The effect of perceived social support on the quality of life of hemodialysis patients. A preliminary study.

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ABSTRACT

Purpose: Recent studies have shown that the role of social support is a predictive factor influencing the course of the disease. The current study is focused on patients' assessment of quality of life and the relationship of the latter with perceived social support.
Materials and methods: A total sample of 40 hemodialysis patients voluntarily participated in this study. Participants were recruited from two clinics in Athens and have been under hemodialysis. The measures used were the Missoula- Vitas Quality of Life Index–15 and the Multidimensional Scale of Perceived Social Support. For the data analysis descriptive statistics, parametric Pearson r test and Non-parametric Spearman's rho test were used. Statistical level was set up at 0.05.
Results: The results of the current study provide good quality of life of hemodialysis patients and significant statistical significance between quality of life in several domains.
Conclusions: This study concludes that the participants' assessment of quality of life is poor regarding the well-being dimension. Also, perceived social support is significantly related to quality of life.
Key words: hemodialysis, quality of life, social support.

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Received: 27.06.2019
Accepted: 02.02.2020
Progress in Health Sciences
Vol. 10(1) 2020 pp 19-25

INTRODUCTION

Health issues such as Quality of Life (QoL) and the impact of chronic patients' perceived social support concern health professions, patients' families and caregivers, communities and assuredly patients themselves. QoL has become an important measure for clinical care in terms of palliative care, improvement and research, especially in chronic patients [1]. Hemodialysis (HD) patients suffer from a debilitating disease and they present reduced QoL scores in comparison with the general population [2]. Research evidence indicates that morbidity and mortality rates regarding HD patients are associated with the quality of life [3]. Furthermore, high rates of clinical depression and depressive symptoms, which are related to the QoL [4], are observed in this patient's population and have a negative impact on the course of the disease and also constitute risk factors for hospitalization and death [5]. Therefore, social support constitutes a key factor for QoL and will be discussed in terms of this relationship.

Hemodialysis and Quality of life

HD often affects the quality of life among these patients, as they have to reorganize their daily routine and change their habits and their lifestyle in accordance with the restrictions and the new conditions [6]. These life modifications are reflected in a psychological, social, financial and professional level. Consequently, these changes have a direct impact on patients' mental health [7]. In recent years researchers' focus has shifted toward these psychosocial factors related to QoL [8]. More specifically, according to several studies, patients undergoing HD have been reported to have reduced, functional capacity and mental health [9, 10].

Results of many studies indicate anxiety, insomnia, depression and suicidal ideation in HD patients [11]. Depressive symptoms are often attributed to the lack of independence, since the patient's life is inseparable from the supporting machinery [12]. Psychological and social negative effects are also related to the adherence to the disease requirements (medication, diet, HD session attendance) and have an overall impact on the disease course [13,14]. Patients face a variety of changes in their constants of life, in terms of their daily routine, such as physical symptoms, specific restricted dietary, limitations in activities and recreation as well as the treatment time investment [15]. These restrictions reduce the feeling of autonomy, as well as the patients' self- esteem [16]. They are also confronted with changes in self-image, such as changes in their body, their professional life and the acceptance of cohabitation with the disease [17].

The relationship between QoL and social support

Additionally, QoL and social support have a significant impact on patients' relationships with their family, health professionals and generally, with social environment [18]. Research evidence highlights the mutual dependence of psychological aspects and overall mental health of patients with social support obtained from a variety of social sources, as well as other factors such as loss of control, health beliefs and personality traits [19, 20]. Moreover, research studies indicate that social factors, such as social support, seem to influence the symptoms of physical and mental effects of treatment and the adherence to it [21]. They also suggest that increased social support leads to increased QoL of HD [22].

However, a limited number of studies provide no evidence regarding association between social support and QoL [23]. Researchers indicate that stress levels and the type of social support seem to be key indicators of the effectiveness of social support [24].

In this study, it is expected that the patients will assess their QoL negatively, as well as that social support will be significantly correlated with the patients' QoL. Finally, the aim of this study was to explore the effect of perceived social support on the QoL of HD patients.

MATERIALS AND METHODS

Design

For the purpose of this study a cross-sectional, balanced group design was formulated to interview HD patients in order to examine the relationship between QoL and social support. The study was carried out between September-November 2018.

Participants

In this study, 80 hemodialysis patients from two clinics in the region of Athens, (Greece) were asked to take part. The inclusion criteria were: having been diagnosed with End- Stage Kidney Disease, have been undergoing HD for at least 6 months, ability of communication in Greek. The exclusion criteria were: mental illness, eye problems and time-space orientation issues. Finally, 40 completed questionnaires questionnaires and informing consent forms were collected (response rate 50%).

Tools

The measures that were used in this study were the Missoula - Vitas Quality of Life Index-15 (MVQoLI-15) for the measuring of the QoL and the Multidimensional Scale of Perceived Social Support (MSPSS) for the measuring of the social support, both translated and validated into the Greek language.

In detail, the MVQoLI-15 asks patients about these domains of QoL: Symptoms, Function, Interpersonal, Well-Being and Transcendence.

The instrument is specifically designed to assess the patients' personal experience in each of these dimensions and seeks to describe the qualitative and subjective experience of QoL. Each dimension is defined by the patient's perception and/or experience. Furthermore, each item uses a five-point Likert scale recorded so that the lowest score always indicated the least desirable situation and vice versa. The original version of the scale was constructed on 1998 [25] while the Greek version [26] was satisfactory with Cronbach's alpha of 0.74. The scale has been used in other studies [27,28].

The Multidimensional Scale of Perceived Social Support (MSPSS) [29] provides assessment of three sources of perceived social support: Family, Friends, and Significant Others. Each item is scored on a seven-point Likert scale (1=very strongly Disagree, 7=very strongly agree). Overall, it is short, including 12 items in total and is ideal for research that requires assessment of multiple variables. Also, MSPSS items are easy to understand and are therefore suitable for young populations or populations with limited literacy level. The Greek version was validated among hemodialysis patients with good reliability [30] and has been used on several studies [31,32].

Ethics

Ethical approval was obtained from the Scientific Councils of the hospitals. The patients participated voluntarily in the study and were previously informed about the purpose, the methods and the procedure. An ethical application form in Greek was presented to all participants and they were informed of their rights to refuse or discontinue their participation. Participants were informed that all provided data will remain confidential and anonymous and will be used solely for the purpose of this study. Moreover, in the beginning all the participants signed a consent form and, at the end of the survey, a debrief form explaining the aims of the study was given to them.

Data Analysis

Demographic characteristics and questions about social support and QoL among HD patients were calculated through the basic position and dispersion measures and frequencies. A descriptive non-experimental correlation design was used in order to examine the correlations between the domains of the two instruments. Parametric Pearson's r and nonparametric Spearman's rho correlation coefficients were used for the statistical analysis. Therefore this is a parametric, non-experimental, without pre-measurement Pearson's r and Spearman's design. Statistical level was set up at 0.05. Statistical analyses was performed with SPSS version 19 (SPSS Inc, Chicago, IL, USA).

RESULTS

Demographic characteristics are presented in table 1. Participants scored positively in 4 out of 5 dimensions of QoL. The only sector which was scored negatively is well-being. There were no missing values. Descriptive statistics for MVQoLI-15 and MSPSS are presented in table 2.

Table 1. Demographic characteristics (N=40)

	Mean	**SD**		**Mean**	**SD**
Age	62.60	13.51	**Occupation**		
	N	**%**	Unemployed	1	2.5
Gender			Private Sector Employee	**6**	**15**
Male	23	57.5	Civil Servant	8	20
Female	17	42.5	Freelancer	4	10
Education			Housemaker	**5**	**12,5**
Primary	5	12.5	Retired	16	40
Secondary	11	27.5	**Years on HD**		
Higher	17	42.5	<4	25	62.5
Postgraduate	7	17.5	>4	15	37.5
Marital status			**Years since diagnosis**		
Unmarried	8	20	<4	12	30
Married	21	52.5	>4	28	70
Divorced	7	17.5			
Widowed	4	10			

Table 2. Descriptive Statistics for MVQoLI-15 and MSPSS

Dimensions of QoL	**Mean**	**SD**
Symptoms	5.80	9.40
Function	5.90	10.32
Interpersonal	13.22	11.73
Well-being	-12.95	13.71
Transcendent	10.77	12.89
MVQoLI-15 Total	28.05	24.47
MSPSS Total	53.40	11.4
Family	5.2	0.4
Friends	4.5	0.5
Significant Others	3.1	0.6

Correlations

Results indicate that there is statistically significant positive correlation between the participants' social support received from friends and their total QoL (*r*=0.430, *p*=0.006). There is statistically significant positive correlation between participants' transcendent and total assessment of perceived social support (*r*=0.508, *p*=0.001). Finally, there is statistically significant positive correlation between the participants' global subjective assessment of their QoL and the participants' total assessment of perceived social support (*r*=0.451, *p*=0.004).

Spearman's rho nonparametric correlation was used to evaluate the relationship between the remaining sectors. Results indicate that there is statistically significant positive correlations between the significant others (rs= 0.405, p=0.01) and family domains (rs=0.496, p=0.001) of perceived social support and the interpersonal domain of QoL. These results suggest that social support received from family and significant others affects QoL and in particular the dimension which is related to social relationships. There were no other statistically significant correlations between the two instruments and their domains. The results are also reported in tables 3 and 4.

Table 3. Bivariate correlations among MVQoLI-15 and MSPSS (Pearson's r)

Dimension	1	2	3	4
Friends			0.239	0.430**
MSPSS total			0.508**	0.451**
Transcedent	0.239	0.508**		
MVQoLI-15 Total	0.430	0.451**		

**Correlation is significant at the 0.01 level

Table 4. Bivariate correlations among MVQoLI-15 and MSPSS (Spearman's rho)

Dimensions	1	2	3	4	5	6
Sig. others			0.87	-0.22	0,40**	-.62
Family			0.17	-0.08	0.49**	-.01
Symptoms						
Function						
Interpersonal						
Well-being						

**Correlation is significant at the 0.01 level

DISCUSSION

The results regarding the assessment of QoL were controversial and unexpected. Participants provided positive scores which correspond to positive assessment for all the domains of the questionnaire of quality of life except the well-being dimension. The results of the current study states increased perceived QoL.

As mentioned above, previous research has reported that HD patients tend to assess their QoL negatively due to the difficulties and the changes caused by the disease and treatment. According to the related literature, meta-analyses, and longitudinal studies, it is widely accepted that HD patients have reduced QoL due to objective and subjective factors which include medical, physical, social and psychological problems [2, 33, 34]. However, the first hypothesis of the study that the patients will assess their QoL negatively is rejected.

In the present study results indicated that there were significant correlations between the domains of QoL, as measured by MVQoLI-15, and the domains of perceived social support, as measured by MSPSS.

The second hypothesis of the current study which was that social support is significantly correlated with the QoL is partly confirmed. In detail, there was statistical significance between QoL which indicates that global subjective assessment of QoL is related with perceived social support. The results suggested that perceived social support is significantly related to QoL. Furthermore, the interpersonal domain of QoL which is related to social relationships and the relations with friends and family was significantly and positively correlated with the perceived support from family and significant others. These results indicate that the social support received from family and significant others affect QoL and especially, the sector of social relationships. In addition, previous research states that social support received from significant others affects in a positive way not only the perceived quality of relations with family and friends, but also the physical and mental health, which constitute components of QoL [21].

Moreover, there was statistical significance between social support received from Friends and the total QoL. These results suggested that social support from Friends affects QoL. Finally, there was statistical significance between Transcendent of QoL which is related to the experienced meaning and purpose in life and social support.

However, there was no statistical significance between the QoL domains (Symptoms, Function, Well-Being and Social Support), as it was expected. Therefore, the second hypothesis of the study is only partly confirmed. Results indicated that there was no relationship between social support and symptoms, function and well-being. Although, research evidence suggests that social support affects mental health and general well-being [21].

Research evidence indicates that social support should be evaluated according to its types and sources [35]. Previous research findings also suggest that social support is related to physical QoL, mental health, general well-being and global QoL. The findings of this study are not absolutely consistent with these results. More specifically, global QoL was found to be related to global social support, although no statistical significance was found in the domains of well-being and physical functioning [21].

Although there is a limited number of studies that identify the type and source of social support, the findings of the current study regarding the relationship between the perceived social support from significant others and the QoL are consistent with the literature review [22].

Limitations

Firstly, the sample size was small and recruited from only two hospitals. For further generalizations, the study must be repeated with an increased sample size. The procedure was mainly conducted during the HD session and not in a quiet place where they could be solely focused on the questions. In addition, the questionnaires' MVQoLI-15 utility is mainly clinical. It might also have therapeutic utility if used by clinicians, but its utility as a research instrument is limited [36]. Furthermore, the normality assumption in the statistical analysis wasn't met for all the sectors, therefore the data were analyzed separately.

Future research

Future studies which will examine the relationship between QoL and social support should focus on the type and source of social support and include a larger number of participants. Furthermore, they should also include the association of the sociodemographic characteristics such as gender, age, ethnicity, education level, occupation and financial status. Finally, future studies might include the effect of psychotherapy in QoL and perceived social support.

Conclusively, HD patients are suffering many difficulties coping with an irreversible disease. There are physical, mental and psychological aspects affected in these patients. The high levels of anxiety, depression, morbidity and mortality identify the importance of assessing their QoL in terms of palliative care, clinical utility and implement of the research findings.

The findings of the current study suggest that social support affects QoL. The domains that presented the highest statistical significance were global assessments of QoL and global perceived social support, family and friends support in relationship with the interpersonal domain of QoL, transcendence relationship with social support and social support perceived by friends related to global QoL. The findings correspond to the literature.

Acknowledgments

All contributing authors would like to thank the patients for their participation in this study.

Conflicts of interest

There is no conflict of interest between any of the authors.

Financial disclosure/funding

There were no funding sources related to this study or to the article preparation.

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