The Role of Religious Coping in Perception of Suffering among Patients Undergoing Dialysis

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Abstract

Background: Chronic kidney disease is a threatening condition for the health, economic and social status of the affected person, his/her family and society.

Objective: With regard to the mental and health issues that patients undergoing dialysis encounter, the current study aimed to examine the role of religious coping in perception of suffering among these patients.

Methods: The current correlational study had a statistical population including all patients undergoing dialysis referred to Ali-Ibn-Abi-Talib (AS) hospital in Zahedan, Iran, in 2015. The sample included 50 individuals selected using the convenience sampling method. To collect data, the perception of suffering scale and the religious coping scale were used and the obtained data was analyzed using the Pearson correlation coefficient and stepwise regression analysis via SPSS.

Results: The correlation results showed that religious activities (a dimension of religious coping) and psychological suffering (a dimension of perception of suffering) were significantly and inversely correlated (P < 0.01). Moreover, the results indicated that religious activities (a dimension of religious coping) could predict 0.09 of the variance in psychological pain (a dimension of perception of suffering).

Conclusions: The increase in religious and spiritual activities can lead to a decrease in psychological pain among patients undergoing dialysis.

Keywords: Dialysis, Patients, Pain, Religion

1. Background

Chronic kidney failure is a life threatening condition that 2% to 3% of people deal with it worldwide. This failure leads to an irreversible loss of kidney function and kidney diseases and patients should be dependent on kidney replacement therapies for the rest of their lives (hemodialysis, peritoneal dialysis and kidney transplant) to prevent uremia and its complications (1). Disorders are caused as a result of the chronic kidney failure and the complications of hemodialysis make life very difficult for such patients and they should face many challenges to reach an acceptable level of health and physical, mental and social functioning (2). One of the most prevalent issues among patients undergoing hemodialysis is chronic pain. More than 50% of patients with kidney diseases and nearly 54% of patients undergoing hemodialysis have moderate to severe levels of chronic pain (3).

Pain is an unpleasant feeling and emotional experience perceived by people as a consequence of physical health problems such as injuries and diseases or as an implication of mental conditions caused by emotional factors (4). To cope with pain and complications, people usually try to understand, explain and interpret it, attempt to overcome the complication and interpret it (5). In hard times, religion plays a role as a potential source of comfort and conformity (6).

Spirituality helps people to overcome the issues that they face and offers an optimistic and a hopeful outlook through creating a sense of purpose and meaning and integrating people's mental states (7). Pargament defined religion as a kind of religious coping. Religious coping is an internal source, which helps people to search for a meaning at the time of injury and creates intimacy with God, helps people to perceive the meaning of life, and leads to mental comfort (8). Spirituality increases patients’ awareness, helps them to pay more attention to unknown aspects of life and to refine their thoughts, and helps patients to focus on the problem and on the method of dealing with it (9). Krause, in a study, indicated that suffering makes people aware of the existence of God and this is why people apply religion/spirituality as a way to deal with their pain and complications (10).

In recent years, health psychology paid great attention to the role of people's coping strategies and lifestyles in their levels of mental health. In this regard, religious cop-
The experience of pain accompanies by various negativity, anxiety and inability to cope with stress, are common among patients undergoing hemodialysis who experience suffering. Several symptoms, including disability, depression, insomnia, extreme irritability, anxiety and inability to cope with stress, are common among patients undergoing hemodialysis who experience pain. The experience of pain accompanies by various negative and chronic effects. Different pharmaceutical and non-pharmaceutical methods are applied as pain relief methods. Given that pharmaceutical methods of relieving pain have many side effects and since several studies showed that suffering in patients with chronic pain may disrupt their daily functioning, safer methods with less complication should be sought in order to help patients to endure lower levels of pain. In this regard, the present study aimed to answer the following question: Do non-pharmaceutical methods, like the positive and negative religious copings, affect the level of pain in patients with kidney diseases?

2. Objectives

Since very few studies are conducted to examine the role of religious coping in perception of suffering, the present study aimed to determine the role of religious coping in perception of suffering among patients undergoing dialysis.

3. Methods

3.1. Research Environment and Patients

The current study employed descriptive-correlational method to predict the criterion variable. The predictor variable was religious coping and the criterion variable was the perception of suffering. The statistical population included all patients undergoing dialysis referred to Ali-ibn-Abi-Talib (AS) hospital in Zahedan, Iran, in 2015. The sample was selected using the convenience sampling method. Based on the results, 50 participants were selected (with a confidence interval [CI] of 95% and test power of 80%).

To collect data, the patients willing to participate in this study, were asked individually to complete the questionnaire. The questionnaires were read to the illiterate patients and the selected responses by these patients were marked. All subjects expressed their consent to participate in the study.

Inclusion criteria were being 18 years old or older, having (at least) contradictory with acceptable understanding of Persian language, undergoing hemodialysis two or three times a week lasting for three to four hours, and not dealing with any psychological disorders. Exclusion criteria were all conditions that prevented the continuation of the study (i.e., physical and mental crises) and hospitalization due to an acute disease. None of the samples were excluded from the study.
3.2. Questionnaires

Two questionnaires on perception of suffering and religious coping were used to collect data.

3.2.1. The experience and perception of suffering scale

This scale was developed by Schulz et al. and measures three dimensions of suffering including physical, psychological and existential-spiritual suffering. The dimension of physical suffering includes nine items and two parts. In the first part, subjects are asked to indicate how much they experienced the mentioned symptoms in the last seven days and in the second part, subjects are asked to demonstrate how much each mentioned symptom was upsetting and stressful. Subjects can choose their answers based on a 4-point Likert scale ranging from never to always. In the physical dimension, the minimum score is 0 and the maximum 27.

The dimension of psychological suffering contains 15 items. In the items on psychological suffering, subjects are asked to indicate how often they experienced the listed excitements in the last seven days. Subjects can choose an answer ranging from never to always. In the psychological dimension, the minimum score is 0 and the maximum 45.

In addition, existential-spiritual suffering is measured through applying nine items. The subjects are asked to indicate to what extent the statements related to their feelings in the last seven days are true and they can choose an answer ranging from never to always. In the existential-spiritual suffering dimension, the minimum score is 0 and the maximum 27.

The reliability of this scale was examined and confirmed by Schulz in three groups of African-Americans (physical 0.63, psychological 0.9 and existential-spiritual 0.86), white people (physical 0.43, psychological 0.87 and existential-spiritual 0.84), and Spanish people (physical 0.6, psychological 0.85 and existential-spiritual 0.83) (24). In a study on patients with HIV, the Cronbach’s alpha coefficients of physical suffering, psychological suffering and existential-spiritual suffering were 0.71, 0.84 and 0.81, respectively. In the current study, the Cronbach’s alpha coefficients of physical suffering, psychological suffering and existential-spiritual suffering were 0.79, 0.84 and 0.81, respectively (25).

3.2.2. Religious Coping Scale

This scale was developed by Aflakseir and Coleman. This scale evaluates religious activities (six items, its score ranges from 0 to 24), negative feelings towards God (four items, its score ranges from 0 to 16), benevolent reappraisal (six items, its score ranges from 0 to 24), passive religious coping (three items, its score ranges from 0 to 12) and active religious coping (three items, its score ranges from 0 to 12). The items are scored based on a 5-point Likert-type scale ranging from never = 0 to always = 4.

The positive religious coping includes three subscales, i.e., religious activities, benevolent reappraisal and active religious coping. Thus, the minimum score is 0 and the maximum 60 for the positive religious coping. The negative religious coping includes negative feelings towards God and passive religious coping. Thus, the minimum score is 0 and the maximum score 48 for the negative religious coping.

The Cronbach’s alpha coefficients of the reliability of religious activities, benevolent appraisal, negative feelings towards God, passive coping and active coping were 0.89, 0.79, 0.79, 0.72 and 0.79, respectively (26). In another study, Cronbach’s alpha coefficients of religious activities, benevolent appraisal, negative feelings towards God, passive coping and active coping were 0.71, 0.72, 0.71, 0.74 and 0.70, respectively (27). In the current study, the Cronbach’s alpha coefficients of religious activities, benevolent appraisal, negative feelings towards God, passive coping and active coping were 0.68, 0.65, 0.58, 0.55 and 0.82, respectively.

3.3. Ethical Consideration

The protocol of the study (CT-18667) was reviewed and approved by the department of psychology at University of Sistan and Baluchistan in Zahedan, Iran. The main objectives and protocols of the study were explained to the participants. They were assured of the confidentiality of the collected information and freedom to withdraw from the study at any time during the study. Informed consents were obtained from all the participants.

Afterwards, the questionnaires were distributed among the patients. Whenever a question seemed vague, some additional explanations were also provided. It should be noted that these explanations were provided to avoid any kinds of ambiguity and/or bias.

3.4. Statistical Analysis

The Kolmogorov-Smirnov test was used to investigate the assumptions of parametric statistical tests and the results indicated that the levels of normal assumption for all dimensions of perception of suffering and religious coping were all greater than $P \leq 0.05$. Therefore, the null hypothesis of normality of data was not rejected. This means that the data were normal.

The obtained data was analyzed using the Pearson correlation coefficient and regression analysis via SPSS ver. 19. The Pearson correlation coefficient was used to probe the relationship between religious coping and perception of suffering and stepwise regression analysis was conducted.
to examine the role of religious coping to predict perception of suffering among the reliability of dialysis. Level of statistical significance was \( P < 0.05 \). Missing data were not included in the analyses.

4. Results

According to the obtained results (Table 1), 52% of the subjects were male (26 individuals) and 48% of them were female (24 individuals). Moreover, 32% of the subjects were single (16 individuals) and 68% married (34 individuals) and the highest frequency was related to the age group of 45 to 55 years old (28%). Considering their level of education, 28% of the subjects were illiterate, 22% of them finished the elementary school, 16% of them finished middle school, 22% of them had a high school diploma and 12% of them had a bachelor’s degree.

Table 1. Demographic Data of the Study Subjects

| Variable                     | Frequency | Percent |
|------------------------------|-----------|---------|
| **Education**                |           |         |
| Illiterate                   | 14        | 28      |
| Elementary school            | 11        | 22      |
| Middle school                | 8         | 16      |
| High School                  | 17        | 34      |
| Diploma and higher           |           |         |
| **Marital status**           |           |         |
| Single                       | 16        | 32      |
| Married                      | 34        | 68      |
| **Gender**                   |           |         |
| Male                         | 26        | 52      |
| Female                       | 24        | 48      |
| **Age, y**                   |           |         |
| 12 - 27                      | 16        | 32      |
| 28 - 43                      | 9         | 18      |
| 44 - 59                      | 16        | 32      |
| 60 - 75                      | 9         | 18      |
| **Total**                    | 50        | 100     |

The descriptive data (Table 2) indicated that the means of physical suffering, psychological suffering, and existential/spiritual suffering were 7.02, 12.56 and 14, out of maximums of 27, 45 and 27, respectively. These results showed that existential/spiritual suffering had the highest mean.

The results (Table 3) also showed that the means of all dimensions of the positive religious coping were greater than the average score of the questionnaire. Moreover, the means of all dimensions of the negative religious coping were lower than the average score of the questionnaire.

The results of the Pearson correlation coefficient indicated that religious activities (a dimension of religious coping) were significantly and adversely related to psychological suffering (a dimension of perception of suffering) at the 99% confidence interval \( (P = 0.01) \); however, religious activities (a dimension of religious coping) were not correlated with physical and existential-spiritual dimensions of suffering (dimensions of perception of suffering). In addition, none of the other dimensions of religious coping were significantly related to dimensions of perception of suffering (Table 4).

The results of stepwise regression analysis conducted to predict perception of suffering showed that only religious activities (a dimension of religious coping) predicted 0.09 of the variance in psychological suffering (a dimension of perception of suffering). Therefore, religious activities had a significant and diverse relationship with psychological suffering. Beta coefficients indicated that a unit of change in religious activities changed the psychological suffering about 0.34 (Table 5).

5. Discussion

In the current study, the results of the Pearson correlation coefficient indicated the correlation between religious activities and psychological suffering. Moreover, the
Table 4. The Results of the Pearson Correlation Coefficient between Dimensions of Religious Coping and Dimensions of Perception of Suffering Among Study Subjects

| Variables                  | Physical Suffering | Psychological Suffering | Existential/Spiritual Suffering |
|----------------------------|--------------------|-------------------------|---------------------------------|
| Religious activities       | -0.02              | -0.34<sup>a</sup>       | -0.05                           |
| Negative feelings towards God | 0.09               | 0.13                    | -0.01                           |
| Benevolent appraisal      | -0.12              | -0.17                   | 0.05                            |
| Passive religious coping   | -0.12              | 0.01                    | -0.09                           |
| Active religious coping    | 0.19               | -0.01                   | -0.09                           |

<sup>a</sup>P < 0.001

Table 5. The Results of Stepwise Regression Analysis Conducted to Predict Dimensions of Perception of Suffering among Study Subjects

| Variables                  | R    | R<sup>2</sup> | Adjusted R<sup>2</sup> | Beta | t    | F (df) |
|----------------------------|------|---------------|------------------------|------|------|--------|
| Predictor                  | Criterion |            |                        |      |      |        |
| Religious activities       | Psychological suffering | 0.34 | 0.11 | 0.09 | -0.34<sup>a</sup> | -2.52 | 6.37 (1, 48)<sup>a</sup> |

<sup>a</sup>P < 0.001

The obtained results were in line with those of a study that revealed religion can provide a ground that facilitates the interpretation of a disease for patients (28). Additionally, another study showed that spirituality was associated with mental health and mental well-being and that it influenced coping strategies, attitudes and perceived meaning (29). Zellani demonstrated that patients’ religious beliefs and prayers, as religious activities, helped patients to experience lower levels of suffering. Religious-spiritual coping can be very helpful when dealing with chronic diseases (14). Several studies argued that people under stress often converted their general religious beliefs to specific coping strategies or problem-solving behaviors (22). Furthermore, they showed that religion and spirituality were associated with a decrease in the level of stress. A study conducted on patients with breast cancer indicated the importance of religious coping in improving the level of quality of life and found the significant influence of religious coping among patients with breast cancer (30). A longitudinal study demonstrated that promoting spiritual and religious aspects after diagnosing HIV infection can slow down the progression of the disease (31). In another study, it was concluded that positive religious coping was associated with more hope, psychological comfort and purpose in life and less psychotic symptoms (32). A study indicated that positive religious coping was correlated with an increase in the level of quality of life, health, mental and social health, and a decrease in the level of psychological distress symptoms (26). In Iran, Hasankhani conducted a study on chemical warfare veterans and mentioned that religious coping strategies were among positive and affective factors which influenced the endurance of pain and suffering caused by chemical injuries (27).

In the current study, the dimensions of the negative religious coping were not significantly related to the physical and existential-spiritual dimensions of perception of suffering. In spite of this result, a two-year longitudinal study, conducted on 268 elderly patients admitted to a hospital, revealed that negative religious coping methods had risky effects on patients’ physical and mental health (29). Another study argued that individuals who expressed their anger towards God or questioned God were more anxious and their quality of life was negatively affected by their negative coping (33). Moreover, it was found that greater use of positive religious coping was associated with higher scores on the existential and support dimensions of quality of life, while greater use of negative religious coping was related to lower quality of life and increased risk of major depression and anxiety disorders (31, 34).

Furthermore, the results of the current study showed that the mean scores of patients undergoing dialysis on the physical and psychological dimensions of suffering were all lower than the mean score of the questionnaire; however, their mean score on the spiritual suffering was greater than the mean score of the questionnaire. More-
over, the mean score of patients undergoing dialysis on the positive religious coping was higher than the mean score of the questionnaire and their mean score on the negative religious coping was lower than the mean score of the questionnaire.

Most studies confirmed the effect of the duration of dialysis on the severity and extent of mental health issues among patients undergoing dialysis. However, the results of some studies showed that although the physical functioning of patients with hard-treated chronic diseases reduced over time, their mental health status remained fairly stable. This may be due to the fact that patients consistently and effectively coped with the disease (35).

Therefore, the majority of patients considered spiritual suffering as an integral part of their lives and believed that the spiritual suffering made them aware of the existence of God and helped them to be grateful. This helped them to control their social functioning. It can be concluded that despite the problems and stressors that a patient dealt with during a treatment, he/she could explain, interpret and give a meaning to his/her suffering.

5.1. Strengths and Limitations
The main strengths of the current study were as follows: First, the study was conducted through applying regression methods which helped the authors to obtain casual results. The second strength of the study was its subjects. The subjects of the current study included patients undergoing dialysis and, to the authors’ best knowledge, very few studies are conducted to examine suffering among this group of patients.

According to the results, it is recommended that institutes and centers that deal with patients undergoing dialysis pay more attention to these people’s religious coping styles and present related trainings and cultural programs aimed to promote their positive religious coping.

Among the limitations of the current study the small sample size, unwillingness of some patients due to their poor physical and mental conditions and low literacy or illiteracy of some of the subjects (solved through reading the questionnaires to them) can be mentioned. Therefore, it is suggested that future studies should be conducted on larger samples, other variables influencing perception of suffering among patients undergoing dialysis and subjects with different cultural backgrounds and religious beliefs.

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