QUALITY OF LIFE OF PATIENTS WITH DIABETES MELLITUS — SOCIAL DOMAIN OF HEALTH

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Abstract: Introduction: Diabetes mellitus is a chronic disease that affects the quality of peoples' lives through a number of psychological, emotional, social and psychosexual problems.

Objective: Assess social domain of quality of life among a sample of diabetic patients and determine its association with the socio-demographic variables.

Methods: In a survey conducted at the Clinical Center Banja Luka from October 2011 until June 2012 year, were included 150 patients with diabetes mellitus and 150 patients with hyperthyroidism. To assess quality of life, were used the questionnaire of the World Health Organization (WHOQOL-BREF).

Results: In patients with diabetes mellitus compared to the control group, with statistical significant difference ($t = -3.304$; $p < 0.001$) social domain was reduced. Patients with diabetes mellitus, with statistically significant difference ($U = 4603.5$, $p < 0.001$) were more dissatisfied with sex life. With personal relationships and with the support they received from their friends were "satisfied" 68.0% and 62.0% and "very satisfied" 14.0% and 11.3% of those with diabetes mellitus, without statistically significant difference ($p > 0.05$) compared to control group. In higher percent with the support they received from friends were satisfied respondents who were married (67%) than those who were single (40.0%), ($p = 0.055$).

Conclusion: Most of the patients with diabetes mellitus were satisfied with their personal relationships and with social support that they got from their friends without difference by gender, age and level of education. Patients with diabetes were less satisfied with their sex life.

Keywords: diabetes mellitus, quality of life, social domain.

INTRODUCTION

Diabetes mellitus is a chronic disease which can cause a number of psychological, emotional, social and

psychosexual problems and conflicts (1) and as a chronic disease affects the quality of life of the people.

According to the World Health Organization (WHO) quality of life is a broad ranging concept incorporating in a complex way the persons' physical health, psychological state, level of independence, social relationships, personal beliefs and their relationships to salient features of the environment (2).

Chronic illness self-management does not occur in a vacuum but rather in a context that includes formal health care providers, informal social network members (friends and family, peers), and the physical environment (e.g. housing) (3).

Family involvement has a key role in the management of diabetes, with little or no support being associated with the lack of adherence to medication regimens and diabetes care behaviors (4).

The second Diabetes Attitudes, Wishes and Needs (DAWN2) study confirmed that family support is available for most people with diabetes in all countries, while support from the broader community is scarce. Social problems are underlined by the high proportion of individuals discriminated against because of their diabetes (5).

Most theories of health behavior change required for diabetes self-care performance include a social support component (6, 7), and family members are considered a significant source of social support for adults with diabetes (8, 9). Family members can have a positive and/or negative impact on the health of people with diabetes, interfere with or facilitate self-care activities (e.g., by buying groceries or refilling a prescription), and contribute to or buffer the deleterious effects of stress on glycemic control (10). Although family members can provide many kinds of social support (e.g., emotional, informational, and appraisal support), instrumental support (i.e., observable actions that make

it possible or easier for an individual to perform healthy behaviors) has been most strongly associated with adherence to self-care behaviors across chronic diseases (11).

In patients with diabetes mellitus social relationships may be severely affected. Adjustment to the disease is often accompanied by a variety of negative emotional responses, including anger, guilt, frustration, denial, and loneliness. The mere presence of diabetes mellitus can affect the quantity and quality of a patient's relationships. As patients begin to institute changes in daily habits in order to manage diabetes most effectively, loved ones may begin to rebel choosing not to participate in any necessary changes or actively sabotaging any and all self-care efforts. Alternatively, friends or family members may begin to push for self-care changes even when the patient is unwilling to make them (12).

The relationships that diabetics have with family members, colleagues at their workplace, or groups of friends, is a critical factor in improving the patient's sense of wellbeing, and leads to more effective self-management of diabetes. People without such networks of support, especially those living alone, are not likely to manage their diabetes as effectively (13).

Important aspect of quality of life is sexuality. Sexual dysfunction can put a high psychological burden on patients with diabetes, and it can have a negative impact on marital relations already burdened by the presence of a chronic illness (14). Well-established complication of diabetes in men is erectile dysfunction. The results of a study conducted in Italy which included 1,460 patients with type 2 diabetes revealed that 34% of the patients reported frequent erectile problems, 24% reported occasional problems (15). Erectile dysfunction has deleterious effect on relationships, self-esteem and quality of life (16). Enzlin and associates revealed that women with diabetes are at increased risk for sexual problems (14). Newman and Bertelson's study revealed that 47% of participating women reported sexual dysfunction (17). The most common sexual dysfunction in women with diabetes is decreased sexual arousal with slow and/or inadequate lubrication and more pain on sexual intercourse (18, 14).

In either case, it is easy to begin feeling alone with diabetes, feeling different and unsupported, and believing that no one can understand what living with diabetes is really like (12).

Social support affects the quality of life of patients with diabetes mellitus and may affect the patient's commitment to active self-control of diabetes, therefore social support is very important in improving self-control as well as quality of lives of people with diabetes mellitus. Social support of family, friends,

community and society is extremely important for people with this disease to better manage diabetes mellitus and maintain long-term health and well-being.

We hypothesized that mean score would be significantly lower for the social domain of quality of life of patients with diabetes mellitus compared to patients with hyperthyreosis.

OBJECTIVE

Assess social domain of quality of life among a sample of diabetic patients and determine its association with the socio-demographic variables.

MATERIALS AND METHODS

The study was carried out between October 2011 and June 2012 at the Clinic for the Endocrinology, Diabetes and Metabolic Diseases and at the Institute of Nuclear Medicine and thyroid gland diseases of the Clinical center in Banja Luka, BiH. This survey included 150 patients treated for diabetes mellitus, regardless of whether they have type 1 or type 2 diabetes, and the control group consisted of 150 patients treated for hyperthyroidism. We wanted to compare the quality of life of patients with diabetes mellitus with the quality of life of patients who are being treated from some other endocrine disease or nutritional and metabolic diseases, and we estimated that most patients are treated of hyperthyreosis.

Participants were people attending the selected clinics over the study period who met the study criteria. From the study were excluded patients younger than 18 and older than 75 years, patients whose diagnosis were set less than a year ago, pregnant women, patients who had both diabetes mellitus and some other disease from the group of diseases of endocrine glands and metabolic disorders, patients who had rheumatoid inflammation of the joints, patients with malignant neoplasms and patients with psychiatric disorder. Patients on hemodialysis were also excluded from the study.

With the approval of the ethics committee of healthcare facilities and the patients gave written consent to participate in research.

To assess the quality of life we used the questionnaire on the quality of life of the World Health Organization WHOQOL-BREF, the Serbian version (19). Time scale for the questions was "in the last two weeks". Questionnaire also contained some questions about socio-demographic status (sex, age, marital status, education level). Questionnaires were administered in the form of an interview with doctor. Patients were given the option to refuse to answer on questions that they do not want to. For the social domain of quality of life there are three questions in WHOQOL-BREF questionna-

ire. Answers to questions about satisfaction with other people and with the support received from friends gave all patients. On question regarding satisfaction with sex life did not answer more than 1/3 (35.3%) patients with hyperthyreosis, with a statistically significant difference ($t = 4.37$, $p < 0.01$) compared to 14% of persons with diabetes mellitus. People with diabetes mellitus who did not answer to this question in a larger percentage were women 17 (27%), people with and over 60 years of age (27.4%), persons without basic education (40.0%) and divorced and widowed persons (43.3%).

Statistical analysis was performed using SPSS, version 17.0 and statistical software R, version 2.15.1. Descriptive statistics were calculated for all study variables with parameters: frequency, mean, standard deviation, score. We used tests of significance (chi-square test, t test, Men-Whitney test, Kruskal-Wallis test) with a significance level of $p < 0.05$.

RESULTS

In the group of patients with diabetes mellitus in relation to sex were more men than women (87:63), with a statistically significant difference ($\chi^2 = 56.971$, $p < 0.001$)

compared to the control group where the ratio of male and female respondents were 23 : 127. In the group of patients with diabetes mellitus was a higher percentage of people with and over 50 years of age (78.0%) with statistically significant difference ($\chi^2 = 12.104$, $p < 0.05$) compared to the control group (60.00%) patients. According to the level of education the highest percentage of respondents were represented with a secondary school education, but without statistically significant difference between the patients with diabetes mellitus and controls. The highest percentage represented patients who were married, in a slightly higher percentage in the control group (70.00%), but without statistically significant difference ($\chi^2 = 2.265$, $p > 0.05$) compared to patients with diabetes mellitus (66.7%) (Table 1).

The values of the social domain scores of health in patients with diabetes mellitus ranged from 0.0 to 100.0 with a mean value of 64.01 (± 16.42), with a statistically significant difference ($t = -3.304$ and $p < 0.001$) compared to the mean score in patients with hyperthyroidism 69.55 (± 12.32), whose values ranged from 17.86 to 100.00 (Table 2).

The only evaluated aspect of the social domain of quality of life where we have found statistical signifi-

Table 1. Sociodemographic characteristics of the sample

Variables	Diabetes mellitus (N = 150)		Control group* (N = 150)		² -test	p
	n	%	n	%		
Gender						
Male	87	58.0	23	15.3	56.971	0.000
Female	63	42.0	127	84.7		
Age group						
< 30	8	5.3	10	6.7	12.104	0.017
30–39	10	6.7	21	14.0		
40–49	15	10.0	29	19.3		
50–59	55	36.7	42	28.0		
60	62	41.3	48	32.0		
Education						
Unfinished primary	20	13.3	21	14.0	1.516	0.679
Primary	30	20.0	22	14.7		
Secondary	72	48.0	76	50.7		
High/college	28	18.7	31	20.7		
Marital status						
Single	20	13.3	12	8.0	2.265	0.322
Married	100	66.7	105	70.0		
Divorced or widowed	30	20.0	33	22.0		

*patients with hyperthyreosis

Table 2. Mean social domain scores for diabetic patients and control group

Score	Social domain of quality of life		t-test
	Diabetes mellitus	Control group*	
Min	0.0	25.0	t = - 3.304; p = 0.000
Max	100.0	100.00	
Me ± SD	64.01 ± 16.42	69.55 ± 12.32	

*patients with hyperthyreosis

cant difference between the groups was satisfaction with sex life ($p < 0.001$). On question regarding satisfaction with sex life did not answer more than 1/3 (35.3%) patients with hyperthyreosis with a statistically significant difference ($t = 4.37$, $p < 0.01$) compared to 14% of persons with diabetes mellitus. That they are “satisfied” with their sex life said 30.7% of patients with diabetes mellitus and 34.7% of people with hyperthyroidism, a higher percentage of patients with diabetes mellitus said they were “dissatisfied” with their sex life (24.7%) compared to the control group (7.3%) patients ($p < 0.001$). The highest percentage of patients were “satisfied” and “very satisfied” with personal relationships, in a slightly higher percentage in the control group (84.6%), but without statistically significant difference ($U = 11119.5$, $p > 0.05$) compared to

patients with diabetes mellitus (82.0%). With the support that they get from their friends were “satisfied” and “very satisfied” 73.3% of patients with diabetes mellitus without statistical significant difference ($U = 10302$, $p > 0.05$) compared to control group (82.6%) (Table 3).

Analyzing social domain of health in patients with diabetes mellitus, we found that more than 1/3 (35.6%) male patients compared to 1/5 (19.1%) of female patients answered that they are “very dissatisfied” and “dissatisfied” with their sex life but without statistically significant difference ($p > 0.05$). Dissatisfaction with sex life increases with the age of patients, with statistically significant difference ($p < 0.01$), so that under the age of 30 years were not dissatisfied with sex life to respondents aged 50 to 59 years which is almost 1/3 (30.9%) dissatisfied and the percentage of dissatis-

Table 3. Answers of patients with diabetes mellitus and control group on questions regarding the social domain of quality of life

Questions of the social domain	Answers	Diabetes mellitus		Control group*		Mann – Whitney U test
		n	%	n	%	
How satisfied are you with your personal relationships?	Very dissatisfied	3	2.0	0	0.0	11119.5 p = 0.827
	Dissatisfied	9	6.0	8	5.3	
	Neither satisfied nor dissatisfied	15	10.0	15	10.0	
	Satisfied	102	68.0	113	75.3	
	Very satisfied	21	14.0	14	9.3	
How satisfied are you with your sex life?	Very dissatisfied	6	4.0	1	0.7	4603.5 p = 0.000
	Dissatisfied	37	24.7	11	7.3	
	Neither satisfied nor dissatisfied	32	21.3	24	16.0	
	Satisfied	46	30.7	52	34.7	
	Very satisfied	8	5.3	9	6.0	
	No answer	21	14.0	53	35.3	
How satisfied are you with the support you get from your friends?	Very dissatisfied	3	2.0	0	0.0	10302 p = 0.158
	Dissatisfied	13	8.7	8	5.3	
	Neither satisfied nor dissatisfied	24	16.0	17	11.3	
	Satisfied	93	62.0	110	73.3	
	Very satisfied	17	11.3	14	9.3	
	No answer	0	0.0	1	0.7	

*patients with hyperthyreosis

Table 4. Answers of patients with diabetes mellitus on questions concerning the social domain of quality of life in relation to gender and age

Questions of the social domain	Answers	Gender (%)		Age (%)				
		Male (n = 87)	Female (n = 63)	< 30 (n = 8)	30–39 (n = 10)	40–49 (n = 15)	50–59 (n = 55)	60 (n = 62)
How satisfied are you with your personal relationships?	Very dissatisfied	1.1	3.2	0.0	0.0	0.0	1.8	3.2
	Dissatisfied	8.0	3.2	0.0	0.0	6.7	10.9	3.2
	Neither satisfied nor dissatisfied	12.6	6.3	12.5	10.0	13.3	9.1	9.7
	Satisfied	63.2	74.6	62.5	70.0	46.7	61.8	79.0
	Very satisfied	14.9	12.7	25.0	20.0	33.3	16.4	4.8
		*2587.5; p = 0.480		**3.887; p = 0.422				
How satisfied are you with your sex life?	Very dissatisfied	4.6	3.2	0.0	0.0	6.7	1.8	6.5
	Dissatisfied	31.0	15.9	0.0	10.0	26.7	30.9	24.2
	Neither satisfied nor dissatisfied	17.2	27.0	25.0	30.0	13.3	21.8	21.0
	Satisfied	34.5	25.4	50.0	30.0	40.0	38.2	19.4
	Very satisfied	8.0	1.6	25.0	30.0	13.3	0.0	1.6
	No answer	4.6	27.0	0.0	0.0	0.0	7.3	27.4
		*1889; p = 0.918		**13.970; p = 0.007				
How satisfied are you with the support you get from your friends?	Very dissatisfied	1.1	3.2	0.0	0.0	0.0	3.6	1.6
	Dissatisfied	9.2	7.9	0.0	0.0	6.7	9.1	11.3
	Neither satisfied nor dissatisfied	17.2	14.3	25.0	20.0	33.3	10.9	14.5
	Satisfied	58.6	66.7	37.5	40.0	40.0	65.5	71.0
	Very satisfied	13.8	7.9	37.5	40.0	20.0	10.9	1.6
		*2658.5; p = 0.719		**6.794; p = 0.147				

*Mann–Whitney U test

**Kruskal Wallis test

fied and very dissatisfied decreases over 60 years of age. The majority of respondents answered that they are “satisfied” and “very satisfied” with personal relationships and that they are “satisfied” and “very satisfied” with the support that they got from their friends with no statistically significant differences by gender and age ($p > 0.05$) (Table 4).

Most respondents were “satisfied” and “very satisfied” with their personal relationships, more those without primary education (85.0%) compared to patients with higher education (75.0%), but without statistically significant difference ($p > 0.05$). With support that they receive from their friends the greatest percentage of patients were “satisfied” and “very satisfied” in higher percentage those without primary education (80.0%) compared to patients with high education (64.3%), but without statistically significant differences ($p > 0.05$). More than 1/3 (40%) of patients without

primary education did not answer on question about satisfaction with sex life, while 1/2 (50%) patients with high education were satisfied with their sex life, but without statistically significant difference ($p > 0.05$) compared to patients with lower levels of education. More than 4/5 of patients were “satisfied” and “very satisfied” with personal relationships regardless of their marital status, but with the support that they got from their friends in a greater percentage were “satisfied” or “very satisfied” those who were married (80.0%) compared to unmarried (55.0%), which is on the border of statistical significance ($p = 0.055$). More than 1/3 (43.3%) of patients who were divorced or widowed did not answer on question about satisfaction with sex life, less than 1/10 (6.7%) of them, with a statistically significant difference ($p < 0.05$), compared to almost 1/2 married (42.0%) and 50% unmarried were “satisfied” and “very satisfied” with sex (Table 5).

Table 5. Answers of patients with diabetes mellitus on questions concerning the social domain of quality of life in relation to level of education and marital status

Questions of the social domain	Answers	Level of education				Marital status		
		Unfinished Primary N = 20	Primary N = 30	Secondary N = 72	High/college N = 28	Single N = 20	Married N = 100	Divorced or widowed N = 30
How satisfied are you with your personal relationships?	Very dissatisfied	0.0	3.3	1.4	3.6	0.0	1.0	6.7
	Dissatisfied	10.0	3.3	4.2	10.7	5.0	7.0	3.3
	Neither satisfied nor dissatisfied	5.0	13.3	9.7	10.7	15.0	9.0	10.0
	Satisfied	80.0	76.7	62.5	64.3	65.0	68.0	70.0
	Very satisfied	5.0	3.3	22.2	10.7	15.0	15.0	10.0
		*5.382; p = 0.146				*0.525; p = 0.769		
How satisfied are you with your sex life?	Very dissatisfied	0.0	3.3	4.2	7.1	0.0	5.0	3.3
	Dissatisfied	30.0	26.7	22.2	25.0	15.0	25.0	30.0
	Neither satisfied nor dissatisfied	20.0	26.7	23.6	10.7	25.0	22.0	16.7
	Satisfied	10.0	26.7	30.6	50.0	40.0	36.0	6.7
	Very satisfied	0.0	0.0	9.7	3.6	10.0	6.0	0.0
	No answer	40.0	16.7	9.7	3.6	10.0	6.0	43.3
		*4.310; p = 0.230				*9.406; p = 0.009		
How satisfied are you with the support you get from your friends?	Very dissatisfied	0.0	0.0	2.8	3.6	0.0	1.0	6.7
	Dissatisfied	15.0	13.3	6.9	3.6	10.0	8.0	10.0
	Neither satisfied nor dissatisfied	5.0	13.3	15.3	28.6	35.0	11.0	20.0
	Satisfied	80.0	73.3	58.3	46.4	40.0	67.0	60.0
	Very satisfied	0.0	0.0	16.7	17.9	15.0	13.0	3.3
		*1.875; p = 0.599				*5.792; p = 0.055		

* Kruskal Wallis test

DISCUSSION

Following the studies that have been conducted about the quality of life we have found that there were very few papers dealing with quality of life in the social domain of health.

In our study, in patients with diabetes mellitus and without diabetes mellitus, we have done a comparative analysis of quality of life in the social domain of health using WHOQOL-BREF questionnaire.

We found that the perception of social domain of quality of life of patients with diabetes mellitus was lower in comparison to the control group. Diabetic patients had a statistically significant lower mean score of quality of life in social domain.

Comparing the results of the current study with previous research revealed that social domain mean scores of the quality of life in people with diabetes mel-

litus vary across cultures. Similar studies using the WHOQOL-BREF reported different mean scores for social domain of quality of life.

People with diabetes mellitus in our sample scored quality of life in the social domain of health lower (mean score 64.01 ± 16.42) than Danish people with diabetes mellitus (mean score 70.3) (20), and slightly lower than Emirati people (mean score 65.5 ± 17.1) (21). In a study conducted in Serbia, with the participation of patients diagnosed with diabetes mellitus aged 40–80 years, the social domain of quality of life had lower mean scores (mean score 56.73 ± 17.8) than in our patients (22). Iranian people with diabetes mellitus also had lower mean score in social domain (61.65 ± 15.73) than our patients (23).

To quality of life in the social domain of health is dedicated a small number of questions in the question-

naires about the quality of life in comparison to other areas of health. The WHOQOL-BREF questionnaire through social domain assesses personal relationships, social support, and sexual activity. In our study the only evaluated aspect of the social domain of quality of life where we have found statistical significant difference compared to the control group was satisfaction with sex life.

We found that most of the patients with diabetes mellitus were satisfied with their personal relationships and with social support, but they were less satisfied with their sex life. These results support the findings of a study by Odili et al. (24) and study by Ashraf Yaqoub Eljedi in the Gaza strip (16). This finding differs from that of study by Vilma Beltrame conducted in Brazil (25) where patients with diabetes were satisfied with all items of social domain.

In our study 82.0% of diabetic patients were “satisfied” and “very satisfied” with their personal relationships and 73.3% of them were “satisfied” and “very satisfied” with the support that they got from their friends. In a study by Eljedi (16) 77% of diabetic non-refugees were “satisfied” and “very satisfied” with their personal relationships and 78% of them were “satisfied” and “very satisfied” with the support they got from their friends. In study by Vilma Beltrame (25) 98% of diabetic patients were “satisfied” and “very satisfied” with their personal relationships and with the support they got from their friends.

In our study 14.0% patients with diabetes mellitus did not answer on question about satisfaction with sex life and 28.7% of them answered that they were “dissatisfied” and “very dissatisfied” with sex life. In a study by Eljedi (16) 48% of diabetic non-refugees reported that they were “dissatisfied” and “very dissatisfied” with their sex life. This finding is not in line with study by Vilma Beltrame (25) in which 84% of diabetic patients reported that they are satisfied with their sex life.

The majority of respondents in our study answered that they are “satisfied” and “very satisfied” with personal relationships and that they are “satisfied” and “very satisfied” with the support that they got from their friends with no statistically significant difference by gender, age and level of education. In relation to marital status, married people were more satisfied with the support that they got from their friends, which is on the border of statistical significance ($p = 0.055$) compared to patients

who were unmarried. In a study by Tang T et al. in African Americans with type 2 diabetes (8) participants who were currently married reported greater satisfaction with social support than unmarried patients.

CONCLUSION

Quality of life in social domain of health in patients with diabetes mellitus was significantly lower than that in the control group. From three evaluated aspects of the social domain personal relationships, social support, and sexual activity the only aspect of quality of life in the social domain of health where we found statistical significant difference between the groups was satisfaction with sex life. Patients with diabetes mellitus were less satisfied with their sex life.

Most of the patients with diabetes mellitus were satisfied with their personal relationships and with social support that they got from their friends without statistically significant differences by gender, age and level of education. Married people were more satisfied with the support that they got from their friends compared to patients who were single.

In order to have true picture of social support to patients with diabetes mellitus, it would be good to perform testing of family members to assess their attitudes, opinions and knowledge in relation to diabetes mellitus and ways to control the disease and its impact on quality of life. Additional research is needed to understand the causal relationship between family members' diabetes self-care knowledge and their supportive/non supportive behaviors. It would be good to examine differences in perceptions and preferences for the support of family members in relation to their age, gender, and time since diagnosis and their socioeconomic status.

To improve quality of life in the social domain in patients with diabetes mellitus it is necessary to include the family and the wider community in learning about the problems of persons with this disease. Also, in order to improve satisfaction with sex life and solve problems that arise in relation to this issue in patients with diabetes mellitus, a multi-sectoral approach should be introduced and patients should be informed by well-trained therapists on the possible occurrence of sexual problems caused by diabetes and how to overcome them.

Sažetak

KVALITET ŽIVOTA PACIJENATA SA DIABETES MELITUSOM — SOCIJALNI DOMEN ZDRAVLJA

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Uvod: Diabetes melitus je hronična bolest koja utiče na kvalitet života obolelih kroz brojne psihološke, emocionalne, socijalne i psihoseksualne probleme.

Cilj rada: Proceniti socijalni domen kvaliteta života osoba sa diabetes melitusom i odrediti njegovu povezanost sa sociodemografskim varijablama.

Metode: Anketnim istraživanjem u Kliničkom centru Banja Luka u periodu od oktobra 2011. do juna 2012. godine obuhvaćeno je 150 pacijenata sa diabetes melitusom i 150 pacijenata sa hipertireozom. Za procenu kvaliteta života korišćen je upitnik Svetske zdravstvene organizacije (WHOQOL-BREF).

Rezultati: Kod pacijenata sa diabetes melitusom u poređenju sa kontrolnom grupom uz statistički značajnu razliku ($t = -3.304$; $p < 0.001$) je bio smanjen kvalitet života u socijalnom domenu. Oboleli od diabetes melitusa uz statistički značajnu razliku ($U = 4603.5$; $p < 0.001$)

su bili nezadovoljniji seksualnim životom. Odnosima s drugim ljudima i podrškom koju su dobili od svojih prijatelja je "zadovoljno" 68.0% i 62.0% i "vrlo zadovoljno" 14.0% i 11.3% ispitanika sa diabetes melitusom, bez statistički značajne razlike ($p > 0.05$) u odnosu na kontrolnu grupu. U većem procentu su bili zadovoljni podrškom koju su dobili od svojih prijatelja ispitanici koji su bili u braku (67%) u odnosu na one koji su bili samci (40.0%), ($p = 0.055$).

Zaključak: Većina bolesnika s diabetesom je bila zadovoljna sa svojim odnosima s drugim ljudima i socijalnom podrškom koju su dobili od prijatelja, bez razlike u odnosu na pol, dob i nivo obrazovanja. Pacijenti sa diabetes melitusom su bili manje zadovoljni svojim seksualnim životom.

Ključne reči: diabetes melitus, kvalitet života, socijalni domen.

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