

Comparing the Effect of Quality of life, Psychological Stressors and Coping Strategies in Kidney Patients and Normal People

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Abstract

The current research has been conducted with the aim of comparing the effect of quality of life, stressors and coping strategies in kidney patients and healthy people. The current research methodology is correlative. The population includes all of the kidney patients visiting Montaserieh hospital in Mashad during spring 2013 in a time span of one month. 50 kidney patients and 50 healthy individuals were randomly chosen as the sample. The tools used in this research were questionnaires of psychological stressors, quality of life and coping strategies. The achieved data were analyzed by the use of analysis of covariance ANCOVA (a multivariate analysis of covariance). Results showed that kidney patients have less quality of life and more amounts of stress than the healthy individuals. On the other hand, the patients take more use of emotion-focused coping strategies. Since the current study is a casual-comparative study it could be alleged that variables of psychological stressors, coping strategies and quality of life had a casual role in formation of kidney disease.

Keywords: Quality of Life, Psychological Stressors, and Coping Strategies.

Introduction

Kidney diseases are the type of diseases that not only threaten the physical health but they also threaten other aspects of health. At the current situation if the patients do not successfully receive a kidney they will get rid of premature death by the use of modern treatment methods such as hemodialysis, yet they will be exposed to a wide range of physical, psychological, economic and social problems that generally affect their quality of lives (Raymond, 2004). Since 10 years ago the quality of life of patients being treated with hemodialysis attracted attention of too many researchers. Recent studies show that 30-80% of these patients complain about sleep disorders such as staying awake at night, restless legs syndrome, late falling asleep, restlessness and sleepiness during days (Nonoyama, et al., 2010).

Generally the chronic renal failure and performing treatment methods such as hemodialysis leads to changes in the life style and the health status of the individual and it not only threatens the physical health but also threatens other aspects of health. These factors also affect the patient's quality of life (Chojak, Smolenski, Milkowski, Pitrowski, 2006). During the last decades the quality of life has known to be an important measure of health, in a way that it created this belief that the results of health services not only should result in increase of life expectancy but also should result in enhancing the quality of life (Katschnig, 2006; Kaplan, 2003).

According to the definition provided by WHO the quality of life is the individuals' understanding about their positions in life in terms of culture, value system they live within, aims, expectations, standards and priorities. Thus it is a totally individualistic subject and it is not observable by others and it is based on the understanding of individuals about different aspects of life. Researchers believe that studying the quality of life and trying to enhance it have important roles in the personal and social life health of the individuals (Mittal, Ahern, Flaster and et al, 2001; Meers, Hopman, Singer and et al, 1995; Mollaoglu, 2004; Morgan, 2000; Rebollo & Ortega, 2002; Rosen, 2002; Sehgal, 2003).

Different researches have shown that kidney patients have very low quality of life (Goodman & Ballou, 2004; Janssen van Doorn, Heylen, Mets and et al, 2004; Lee, Winters & Lee, 2003; Mittal and et al, 2003). Due to its debilitating nature, the kidney disease disables such kinds of individuals in different aspects of quality of life such as physical, psychological aspects, social relationships, economic status and environmental status, and considering the conducted research results it could be said that this disease interferes with the quality of life of patients and decreases it (Meers and et al., 1995; Mollaoglu, 2004).

Researches of Raymond (2004), Carr, Gibson, and Robinson (2001), Sayin, Mutluay, and Sindel (2007) showed that in addition to existence of depression, the decrease of social support and amount of perceived stress in kidney patients result in decrease of their quality of life and also they result in increase of death rate, so comparing these patients with healthy people they have more stress and less quality of life. On the other hand, the psycho-social stresses, risk factor being independent from age, sex and others are some risk factors of kidney patients that through psychoneuro-physiological mechanisms and stimulating the autonomic nervous system specially the sympathetic division increase the physiological reactions and help the occurrence or continuity of kidney diseases (Atkinson et al., 2000).

In a prospective study in USA, 900 aged males and females were surveyed during a 10-year period in terms of suffering from kidney diseases. Results showed that employed males and females in stressful jobs are 1.5 times more at the risk of catching kidney diseases than others. Also the mentioned research showed that high family pressure accompanied by stressful job can have negative effects on the individuals' health (Atkinson and et al, 2000). Thus in recent years paying attention to sources of stress and its coping strategies in different groups especially in people suffering from psychological and physical diseases and problems has become very important and it has been shown that using effective coping strategies had an important role in reducing stress (Bolhari, 2003). The health psychology considered high importance for the role of coping strategies in condition of physical and psychological health and based on Schultz & Chun the coping strategies are the widest negotiable case study in contemporary psychology and they are also one of the most important psychological and social factors which are the correlation between stress and disease (Schultz and Chun, 2000; Quoted by Letafati, 2009). Coping strategies that the individual chooses is in fact the one's vulnerability profile. Using inappropriate coping strategies in facing with stressful factors could result in increase of problems while using appropriate coping strategies could have beneficial consequences (Daeipour & Bayanzadeh, 1999).

Lazarus RS & Folkman (1984) stated two problem-focused and emotion-focused coping styles. Based on this, some of the individuals reduce their anxiety and tension by forgetting the problem or attracting emotional support (emotion-focused). Some others try to accurately define and evaluate the problem and study the possibility of a change by dominating it in order to reduce the undesirable effects of stress (problem-focused). Studies conducted by Breiterman-White (2005), Dayton & Lancaster (1995), Gregory (2003), Goodman and Ballou (2004) showed that the interference based on stress management is effective on reducing the physical symptoms of kidney

patients and it reduces the possibility of occurrence of psycho-physical disorders. Additionally it also reduces the depression symptoms and increases the kidney patients' quality of life.

Results achieved by studies of Chojak, Smolenski, Milkowski, Pitrowski (2006) showed that coping skills training for coping with stress results in improvement of quality of life of kidney patients. In a research Bagherian Sararouei, Ahmadzadeh, Yazdani (2008) also showed that hemodialysis patients have fewer tendencies toward using direct coping styles and in contrast they mostly use evasive and soothing styles in coping with stresses. Thus it seems that hemodialysis patients mostly use emotion-focused styles for coping with challenges caused by disease. Research results of Shafie Pour, Jafari, Shafie Pour (2009) are also based on the correlation between emotion-focused coping style and kidney disease. Interaction of such strategies for coping with stress results in increase of depression and inefficiency in individual. But some researches such as research of Cristovao (1999) showed that dialysis patients use the problem-focused coping style.

Studies have shown that stress, ineffective coping strategies and level of quality of life of individuals have important roles in occurrence of chronic diseases (Sayin, and et al, 2007; Parsons, Edwin, Toffelmire and et al, 2006; Raymond, 2004; Carr and et al, 2001).

A question that could be raised in this study is that is there any difference between the quality of life, stress and coping strategies of healthy and unhealthy individuals? In fact, according to the type of study which is casual-comparative, it could be said that the mentioned question means that if the quality of life, stress and coping strategies could cause kidney disease or not? Controlling problems and complications such as improving the quality of life and quality of sleep require the patient's participation in the process of treatment and care, and increasing the individuals' awareness is its prerequisite. On the other hand, stress is an important factor in creating chronic diseases and efficient coping strategies could be effective barriers versus the stress on the physical and psychological components of the patient.

Additionally the illness symptoms and also the stress itself and inefficient coping strategies that people have are some of the variables increasing the severity of illness. Thus the accurate study and evaluation of these variables in kidney patients and healthy people will show that which casual factors will be recognized as the causes of disease in terms of research variables and they are applicable in treating and training. Due to the fact that no appropriate studies have been conducted for studying the quality of life and psychological stressors and its coping strategies in kidney patients in Iran, thus this study was conducted by the aim of performing a comparative study between the correlation of quality of life, psychological stressors and their coping strategies in kidney patients and healthy people.

Methodology

Statistical society and sampling methods

The population includes Kidney patients in spring 2013 in a time span of one month who visited the Montaserieh hospital in Mashad. After matching the healthy individuals were also chosen from the people not having kidney disease. By the use of random sampling 50 kidney patients and 50 healthy individuals (n=50) were chosen and matched.

Instruments

Demographic Questionnaire: This questionnaire includes some of the demographic features such as age, sex, educational level, employment and marital status.

Quality of Life Questionnaire (SF-36): 36-phraseform was provided by Ware & Sherbourne 1992. This questionnaire includes 36 phrases. It evaluates 8 different fields of health such as physical health, physical role, physical pain, public health, fatigue or vitality, social performance, emotional role and mental health. The validity of the Persian version was evaluated by

Montzeri, Gohoshtasbi, Vahdaninia and et al (2005) and it was equal to $\alpha = 7\% - 9\%$. In the current research also the reliability of this questionnaire was achieved through the use of internal consistency approach and Cronbach's alpha and it was 0.79.

Coping Styles Questionnaire(1985): This questionnaire was provided by Folkman & Lazarus (1985) including 66 articles and it measures 8 methods of problem-focused and emotion-focused coping styles. These octal patterns are divided into two categories of problem-focused methods (including searching for social supports, responsibility, planned problem solving and reassessment) and emotion-focused methods (including coping, avoiding, escape-avoidance, and continence). Folkman & Lazarus (1985) reported the internal consistency $\alpha = 0.66$ to 0.79 for each of the coping styles.

Psychological Stressors Questionnaire: This questionnaire measures the frequency and severity of psychological, social and physical stressors by the use of 29 phrases. The test reliability was reported through the use of internal consistency and Cronbach's alpha and it was reported 84.0 to 86.0 and generally the validity criteria of this scale do not get affected by sex and age (Welch, Austin, 1999). In the current research the reliability was achieved by the use of internal consistency method and use of Cronbach's alpha and it was 0.73.

Results

The current research has been conducted with the aim of comparing the quality of life, psychological stressors and coping strategies in kidney patients and healthy people. The analysis of covariance test (ANCOVA) was used for data analysis. The results of analyzing the data are provided below.

Table 1. Comparing the mean of quality of life, stressful events and severity of stress in two groups of healthy individuals and kidney patients

Variable	Individuals	Mean	SD	F ANCOVA	Significance level
Quality of life	Healthy	86.21	3.16	0.481	0.035
	patient	66.15	3.09		
Frequency of stressful events	Healthy	115.27	5.33	1.28	0.02
	Patient	152.14	4.29		
Severity of occurred stress	Healthy	115.27	5.33	2.01	0.01
	Patient	152.14	4.29		

Results of data analysis indicate that a significant difference exists between the quality of life, stressful events and severity of stress in healthy individuals and kidney patients and the mean of quality of life of healthy individuals is higher and the frequency mean of stressful events and mean of severity of occurred stress are higher in patients ($P < 0.05$).

Data analysis results indicate that no significant difference exists between the direct coping strategy of healthy individuals and kidney patients and the mean of direct coping strategy in both groups is equal ($P > 0.05$). A significant difference exists between distancing of healthy individuals and patients and the mean of distancing in healthy people is higher ($P < 0.05$). A significant difference exists between the self-management of healthy people and patients and the mean of self-management is higher in healthy individuals ($P < 0.05$). A significant difference exists between the avoidance coping strategy in healthy people and patients, and the mean of avoidance coping strategy is higher in healthy people ($P < 0.05$).

Table 2. Comparing the mean of emotion-focused coping strategies in two groups of healthy individuals and kidney patients

Emotion-focused coping strategy	Individuals	Mean	SD	F ANCOVA	Significance level
Direct (coping)	Healthy	5.19	1.22	1.59	0.06
	patient	4.86	2.08		
Distancing (avoidant)	Healthy	8.26	0.17	1.29	*0.01
	Patient	4.26	2.14		
Self-management (contenance)	Healthy	9.12	2.41	3.11	*0.03
	Patient	5.12	1.17		
Avoidance (escape)	Healthy	9.16	2.47	2.19	*0.02
	Patient	6.89	1.31		

*P<0.05

Table 3. Comparing the mean of problem-focused coping style in two groups of healthy people and patients

Problem-focused coping strategy	Individuals	Mean	SD	F ANCOVA	Significance level
Searching for social support	Patient	4.11	2.33	1.66	0.072
	Healthy	5.03	1.10		
Responsibility	Healthy	6.27	1.83	3.16	0.064
	Patient	5.69	2.11		
Planned problem solving	Healthy	8.54	2.84	3.29	0.022
	Patient	4.26	1.17		
Positive reassessment	Healthy	9.29	2.11	1.09	*0.014
	Patient	4.61	1.41		

*P<0.05

Data analysis results indicate that no significant difference exists between searching for social support in healthy people and patients and the mean of searching for social support in healthy people and patients is equal ($P>0.05$). There is no significant difference between responsibility in healthy people and patients and the mean of responsibility in healthy people and patients is equal ($P>0.05$). A significant difference exists between the planned problem solving coping strategy in healthy people and patients and the mean of planned problem solving coping strategy is higher in healthy people ($P>0.05$). A significant difference exists between the positive reassessment coping strategy in healthy people and patients and the mean of positive reassessment coping strategy is higher in healthy people ($P<0.05$).

Conclusions

Results of this research showed that kidney patients have less quality of life than the healthy people and they experience higher levels of stress. On the other hand kidney patients take more use of emotion-focused strategies and compared to the healthy people they take less use of problem-focused coping strategies.

Due to the high costs, different physical, psychological and/or social problems, the public health and quality of life of kidney patients are at undesirable situation. On the other hand, the

patient who is under treatment has to deal with different costs of commuting to health centers which will necessarily be decreased from the household budget, meanwhile due to the continuous dialysis in some kidney patients, employment, family and social situation many individuals will be exposed to change. Since usually the recipients of kidney transplant have also passed the period of hemodialysis they have not been stayed safe from its effect on their quality of life. Additionally since the recipients of kidney transplant have relatively recovered compared to the patients under hemodialysis, it is expected that they would have more desirable quality of life, but the achieved results are in contrast with this expectancy, and they confirm the necessity of using social and economic supports and this very same issue causes the kidney patients to have less quality of life. In fact, the kidney disease has unfavorable effects on the quality of life and its different aspects. Findings of Breiterman-White (2005) also confirm these results and in his studied sample the kidney patients did not have high quality of life. Research of Shokri, Kadivar, Daneshvarpour (2007) also showed that stressful events are effective in occurrence of physical and psychological diseases. Stresses disrupt the individual's performance in social, psychological, physical and family domains. Psychological changes such as increased irritability, nervousness and inability in controlling oneself result in disruption of family and social relationships. In addition to that, by affecting the endocrine system they result in secretion of hormones causing several physical and psychological disorders.

In fact the kidney disease and its side effects and the drugs and treatment create stress in individual and additionally the disease limitations have serious effects on the belief system and the behavioral mechanism of the individual and this makes the individual not to be able to perform tasks at optimum levels. Also daily stress could cause a situation in which the individual consider life as an insecure phenomenon, and the individual's quality of life will be negatively affected. The stress caused by daily events gradually affects the activity of different systems such as immune system and it could weaken or disturb them. Thus individuals who could cope with these pressures could have better physical and psychological conditions. The current research results showed that kidney patients take more use of emotion-focused coping styles. These results were consistent with the results of Rapisarda, Tarantino, De Vecchi and et al (2006), Logan and et al (2006), and Pucheu, Consoli, D'Auzac and et al (2004) but they were not consistent with the results of Baldree Murphy, and Powers and et al (1982), Gurklis and Menke (1988), Klang, Björvell, and Cronqvist (1996). In these researches it has been stated that kidney patients take more use of problem-focused coping styles. It seems that some part of these differences and similarities in findings of this research and other mentioned studies are due to the cultural-social similarities and differences.

Individuals suffering from chronic diseases such as kidney disease use more inefficient coping strategies such as emotional inhibition, denial, crying, expressing negative emotions and ... against problems. These strategies do not have any role in changing the problematic situations and they may also result in increasing their time periods which lead to continuity of showing disease symptoms. When individuals face an event which has an emotional load they reveal their emotions. This revealing of emotions are more in some individuals and less in some others. In researches of Fine and Krieger (1995), Chojak, Smolenski, Milkowski, Pitrowski (2006) they concluded that repression of aggressive and negative emotions and feelings result in formation of a kind of superficial and false calmness and it causes the expression of negative emotions to reach minimum level. It seems that this strategy is not beneficial and useful and it does not help the individual's health, because repression of anger increases the blood pressure more than the time when the individual expresses his/her anger. Individuals being exposed to stressful conditions have more tendency toward emotional coping strategies in order to calm sooner but these strategies are temporary. If a person under stressful conditions could cognitively survey his/her situation and enter directly and plan for coping with the stressor, he/she let go of ancillary activities, uses others'

support and help him/herself in giving meaning and forming a new belief to his/her life with disease and makes a new plan and he/she copes with it in a realistic manner and this causes him/her to behave more rationally and stay away from wasteful pressures and stresses and increase his/her quality of life. This method of coping is exactly the problem-focused method and the results of this research indicate that kidney patients take less use of this method and from this point of view they are significantly different from healthy people. Emotion-focused coping strategy is known as a short-term and efficient method but in long-term it prevents psychological adaptation and increases the signs of frustration. In other words, if the kidney patients use these strategies it will prevent them from direct and effective facing with the problem and it will decrease their potentialities for solving the problem. This condition results in disruption in intellectual coherence and emotional turmoil and it decreases their physical health and this issue results in decrease of quality of life. In addition to that, by the use of problem solving method the individual could form an intellectual discipline and find more effective solutions for coping with his/her life situations that are beyond his/her abilities and continue his/her daily activities as far as possible. As a conclusion the feeling of frustration decreases which leads to increase of mood in patient. Results show that in order to improve the treatment process of kidney patients and increase the quality of life these individuals have to be empowered in using these coping strategies and this needs a training plan parallel with other medical treatments.

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