

Religious/spiritual coping in people with chronic kidney disease undergoing hemodialysis

COPING RELIGIOSO/ESPIRITUAL EM PESSOAS COM DOENÇA RENAL CRÔNICA EM TRATAMENTO HEMODIALÍTICO

COPING RELIGIOSO/ESPIRITUAL EN PERSONAS CON ENFERMEDAD RENAL CRÓNICA EN TRATAMIENTO POR HEMODIÁLISIS

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ABSTRACT

The objective of the present study is to investigate the use of religious/spiritual coping mechanisms in patients with chronic kidney disease undergoing hemodialysis, by means of interviews using a sociodemographic questionnaire and the religious/spiritual coping scale. Data analysis was performed using descriptive statistics and multiple linear regression. A total of 123 individuals were interviewed, 79.6% of whom presented a high score for religious/spiritual coping and none of whom presented low or irrelevant scores. The variables that affected the religious/spiritual coping behavior were: gender, age group, treatment time, family income, and religious practice. In conclusion, the participants used religious/spiritual coping mechanisms as a strategy to cope with the disease, particularly women with a higher family income who attend church every week.

DESCRIPTORS

Renal insufficiency, chronic
Renal dialysis
Spirituality
Religion
Nursing care

RESUMO

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DESCRITORES

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RESUMEN

El estudio objetiva investigar el uso del coping religioso/espiritual en pacientes con enfermedad renal crónica en hemodiálisis. Investigación realizada en clínica de hemodiálisis, mediante entrevista, utilizándose cuestionario sociodemográfico y la escala de coping religioso/espiritual. Se utilizó estadística descriptiva, pruebas de coeficiente de correlación de Spearman, el análisis de varianza y el modelo de regresión lineal múltiple para el análisis de los datos. Fueron entrevistados 123 individuos, de los cuales 76,9% presentaban puntaje alto para coping religioso/espiritual, ninguno de ellos expresando puntajes bajos o irrisorios. Las variables que influyeron en el comportamiento del coping religioso/espiritual fueron: sexo, faja etaria, tiempo de tratamiento, renta familiar y práctica religiosa. Se concluye en que los pacientes estudiados utilizan de modo positivo el coping religioso/espiritual como estrategia de enfrentamiento a la enfermedad, destacándose las mujeres con renta familiar mayor y que frecuentan semanalmente la iglesia.

DESCRIPTORES

Insuficiencia renal crónica
Diálisis renal
Espiritualidad
Religión
Atención de enfermería

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INTRODUCTION

Chronic renal failure (CRF) is accompanied by a complex clinical picture, different etiologies and high morbidity levels. According to the Brazilian Nephrology Society, in 2009, 77.589 patients were under dialysis treatment in Brazil; in 2010, this figure increased to 92.091 patients⁽¹⁾.

It is considered a traumatic event, with significant psychic consequences that affect patients' experience⁽²⁾. Available treatments for this disease only provide for the partial replacement of the renal function, mitigating disease symptoms and preserving life, but none of them is curative⁽³⁾.

In addition, the treatment process is perceived as a difficult and painful experience; although it is essential for the life of CRF patients, treatment transforms their daily life, their routine, eating habits, among other aspects, causing changes in their physical and emotional integrity. Such experiences also involve significant changes in social and family life, which trigger dependence on Social Security and the loss of autonomy⁽⁴⁾.

Hence, CRF patients have to adapt not only to the disease and its treatment, but also to the many resulting physiological⁽⁴⁾, psychosocial⁽³⁻⁴⁾ and spiritual⁽⁵⁾ problems. In this context, many patients stick to faith and religion as a way to find support and relief for their suffering⁽²⁾.

Religion and spirituality are increasingly emphasized constructs in health care, as they can be perceived as a way to find meaning for life, to have hope and be in peace amidst severe events like the chronic illness⁽⁶⁾.

It should be highlighted that religion can be understood as a partial expression of one's own spirituality, practiced through traditions, ceremonies and sacred readings. Religion is transmitted through cultural heritage and accompanied by dogmas and doctrines; spirituality, then, can be defined as a person's essence, as a search for meaning and purpose in one's life⁽⁷⁾.

Experts who assess and document the effects of spirituality and religion in health have appointed a positive relation among various aspects of physical and mental wellbeing, and have also considered that these can provide support in difficult situations, traumatic events and/or stress⁽⁸⁾. In that context, both spirituality and religion can be understood as important disease coping strategies.

Coping refers to a set of cognitive and behavioral strategies, which individuals use to cope with stress situations⁽⁹⁾. When using religious resources as an alternative

to cope with adverse health conditions, the patient is using religious coping⁽¹⁰⁾, which can be defined as the use of religious beliefs to understand and deal with the stressing agents of life⁽¹¹⁾.

The study of religious/spiritual coping should be broad and based on a functional view of religion and its functions in coping. Thus, five key-functions of religion can be identified: search for meaning, control, spiritual comfort, intimacy with God and with others and the search to transform life. Based on each of these five basic functions, religious coping methods or strategies can be identified⁽¹¹⁾.

Although the religious coping concept entails positive connotations, it can be positive as well as negative; similarly, religious/spiritual coping strategies can be classified as positive and negative⁽¹¹⁾. Religious/spiritual coping comprises measures that exert beneficial effects on individuals, like seeking protection from God or a greater connection with transcendental forces, seeking comfort or help in religious literature, among others. Negative religious/spiritual coping, then, is related to measures that cause harmful consequences for individuals, like questioning God's existence, delegating the solution of problems to God, defining the stress condition as a punishment from God, among others^(9,11).

It is important for health professionals, especially nurses, who are constantly at the patients' side, to understand the meaning of spirituality and religion for them and how significant events like CRF can influence the way they deal with this experience, so that these phenomena can truly be part of holistic care in clinical practice⁽¹²⁾.

Thus, religious/spiritual coping methods can serve as significant support factors in coping with kidney failure and hemodialysis and, therefore, they can be an important tool in patients' spiritual assessment and, at the same time, be effective to help them use available resources in a better way⁽¹⁰⁾.

Based on this context, the aim of this study was to investigate the use of religious/spiritual coping in patients with chronic renal failure under hemodialysis.

METHOD

A quantitative, descriptive and cross-sectional study was developed. To guarantee the participants' rights and comply with the ethical aspects of research involving human beings, the study was submitted to the Research Ethics Committee at *Universidade Federal de Alfenas* and received approval under protocol No. 038/2010.

The research took place at the renal replacement therapy sector of a medium-sized philanthropic hospital

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affiliated with the Unified Health System, located in the South of Minas Gerais and serving as a regional referral institution for hemodialysis (HD). The institution provides hemodialysis and peritoneal dialysis services and, on average, attends 150 patients/month.

For the study, all HD patients in the first semester of 2010 were invited. This represents a convenience sample of CRF patients in the South of Minas Gerais, based on the following eligibility criteria: being a CRF patient and undergoing hemodialysis; aged 21 years or older, independently of gender; being oriented in time, place and person and able to express oneself verbally. All subjects' agreement to participate in the study was obtained through the signing of the Informed Consent Term.

Data were collected during HD sessions and interviews, which facilitated the subject's participation, as possible clinical alterations deriving from the chronic renal failure can make it difficult to complete data collection instruments, like visual and writing difficulties due to upper limb immobilization during hemodialysis treatment⁽¹³⁾.

Two data collection instruments were used. The sociodemographic questionnaire contained variables to describe the subjects' profile and questions related to the patients' spirituality/religiousness. Also, the Short Spiritual Religious Coping Scale (Brief-SRCOPE), which permits assessing the study participants' use of spirituality/religiousity as a mechanism to cope with the disease.

The SRC scale is a North American instrument with 92 items, originally called Spiritual/Religious Coping Scale⁽¹¹⁾, whose short version was validated for the Brazilian culture⁽¹⁴⁾. The summarized version, the Brief-SRCOPE, contains 49 items that cover coping, religious-spiritual coping and stress concepts. The scale questions are divided in two large groups: Positive SRC (Transformation of oneself and/or one's life; Actions in search of spiritual help; offering help to the other person; Positive position towards God; Actions in search of the institutional other; Personal search for spiritual knowledge; Distancing through God, religion and/or spirituality) and Negative SRC (Negative reassessment of God; Negative position towards God; Negative reassessment of the meaning; Dissatisfaction with the institutional other)⁽¹⁴⁾.

Answers are given on a five-point Likert scale, ranging from 1 (never) to 5 (very much) and scores permit the analysis and understanding of the data. The parameter used to analyze the mean Brief-SRCOPE scores regarding the respondent's use is: none or insignificant (1.00 to 1.50), low (1.51 to 2.50), average (2.51 to 3.50), high (3.51 to 4.50) and very high (4.51 to 5.00)⁽¹⁴⁾.

For this study, the instruments were submitted to a pre-test, involving 28 CRF patients who were not part of the sample. The aim of this test was to check the patients' understanding of the items and identify possible shortcomings. The internal reliability assessment of the instru-

ment through Cronbach's Alpha showed α : 0.94, evidencing good consistency.

For statistical data analysis, *Statistical Package for Social Sciences* (SPSS) software, version 17.0 for Windows was used. The obtained data were presented and summarized through descriptive statistics. For statistical treatment of the study variables, the following tests were used: Spearman's correlation coefficient, multiple linear regression model and variance analysis. Spearman's correlation coefficient is indicated for ordinal variables. This non-parametric procedure summarizes the magnitude and direction of a relation between two variables and tests hypotheses on the population's correlations. The aim of multiple linear regression modeling is to explain the relation between independent socioeconomic variables and the Brief-SRCOPE scores (total SRC, Positive SRC and Negative SRC). Variance analysis permits testing the equality of means hypothesis. Significance was set at 5% for the tests and 10% for the regression model parameters.

RESULTS

Sociodemographic and clinical characteristics

Study participants were 123 CRF patients under hemodialysis treatment, whose sociodemographic variables are presented in Table 1.

Table 1 – Distribution of the interviewed subjects according to sociodemographic characteristics - Minas Gerais, 2011

Variables	N (%)
Gender	
Male	65 (53)
Female	58 (47)
Age range	
21 to 31 years	4 (3)
32 to 42 years	15 (12)
43 to 53 years	31 (25)
54 to 64 years	41 (33)
65 to 75 years	27 (22)
Older than 76 years	5 (4)
Education level	
Has never studied	7 (6)
Unfinished Primary Education	84 (68)
Finished Primary Education	8 (6)
Unfinished Secondary Education	8 (6)
Finished Secondary Education	8 (6)
Unfinished Higher Education	3 (2)
Finished Secondary Education	5 (4)
Marital status	
Married	74 (60)
Single	15 (12)
Widowed	34 (28)

The mean age of the interviewed subjects was 56 years (standard deviation 12.55); 53% were male; 60% married; 87% had children and 88% affirmed living with their family. The education level was low, as 68% of the participants had not finished primary education (Table 1).

Concerning occupation, only 4 (3%) interviewees had a formal job, while the remainder depended on family help (38%) or benefits (58%) like disability insurance or retirement. Fifty-seven patients (46%) gained a monthly income of one minimum wage (reference at the time of data collection: R\$ 510); followed by 62 (50%) patients who informed two to four minimum wages, and only 4 (3%) who received more than five minimum wages.

As for the duration of hemodialysis treatment, 69 (56%) patients had been under HD for less than three years; 46 (37%) between three and five years and 8 (6%) more than five years. Concerning diagnosis time, 100 (82%) patients reported they had discovered the renal disease less than five years earlier.

Religious and spiritual characteristics

With regard to spirituality/religiousness related variables, 84% were Catholic and 97% considered religion and spirituality as important or very important in their lives; 55% attended the church/temple/place of prayer once or more per week and 98% usually prayed/meditated (Table 2).

According to the data, all CRF patients under study used religious/spiritual coping. The respondents' total SRC corresponded to the average score or higher, and most interviewees ranked in the high score (Table 2).

The mean total SRC score was 3.84 ($s=0.327$), which reflects a high score. In other words, the interviewees' mean use of SRC as a disease coping strategy was high. The mean Negative SRC was 1.49 ($s=0.403$), which corresponds to an insignificant score. The mean Positive SRC, then, amounted to 3.18 ($s=0.69$), i.e. an average score.

Table 3 – Spearman's correlation coefficients for sociodemographic variables and Religious/Spiritual Coping - Minas Gerais, 2011

		FE	TT	TD	E	RF	IRE	FIT
Positive SRC	Correlation coef	-0.073	0.209	0.098	0.006	0.101	0.248	-0.374
	p-value	0.423	0.021	0.280	0.952	0.272	0.006	0.000
Negative SRC	Correlation coef	-0.220	0.095	0.057	-0.138	-0.275	-0.021	-0.070
	p-value	0.015	0.300	0.530	0.129	0.002	0.818	0.442
CRE Total	Correlation coef	0.080	0.128	0.109	0.038	0.105	0.251	-0.069
	p-value	0.380	0.159	0.233	0.674	0.256	0.005	0.451

FE: age range; TT: treatment time; TD: time since discovery of the disease; E: education; RF: family income; IRE: importance of religion/spirituality; FIT: church/temple attendance frequency.

Variance analysis

According to the results found, statistical significance was found only between SRC and gender (Table 4), with women showing a higher mean Positive SRC and Total SRC

Table 2 – Distribution of interviewed subjects according to religious and spiritual characteristics - Minas Gerais, 2011

Variables	N (%)
Religion	
Catholic	103 (84)
Evangelical	19 (15)
Spiritist	1 (1)
Importance of religion/spirituality	
Not important	2 (2)
Somewhat important	1 (1)
Important	37 (30)
Very important	83 (67)
Attends church/temple/place of prayer	
1 or more per week	68 (55)
1 or more per month	38 (31)
1 per year	6 (5)
Never	11 (9)
Usually prays/meditates	
Yes	121 (98)
No	2 (2)
Total SRC scores	
Insignificant	0
Low	0
Average	22 (18)
High	98 (80)
Very high	3 (2)

Associations between Brief-SRCOPE and other variables Spearman's Correlation Coefficient

Positive SRC was significantly associated with treatment time ($p=0.021$) and the importance individuals attributed to religion/spirituality in their lives ($p=0.006$). As for the age range ($p=0.015$) and family income ($p=0.002$), it was observed that, the lower these two variables, the higher the use of Negative SRC. Total SRC was significantly associated with the importance the patients attributed to religion/spirituality ($p=0.005$), differently from the variables "time since discovery of the disease and education" and "church/temple attendance frequency", which showed no significant relations with SRC (Table 3).

than men, in accordance with the multiple linear regression model (Table 5).

The variance analysis results show no significance for the other study variables in relation to SRC.

Table 4 – Means and standard errors for Religious/Spiritual Coping measures related to gender - Minas Gerais, 2011

	p-valor	Sexo	Média	Erro padrão
Positive SRC	0.003	Male	3.003	0.098
		Female	3.370	0.065
Negative SRC	0.161	Male	1.439	0.052
		Female	1.541	0.049
Total SRC	0.024	Male	3.782	0.047
		Female	3.914	0.031

Multiple Linear Regression Model

In three multivariable (Positive SRC, Negative SRC and Total SRC), separated by the multiple linear regression model, between 15% and 21% of variance in spirituality

and religion was explained by a combination of various independent variables (Table 5).

Table 5 – Distribution of SRC and other study variables according to estimated multiple linear regression model parameters - Minas Gerais, 2011

	Positive SRC		Negative SRC		Total SRC	
	Parameters	p-value	Parameters	p-value	Parameters	p-value
<i>Intercept</i>	2.722	0.000	2.010	0.000	3.521	0.000
Age range	-0.095	0.068	-0.101	0.001	-	-
Gender	0.302	0.015	-	-	0.125	0.030
Treatment time	0.078	0.027	-	-	-	-
Family income	0.157	0.062	-0.129	0.009	0.126	0.002
Religious practice frequency	0.330	0.006	0.124	0.076	0.112	0.049
<i>F</i>	5.951	-	7.408	-	6.81	-
<i>R</i> ²	0.211	-	0.164	-	0.153	-

The significant associations occurred to explain the behavior of the three SRC types (Positive SRC, Negative SRC and Total SRC). The following variables were involved: age range, gender, treatment time, family income and religious practice (higher frequency of church/temple attendance: once or more per week). According to the data, the individuals that most used Positive SRC are: younger individuals, female, with longer treatment time and family income, and who attend church weekly.

Individuals who use Negative SRC are also younger and attend church weekly, but have a lower family income. Finally, women with a higher family income and who attend church weekly obtain the highest Total SRC.

DISCUSSION

The relation between spirituality and religion and health has turned into a clear paradigm to be established in health care; proving the use of these phenomena as a source of support in different disease conditions has represented a challenge for science⁽⁸⁾. In this study, the investigation of religious/spiritual coping in patients under hemodialysis treatment revealed that all of them used these strategies as a way to cope with the disease condition.

The collected data show that patients who consider religion/spirituality something important or very important in their lives showed a high religious/spiritual coping score. Total SRC levels were high in all religious groups found. In addition, positive coping was more frequent than negative, in line with the results obtained in another

study⁽¹⁰⁾, which aimed to investigate religious coping modes in Catholic and Evangelical male HIV/AIDS patients and observed a greater use of coping strategies that involved positive factors than negative factors. Knowing the importance patients attribute to their religion/spirituality can of course help nurses to establish religious coping strategies.

Women showed higher scores for positive use of SRC. Concerning the age factor, younger individuals showed higher SRC. According to literature^(10,15), higher age and female gender are related with better religious involvement, partially agreeing with the present research results.

Although scientific evidence exists that elderly people use coping strategies more⁽¹⁶⁾, in this study, low SRC use was observed among the elderly. It can be inferred that aged people, despite high religiousness, may not be capable of attending religious services with great diligence, due to physical limitation, thus reducing their final SRC score. For conceptual purposes, it should be highlighted that, according to the Statute of Elderly People⁽¹⁷⁾, elderly is considered as any population member aged 60 years or older.

Another variable that demonstrated influence on SRC use was treatment time, which also appeared in a study⁽¹⁸⁾, which justifies that, over time, the number of psychosocial or physiological stressors the patient has to deal with increases, which leads to the greater use of disease coping modes.

In this study, it could also be observed that family income directly influenced SRC use. In cases of high

family income, SRC use was positive, but negative in low-income situations. These data add up to already established knowledge, which affirms that the income variable is strongly associated with the patient's psychological adjustment. Thus, it can be considered that, besides the human aspects involved in the health-disease process, the variables related with people's material life context, in this case income, also need to be investigated; after all, these provide the solid substrate to support care actions⁽¹⁹⁾.

Finally, religious practice also provided significant contributions to SRC use, which strengthens the assertion that the reasons for a positive association between religion and health include the fact that religious beliefs and practices can evoke positive emotions. Hence, SRC cannot be *reduced* to non-religious coping forms⁽⁹⁾.

Internal consistency analysis of the set of Brief-SR-COPE items under study (Cronbach's Alpha 0.94) showed high internal consistency, with similar coefficients to those obtained in the scale validation⁽¹⁴⁾, i.e. 0.97.

According to literature, spirituality can be objectively assessed⁽²⁰⁾. Hence, the instrument used in this study can be useful for clinical practice, as it is easy to apply and able to identify the presence of the research phenomenon. The SRC represents a singular method to investigate the relations between religion/spirituality and health, permitting the study of positive and negative strategies, which seem important to identify and solve the ambiguities found in this relation⁽⁹⁾.

In a study of CRF patients, which aimed to describe the nature, prevalence and predictive factors of spiritual care, it was observed that the lack of satisfaction of patients' spiritual needs can contribute to increase their suffering in view of the disease⁽⁵⁾; this study also appointed that the spiritual needs of most CRF patients are not attended to, and that they need support to adequately manage the challenge of living with the disease. Therefore, asking the patients about religious/spiritual coping can represent an intervention form that makes them turn to coping and develop the possible benefits that may derive from this strategy⁽⁹⁾.

CONCLUSION

Patients with chronic renal failure submitted to hemodialysis, interviewed in this study, using religious/spiritual coping in a significant and positive way, in the same way as they find religion/spirituality important in their lives. More specifically, women with longer treatment times, higher family income and who practice religion show the highest religious/spiritual coping usage levels, mainly in the positive form.

Younger individuals, even if they attend church weekly but gain a lower family income, tend to use religious/spiritual coping negatively. Therefore, among the study variables, low family income interfered negatively in the use of religious/spiritual coping. Female gender and religious practice were variables that positively influenced disease coping.

Understanding the potential processes patients use to cope with their situation will allow the health team to provide adequate support, so as to facilitate coping with the disease. In professional practice, nurses will of course face the challenge of interpreting patients' spiritual behavior and recognizing its influence in coping with health problems or vital processes.

Nursing stands out because most of its time is spent close to patients; therefore, it seems convenient that these professionals are responsible for holistic care, which should promote and permit the use of religion/spirituality in the coping process with the disease, preventing a pessimistic and discouraged attitude to life with this pathology and, consequently, a decay in the patient's general health condition.

A study limitation is the fact that this is a highly personal and subjective phenomenon, but without scientific improprieties; which makes it important to further examine the use of religious/spiritual coping and the variables that influence its behavior, also assessing this phenomenon in other populations.

Also, additional research is needed to investigate health professionals' perspective about the importance of religion/spirituality in patient care, and also to contribute to enhance knowledge on religious/spiritual coping, which will further the clinical application of this phenomenon.

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