mood-lifting activities also likely contributed to this effect, as identified in a German study [25]. Studies from China and Germany have also highlighted that younger age is an independent predictor for generalized anxiety [25, 37].

Access to care plays an important role in maintaining health, and it can be affected by factors such as the high cost of care, particularly with decreased income due to quarantine measures and business closures, inconvenient healthcare facility locations, and decreased availability of telehealth services. Such barriers are expected to play a

pivotal role in the development of depression and frustration, especially during times of crisis. Anxiety symptoms are often comorbid with depression, and it seems that increased anxiety can exacerbate depressive emotions, as identified in the present study.

The present study has a number of limitations. It did not address the severity of anxiety and depression symptoms, nor did it assess the impact of these ailments on social and occupational functioning. Such data would have enriched the study. Additionally, the methodology of data collection can impact the results. The data on anxiety and depression were collected using self-reported questions that provide only a snapshot of the emotions, rather than using a full-length questionnaire that assesses these emotions in more detail. The methodology was designed to meet the study objectives while minimizing the burden on respondents. Another limitation is the potential for selection bias, which can affect the generalizability of the results. The study used an online survey, which was inaccessible to individuals without internet access or those who are not familiar with using the internet. Lastly, the sample size calculation was based on a 5.11% margin of error, which might have had a small impact on the statistical power of the study.

The present study utilized a pre-tested online survey to assess key mental health issues during the COVID-19 pandemic within the diabetic patient population. This approach aimed to provide a comprehensive snapshot of the pandemic's influence on mental well-being. The findings are envisioned to offer insights into trends in mental health conditions during crises, which could inform future research in this area.

The study highlighted the primary concerns and mental health status of diabetic patients, revealing significant implications for clinical practice. The identified issues could be used to formulate targeted interventions for this patient group during crises, emphasizing the need for holistic healthcare services that address both physical and mental health.

Moreover, the study presents a valuable opportunity for healthcare policymakers, clinicians, and other stakeholders to gather baseline data for future disease outbreaks. This data could enable better preparation for identifying emerging mental health issues and support the development of policies and procedures that integrate mental health well-being into crisis response strategies.

CONCLUSION

The present study aimed to assess the impact of the COVID-19 pandemic on anxiety and depressive symptoms in patients with diabetes. The largest cause of worry for the respondents was the economic recession, followed by concerns about the health of their loved ones and the fear of losing someone they love. The smallest cause of worry was frightening messages in the media about the spread of COVID-19 and the number of deaths. A considerable proportion of respondents reported experiencing

depressive and anxiety symptoms three days per week or more during the COVID-19 pandemic. A high proportion of patients found it difficult to cope with the stressful events caused by the COVID-19 pandemic.

Independent predictors associated with depressive symptoms (three days or more per week during the COVID-19 pandemic), identified using multivariate logistic regression analysis, were younger age, difficulty in accessing care, and anxiety symptoms. The present study investigated several mental health issues related to the COVID-19 epidemic. It highlights the potential need to integrate mental health support into the routine care of diabetic patients, particularly during crises, through well-designed, tailored interventions to promote mental health, wellness, and resilience. Public health messages should also be carefully formulated to mitigate the stress and fear caused by crises.

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تأثير جائحة كوفيد-19 على الصحة النفسية لمرضى السكري في الأردن: دراسة مسحية إلكترونية

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ملخص

هدفت هذه الدراسة الى تقييم تأثير جائحة كوفيد-19 على الصحة العقلية لمرضى السكري. تم تطوير استبيان و تم اختباره مسبقاً لتقييم القلق وأعراض الاكتئاب ومرونة مرضى السكري و تم توزيعه عبر الانترنت. تم جمع البيانات من 371 مريض سكري. تتراوح أعمار غالبية المستجيبين (71.2%) بين 41 إلى 64 عامًا. وكانت الأمراض المزمنة موجودة لدى 69.3% من المشاركين، في حين أشار 76.8% إلى أنهم يتمتعون بصحة جيدة بشكل عام. وأعرب نحو 80% من المشاركين عن قلقهم بشأن الركود الاقتصادي، بينما أبدى 20% الباقيين قلقهم بشأن الرسائل الإعلامية المخيفة. حوالي 35% ممن شملهم الاستطلاع عانوا من أعراض الاكتئاب، و30.5% كانوا يعانون من القلق. وافق ما يقرب من 60% من المشاركين أو وافقوا بشدة على أنهم واجهوا صعوبة في اجتياز الأحداث الضاغطة خلال جائحة كوفيد-19. وكشفت النتائج عن مدى قلق مرضى السكري بشأن حالة صحتهم العقلية، وهي معلومات قيمة لواضعي السياسات الصحية ومقدمي الرعاية الصحية. الكلمات الدالة: كوفيد-19، الصحة العقلية، السكري، الاردن

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