

Original Article

Investigating the relation of social support functions and the demographic features of diabetic patients

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Abstract

BACKGROUND: Social support is a form of social capital which can be related to the health of patients. Chronic diseases, such as diabetes, are incurable but they can be controlled. However, the patient is always facing stressful physical, mental and social factors. Therefore, he needs to receive different kinds of supports. The present research aimed to determine the factors of social support in diabetic patients and its relation with the demographic features of the patients.

METHODS: This descriptive, cross-sectional study was conducted in 2008. The population of the study was all of the diabetic patients of Khorramabad who went to the clinics for treatment. Among this population, 150 cases were selected and a questionnaire including a demographic section and a social support section was used for data collection. Social support was assessed by integrating and balancing four standard questionnaires of social support for diabetic patients.

RESULTS: The results revealed that factors of social support have not been optimal in 59% of the cases. Among all factors, emotional support scored the highest (36.8%). In addition, age, sex, job, education, and the duration of disease had statistically significant relationship with some of the factors of social support.

CONCLUSIONS: Due to non-optimality of some factors and effects of some demographic variables in receiving social support, it can be recommended that authorities should plan programs with consulting, educational and instrumental contents in order to promote patient's reception of social support from different support sources.

KEY WORDS: Type 2 diabetes mellitus, social support, patients, family.

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Social capital is a kind of capital including social relations and social membership as its components. Social support, as a relational phenomenon,¹ is an important form of social capital which can be directly related to health and the quality of life for people. O'Reilly defined social support as an interactive process in which specific actions and behaviors can have positive effect on welfare, social, mental, and physical well-being of an individual.²

The sources of providing social support for the diabetic patient are varied including physicians, nurses, family, friends, neighbors, etc. In other words, all people who can assist the per-

son in one way or another are sources of social support.

In order to integrate to conceptualization of social support, three kinds of behavior which have support functions from social view point, can be considered: emotional support, instrumental support, and informational support.³

Diabetes is an incurable disease which could be controlled. However, the patient is always exposed to stressful physical, mental, and social factors. Therefore, for a better control of the disease, the patient needs to receive different kinds of social support such as emotional, instrumental, and educational support from different

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sources. Among these, nurses' social support is very important; because a nurse is an effective member of the health team who can directly influence the health condition of the patient, healthy behavior, and health services. Therefore, a nurse can provide and increase social support by providing emotional support (including sympathy, care and love to the patient, reception and respecting the patient, and having relation with family members of the patient), instrumental support (introducing the patient to formal and informal organizations and committees which support patients suffering from specific disease), and informational support (teaching skills and giving information to people at the time of physical and mental stresses) and it is only possible if nurses are aware of diabetic patients' emotional, instrumental and informational needs. One of the methods for understanding patient's support condition is to review studies on this issue.

In addition, many studies have investigated the role of nurses in social support of different patients. In the majority of these studies, positive results of social support of the nurses have been mentioned which had effects such as enhancing patients' health conditions, personal qualification, accommodation, feeling of being a healthy person, self respecting and decreasing patients' stress, and depression.⁴

Diabetes, as a chronic and progressive disease, can cause disability and premature death and fatality. It entangles between 6-15% of the population and half of these people remain unidentified and are not diagnosed. Diabetes type 1 and 2 are two main forms of the disease and involve 10 and 90 percent of diabetic population, respectively.⁵

From the whole world's population, 1.5 to 3.5 percent suffers from diabetes.⁶ According to the last investigations in Iran, 2 percent of the whole population suffers from this disease and it is about 7.4% in people above 30.⁷

Zamanzadeh et al in a study on 164 hemodialysis patients with the purpose of determining social support indicated that half of the patients reported low social support.⁸ Baghiani et al found significant relationship between pa-

tients' job and duration of the disease and their quality of life.⁹ In addition, Imani¹⁰, Turner and Marino¹¹, and Kim¹² studied the relationship of social support and demographic variables.

Different studies indicated that social support can play an important role in preserving individuals' health.¹³ In the organized social life, health is a necessary condition for reservation of the person and playing social roles and the disease violates this necessary condition. Besides, by weakening the functions of social roles, the society faces functional shortage.¹⁴ The consequences of the disease at the physical, mental, and social levels for the person and society highlight the necessity of the social analysis of diabetes from the social support perspective.

Despite the mentioned studies which emphasized the necessity of social support of the disease, few studies have assessed functions of social support in diabetic patients in Iran. The present study aimed to determine functions of social support and the related factors in diabetic patients in order to have more effective treatment and caring plans. In addition, this study determines the mean of the questions related to the functions of social support with regard to the separation of the sources of social support.

Methods

In this descriptive study, after selecting the samples, we attempted to investigate social support and its different dimensions in diabetic patients by using a questionnaire and interview. The study population was all the diabetic patients in Khorramabad. The number of them was 1146 in 2008 based on the report of the diabetes center of Khorramabad.

In this study, sampling was conducted among the patients who came to the clinic to follow their disease, remedy or make a medical record of their problem. Of them, 150 cases were randomly selected and the efficiency of the size of the samples was determined statistically (0.99).

The clinic of the hospital of Shohadaye Ashayer in Khorramabad was the place in which we conducted the study and its affiliates to the school of medicine of Lorestan University

of Medical Sciences. Among 1100 medical records of the patients who referred to this clinic, we selected 200 records and called them in order to ask their postal address. Then, we went to their homes in order to give them the questionnaire. In this way, about 80 questionnaires were completed.

Literate patients filled in the questionnaire themselves but, the researcher asked illiterates the questions and filled in the questionnaire.

Inclusion criteria were using anti diabetes drugs or being diagnosed by the endocrinologists for at least 6 months to 1 year, not being pregnant or having any diseases which have remarkable affect on their diet, willingness for participating in the study, being able to communicate, age ranging between 18 and 65 and not being undergone any critical conditions in the previous six months.

Two questionnaires were used in this research were as follows: demographic characteristics questionnaire (such as age, sex, job, education, and the duration of the disease) and social support questionnaire which is an assimilation and combination of four other questionnaires [social support questionnaire of the diabetes patients, family¹⁵ and friends¹⁶ manuscripts, Norbeck's social support questionnaire¹⁷ and Lin et al¹ supportive functions questionnaire]. For the emotional aspect of the social support, 9 questions and for each of the instrumental and informational aspects, 6 questions were applied. Emotional support was assessed by using factors such as sympathy, encouraging, and boosting the moral of the patients. Instrumental support was assessed by using factors such as assisting in personal daily routines, providing the expenditure of medicine, and taking care of the patient. Informational support was assessed through factors such as giving information and direction and educational programs to patients, remedy and appropriate diet from different support sources like physicians, nurses, family, friends and mass media.

Content validity of the questionnaires was confirmed as well as face-validity by the supervisor and advisor of the study and two endocrinologists. The reliability was assessed by Cron-

bach's alpha as follows: emotional support (0.71), instrumental support (0.75), and informational support (0.76). In the questionnaires of social support, Leckert's five degree scale was used. Different kinds of social support in diabetes patients were classified into unfavorable (grades less than 42) and favorable (grades equal or more than 42) based on the obtained grade. The obtained grades through social support questionnaire on each aspect of the social support such as emotional, instrumental and informational aspects were equally classified into favorable and unfavorable.

Data was analyzed by and descriptive and inferential statistics (Pearson regression, one-way ANOVA and independent t) using SPSS₁₅ software. In all cases, $p < 0.05$ was considered as the level of significance.

Results

In this research, most of the cases (83.7%) aged more than 41 years, 67.3% were women, 92.4% were married, 22.4% were employed, 60.8% were housewives, and the rest were unemployed. Furthermore, 59% have an educational degree below diploma and illiterate, 28% had undergraduate or postgraduate degrees while only 2% of the women have such an educational status. Of all, 50.4% of the patients suffered from diabetes for less than 5 years.

The mean (SD) of social support functions was 2.36 (45) and 59% cases had unfavorable and 41% had favorable social support. In the mean time, the largest amount of social support is on emotional support with the mean score of 2.84 (0.57) and the least amount is on informational and instrumental support with the mean scores of 2.15 (0.57) and 2.09 (0.61).

Investigating different variables' relation to demographic characteristics of the cases showed that age, sex, vocational status, educational status, and diabetes duration have statistically meaningful relation with some kinds of social support functions while marital status variable does not have a meaningful relation with the quality of life statistically (Table 1).

The results of table 1 reveal that there is meaningful relationship between sex and in-

formational support. There is a difference between different factors of support with regard to job and education. In addition, there is meaningful relationship between emotional and instrumental support and education.

The results of correlation between different factors of support and age revealed that there is indirect meaningful relationship between different factors of social support and age of patients ($p < 0.05$) (Table 2).

Further, regarding the amount of providing social support from support sources from the patients' point of view, in emotional and instrumental dimensions with the mean scores of 3.56 (0.98) and 3.14 (1.24), family support scored the highest and in informational dimension, receiving informational support from radio and television scored the highest with the mean score of 2.62 (0.82). In all three dimensions, providing social support from support committees received the lowest score. Regarding social support from nurses, the mean score of receiving emotional support was 1.8 (0.61), the mean

score of receiving instrumental support was 1.5 (0.51) and the mean score of receiving educational support was 1.85 (0.71). In comparison with other support sources, social support from nurses was at a low level.

Discussion

The results revealed that social support was not optimal in more than half of the patients and the analysis of the demographic features of the cases revealed that age, sex, job, education and the duration of diabetes had statistically significant relationship with some of the factors of social support but marital status did not. Zamanzadeh et al in a study on hemodialysis patients about social support found that half of the patients reported low social support.⁸

The investigation into the statistical relation between the kinds of social support function and sex showed that there is a meaningful relationship between sex and information support and the amount of information support is more among men. It seems that one of the influential

Table 1. The relation between demographic characteristics and social support functions in diabetics patients

Functions of social support		Emotional support		Instrumental support		Informational support		Statistical test	P-value
		Mean	SD	Mean	SD	Mean	SD		
Statistical indices variables									
Sex	Female	2.81	0.40	2.13	0.51	2.40	0.48	Independent t-test	0.001
	Male	2.85	0.64	2.08	0.66	2.04	0.58		
Vocational status	Employed	3.10	0.43	2.41	0.42	2.61	0.45	One-way ANOVA test	0.001
	Unemployed	2.52	0.30	1.73	0.30	2.00	0.32		
Educational status	Housewife	2.80	0.63	2.05	0.67	2.01	0.58	One-way ANOVA test	0.001
	Illiterate	2.75	0.09	1.87	0.08	2.09	0.11		
	Below diploma	2.65	0.16	1.90	0.14	1.94	0.15		
	Diploma	3.03	0.18	2.51	0.19	2.26	0.11		
Duration of suffering from the disease	Associate of arts (AA)	2.94	0.16	2.21	0.14	2.22	0.10	One-way ANOVA test	0.001
	Bachelor of arts (BA) and above	3.16	0.08	2.34	0.07	2.70	0.07		
	Below 5 years	3.11	0.52	2.36	0.61	2.18	0.56		
Duration of suffering from the disease	5-10 years	2.53	0.49	1.77	0.47	2.14	0.58	One-way ANOVA	0.001
	More than 10 years	2.69	0.44	2.25	0.34	2.02	0.85		

Table 2. Correlation coefficient between different kinds of supportive functions and age

Variables	Emotional support		Instrumental support		Informational support		P-value*
	r	p	r	p	r	P	
Age	-0.288	0.001	-0.311	0.001	-0.119	0.158	0.001

* Pearson regression test

factors in receiving support is personal education which increases the chance to obtain information. In this research, taking the findings into account, it became clear that men are more educated than women academically. Imani¹⁰ said that higher academic education increases the chance to obtain informational support.

Findings showed that there is a reverse and meaningful relation between age and emotional and instrumental support which means in older people emotional and instrumental support decreases. This problem with old people can be obviously because of health disorders, drug usage, disabilities and consequently objective decreased quality of life. In addition, the income decreases by retirement, social relation decreases by mental problems related to oldness and there would be dissatisfaction with life and mental quality of life. Because of the above mentioned problems, the patients are in need of the expansion of personal networks and patient supporting institutes. According to Imani,¹⁰ the more age increases, their relations with their friends become less.

Considering the meaningful relation between job and education and factors of social support, emotional, instrumental and informational support in employed patients is more than unemployed and housewife patients; and analyzing the statistical relation between factors of social support and education showed that there are differences between patients' education and kinds of factors of social support.

In addition, Wellman¹⁰ and Imani¹⁸ said that having job and education can improve people's social relations because people who are employed and have higher education have more opportunity for meeting new people in settings such as university, office, etc and this kind of access to different support sources can increase the amount of support.

Finding showed a meaningful relation between diabetes duration and emotional and instrumental support. Patients with diabetes duration of less than five years have more emotional and instrumental support which implies that patients with less diabetes duration have a better physical and mental situation and might not be dependent on others for doing their daily chores. Baghiani et al study confirmed a reverse relationship between the diabetes duration and the physical, mental and social conditions of the patients.⁹

No statistical relations between the kinds of social support functions and marital status can be the result of the special family and cultural situation of our country which single people live with their parents or their relatives and can have their financial and emotional supports too. So this finding confirm Zamanzadeh et al study¹⁰ and doesn't confirm the study of Turner and Marino which indicated that married people receive more social support than single ones.^{8,11}

Findings showed that nurses and support committees have the least role in providing support for diabetic patients. Meanwhile, family provided the greatest emotional and instrumental support for the patients. This finding can reveal the specific cultural situation of our society in which family play a vital role in meeting individuals' needs in comparison with other sources of support and this finding was in line with that of Zamanzadeh et al⁸ while in La Greca and Bearman's research, family and other support sources played equal roles in providing different kinds of support.¹⁶ Further, in this study with regard to the patient's needs and the low social support from the nurses, it seems necessary to increase the knowledge of nurses in order to use more effective strategies for enhancing patient's social support for the pur-

pose of detecting their needs and the method of treatment.

Therefore, considering the fact that most of the patient's problems were related to informational and instrumental support, it should be recommended that the authorities should plan programs with educational and advisory purposes for the patients and their close relatives in order to give financial support, information about diabetes and the way of providing mental support to the patients through these programs. Accordingly, increasing the number of institutes and centers that specifically concern with diabetes, promoting the quality of these institutes and centers, improving the situation and role of the patients who suffer from chronic diseases, and emphasizing on the necessity of patients' social relations can decrease the number of problems of these patients during the disease. It is also recommended that mass media, because of their accessibility, present specific educational programs continuously or periodically in order to increase the knowledge of patients who

suffer from chronic diseases about how to self-control their illness.

Regarding the findings of this study, providing the mentioned supports besides routine remedies can be considered as parts of programs for controlling diabetes. It should be mentioned that since this study has been undertaken within the limits of a small population of the diabetic patients in a specific time and place, the findings cannot be generalized to larger populations, and it is recommended that further studies consider larger samples.

The Authors declare that have no conflict of interest in this study and ethical committee approved the study.

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