Medical
Communication

Biosci. Biotech. Res. Comm. 9(4): 666-671 (2016)

BBRC
Bioscience Biotechnology
Research Communications

On the relationship between motivational and inhibiting factors and self-efficacy in patients treated with hemodialysis from selected hospitals of Tehran

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ABSTRACT

Recentlt, chronic diseases are considered as the greatest challenge to public health and chronic renal failure is a chronic disease. Patients who have this disease need to have frequent hemodialysis. Both the disease and hemodialysis have negative effects on self-efficacy in these patients. Increased self- efficacy or belief in your abilities can increase the power of self-care in these patients. The present research aims to examine the relationship between motivational and inhibiting factors and efficacy in patients treated with hemodialysis referred to selected hospitals in Tehran during 2015-2016. The present research is a descriptive correlation study. The statistical population consists of the patients treated with hemodialysis referred to selected hospitals in Tehran during 2015-2016, selected in random; the sample group consists of 384 patients who had the characteristics of the units under research. Data collection tools include three questionnaires of demographic characteristics, Sherer General Self-Efficacy Scale and the research-made questionnaire of motivational and inhibiting factors and efficacy of patients treated with hemodialysis. To determine validity of questionnaire, content validity has been sued and Index of internal consistency (Cronbach's alpha) has been used for reliability of tools. Data analysis was made using software SPSS Win 21 and the descriptive and inferential methods well suited to the research goals and questions were used. Findings of research indicated that there is a positive significant relationship between patients' attitude toward motivational factors and self-efficacy ($P<0.01$). Further, there is a negative significant relationship between their attitude towards inhibiting factors and self-efficacy ($P<0.01$). Average mean of self-efficacy in these patients equaled to 51.32, indicating average status of self-efficacy among patients. Results indicated that the highest score relates to the physical factor among the motivational factors and the highest relationship relates to the physical factors and self-efficacy among the inhibiting factors. Thus, for training programs, increase of self-efficacy in patients, attention to prevention and motivation of physical factors should be taken into account.

KEY WORDS: MOTIVATIONAL FACTORS, INHIBITING FACTORS,SELF-EFFICACY, HEMODIALYSIS

ARTICLE INFORMATION:

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Received 10th Oct, 2016
Accepted after revision 15th Dec, 2016
BBRC Print ISSN: 0974-6455
Online ISSN: 2321-4007
Thomson Reuters ISI ESC and Crossref Indexed Journal
NAAS Journal Score 2015: 3.48 Cosmos IF : 4.006

Online Contents Available at: http//www.bbrc.in/

INTRODUCTION

Nowadays, chronic diseases are considered as the greatest challenge to public health and chronic renal failure is a chronic disease [Bard, 2010]. It is anticipated that about 167 million people will suffer from chronic diseases by 2050. The estimated cost for treating these patients has been estimated at $ 797 billion [Smeltzer, 2010]. Kidney failure is among these diseases that it has been reported with incidence of 242 cases per one million population and 8% increase to the number of patients who suffer from these disease per year [Afkand, 2012]. Kidney failure is one of the largest causes of death and disability worldwide [Monahan, 2007]; the most common method of treatment is hemodialysis for these patients [Cohen, 2009]. Mental and social health in hemodialysis patients depends on stresses on them to a large extent, i.e. stresses that patients with chronic renal failure face them. It can refer to the long and continuous treatment with dialysis, invasive medical procedures, time-consuming treatment during each dialysis session and the loss of jobs. The fistula or catheter causes food and drug restriction and on the other hand stress; patients with dialysis have not enjoyed suitable mental status and faced mental problems and social withdrawal [Theofilou, 2011].

Abundant physical, mental and social problems for these patients require attention to the patient's ability in making the activities and extent of his self-efficacy in obtaining desired quality of life [Curtin et al., 2008]. The person's self-efficacy beliefs affect incidence of various diseases and recovery process through affecting the behaviors related to well-being and biological function [Najafı, 2007]. Moattari et al. in their study entitled "study on effect of empowerment on self-efficacy, quality of life and clinical indices in the patients treated with hemodialysis" indicated that there is a large difference on extent of self-efficacy, reduction of stress, power of decision making and all dimensions of quality of life mentioned in the questionnaire before and after intervention in two groups [Moattari et al., 2012].

Nowadays, it is stated that the best outcomes of health care come to realize when the patients involve in their care. The active participation of the patient in the care process such as tracking the treatment progress, monitoring symptoms, side effects, tracking positive behaviors related to health such as having a healthy diet, regular exercise and improvement in patient's general health will be followed by reduction of treatment costs [Longo et al., 2012]. In the study by Khoshnazar. it has been concluded that self-efficacy of patients treated with hemodialysis has been at average level, so that there has been 70% desired general self-efficacy [Khoshnazar, 2014].

The research by Christiaan, quoted from Karimi et al, indicated that self-efficacy depends on the physical and mental health in the patients with Rheumatism and arthritis, i.e. the patients with low self-efficacy compared to the patients with high self-efficacy feel disability, fatigue and pain as well as depression and anxiety [Karimi et al., 2011]. With regard to what mentioned above and the fact that the efficacy is considered as the effective factor in achieving the outcomes expected by patients and increase of self-efficacy in patients can cause increase of self-care ability, and on the other hand due to the constant involvement of patients with chronic renal failure with their disease symptoms, necessity of study on factors affecting self-efficacy in these patients obliged the researcher to conduct a study in this context with the title of study on the relationship between motivational and inhibiting factors and self-efficacy of patients treated with hemodialysis.

MATERIALS AND METHODS

The present research has been a descriptive correlation conducted on the patients treated with hemodialysis referred to selected hospitals in Tehran during 2015-2016. Data collection tools included: 1-demographic information questionnaire for the units under research including age, gender, education, marital status, job and insurance status, number of family members who live with patient, status of house and Comorbidities, number of dialysis sessions in week and income.

SHERER GENERAL SELF-EFFICACY SCALE (SGSES):

Maddox and Scherrer (1982) argue that self-efficacy theory is a model of cognitive processes and they first built a scale to measure public opinion; the Scale consists of 17 items. Maddox and Scherrer, without specifying items, believe that the scale measures an aspect of behavior including desire to behavior boot, the desire to complete the task and deal with obstacles. The scoring is made in this way that score 1-5 is given to each item and high score indicates higher self-efficacy. Score 17-39, 40-64 and 65 to above indicate low, average and high self-efficacy.

Questionnaire of motivation and inhibiting factors is a self-efficacy prepared via related works and interview with a number of patients. This questionnaire was given to a number of faculty members of Islamic Azad university and Baqiyatallah University of Medical Sciences to confirm the validity of questionnaire; ultimately a research-made questionnaire consisted of 50 questions was developed, consisted of 26 questions related to motivational factors and 24 questions related to inhibit-

ing factors. Questions are in multi-item form; the views were measured via Likret scoring scale (totally agree, agree, no idea, disagree, totally disagree); the score to these responses is considered from 1-5, i.e. score 5 indicates maximum agree and score 1 indicates maximum disagree. Reliability coefficient of self-efficacy scale has been obtained equal to 0.76 and 0.79 via Gutman half-split test and Cronbach's alpha coefficient, respectively (Shamaei Zade & Abedi, 2005). Further, Cronbach's alpha equaled to 0.85 to examine reliability of self-efficacy in the research by Vaghari (1998).

Najafi (2003) separated 30 participants in random and performed self-efficacy test for them and the Cronbach's alpha was obtained equal to 0.83. In the research by Ganji & Farahani (2009), reliability coefficient was obtained equal to 0.81 via Cronbach's alpha. In this research, 10% of samples were tested for reliability of questionnaire and reliability of two questionnaires was measured via re-test using Cronbach's alpha. Three general scales of motivational factors, inhibiting factors and Scherrer self-efficacy enjoyed Cronbach's alpha coefficient above 0.7. The sample size (384) was estimated using the statistical formula. Then the patients treated with hemodialysis referred to selected hospitals in Tehran during 2015-2016 were included in the study regarding the inclusion criteria. By compliance with code of ethics in the research, the participants were included in the study after informed of the goal of research with informed consent and privacy of information as well as liberty of patients whether to participate in the research or not.

RESULTS

With regard to the results, majority of participants in the study developed from men (54.7%) and 85.9% of patients have been married. Average age of patients under study has been 55.51years old and most of patients (28.1%) have been illiterate and 44% of patients have been treated with hemodialysis for 1 to 4 years and most percent of patients were treated with hemodialysis for three sessions per week (table 1). Findings related to determination of relationship between various dimensions of motivational and inhibiting factors and self-efficacy of patients have been represented in table 2. With regard

Table 1: Frequency distribution of the units under research in terms of demographic characteristics in the study on the relationship between motivational and inhibiting factors and efficacy in patients treated with hemodialysis referred to selected hospitals in Tehran during 2015-2016

Demographic variables Highest class	Frequency	Percent	Lowest class	Frequency	Percent
Gender male	210	54.7	women	174	45.3
Age 41-54	178	46.4	25-40	36	9.4
Marital status married	330	85.9	single	14	3.6
Education illiterate	108	28.1	diploma	53	13.8
Employment unemployed	99	25.8	Unemployed	3	0.8
Monthly income under500 000	133	34.6	1000000-1500000T	63	16.4
Treatment duration 1-4 years	169	44	More than 12y	32	8.3
Status of living with spouse and children	190	49.5	with parents	4	1.0
Diseases(4 diseases)	75	19.5	1 disease	1	0.3
Numberof sessions 3 sessions	190	49.5	One session	3	0.8
Insurance status have it	338	88	no	46	12

Table 2: The relationship between patients' attitude towards motivational and inhibiting factors to separation of dimensions with self-efficacy variable in the patients treated with hemodialysis referred to selected hospitals in Tehran during 2015-2016

	Self-efficacy	
Attitude towards physical motivational factors	Correlation level(r)	**620/0
	Sig.(sig)	000/0
Attitude towards mental motivational factors	Correlation level(r)	**578/0
	Sig.(sig)	000/0
Attitude towards social motivational factors	Correlation level(r)	**490/0
	Sig.(sig)	000/0
Attitude towards physical inhibiting factors	Correlation level(r)	**641/0-
	Sig.(sig)	000/0
Attitude towards mental inhibiting factors	Correlation level(r)	**635/0-
	Sig.(sig)	000/0
Attitude towards social inhibiting factors	Correlation level®	**467/0-
	Sig.(sig)	000/0

to the obtained results, there is a significant relationship between physical, mental and social dimensions of motivational and inhibiting factors and self-efficacy of patients. There is a positive significant relationship between patients' attitude toward motivational factors and self-efficacy (P<0.01). Intension of relationship in these three sub-scales reduces from physical inhibiting factors to mental and social inhibiting factors, thus the highest inverse relationship was observed between physical factors and self-efficacy and the lowest inverse

Table 3: Frequency distribution of patients in terms of self-efficacy in the study on the relationship between motivational and inhibiting factors and self- efficacy in patients treated with hemodialysis referred to selected hospitals in Tehran during 2015-2016

Frequency / self-efficacy	No	Relative percent	Accumulative percent
Low(17-39)	81	1/21	1/21
Average(40-64)	224	3/58	4/79
High(65 and above)	79	6/20	0/100
Sum	384	0/100	
Mean: 51.32; standard deviation: 12.47; minimum: 34; maximum: 79			

relationship was observed between social factors and self-efficacy. On the other hand, results indicate that there is a negative significant relationship between patients' attitude towards inhibiting factors and self-efficacy (P<0.01). Thus the more patients' attitude towards physical, mental and social inhibiting factors, self-efficacy reduces in patients. Intension of relationship in these three sub-scales reduces from physical inhibiting factors to social and mental inhibiting factors, thus the highest inverse relationship was observed between physical factors and self-efficacy and the lowest inverse relationship was observed between social factors and self-efficacy. Further, findings related to self-efficacy indicated that 58.3% of patients reported average self-efficacy. The lowest and highest self-efficacy in these patients equaled to 34 and 79, respectively. Further, among 384 patients, 81 patients had the low self-efficacy and 224 and 79 patients described self-efficacy at low and high level, respectively. Thus, majority of patients had average self-efficacy (table 3).

DISCUSSION

The study by Nejad et al is consistent with the results of this study, indicating that the patients treated with hemodialysis enjoyed an average self-efficacy before holding training sessions Nejad et al,2013]. Ismaeili et al [2005] and Tsay and Hung [2004] reported extent of self-efficacy in patients at average level. Feeling of self-efficacy motivated the person and enabled him to make great tasks in dealing with obstacles using the skills. In the study by Ismaeili et al [2005], the patients treated with hemodialysis enjoyed average self-efficacy, which this has been consistent with the results from the present research.

Contrary to the present study, the study by Khosh Nazar et al[2014]. indicated that patients treated with hemodialysis enjoyed proper self-efficacy. The study by Ismaeili et al [2015] on patients after coronary artery bypass surgery, most of patients enjoyed proper and average general self-efficacy and just 2% of patients had poor self-efficacy. The study by Manani et al indicated that there is a direct significant relationship between self-efficacy and self-concept of patients treated with hemodialysis, so that the self-efficacy of patients increase by increasing their self-confidence(P<0.05). in the present research, there is a direct relationship between mental motivational factors and self-efficacy of patients treated with hemodialysis and there is a negative significant relationship between mental inhibiting factors and self-efficacy of patients (P<0.05) (Manani et al. 2015).

In the study by Naseh et al, half of samples gained the total score of self-efficacy. In this study, there is a direct significant relationship between self-efficacy and physical, mental and social dimensions which this is same as the present research. In this study, there is a significant relationship between motivational and inhibiting factors and self-efficacy (Naseh et al. 2012). In the study by Sadeghi, there is a linear significant relationship between self-efficacy and various dimensions of quality of life. In the study by Sadeghi, the patients with diabetes gained the highest score in social dimension and the least score in physical dimension. In the present research, the intension of relationship has been witnessed in physical factors, mental motivational factors and social motivational factors. The inverse relationship sets between self-efficacy and inhibiting factors (Sadeghi, 2014).

In the study by Emdadi et al. conducted among students, there existed a significant relationship between self-efficacy, social support and depression, so that the students who enjoyed higher self-efficacy and social support had less depression. Findings of this research indicated that the social, physical and mental motivational factors involve in the self-efficacy. Thus, the more it can improve factors affecting improvement in self-efficacy in patients and reduce the inhibiting factors, it can assist the patients to have greater self-efficacy. On the other hand, physical factor was recognized as the most important inhibiting factor in the process of self-efficacy in patients, indicating that feeling of chronic pains is the most important inhibiting factor in the process of self-efficacy.

Thus it should assist the patients to pay more attention to their physical health and invoke to sports and healthy nutrition. The financial aids by government and facilities can play a major role in the process of self-efficacy facilitation for patients. With regard to the results from this research, it is suggested to conduct a study on the relationship between self-efficacy and various dimensions of quality of life to compare it with the results from this study.

ACKNOWLEDGEMENT

It is a great thank to all the patients, nurses, research deputy of Shahid Beheshti University and all the professors who assisted us to conduct this research.

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