

Depression as Related to Quality of Life Andsocial Support among Patients with Diabetes

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ABSTRACT

The aim of the present study was to explore the relationship among depression, social support, and quality of life in 59 diabetic patients (Males= 25, Females= 34) visiting different hospitals in Sialkot and Gujranwala. The sample was selected by purposive sampling technique. Three standardized tools; Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet& Farley, 1988), Quality of Life Scale (WHO, 1991) and depression items from Depression, Anxiety and Stress Scale (Lovibond & Lovibond, 1995) were used in the present study to collect the data. The results indicated that there is a significant negative relationship among depression, social support, and quality of life in diabetic patients. Moreover, the relationship of socio-demographic variables of diabetic patients was also explored with the level of depression, quality of life and social support. Implications of the findings were discussed.

Key words: Mental Health, Social Network, Quality of Life, Diabetes

INTRODUCTION

Depression is a common psychiatric illness with prominent chronic or recurrent symptoms of absence of interest or pleasure, presence of guilt or reduced feelings of self-esteem and energy level, increased or decreased sleep or appetite, poor memory and concentration. It eventually led to individual's low ability to take care of his or her everyday responsibilities and may result in suicide (American Psychiatric Association, 2000). The depressive symptomology is a consequence of the maladaptive or faulty cognitive and thinking patterns (Beck, Steer, Bell, & Ranieri, 1996). Diabetes and depression has been co orbit disorders and are more prevalent in clinical patients as compared to healthy individuals (Eaton, 2002; Lust man et al., 2000). Although the etiology of causal relationship between depression and diabetes is not clear (Jack et al., 2004) but diagnosis of diabetes has been thought to increase the risk of depression rate from 15 to 40% (Harris, 2003).

Diabetes is a chronic illness of endocrine glands requiring regular medical care, education and skill to manage patient's condition of irregular in glucose metabolism due to the hormone insulin. It has havoc influence on quality of life for those suffering (Gonder-Frederick, Cox & Ritter band, 2002). Diabetes might lead to secondary diseases like coronary, kidney, and dental diseases; stroke, hypertension; blindness; nerve damage, amputations; pregnancy complications, impaired recovery from illness, and diabetic ketoacidosis and hyperosmolar nonketotic coma that can cause death (Centers for Disease Control and Prevention, 2008).

Depression has being considered a crucial factor that contribute to the decrease in the quality of life by taking out the pleasures and contentment derived from routine life activities in diabetics as its management is stressful, difficult and exhaustive. On one hand some symptoms of depression may give rise to metabolic imbalances that may result in the development of diabetes. As for instance,i) overeating may cause weight gain which in turn is

considered a contributing factor for occurrence of diabetes, ii) fatigue or feelings of worthlessness can induce reluctant to focus on monitoring of diet and medication required to manage diabetes. On other hand, the symptoms of diabetics' metabolic imbalances with depression are severe as compared to those who have diabetes alone (National Institute of Mental Health, 2011).

The physical symptoms along with sadness in depressed olds are severe than the younger people with depression (Seely, Rohde, Lewinsohn & Clarke, 2002; Baldwin, 2008). Women in clinical and community sample have high frequency of depression as compared with men (Nolen-Hoeksema, 1987; Dean, Kolody & Wood, 1990; Lead beater et al., 1995, 2002). Highly educated married people with high earning have no depression (Jokela & Keltikangas-Jarvinen, 2011) than never-married people with low socioeconomic status (Frey & Stutzer, 2002; Lorant et al., 2003; Marks & Lambert, 1998; Ross, 1995; Lee, DeMaris, Bavin & Sullivan, 2001).

The people with diabetes have worse quality of life than people in residing in the community (Finkelstein et al., 2003). Diabetes has a strong effect on quality of life in terms of social, physical and psychological well-being. Quality of life ranged from human experiences started with the basic needs e.g., food and place to live, to the extreme end of meanings in life, a sense of fulfillment and satisfaction (Hornquist, 1982). Quality of life is a complex construct that included person's physical health, psychological states, personal belief, social relationships and their relationship to salient features of the environment (Polonsky, 2000). It has been defined by (WHO, 2010) as peoples' understanding of the status in life in line with cultural values and its relatedness to their aims and criterions. Quality of life is a crucial outcome measure for chronic disease management as for instance in diabetic disorders. The factors associated with self-care and adherence to treatment has an important impact on effective working of the treatment plan and is correlated with quality of life (Nagpal, Kumar, Kakar, Bhartia, 2010).

Diabetes health related quality of life has focused on the influence of disorder on the person's psychological, physical and social wellness. That is the impact diabetes has on the individual, resulting in anxiety, stress and dissatisfaction with themselves and the dietary control (Patrick & Chiang, 2000; Bradley, Todd, Gorton, Symonds, Martin, & Plow right, 1999; Wilson & Cleary, 1995). According to (Polonsky, 2000) in diabetes, coping styles, satisfaction with the treatment regimen and self-efficacy are important in determining the quality of life.

Peoples' demographic variables such as socioeconomic status, gender, age, marital status, are crucial for sound physical and mental health (Ostrove, Feldman & Adler, 1999; Eaton, Muntaner, Bovasso and Smith, 2001). Younger people led better quality of life as compared to older people. Moreover, with more education and income, there is a better quality of life than those with less education and income (Glasgow, Dryfoo & Ruggiero et al., 1997; Rubin & Peyrot, 1999; Dunning, 2003). Among all socio-demographic variables, income, education, and occupation are more important factors that have contributed to the health of people (Lynch et al., 2000; Mustard et al., 1997; Bassuk et al., 2002; Marmot, 2004). However, the relationship of income and health status is relatively unclear in developing countries. Married lived life with higher quality as compared to unmarried (Glenn & Weaver, 1981; Bernard, 1982). Social support is related with one's social network (Lin, Simeone, Ensel & Kuo, 1979). Depression and social support are connected because proximal stressors in the social environment might contribute to the onset and continuance of depression in adults. High level of depression have been found in people who report feelings of isolation over the previous twelve months and being unable to socialize with friends and family (Hartsell, 2005; Gallo, Rabins & Anthony, 1999; Giblin, Clare, Livingston & Howard, 2004; Payne, 2006).

According to (Gottlieb, 2000) social support is the process of interactive and reciprocal exchange of physical and psychological resources in relationships which resulted in good coping and belongingness to a group by having a contact with similar and valued peers. People's family attachments, social network, and contacts are related to social support (Vaux, 1988) that resulted in the fulfillments of the basic social needs of belongingness, security and safety, love, affection, self-esteem, acceptance, and identity (Thoits, 1982). However, family support for diabetes has been necessary for adolescents to manage their disease as they have showed better metabolic control as compared to people without social support (Culos-Reed, Rejeski, McAuley, Ockene & Roter, 2000). Low social support from friends and family is considered an obstacle in self-care and long-term management of glucose control, thereby worsen the disease (Glasgow, Strycker, Toobert & Eakin, 2000; Monroe, 1983; Slavin & Rainer, 1990) because in stress-buffering model social support acted as a mediator between stressful life events and depression (Windle, 1992). Social support is the reinforcement one gets from the members of the family, spouse and friends. Since diabetes is not curable but is a manageable disease therefore it requires self management strategies for its monitoring control on behalf of the patients who in turn can be helped from their family members. So, perceived social support strengthened the patient's ability to cope better with stressful events especially related with diabetes and its management in their living environment by affecting patient's adherence to diet, exercise, and medicines (Fisher et al, 2000) and thus enhance patients' well-being (Adams & Blieszner, 1989).

The studies on gender differences and social support have focused on the differences in the amount and types of social support they have got and it has been observed that women have received high social support as compared to the men (Moore, 1990; Waite & Harrison, 1992; Turner & Marino, 1994). Married men and women have the highest levels of support and are less distressed than the unmarried (Ensel, 1986; Ross & Mirowsky, 1989). However, some researchers have found no difference in the level of support between married and unmarried people (Stueve & Gerson, 1977; Norbeck, 1985).

Keeping in view a dynamic relationship among depression, support, and quality of life with a reciprocal impact of socio-demographic variables, the objectives of the present study are:

1. To investigate the relationship among depression, support, and quality of life among diabetics.
2. To explore the relationship of demographic variables (i.e. age, gender, education and SES) with social support, quality of life and depression among diabetics.

The hypotheses of the research are stated below:

1. There will be a negative relationship of depression with social support and quality of life among diabetes patients.
2. Males will have high perceived social support and high perceived quality of life as compared to female diabetic patients.
3. Females will have high level of depression as compared to male diabetic patients.
4. Educated patients, living in urban areas and are married will score high on social support and quality of life and low on depression as compared to uneducated patients, living in rural areas, and are unmarried diabetics.
5. Diabetics with financial problems, having other physical and psychological illnesses will have high depression level and low on social support and quality of

life as compared to diabetics without financial problems, physical and psychological illness.

6. Young people with high socioeconomic status will have low level of depression and high level of social support and quality of life as compared to old people with low socioeconomic status.

Rationale of the Study

The present study was conducted to demonstrate empirical relationship of depression with the social support and quality of life among diabetes patients. This study helped to understand how crucial social support is to increase the quality of life of diabetes patients and it is important in decreasing depression. In Pakistan (2000), the prevalence of diabetes was 5,217,000 and according to a precise estimation, in 2030 it has been predicted to be 3,853,000 (WHO Eastern Mediterranean Region, 2010). In 2000, depressive disorder was higher in women than men and it is considered to be the fourth cause of disability in women and ranked seventh in men as occurred in developed and underdeveloped countries. Worldwide 220 million people are diabetic, with 80% prevalence rate in developing countries and consequently contributed to 5% of deaths (WHO, 2012). In Pakistan, the age range for a large number of adults with diabetes is between 45 and 64 years old, whereas in developed countries the adults with diabetes are above 65 years (WHO, 2008). In Pakistan, level of awareness for high rate of depression and diabetes co morbidity in both physicians and patients along with other community people level has been observed to be very low. The finding of the present study are useful for the Health Department to introduce the concept of counseling that would help diabetes patients to improve their life style by increasing their level of awareness for importance of physical activity and for professional dietetic health care.

METHOD

Research Design

The correlation research design was used to explore the relationship between social support, quality of life and depression among diabetic patients.

Sample

The sample of the present study consisted on diabetes clinical patients (n=59). 25 male diabetes patients and 34 female diabetes patients were included in the sample from urban and rural areas participated in this research. Age range of the sample will be 18 to 60 years. Purposive sampling technique was used with inclusion criteria of patients either diagnosed with type I or type II diabetes.

Instruments

In the present study, three standardized scales with adequate reliability and validity were used, namely: (1) Multidimensional Scale of Perceived Social Support, comprised of 12 items on 5 point likert type, developed by Zimet, Dahlem, Zimet, and Farley (1988) was used to identify the social support perceived by the diabetics received from their family, friends, and significant others. (2) WHO Quality of Life Scale (WHOQOL-BREF, 1996) 26 items, 5 point likert type, assessed diabetic's perceptions about their position in life, in relation to their goals, expectations, and standards. (3) Depression, Anxiety, and Stress (DASS) measured depression among diabetics by fourteen items on a four point likert type which are 3, 5, 10, 13, 16, 17, 21, 24, 26, 31, 34, 37, 38, 42 as developed by Lovibond and Lovibond (1995).

Procedure

Diabetes clinical patients were selected from different hospitals such as The Civil Hospital (Daska, Sialkot), The Family Hospital (Daska, Sialkot), The Civil Hospital (Gujranwala) and The Gondal Medical Complex (Gujranwala). Permission was taken from heads of these hospitals. Diabetes Patients were easily available there. The aim, importance and significance of this research work were told to the diabetes patients very carefully. They were assured that their data and personal information would not be exposed to the others and their data would be used for research work only. First informed consent form was given to diabetes patient for his/her participation. Then demographic information sheet was given for demographic information of diabetes patient. Questionnaires were delivered to diabetes patients after getting demographic sheet. They felt no hesitation and worries while solving the questionnaires. However, structured instructions were given to uneducated diabetics for their understanding. The questionnaires were taken back from diabetes patients in time. Data was collected in individual setting. Mostly diabetes patients participated in research with open heart. Each diabetes Patient takes 15-20 minutes to complete questionnaire.

RESULTS

The results of the present study are given below:

Table 1. Frequency and percentage of demographics among diabetes patients (N= 59)

<i>Demographic variables</i>	<i>Categories</i>	<i>Frequency</i>	<i>Percentage</i>
Gender of diabetes patients	Male	25	41
	Female	34	56
Age	Adolescences	5	8
	Adults	23	38
	Old age	31	51
Duration of Diabetes years	5years	28	46
	10years	19	31
	15years	12	20
Education	Educated	43	71
	Uneducated	16	26
Income	Low	16	26
	Moderate	31	51
Residential status	High	12	20
	Rural	30	50
Marital status	Urban	29	48
	Married	50	83
Financial problem	Unmarried	9	15
	Yes	17	28
Socio-economic status	No	42	70
	Low	16	26
	Middle	31	51
Previous history of physical illness	High	12	20
	Yes	21	35
Previous history of psychological illness	No	38	63
	Yes	12	20
	No	47	78

Table 1 indicates that in diabetes patients, there are 41% male and 56% female. The age-range of diabetes patients 8% are adolescences in 18-23 years, 38% adults in 24-32 years, 51% old in 32-60 years. The duration of diabetes 46% are five years old, 31% are ten years old, 20% are fifteen years old. 71% diabetes patients are educated and 26% diabetes patients are uneducated. The income of diabetes patients: 26% fall in low income category, 51% fall in moderate and 20% were in high income category. 50% diabetes patients belonged to rural areas and 48% diabetes patients to urban areas. 83% diabetes patients are married and only 15% diabetes patients are unmarried. 28% diabetes patients have financial problems and 70% are without financial problems. Socio-economic status of diabetes 26% fall in low class, 51% fall in middle class and 20% fall in high class. 35% of diabetes patients have previous history of physical illness and 63% diabetes patients have no previous history of physical illness. 20% of diabetes patients have previous history of psychological illness and 78% have no previous history of psychological illness.

Table 2. Correlations among Social support, Quality of life, and Depression in diabetes patients (N=59)

Variables	1	2	3	4	5	6	7	8	9
1 Friends support	-								
2 Family support	.11	-							
3 Significant others	.36**	.36**	-						
4 Social Support	.74**	.63**	.79**	-					
5 Physical quality of life	.30*	.24	.22	.35**	-				
6 Psychological QOL	.33**	.20	.23	.36**	.50**	-			
7 Level of independence	.25	.15	.47**	.41**	.25*	.35**	-		
8 Social quality of life	.43**	.39**	.39**	.56**	.52**	.41**	.39**	-	
9 Quality of life	.46**	.35**	.43**	.58**	.74**	.73**	.62**	.84**	-
10 Depression	-.35**	-.23	-.35**	-.44**	-.15	-.23	-.16	-.33**	-.33**

* $p < .05$; ** $p < .001$

Table 2 indicates that friends support has significant positive correlation with significant others ($r = .36$), social support ($r = .74$), physical quality of life ($r = .30$), psychological quality of life ($r = .33$), social quality of life ($r = .43$), quality of life ($r = .46$). Friends support has non-significant correlation with family support ($r = .11$), and level of independence ($r = .25$) and has significant negative correlation with depression ($r = -.35$). Family support has significant positive correlation with significant others ($r = .36$), social support ($r = .63$), social quality of life ($r = .89$) and quality of life ($r = .35$). Family support has non-significant correlation with physical ($r = .24$), and psychological quality of life ($r = .20$) and level of independence ($r = .15$) and has negative correlation with depression ($r = .23$). Significant others support has significant positive correlation with social support ($r = .79$), level of independence ($r = .47$), social quality of life ($r = .39$), quality of life ($r = .43$) and has significant negative correlation

with depression ($r = -.35$). Significant others has non-significant correlation with physical quality of life ($r = .22$), psychological quality of life ($r = .23$). Social support has significant positive correlation with physical quality of life ($r = .35$), psychological quality of life ($r = .36$) level of independence ($r = .41$), social quality of life ($r = .56$) and quality of life ($r = .58$). Social support has significant negative correlation with depression ($r = -.44$).

Physical quality of life has significant positive correlation with psychological quality of life ($r = .50$), level of independence ($r = .25$), social quality of life ($r = .52$) and quality of life ($r = .74$) and has negative correlation with depression ($r = -.15$). Psychological quality of life has significant positive correlation with level of independence ($r = .35$), social quality of life ($r = .41$), quality of life ($r = .73$) and has non-significant correlation with depression ($r = -.23$). Level of independence has significant positive correlation with social quality of life ($r = .39$) and quality of life ($r = .62$). Level of independence has negative correlation with depression ($r = -.16$). Social quality of life has significant positive correlation with quality of life ($r = .84$) and has significant negative correlation with depression ($r = -.33$).

Table 3. Mean, Standard Deviation and t-value on Social Support, Quality of life, and Depression for male and female diabetes patients (N= 59)

Scales	Variables	Male (25)		Female (34)		t(57)	P
		M	SD	M	SD		
Social Support	Friends support	11.02	3.5	6.52	3.58	3.6	.00
	Family support	11.86	2.87	9.58	2.89	1.8	.07
	Significant others	10.90	3.66	9.50	2.93	1.51	.13
	Social support	33.78	8.21	25.61	5.89	3.42	.00
Quality of Life	Physical quality of life	18.04	3.71	15.88	3.15	1.92	.05
	Psychological QOL	16.22	3.19	14.91	3.19	1.53	.13
	Level of independence	9.00	3.52	8.14	2.61	1.36	.17
	Social quality of life	20.20	4.83	16.82	4.20	2.89	.00
	Quality of Life	67.48	12.20	58.91	10.84	2.84	.00
Depression Anxiety, Stress Scale	Depression	21.56	5.88	24.02	5.41	1.66	.10

* $p < .05$

Table 3 indicates that Males were significantly high on friends support ($M = 10.02$, $SD = 3.5$), multidimensional scale of perceived social support ($M = 30.78$, $SD = 8.21$), physical quality of life ($M = 18.04$, $SD = 3.71$), social quality of life ($M = 20.24$, $SD = 4.83$), and quality of life ($M = 67.48$, $SD = 12.20$) as compare to females. The results have showed that there are insignificant difference on family and significant other support, psychological quality of life, level of independence and depression.

Table 4. Mean, Standard Deviation and t-value on Social support, Quality of life, and Depression for educated and uneducated diabetes patients (N=59)

Scales	Variables	Educated diabetes Patients (n=43)		Uneducated diabetes patients (n=16)		t(57)	p
		M	SD	M	SD		
Social Support	Friends support	8.83	3.34	5.62	4.24	3.04	.00
	Family support	10.72	2.97	8.68	2.35	2.46	.01
	Significant others	10.69	3.30	8.31	2.65	2.58	.01
	Social support	30.25	6.65	22.62	6.15	3.99	.00
Quality of Life	Physical quality of life	17.02	3.76	15.62	2.39	1.38	.17
	Psychological QOL	15.88	3.28	14.18	2.63	1.85	.06
	Level of independence	8.90	3.30	7.812	2.16	1.22	.22
	Social quality of life	18.88	5.13	16.62	3.09	1.64	.10
	Quality of life	64.55	12.88	57.12	7.75	2.16	.03
Depression Stress Scale	Anxiety, Depression	21.83	5.78	26.06	4.26	2.65	.01

*p < .05

In table 4 Educated diabetes patients were significantly high on friends support ($M = 8.83$, $SD = 3.34$), family support ($M = 10.72$, $SD = 2.97$), significant others ($M = 10.69$, $SD = 3.30$), social support ($M = 30.25$, $SD = 6.65$), quality of life ($M = 64.55$, $SD = 12.88$) and depression ($M = 21.83$, $SD = 5.78$) than uneducated diabetes patients. The results are insignificant on physical quality of life, psychological quality of life, level of independence and social quality of life.

Table 5. Mean, Standard Deviation and t-value on Social support, Quality of life, and Depression for rural and urban diabetes patients (N=59)

Scales	Variables	Rural diabetes patients (n=30)		Urban diabetes patients (n=29)		t(57)	P
		M	SD	M	SD		
Social Support	Friends support	6.73	3.97	9.24	3.32	2.62	.01
	Family support	9.46	2.90	10.89	2.84	1.90	.06
	Significant others	8.70	3.21	11.44	2.79	3.49	.00
	Social support	24.90	6.77	31.58	6.30	3.92	.00
Quality of Life	Physical quality of life	15.90	3.10	17.41	3.73	1.69	.09
	Psychological QOL	14.26	2.95	16.62	3.01	3.02	.00
	Level of independence	8.13	3.19	9.10	2.88	1.22	.22
	Social quality of life	16.20	4.27	20.41	4.30	3.77	.00
	Quality of life	57.83	10.72	67.41	11.69	3.28	.00
Depression Anxiety, Stress Scale	Depression	24.80	4.58	21.10	6.19	2.61	.01

*p < .05

Table 5 shows that urban diabetes patients are significantly high on friends support ($M = 9.24, SD = 3.32$), significant other support ($M = 11.44, SD = 2.79$), social support ($M = 31.58, SD = 6.30$), psychological quality of life ($M = 16.62, SD = 3.01$), social quality of life ($M = 20.41, SD = 4.30$) and quality of life ($M = 67.41, SD = 11.69$). The rural diabetes patients are significantly high on depression ($M = 24.80, SD = 4.58$). The results are insignificant on family support, physical quality of life and level of independence.

Table 6. Mean, Standard Deviation and t-value on Social support, Quality of life, and Depression for married and unmarried diabetes patients (N=59)

Scales	Variables	Married (n=50)		Unmarried (n=9)		t(57)	P
		M	SD	M	SD		
Social Support	Friends support	7.68	4.05	9.55	1.81	1.35	.18
	Family support	10.34	3.01	9.22	2.43	1.05	.29
	Significant others	9.84	3.37	11.22	2.72	1.16	.25
	Social support	27.86	7.55	30.00	5.83	.80	.42
Quality of Life	Physical quality of life	16.84	3.51	15.55	3.24	1.01	.31
	Psychological QOL	15.50	3.32	15.00	2.39	.43	.66
	Level of independence	7.86	2.07	12.77	4.29	5.42	.00
	Social quality of life	18.06	4.71	19.44	5.07	.80	.42
	Quality of life	61.74	11.94	67.00	12.84	1.20	.23
Depression, Anxiety, Stress Scale	Depression	23.06	5.74	22.55	5.79	.24	.80

* $p < .05$

In Table 6 results show Unmarried diabetes patients were significantly high on Level of independence ($M = 12.77, SD = 4.29$) as compare to married diabetes patients. The results are insignificant on friends support, family support, significant other support, social support, physical quality of life, psychological quality of life, social quality of life, quality of life and depression.

Table 7. Mean, Standard Deviation and t-value on Social support, Quality of life, Depression, for financial problems of diabetes patients (N=59)

Scales	Variables	With Financial problems (n=17)		Without Financial problems (n=42)		t(57)	p
		M	SD	M	SD		
Social Support	Friends support	6.88	4.53	8.40	3.49	1.38	.17
	Family support	9.70	2.20	10.35	3.19	.76	.44
	Significant others	8.64	3.21	10.61	3.19	2.14	.03
	Social support	25.23	7.41	29.38	7.01	2.02	.04
Quality of Life	Physical quality of life	16.76	3.54	16.59	3.49	.16	.86
	Psychological QOL	15.11	3.38	15.54	3.14	.46	.64
	Level of independence	8.41	3.55	8.69	2.87	.31	.75
	Social quality of life	16.76	5.20	18.88	4.48	1.56	.12
	Quality of life	60.47	15.19	63.38	10.72	.83	.40
Depression Anxiety, Stress Scale	Depression	25.17	5.73	22.09	5.51	1.92	.06

* $p < .05$

In table 7 results indicate that Financial problems were significantly high on without financial problems in significant others ($M = 10.61, SD = 3.19$) and social support ($M= 29.38, SD = 7.01$) as compare to with financial problems. The results are insignificant on friends support, family support, physical and psychological quality of life, level of independence, social quality of life, quality of life and depression.

Table 8. Mean, Standard Deviation and t-value on Social support, Quality of life, Depression, for physical illness of diabetes patients (N=59)

Scales	Variables	With Physical illness (n=21)		Without Physical illness (n=38)		t(57)	p
		M	SD	M	SD		
Social Support	Friends support	7.57	4.01	8.18	3.79	.58	.56
	Family support	10.52	2.87	9.97	2.99	.68	.49
	Significant others	9.47	3.28	10.36	3.30	.99	.32
	Social support	27.57	6.74	28.52	7.67	.47	.63
Quality of Life	Physical quality of life	16.61	3.69	16.65	3.41	.04	.96
	Psychological QOL	15.71	3.50	15.26	3.03	.51	.60
	Level of independence	8.28	2.39	8.78	3.38	.60	.54
	Social quality of life	18.04	5.21	18.39	4.55	.26	.79
	Quality of life	62.14	13.04	62.76	11.75	.18	.85
Depression Stress Scale	Anxiety, Depression	23.23	5.98	22.84	5.62	.25	.80

* $p < .05$

In table 8 the results are insignificant on with physical illness and without physical illness.

Table 9. Mean, Standard Deviation and t-value on Social support, Quality of life, Depression, for psychological illness of diabetes patients (N=59)

Scales	Variables	With Psychological illness (n=12)		Without Psychological illness (n=47)		t(57)	p
		M	SD	M	SD		
Social Support	Friends support	7.91	3.44	7.97	3.98	.04	.96
	Family support	9.66	3.96	10.29	2.66	.66	.51
	Significant others	10.16	2.75	10.02	3.44	.13	.89
	Social support	27.75	7.48	28.29	7.35	.23	.81
Quality of Life	Physical quality of life	16.00	1.95	16.80	3.77	.71	.47
	Psychological QOL	15.00	3.30	15.53	3.18	.51	.61
	Level of independence	8.00	2.00	8.76	3.27	.77	.44
	Social quality of life	17.25	3.22	18.53	5.06	.83	.40
	Quality of life	59.83	8.69	63.23	12.83	.86	.39
Depression Stress Scale	Anxiety, Depression	25.00	4.34	22.46	5.93	1.38	.17

* $p < .05$

In table 9 the results are insignificant on with psychological illness and without psychological illness.

Table 10. Mean, Standard Deviation and ANOVA on Social support, Quality of life, Depression for age-rang of diabetes patients (N=59)

Scales	Variables	Adolescences (n= 5)		Adults (n= 23)		Old age (n= 31)		F	P
		M	SD	M	SD	M	SD		
Social Support	Friends support	10.20	.83	7.73	3.53	7.77	4.30	.91	.40
	Family support	10.80	.83	10.39	3.14	9.90	3.03	.30	.74
	Significant others	13.00	2.12	10.52	3.17	9.22	3.27	3.47	.03
	Social support	34.00	2.73	28.65	6.56	26.90	7.95	2.18	.12
Quality of Life	Physical quality of life	15.00	2.54	16.60	4.09	16.93	3.11	.65	.52
	Psychological QOL	16.00	2.23	15.82	3.31	15.03	3.26	.48	.61
	Level of independence	15.20	1.30	8.17	2.55	7.87	2.26	21.9	.00
	Social quality of life	21.00	6.28	18.04	4.19	18.00	4.91	.89	.41
	Quality of life	71.80	10.40	62.30	10.76	61.22	12.97	1.68	.19
Depression Anxiety, Stress Scale	Depression	22.20	7.36	22.26	4.61	23.64	6.25	.43	.65

Table 10 indicates that adolescence diabetes patients are significantly high in significant others ($M= 13.00$, $SD = 2.12$) and level of independence ($M = 15.20$, $SD = 1.30$) than adults and old diabetes patients. The results are insignificant on friends support, family support, social support, physical quality of life, psychological quality of life, social quality of life, quality of life and depression.

Table 11. Mean, Standard Deviation and ANOVA on Social support, Quality of life, Depression for socio-economic status of diabetes patients (N=59)

Scales	Variables/subscales	Low (n= 16)		Middle (n= 31)		High (n= 12)		F	p
		M	SD	M	SD	M	SD		
Social Support	Friends support	7.37	4.75	7.77	3.60	9.25	3.07	.89	.41
	Family support	9.56	2.15	10.61	2.95	9.83	3.78	.76	.47
	Significant others	8.87	2.98	10.06	3.53	11.58	2.57	2.42	.05
	Social support	25.81	7.44	28.45	7.57	30.66	5.91	1.58	.21
Quality of Life	Physical quality of life	17.43	3.32	15.67	2.94	18.08	4.39	2.79	.05
	Psychological QOL	15.68	3.17	15.12	3.18	15.83	3.43	.27	.75
	Level of independence	8.87	3.38	8.45	2.98	8.66	3.02	.10	.90
	Social quality of life	17.68	4.31	17.93	4.89	19.91	4.98	.91	.40
	Quality of life	63.43	13.40	60.64	11.26	66.25	12.52	.98	.38
Depression Anxiety, Stress Scale	Depression	24.56	6.58	23.09	5.47	20.58	4.56	1.72	.18

* $p < .05$

Table 11 indicates that high socio-economic status are significantly high on significant others ($M= 11.58$, $SD= 2.57$) and physical quality of life ($M= 18.08$, $SD= 4.39$) as compare to low socio economic status and middle socio economic. The results are insignificant on family, friends, and social support, psychological and social quality of life, level of independence, quality of life and depression.

CONCLUSIONS

The first hypothesis was about a negative relationship among social support, quality of life and depression among diabetes patients and results showed significant differences (see table 2). The correlation among the stated variables is significantly negative which indicated that diabetics with low level of depression have high level of social support and quality of life (Rubin & Peyrot, 1999; Snoek, 2000) among diabetics.

The results (see table 3) have shown that male diabetic patients have more social support, and better quality of life whereas females have low social support and low quality of life. However, there are no significant differences in the level of depression between males and females.

The results (see tables 4, 5, and 6) of fourth hypothesis have supported that educated patients, living in urban areas have score high on social support and quality of life and low on depression as compared to uneducated patients, living in rural areas. Therefore, educated and uneducated diabetics residing in urban and rural areas showed significant difference in social support depression and quality of life. However for marital status, the results are insignificant on social support, quality of life and depression among diabetics, contrary to the research findings which stated that married received more support, have better quality of life and low depression as compared to unmarried diabetics.

The results (see table 7, 8, and 9) of the present have not confirmed the fifth hypothesis of the research. Social support was high for diabetics without financial problems and there is insignificant difference in the level for quality of life and depression between diabetics with and without financial problems. The results are insignificant for the level of depression, social support, and quality of life among diabetics with and without the presence or history of physical illnesses and psychological disorders.

The results (see table 10 and 11) of the present have not confirmed the sixth hypothesis which implied that young people with high socioeconomic status will have low level of depression and high level of social support and quality of life as compared to old people with low socioeconomic status. The findings are contrary to the previous researches. All the age groups and socio-economic statuses in the present study have shown insignificant differences on social support, quality of life and depression among diabetic patients.

LIMITATIONS AND SUGGESTIONS

These were following limitations faced by the researchers in conducting research. The sample size of 59 respondents was small and not sufficient to generalize the finding of present research for the whole population. There was lack of books and journals in library related to research topic. Time was too short to reveal deeper analysis of the results.

The study might be improved by allowing more time span for the research, long enough to allow the researchers to explore diabetic patients more extensively. Study should be cross sectional with large sample size to generalize the results. A comparison of type I and type II diabetic patient should be done in further researches.

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