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Psychological Problems and Resilience among Diabetic Patients Receiving Dialysis Sessions

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Abstract

Background Diabetes mellitus is a chronic condition that accompanied by arrange of psychological problems particularly anxiety and depression and had a significant impact on the resilience levels among patients undergoing dialysis. **Aim of the study:** this study was aimed to assess psychological problems and resilience among diabetic patients receiving dialysis sessions. **Research design**: A descriptive correlational research design was used to conduct the current study. **Setting**:the study was conducted at the Memorial Souad Kafafi and El Demerdash Ain Shams University hospitals. **Subjects:** A convenient sample of 105 diabetic patients receiving dialysis included in the study. **Tools**: the study were 1) Socio demographic characteristics and medical history sheet, 2) Beck anxiety inventory 3) Patient health questionnaire patient depression scale & 4) Resilience scale. **Results**: The studied patients had potentially concerning levels of anxiety in souad kafafi& Ain shams university hospitals (less than half &nearly two- third) respectively, while the studied patients have moderate depression in souad kafafi &Ain shams university hospitals (more than quarter & nearly one- third) respectively. The studied patients had moderate level of resilience in souad kafafi &Ain shams university hospitals (less than half & two -third) respectively. and there was a high statistically significant correlation between the studied variables anxiety, depression and psychological resilience at P-value <0.001. **Conclusion**: The study highlighted that the studied of patients exhibited potentially concerning levels of anxiety, depression and a low level of resilience, in both Souad Kafafi& Ain shams university hospitals. and there was a high statistically significant correlation between anxiety, depression and psychological resilience. **Recommendations**. Implementing regular screening for anxiety and depression, especially hospitals which provide a critical care.

Key words: *Diabetic Patients , Dialysis Sessions , Resilience , Psychological Problems*

Introduction

Diabetic nephropathy is a serious microvascular complication of diabetes mellitus, primarily affecting the kidneys. It is characterized by progressive damage to the renal glomeruli, the filtering units of the kidneys, due to prolonged high blood glucose levels and associated metabolic abnormalities. The development of diabetic nephropathy significantly increases the risk of cardiovascular disease and mortality in people with diabetes **(Tang et al., 2022).** Diabetic nephropathy, a leading cause of chronic kidney disease (CKD), frequently progresses to end-stage renal disease (ESRD), requiring dialysis for survival **(Alicic et al., 2021).**

Diabetic patients on dialysis face significant psychological challenges, as the combined impact of diabetes and chronic kidney disease (CKD) often brings feelings of loss, dependency, and uncertainty. Depression and anxiety are common among this population due to the rigorous nature of dialysis treatment, physical complications, and lifestyle limitations **(Mosleh et al., 2022).** Additionally, feelings of social isolation, financial strain, and the physical exhaustion associated with dialysis further compound these psychological difficulties, impacting quality of life and treatment adherence **(Cheng et al., 2021).**

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Psychological resilience, or the ability to adapt to and cope with adversity, is crucial for diabetic patients undergoing dialysis, as it can influence their emotional well-being and health outcomes. Resilience helps these patients manage the emotional and physical strain of treatment, maintain hope, and sustain engagement in self-care practices, even under challenging conditions **(Lee & Thompson, 2023).**

Psychiatric nurses play a vital role in supporting diabetic patients undergoing dialysis by providing comprehensive care, education, and emotional support **(D'Souza & Johnson, 2023)** Psychiatric nurses play a vital role, as part of their liaison function in hospital and clinic settings. The nurses can assist diabetic nephropathy patients undergoing hemodialysis. Individualized nursing can help patients eliminate negative emotions and improve rehabilitation quality. Nursing staff conduct psychological counseling and support and comfort the patients throughout the whole treatment to enable them to understand the knowledge about diabetic nephropathy, hemodialysis, etc., and enhance their confidence in the treatment **(Gao et al., 2020).**

Significance of study

Globally, diabetic nephropathy was approximately 134.58 million people affected by chronic kidney disease related to diabetes (CKD-DM) worldwide, contributing to 2.62 million new cases annually. The condition also led to 405,990 deaths and accounted for 13.09 million disability-adjusted life years (DALYs), highlighting its severe impact on global health **(Chen et al., 2021).**

Egypt is among the world top 10 countries with diabetes prevalence (15.6%) **(Metwally et al., 2019).** A recent estimate indicates that diabetes mellitus is responsible for about 18% to 20% of ESRD cases in Egypt, underscoring the substantial impact of diabetes as a causative factor **(El-Sayed et al., 2022).** Additionally, there are approximately 60,000 patients undergoing dialysis for ESRD, with diabetes being one of the leading contributing factors **(Fathy & Mansour, 2023).**

Anxiety is prevalent among individuals with diabetes, in addition to depression, and numerous studies have examined this correlation. A study about concluded that "Anxiety and Depression Among Patients with Diabetes in Saudi Arabia and Egypt'' anxiety disorders were present in 29.1% of Saudi patients and 40% of Egyptian patients (**Mahmoud& Madiha et al., 2024**).

From the researcher point of view, Diabetic patients are exposed to complications such as retinopathy, nephropathy, and neuropathy. Therefore, the researcher thought that evaluating the psychological problems and resilience is important in order to support patients, how to deal with these problems and adapt to the disease and complications. In addition, the frequency of Diabetic nephropathy has increased according to prevalence and factors. Therefor the psychological problems associated with DN including accompanied with number of challenges depression and anxiety influenced the response to treatment

Aim of the study

The aim of this study was to assess psychological problems and resilience among diabetic patients receiving dialysis sessions

Research questions

1. What are psychological problems among diabetic patients receiving dialysis sessions?
2. What are dimensions of psychological resilience among diabetic patients receiving dialysis sessions?
3. Is there a relationship between psychological problem and resilience among diabetic patients receiving dialysis sessions?

Operational definition:

Psychological problems: it refers to symptoms of depression and anxiety among diabetic patients receiving dialysis sessions

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The subjects and methods of this study have been portrayed under four main designs, namely:

I-Technical item.

II- Operational item

III- Administrative item.

IV- Statistical item.

I. Technical design:

The technical design included research design, setting, subject, and tools of data collection.

Research design:

A descriptive correlation research design has been utilized to conduct the current study.

The study setting:

The current study was conducted at the Memorial Souad Kafafi University Hospital and Ain Shams University Hospitals (Ain Shams University Hospital). According to the Memorial Souad Kafafi University Hospital; it provides health care to patients. It consists of five floors with bed capacity 210 beds inpatient and dialysis unit capacity 12 beds. And concerning Ain Shams University Hospital; it provides health care to patients from all the world for free. It consists of five floors and dialysis unit with bed capacity 42 beds there.

Subjects:

A Convenience sample of diabetic dialysis patients was participated of in the study in the selected hospital from renal dialysis departments in the hospital.

According to the following inclusion criteria:

1- Aged >18
2- Both gender
3- Type 1 and type 2 diabetes who have a renal failure on dialysis session
4- Patients who Free from psychiatric disorders

Sampling size:

The sample was (105) subjects selected from the Memorial Souad Kafafi University Hospital (35) and Ain Shams University Hospitals (70)

$$n = \frac{N \times p(1-p)}{[(N-1) \times (d^2 \div Z^2) + (p(1-p))]} \qquad 105 = \frac{144 \times 0.5(1-0.5)}{[144-1 \times (0.05^2 \div 1.96^2)] + 0.5(1-0.5)}$$

Where:

N= Total population (144)

z= Class standard corresponding to the level of significance equal to 0.95 and 1.96

P= probability (50%)

d= margin of error (0.05)

So, sample size (n) = (105)

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Tools of data collection:

Four tools were used in this study as the following:

Tool I : A structured questionnaire sheet involved the following

Part I: Socio demographic characteristics: it was developed by investigator including (age, gender, educational qualification, occupation level, month income, place of residence, marital status, etc…)

Part II: medical history sheet: it was developed investigator including: (comorbid chronic diseases, duration of chronic disease, previous history of nephropathy, type of diabetes, duration of diabetes, duration of ESRD, and number of dialysis session per week etc.…)

Tool II: Beck Anxiety Inventory (BAI) *(Beck et al., 1988).*

Beck Anxiety Inventory developed by ***(Beck et al., 1988)*** This inventory was modified by investigator according to jory committee. this inventory was used to assess clinical anxiety. It consists of 20 items, each item response is from 1 to 4 in which; not at all = (1), mildly – but it did not bother me much = (2), moderately – it was not pleasant at time = (3), severely – it bothers me a lot = (4)

Scoring system:

The total score is calculated by finding the sum of the 21 items.

Total score	Anxiety severity
1-27	Low anxiety
28-54	Moderate anxiety
55-80	Potentially concerning levels of anxiety

Tool III : Patient Health questionnaire -9 Patient Depression Scale (Kroenke & Spitzer, 2002).

This scale was developed by ***(Kroenke & Spitzer, 2002)*** This scale was modified by investigator according to Jury committee. This scale was used to assess symptoms of depression. It consists of 12 items; each item a response is from 1 to 4 in which. Not at all = (1), several days = (2), more than half the days = (3), nearly every day = (4).

Scoring system:

The total score is calculated by finding the sum of the 9 items.

Total score	Depression severity
1-10	Minimal depression
11-20	Mild depression
21-30	Moderate depression
31-40	Moderately severe depression
41-48	Severe depression

Tool IV: Resilience scale (Al-Qalali, 2016).

Resilience scale was developed by ***Al-Qalali, 2016*** who modified resilience scale in to Arabic form from ***Davidson & Connor,* 2003**. This scale was used to assess psychological resilience. It consists of 23 items that composed of 4 dimensions: personal competence (7 items), persistence and consistency (7 items), resistance to negative effects (3 items), and positive self-acceptance (6 items),each item response is from 1 to 5 in which; strongly disagree = (1), disagree = (2), neutral = (3), agree = (4), and strongly agree = (5)

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Scoring system:

The total score is calculated by finding the sum of the 23 items.

Total score	Resilience severity
1-38	Low level of resilience
39-77	Moderate level of resilience
78-115	High level of resilience

Content Validity & Reliability

To achieve the criteria of trustworthiness of tool of data collection in this study. The tool will be tested and evaluated for their face, content validity and Reliability to ascertain relevance, and clarity and completeness of the tools, experts elicited responses will be either agree or disagree for the face validity, content reliability, important, not important and comments. The reliability was done by Cronbach's Alpha coefficient test which revealed that.

Scales	Cronbach's Alpha
Beck anxiety inventory (BAI) scale	0.794
PHQ-9 Patient depression scale	0.913
Psychological Resilience scale	0.762

Ethical considerations:

Ethical approval obtained from Ethical Committee of Nursing Faculty Helwan university with code number 34 (16-5-2023) The research approval was obtained from The Memorial souad Kafafi University hospital at 19-5-2023 . and the research ethics committee of faculty of medicine at Ain Shams university hospital Internal Medicine granted ethical approval at 2-6-2024 for conducting the study, before starting the study. Informed consent will be sought and obtained from each participating subject prior to data collection, they will be informed about the purpose and expected outcome of the study and they should be assured that the study is harmless and their participation is voluntary and they have the right to withdrawal from the study at any time without any reason. They also will be assured that, anonymity and confidentiality will be guaranteed, as well the gathered data will be used for the research purpose only. Ethics, values, culture and beliefs will be respected.

II- Operational Item:

The operational design included: preparatory phase, pilot study and field work**.**

Preparatory phase:

It will included reviewing of past, current, national and international related literature and theoretical knowledge of various aspects of the study using books, articles, internet, periodicals and magazines to develop tools for data collection.

Pilot study:

The pilot study will be done on 10%(11)of the sample to examine the clarity of questions and time needed to complete the study tools. Based on the results, modification will be done (if necessary). Subjects included in the pilot study will be excluded from the study if major modifications are required.

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Field work:

The data was collected from mid-May to the end of August 2023at Saad Kafafi Hospital's Kidney Dialysis Unit. The Investigator was explained Purpose of the study was simply explained to the participants who agreed to participate in the study prior to any data collection. The Investigator was available in the study setting two days per week (Saturdays and Sunday) during morning shift from 8:00 am to 9:00 pm. The actual work started by interviewing each patient at morning and after shift. The questionnaire sheet were filled by the patients in 30-45 minutes. The data was collected from middle of February to the end of may 2024 at Ain Shams university hospital Internal Medicine in Kidney Dialysis Unit. The investigator visited the selected setting two times per week on Sunday and Monday from 8.00 am to 4.00 pm and the investigator collecting the date from each patients organized time and date . the investigator explained the purpose of the study before collecting the date and distributing the tool to be filled in , while the investigator was present to assure that all questions were completed . filling the tools lasted from 30 -45 minutes for each subjects included in the study . The investigator confirmed that . the study is harmless and their participation is voluntary and they have the right to withdrawal from the study at any time without any reason. They also will be assured that, anonymity and confidentiality will be guaranteed, as well the gathered data will be used for the research purpose only. Ethics, values, culture and believes were respected.

III- Administrative Item

An official letter of approval was taken from the Dean of Nursing faculty Helwan university to the Dean of Medicine faculty at Ain-shams university in which the study was conducted. This letter was explained the purpose and importance of the study After explanation of the study aim and objectives, an official permission will be obtained from Dean of faculty of nursing of Helwan University asking for cooperation and permission to conduct the study.

Statistical analysis:

Recorded data were analyzed using the statistical package for social sciences, version 22.0 (SPSS Inc., Chicago, Illinois, USA). Quantitative data were expressed as mean± standard deviation (SD). Qualitative data were expressed as frequency and percentage.

The following tests were done:

- ***Chi-square (x^2)*** test of significance was used in order to compare proportions between qualitative parameters.
- ***Pearson's correlation coefficient (r)*** test was used to assess the degree of association between two sets of variables
- The confidence interval was set to 95% and the margin of error accepted was set to 5%. So, the p-value was considered significant as the following:
- ***Probability (P-value)***
  - P-value $\leq$0.05 was considered significant.
  - P-value $\leq$0.001 was considered as highly significant.
  - P-value >0.05 was considered insignificant

Results:

Table (1) .Shows the socio demographic characteristics of the studied patients in souad kafafi as age (40-<50 years) , gender(female), marital status(married) , educational qualification (read and write) , occupation (not work) , monthly income (not enough) and place of residence (urban area) (37.1% , 60%, 31.4%, 31.4%, 60% , 77.1%, 68.6%) respectively and Ain shams university hospital regarding the studied patients age(40-<50 years) , gender(female), marital status(married) , educational qualification (read and write) , occupation(not work), month income (not enough) and place of residence(urban area) (40%, 60%, 30%, 30%, 60%, 81.4%, 70%) respectively

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Table (1) clarifies the patients' medical history, in souad kafafi university hospital as comorbid chronic disease , cardiac diseases , duration of chronic diseases >10 years , duration of diabetes 1-<5years , type 1 dependent on insulin , duration of ESRD >10 years , number of dialysis session third per week (100%, 51.4%, 57.1%, 65.7%, 68.6%, 57,1%, 100%) respectively and Ain shams university hospital regarding comorbid chronic disease , cardiac diseases , duration of chronic diseases >10 years, duration of diabetes 1-<5 years , type 1 dependent on insulin , duration of ESRD >10 years, number of dialysis session third per week(100%, 50%, 61.4%, 71.4%, 71.4%, 60%, 100%) respectively

Fig. (1) shows that there is a significant statistical difference between Souad Kafafi and Ain Shams Hospital regarding anxiety levels, the studied patients have potentially concerning levels of anxiety in Ain Shams University Hospital (68.6%) , while the studied patients in souad kafafi university hospital have potentially levels of anxiety (40.0%)

Fig. (2) illustrates that there is a significant statistical difference between Souad Kafafi and Ain Shams Hospitals regarding depression levels. the studied patients have moderate depression in Souad Kafafi University Hospital (28.6%) , while the studied patients in Ain Shams University Hospital have moderate depression (34.3%)

Fig. (3) shows that there is a significant difference between Souad Kafafi and Ain shams hospitals regarding psychological resilience levels, the studied patients have moderate level of resilience in Souad Kafafi University Hospital (42.9%) , while the studied patients in Ain shams university hospital have low level of resilience (60%).

Table (3) *presents that there is a high statistically significant correlation*

*between the total levels of anxiety, depression and psychological resilience at P-value <0.001***

Table (1): Percentage distribution of the studied patients according to their socio-demographic characteristics (N=105).

Socio-demographic characteristics	Souad Kafafi University hospital *(n=35)*		Ain Shams university hospital *(n=70)*		Total patients *(n=105)*	
	No.	%	No.	%	No.	%
Age "years"						
18-<30 years	6	17.1	11	15.7	17	16.2
30-<40years	6	17.1	9	12.9	15	14.3
40-<50 years	13	37.1	28	40.0	41	39.0
≥50 years	10	28.6	22	31.4	32	30.5
Mean±SD	42.54±9.36		43.56±9.58		43.22±9.51	
Gender:						
Male	14	40.0	28	40.0	42	40.0
Female	21	60.0	42	60.0	63	60.0
Marital status:						
Single	8	22.9	13	18.6	21	20.0
Married	11	31.4	21	30.0	32	30.5
Divorced	9	25.7	20	28.6	29	27.6
Widow	7	20.0	16	22.9	23	21.9
Educational qualification:						
Doesn't read or write	4	11.4	7	10.0	11	10.5
Read and write.	11	31.4	21	30.0	32	30.5
Primary education	7	20.0	14	20.0	21	20.0
Secondary education	6	17.1	14	20.0	20	19.0
University education	7	20.0	14	20.0	21	20.0
Post graduate	0	0.0	0	0.0	0	0.0

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Occupation						
Work	14	40.0	28	40.0	42	40.0
Not work	21	60.0	42	60.0	63	60.0
Monthly income						
Enough	8	22.9	13	18.6	21	20.0
Not enough	27	77.1	57	81.4	84	80.0
Place of residence						
Rural area	11	31.4	21	30.0	32	30.5
Urban area	24	68.6	49	70.0	73	69.5

Table (2): Percentage distribution of the studied patients according to their medical history (N=105).

	Souad Kafafi University hospital *(n=35)*		**Ain Shams university hospital *(n=70)***		**Total patients *(n=105)***	
	No.	**%**	**No.**	**%**	**No.**	**%**
Comorbid chronic diseases						
Yes	35	100.0	70	100.0	105	100
No	0	0.0	0	0.0	0	0
If yes; type of chronic diseases:						
Cardiac diseases	18	51.4	35	50.0	53	50.5
Other	17	48.6	35	50.0	52	49.5
Duration of chronic disease						
Less than one year	0	0.0	0	0.0	0	0
1- <5 years	3	8.6	5	7.1	8	7.6
5- <10 years	12	34.3	22	31.4	34	32.4
>10 years	20	57.1	43	61.4	63	60
Duration of diabetes						
Less than one year	4	11.4	7	10.0	11	10.5
1- <5 years	23	65.7	50	71.4	73	69.5
5- <10 years	8	22.9	13	18.6	21	20
> 10 years	0	0.0	0	0.0	0	0
Type of diabetes mellitus						
Type 1, dependent on insulin	24	68.6	50	71.4	74	70.5
Type 2, independent on insulin	11	31.4	20	28.6	31	29.5
Duration of ESRD						
Less than one year	0	0.0	0	0.0	0	0
1- <5 years	4	11.4	7	10.0	11	10.5
5- <10 years	11	31.4	21	30.0	32	30.5
> 10 years	20	57.1	42	60.0	62	59
Number of dialysis session per week						
Once	0	0.0	0	0.0	0	0
Twice	0	0.0	0	0.0	0	0
Third	35	100.0	70	100.0	105	100

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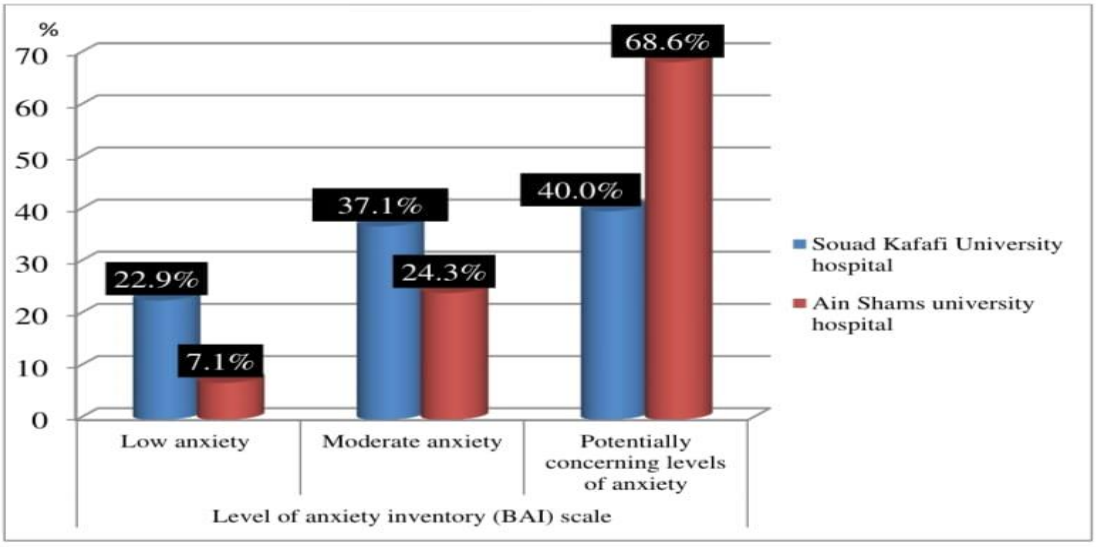

Fig. (1) : Percentage distribution of the studied patients regarding anxiety levels (N=105)

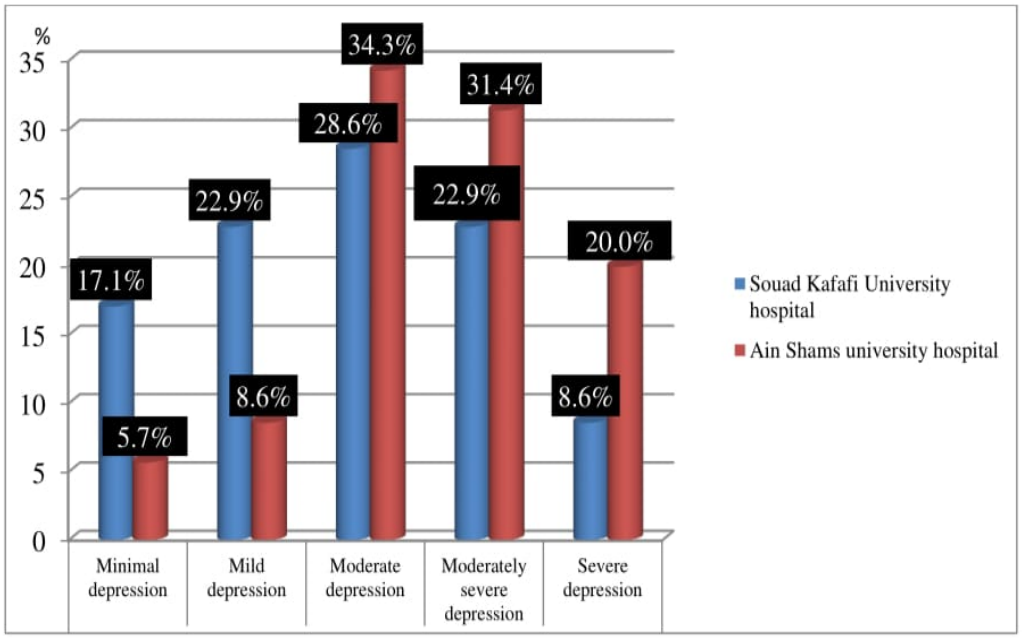

Fig. (2): Percentage distribution of the studied patients regarding depression levels (N=105)

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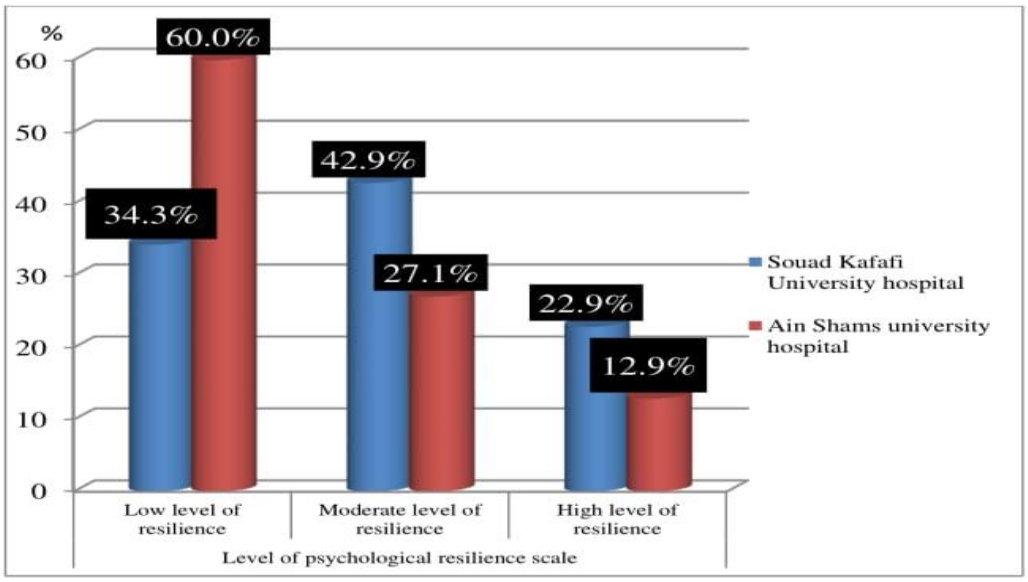

Fig. (3): Percentage distribution of the studied patients regarding psychological resilience levels

Table (3): Correlation between total levels of psychological problems (anxiety, depression & psychological resilience among diabetic patients receiving dialysis sessions

		Total of anxiety levels	Total depression levels	psychological resilience levels
Total anxiety levels	R		0.655	-0.496
	p-value		<0.001**	<0.001**
	N		105	105
Total depression levels	R	0.655		-0.461
	p-value	<0.001**		<0.001**
	N	105		105
Total psychological resilience levels	R	-0.496	-0.461	
	p-value	<0.001**	<0.001**	
	N	105	105	

Discussion

Diabetic patients undergoing dialysis face unique physical and psychological challenges due to the combined burden of managing diabetes and chronic kidney disease. The ongoing medical treatments, lifestyle restrictions, and uncertainty about health outcomes can significantly affect their Psychological state causing depression, anxiety, stress, and cognitive impairment, are common among this group, exacerbated by the

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demanding nature of dialysis. Despite these challenges, many patients demonstrate resilience, allowing them to adapt and cope with their circumstances **Feroze etal., (2021)**.

Accordance to the socio-demographic characteristics of diabetic patients receiving dialysis sessions showed that less than half patients fall within the 40-<50 year age group with a mean age of 43.22±9.51. this finding may be due to because chronic diseases are more prevalent among the elderly age.

Regarding the studied patients gender , the current study founded that two third of the patients were female. this finding may be due to potentially higher rates of healthcare-seeking behavior among women and the increased likelihood of developing chronic conditions such as diabetes among females due to hormonal and lifestyle factors. Concerning the marital status of the studied patients ,the present study revealed that less than two third of the studied patients in both hospital were married .This finding may be due to because the marriage rate in Eastern and Arabic societies is higher due to the societal view.

Regarding educational qualification, less than one third of the studied patients in the current study can read and write, This finding may be due to people in the past were primarily concerned with the basics of reading and writing .Concerning occupation, the current indicated that two third of the studied patients weren't working, This finding may be due to the high rate of unemployment among dialysis patients can be attributed to the physical limitations caused by end-stage renal disease (ESRD) and the demanding nature of dialysis treatment, which often requires multiple sessions per week.

Regarding monthly income, the current study result indicated that the majority of patients reported that income wasn't being enough, This finding may be due to this financial strain is a common issue among chronic illness patients, particularly those undergoing dialysis as patients may struggle to afford essential medications, transportation to treatment centers, and other expenses related to their condition.Regarding place of residence the current result showed that more than two third of the studied patients in both hospital lived in urban area. This finding may be due to Urban residents may have better access to healthcare facilities, including dialysis centers, compared to rural residents.

The current study revealed that the all of studied patients based on their medical history in both hospital had comorbid chronic diseases, reflecting the well-established association between diabetes and other chronic conditions. Specifically, cardiovascular diseases affected half of the patients, the current result was in the same line with findings from a study conducted by **Chen etal., (2021)** titled "Cardiovascular Comorbidities in Diabetic Dialysis Patients: A nationwide study" in China which observed that the majority of diabetic patients undergoing dialysis had cardiovascular diseases. This finding may be due to the overlap between diabetes and cardiovascular disease is particularly common due to the shared risk. factors, such as high blood pressure and dyslipidemia, both of which contribute to the progression of kidney damage and the need for dialysis.

Regarding The duration of chronic illness, the current study reported that a significant proportion two third of patients had been living with a chronic disease for more than 10 years, emphasizing the long-term nature of these health issues. This finding was consistent with a study conducted by **El-Kateb et al. ,(2020)** titled " Duration Of Chronic Illnesses And Its Impact On Dialysis Patients" In Egypt, where more than half of diabetic dialysis patients had been managing chronic illnesses for more than 10 years. This finding may be due to long durations of chronic conditions increase the risk of complications, including kidney failure, which necessitates dialysis. Patients with a prolonged history of diabetes and other chronic conditions are particularly vulnerable to the cumulative damage.

Similarly, the duration of diabetes in current study revealed that more than two third of the patients had diabetes for 1 < 5 years, this finding was in the same line with results from a study conducted by **Allen et al., (2022)** titled "Rapid Progression Of Diabetic Nephropathy In Dialysis Patients" In the U.S. which founded that nearly more than three quarter of dialysis patients had been diagnosed with diabetes within the past five years. This finding reflects that relatively shorter duration of diabetes, in comparison to the chronic disease timeline, may indicate that many of these patients developed diabetes complications, such as diabetic nephropathy, more recently, leading to their dialysis dependency.

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Regarding type of diabetes in the current study showed nearly more than three quarter of patients had type 1 diabetes (insulin – dependent). This study was in the same line with a study a study conducted by **Saleh et al., (2021)** entitled "Diabetes Types and Their Relationship with Kidney Disease among Dialysis Patients" in Saudi Arabia, where most of diabetic dialysis patients had type 1 diabetes. This finding may be due to The predominance of type 1 diabetes among dialysis patients reflects the more aggressive nature of the disease, which often leads to kidney complications earlier in life compared to type 2 diabetes.

Approximately two thirds of the patients had been living with ESRD for over 10 years, emphasizing the chronic nature of the condition and the prolonged reliance on dialysis for survival. This aligns with findings from **Wang et al. (2021)** who studied "Long-Term Outcomes of Patients With ESRD" in China and who reported that patients with longer ESRD durations often face a higher risk of complications and a diminished quality of life due to the cumulative burden of chronic treatment.

The result revealed that all patients underwent three sessions of dialysis in both hospital per week. This result was contradicted with **Luyckx et al. (2020)** who studied in Germany and reported **,** "Dialysis Frequency in Resource-Limited Settings" revealed that in some resource-limited settings, about one third of patients received dialysis only twice a week due to shortages in medical resources or budgetary constraints. This finding may be due to frequency of dialysis sessions three times per week maintain fluid and electrolyte balance leading for optimal patients outcomes .

The current study **s**howed that there was a statistically significant differences in anxiety levels between the two hospitals (P value = 0.009*), The results of current study was in the same line with findings from **Feroze et al. ,(2020)**, who conducted a study in the United States on "Anxiety And Depression Among Dialysis Patients In Multiple Care Settings ". This study identified significant differences in psychological outcomes between different dialysis centers, with environmental factors such as the quality of care, nurse-patient interactions, and the availability of psychosocial support contributing to variability in anxiety levels. This finding may be due to the availability of psychiatric unit in souad kafafi hospital to monitor the psychological problems accompanying with dialysis.

The current study showed that there was a statistically significant difference in depression levels between the two hospitals (P value = 0.040*). This finding was consistent with the study by **Hedayati et al. (2020)** who studied in United states " Depression in dialysis patients and facility-level influences on mental health outcomes" conducted, which highlighted that varying levels of depression in dialysis patients are influenced by facility-specific factors such as quality of care and psychosocial support. Facilities with dedicated mental health resources and counseling services often report lower depression rates, as these services provide patients with consistent psychological support.

The current study found a statistically significant difference in psychological resilience levels between the two hospitals (P value = 0.044*). This result aligns with **Abdel-Kader et al. (2021),** study in Jordan "Hospital environment and resilience in chronic disease patients" who observed similar differences in resilience across healthcare facilities in. this study found that access to mental health support services and the overall hospital environment strongly influenced resilience levels in patients with chronic conditions, as facilities offering structured support reported higher resilience scores.

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Regarding the correlation between anxiety, depression, and psychological resilience among diabetic patients receiving dialysis, the current study revealed that there was a **highly statistically significant correlation**

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between these variables ,at **(p-value < 0.001**)** . The result was in the same line conducted by **Zhao et al., (2023) in China entitled** "Co-occurrence of Anxiety and Depression in Patients with Chronic Illnesses" who highlighted that anxiety and depression often co-occur in patients with chronic illnesses, such as diabetes, and that their combined effects can exacerbate psychological distress. In addition, the significant negative correlation between **psychological resilience** and both **anxiety** and **depression.** This finding may be due to as levels of anxiety and depression increase, psychological resilience tends to decrease, underscoring the interconnectedness of mental health factors in this patient population. The strong correlation between **anxiety** and **depression** suggests that patients experiencing high levels of anxiety are also likely to face elevated levels of depression

Conclusion

The study highlighted that a notable proportion of patients exhibit potentially concerning levels of anxiety and a low level of resilience, in both Souad Kafafi& Ain shams university hospitals. and there was a high statistically significant correlation between anxiety, depression, and psychological resilience.

Recommendations

- Implementing regulars screening for psychological problems especially hospital which provide a critical care.
- Integrating psychological intervention to the care of diabetic dialysis patients to alleviate psychological problems accompanying.
- Emphasizing the need for resilience building interventions, especially in setting where patients exhibit lower resilience levels.
- Further research should be done with a large sample size in several hospitals and in a broader geographic area.

References

Abdel-Kader, K., Unruh, M., & Weisbord, S. (2021). Hospital environment and resilience in chronic disease patients: A Jordanian study. Journal of Psychosomatic Research, 131, 110. In reference etal

Alicic, R. Z., Rooney, M. T., & Tuttle, K. R. (2021). Diabetic kidney disease: Challenges, progress, and possibilities. *Clinical Journal of the American Society of Nephrology*, *16*(12), 2037-2047. https://doi.org/10.2215/CJN.13180920

Allen, D., Hopkins, S., & Rhodes, P. (2022). Rapid progression of diabetic nephropathy in dialysis patients: A U.S. perspective. *American Journal of Nephrology*, *43*(1), 25-34.

Allen, D., Hopkins, S., & Rhodes, P. (2022). Rapid progression of diabetic nephropathy in dialysis patients: A U.S. perspective. American Journal of Nephrology, 43(1), 25-34.

Al-Qalali, Muhammad Muhammad Al-Sayed. (2016). The Factorial Structure of the American Version of the Scale of Psychological Resilience in the Egyptian Environment: A psychometric Study on A sample of University Students. International Journal of Educational and Psychological Sciences, p. 3, 242-283. Retrieved from http://search.mandumah.com/Record/822245

Beck, A.T., Epstein, N., Brown, G., & Steer, R.A. (1988). An inventory for Measuring Clinical Anxiety: Psychometric Properties. Journal of Consulting and Clinical Psychology, 56, 893-897.

Chen, L., Wang, Y., & Zhang, X. (2021). The global burden of diabetic nephropathy and associated outcomes. *Global Health Review*, *15*(2), 159-170. https://doi.org/10.1007/s12345-021-00891-2

Chen, W., Li, H., & Zhang, Y. (2021). Cardiovascular comorbidities in diabetic dialysis patients: A nationwide study in China. *Journal of Diabetes and its Complications*, *35*(4), 102857.

Chen, W., Li, H., & Zhang, Y. (2021). Cardiovascular comorbidities in diabetic dialysis patients: A nationwide study in China. Journal of Diabetes and its Complications, 35(4), 102857.

Cheng, K., Fung, H. L., & Ng, J. (2021). Coping with chronic kidney disease and its psychological impact on dialysis patients. *Journal of Psychosomatic Research, 90*(3), 210-216. https://doi.org/10.1016/j.jpsychores.2021.11.004

Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and anxiety*, *18*(2), 76-82.

D'Souza, S., & Johnson, R. (2023). The role of nursing in chronic disease management for dialysis patients. *Journal of Nephrology Nursing*, *20*(1), 45-53. https://doi.org/10.1016/j.jnn.2023.01.005

El-Kateb, M., Salem, M., & Abdel-Rahman, A. (2020). Duration of chronic illnesses and its impact on dialysis patients in Egypt. *Nephrology & Therapeutics*, *15*(2), 103-111.

El-Kateb, M., Salem, M., & Abdel-Rahman, A. (2020). Duration of chronic illnesses and its impact on dialysis patients in Egypt. Nephrology & Therapeutics, 15(2), 103-111.

El-Sayed, M., Ahmed, R., & Salem, A. (2022). Epidemiology of end-stage renal disease in Egypt: Current trends and future perspectives. *Egyptian Journal of Nephrology, 28*(1), 25-35. https://doi.org/10.21608/ejn.2022.02695

Fathy, A., & Mansour, H. (2023). Diabetes mellitus and its contribution to ESRD in Egypt: A public health concern. *International Journal of Diabetic Complications, 17*(3), 150-158. https://doi.org/10.1016/ijdc.2023.03.015

Feroze, U., Martin, D., Kalantar-Zadeh, K., Kim, J. C., Reina-Patton, A., Kopple, J. D., & Johansen, K. L. (2021). Anxiety and depression in maintenance dialysis patients: Preliminary data of a cross-sectional study and brief literature review. Journal of Renal Nutrition, 22(1), 207-210. https://doi.org/10.1053/j.jrn.2011.10.002

Feroze, U., Martin, D., Reina-Patton, A., Kalantar-Zadeh, K., & Kopple, J. D. (2020). Mental health, depression, and anxiety in patients on maintenance dialysis. *Clinical Journal of the American Society of Nephrology*, *7*(4), 614-623.

Feroze, U., Martin, D., Reina-Patton, A., Kalantar-Zadeh, K., & Kopple, J. D. (2020). Mental health, depression, and anxiety in patients on maintenance dialysis. Clinical Journal of the American Society of Nephrology, 7(4), 614-623.

Gao, Q., Jin, J., & Xu, H. (2020). Clinical effect of individualized nursing care in diabetic nephropathy patients undergoing hemodialysis. International Journal of Clinical Experimental Medicine, 13(6), 4331-4336.

Hedayati, S. S., Yalamanchili, V., & Finkelstein, F. O. (2020). Depression in dialysis patients and facility-level influences on mental health outcomes. American Journal of Kidney Diseases, vol. 75, no. 2, Article 214–222. https://doi.org/10.1053/j.ajkd.2020.03.012 **International Diabetes Federation. (2021).** IDF Diabetes Atlas, 10th edition. Retrieved from IDF.

Luyckx, V. A., Smyth, B., Harris, D. C. H., & Pecoits-Filho, R. (2020). Dialysis funding, eligibility, procurement, and protocols in low- and middle-income settings: results from the International Society of Nephrology collection survey. Kidney international supplements, 10(1), e10–e18. https://doi.org/10.1016/j.kisu.2019.11.005

Mahmoud, M. R., Aljadani, A., Razzak Mahmood, A. A., Alshammari, R. F., Shahien, M. M., Ibrahim, S., ... & Saleh, A. M. (2024, October). Anxiety and depression among patients with diabetes in Saudi Arabia and Egypt. In Healthcare (Vol. 12, No. 21, p. 2159). MDPI.

Metwally, A. M., Soliman, M., Abdelmohsen, A. M., Kandeel, W. A., Saber, M., Elmosalami, D. M., ... & Fathy, A. M. (2019). Effect of counteracting lifestyle barriers through health education in Egyptian type 2 diabetic patients. Open Access Macedonian Journal of Medical Sciences, 7(17), 2886.

Mosleh, M., Al-Hasan, R., & Ahmad, M. (2022). Psychological distress and quality of life in patients with diabetes on dialysis: A review. Nephrology Nursing Journal, 49(1), 29-36. https://doi.org/10.1111/neph.12847

Saleh, M., Alharbi, T., & Alnashmi, F. (2021). Diabetes types and their relationship with kidney disease among dialysis patients in Saudi Arabia. Saudi Journal of Nephrology, vol. 16, no. 2, Article 129–136. Tang, S. C., Yiu, W. H., & Lai, K. N. (2022). Diabetic kidney disease: Pathogenesis and novel therapeutics. Nature Reviews Nephrology, 18(3), 190-204. https://doi.org/10.1038/s41581-021-00518-4

Wang, X., Huang, W., & Liu, Y. (2021). Long-term complications and quality of life in chronic ESRD patients. Nephrology Reports, 9(2), 123-132. https://doi.org/10.1016/j.nephr.2021.01.014

Yang, X., & Wang, F. (2023). The impact of diabetes on dialysis patients: Outcomes and management strategies. Journal of Nephrology Nursing, 15(1), 15-27. https://doi.org/10.1007/s12561-023-00743-1

Zhao, L., Chen, M., & Wang, X. (2023). Co-occurrence of anxiety and depression in patients with chronic illnesses: A review of psychological comorbidity and its effects on health outcomes. Journal of Chronic Illness & Mental Health, vol. 18, no. 2, Article 112–120. Zheng, Y., Ley, S. H., & Hu, F. B. (2022). Global aetiology and epidemiology of type 2 diabetes mellitus and its complications. Nature Reviews Endocrinology, 18(2), 88-98. https://doi.org/10.1038/s41574-021-00535-6