RELIGIOUSITY AND SPIRITUALITY RELATED TO THE SOCIO-DEMOGRAPHIC, ECONOMIC AND HEALTH VARIABLES IN THE OLDER PEOPLE

RELOJOSÍA E ESPiritualidade relacionadas às variáveis sociodemográficas, econômicas e de saúde entre idosos

RELIGIOSIDAD Y ESPIRITUALIDAD RELACIONADAS CON VARIABLES SOCIODEMOCRÁFICAS, ECONÓMICAS Y DE SALUD ENTRE ADULTOS MAYORES

ABSTRACT

Introduction: Brazil is living an accelerated population aging process. Through the anxieties of aging, religiosity/spirituality (R/S) has a prominent place in the lives of older people. Objective: to verify the association of socio-demographic, economic, and health variables with the dimensions of religiosity and spirituality. Methodology: cross-sectional study conducted by a home survey with 643 community older adults. The instruments used were the mini-mental state examination, characterization of socio-demographic, economic and health data; and a brief multidimensional measure of religiosity and spirituality. Descriptive analysis and multiple linear regressions with seven predictors were performed: gender, age, education, marital status, income, number of diseases and health perception. Results: female, 60+ years old, married couple, 1+ years of study and monthly income of one minimum wage predominated. Regarding the perception of health, 39.8% reported it as regular, 81.5% reported two or more diseases. In all dimensions of religiosity/spirituality (daily spiritual experiences; values/beliefs; forgiveness; particular religious practices; religious overcoming; religious support; organizational religiosity; global self-assessment), the gender predictor was statistically significant. In neither dimension was the income statistically significant. In four dimensions the marital status was present. In two dimensions age influenced. In three dimensions, education was inversely associated. In only one dimension the number of diseases impacted and in two dimensions the perception of health influenced. Conclusion: it was possible to realize that gender influenced all dimensions of religiosity/spirituality. Also, all predictors except the income one are associated with at least one dimension of religiosity/spirituality.

Keywords: Aged; Health of the Elderly; Healthy Aging; Socioeconomic Factors; Economic Indexes; Health Status Indicators; Religion; Spirituality.
Religiosity and spirituality related to the socio-demographic, economic and health variables in the older people

INTRODUCTION

Brazil has been living an accelerated process of population aging, which is a worldwide reality. In the context of anguish from aging, religiosity/spirituality (R/S) has a prominent place in the lives of older people, as aging brings existential issues and adverse situations and R/S represents a protective factor and a coping resource with stressful events. Religiosity is how much an individual practices a religion. Spirituality is wider and may or may not lead to the development of religious practices.

Studies on aging interfacing with R/S are indispensable by the need to better understand this relationship and propose actions that aim at dispensing the due value to care related to R/S in the older adults. Thus, this study aims to contribute to the expansion of knowledge on the topic by the reduced literature in the public health field. The analytical horizon has been concentrated for investigations in the psychiatry and mental health area, with Nursing focusing more on qualitative studies. Thus, we emphasize the indispensability of other studies, especially in public health, since it has been highlighted for the theme in the Brazilian context.

Since R/S is related to better health conditions in older adults related to resilience, quality of life and functional capacity, knowing the associated socio-demographic, economic, and health factors may assist Nursing professionals in planning strategies for this topic.

In this sense, the objective of this study was to verify the association of socio-demographic, economic, and health variables with the dimensions of R/S.

METHODS

This is a cross-sectional, observational and analytical home survey, conducted with elderly community population in a municipality in the interior of Minas Gerais. This is part of a larger study entitled: “Dependence on activities of daily living, frailty, and use of health services by elderly people in the Triângulo Mineiro,” developed by the public health research group of the Universidade Federal do Triângulo Mineiro (UFTM).

The population of the study was composed of individuals aged 60 years old or more, and both genders, living in the urban area. The older adults with cognitive decline were excluded according to the Mental State Mini-Exam (MMSE) score.

To calculate the sample size, we considered the coefficient of determination R^2 = 0.02 in a multiple linear regression model with seven predictors, with a significance level and test power of 0.80. Using the application Power Analysis and Sample Size (PASS) version 13, the values described were entered, and a minimum sample size of n = 711 was obtained. The main dependent variable was the Daily Spiritual Experiences dimension of the Brief Multidimensional Measure of Religiosity/Spirituality (BMMRS).

For the composition of random sampling for the participation of the older adults in the research, we proposed the use of the process of cluster sampling in multiple stages. The selection of the older adults was through an arbitrary draw of 50% of the census sectors of the municipality, according to a single listing of urban census sectors (n = 409), resulting in 204 sectors. The first census sector was randomly drawn. The interviews were divided by the

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census sector drawn, excluding sectors without the elderly, but with residence, sectors without houses, and sectors that did not complete the number of elderly. They occurred from January to April 2014, at home, by trained researchers (graduate and postgraduate students in health) and reviewed by field supervisors (faculty and postgraduate students).

Regarding the study variables, the socio-demographic, economic and health aspects were: gender (female/male); age range (60–70; 70–80; 80 or older); marital status (never married or lived with a partner, living with a spouse or partner, widowed, separated, divorced, education level (illiterate); 1–4; 4–7; 8; 9 or more); individual monthly income (no income; <1; 1; 1.5; 3–5; > 5), health perception (very bad; poor; regular; good, great); final number of diseases (0–2; 2 or more diseases), according to the interview elaborated by the authors of the Public Health Research Group/UFTM. A questionnaire from the study of Health, Wellbeing, and Aging (SABE) measured the health perception with a Likert-scale answer option: “Would you say that health is: great, good, regular, poor or very bad?”

BMMRS evaluated the R/S. This instrument was elaborated by Fetzer Institute and validated in the Brazilian version. It has 38 items and measures 11 dimensions. The answer options are organized in the Likert scale, with the score of each specific dimension, in which the lower the score, the higher the level of the dimension.

In this study, we used the eight quantitative dimensions of the 11 ones. They are: daily spiritual experiences (impact of religion and spirituality in daily life); values/beliefs (premise that God exists and affects human experience); forgiveness (feeling forgiven and forgiving); particular religious practices (religious activities performed individually); religious and spiritual overcoming (religiosity/spirituality strategies to deal with difficult circumstances); religious support (social relationships, support from the religious community); organizational religiosity (involvement with public religious activities); global self-assessment (self-reference to how religious/spiritual is considered).

As the interviews were conducted, they were reviewed and coded. A double-entry electronic database was built using the Excel program for subsequent verification of inconsistencies and their correction.

The analyses were performed using the Statistical Package for the Social Sciences (SPSS), version 17.0, reversing the value of the answers to BMMRS items, so that the most religious/spiritual ones had a higher score on BMMRS, except for negative items of religious/spiritual overcoming and the last question of religious support. Therefore, the scores of each dimension were calculated by the sum of its items, needing to recode the reverse items in different dimensions.

We performed a descriptive analysis including absolute and relative frequencies for categorical variables, while measures of central tendency (mean or median) and variability (standard deviation and amplitudes) were used to better understand quantitative variables. Multivariate analysis included multiple linear regression in determining the influence of socio-demographic, economic, and health predictors, obtaining each of the eight dimensions of the BMMRS scale and the contribution (β) on the response variable (increase or decrease) as an outcome. The significance level considered was α = 0.05.

The UFTM Research Ethics Committee approved the research under Nº 493.211, and all participants signed the Informed Consent Form.

RESULTS

From 711 elderly participants, there were 18 refusals, 13 dropouts, and 37 losses related to incomplete census sectors: sectors without older people, but with residence (12 elderly); homeless sectors (16 elderly); sectors that did not complete the number of elderly (nine elderly). The final study sample was 643 elderly participants.

Females (67.0%), 60–70 years old (42.3%), married (42.1%), 114 years of study (51.0%), and income of one minimum wage (45.1%) predominated in the study.

The highest percentage of the elderly regarding the perception of their health was 39.8% who reported regular level, and most of the participants (81.5%) self-reported two or more morbidities.

Regarding the eight dimensions of the BMMRS scale that assess the R/S level, the highest average was perceived in daily spiritual experiences (30.70 ± 4.19). The second-highest average was found in religious and spiritual overcoming (25.84 ± 2.68). The lowest average was found in organizational religiosity (5.52 ± 2.94) (Table 1).

Table 2 shows the results of the multiple linear regression analysis using the eight R/S dimensions as outcomes.

For daily spiritual experiences, the most important and statistically significant predictors were the gender (p = <0.001), the education level (p = 0.025) and the marital status (p = 0.035) (Table 2). Thus, women were predominant (β = 0.222), with less education level (β = -0.100) and without a partner (β = 0.091).

In the values/beliefs dimension (p = 0.006), the gender was the only statistically significant predictor, especially females (β = 0.182) (Table 2).

Regarding forgiveness, in addition to the predictor of gender (p = 0.004), the predictor of education level (p = <0.001) prevailed, with emphasis on females (β = 0.127) and low education level (β = -0.165) (Table 2).

In particular religious practices, the most important predictors in descending order were gender (p = <0.001), marital status (p = 0.030) and number of diseases (p = 0.004) (Table 2). Female elderly (β = 0.350), without a partner (β = 0.090), with a higher number of diseases (β = 0.334) were the most frequent.
In religious and spiritual overcoming, besides gender ($p = <0.001$), the predictor of health perception was associated ($p = 0.021$) (Table 2). We highlight the female gender ($\beta = 0.231$) and the best health perception ($\beta = 0.068$).

In religious support ($p = <0.001$), the gender was the only statistically significant predictor, especially females ($\beta = 0.201$) (Table 2).

In organizational religiosity, the predictors were significant: gender ($p = <0.001$), marital status ($p = <0.001$) and age ($p = 0.005$), (Table 2). We highlighted female elderly ($\beta = 0.262$), without a partner ($\beta = 0.137$) and older ($\beta = 0.049$).

The global R/S self-assessment was the item with the highest predictors associated. In decreasing order, there were: gender ($p = <0.001$), education level ($p = 0.006$), marital status ($p = 0.004$), age ($p = 0.022$) and health perception ($p = 0.040$) (Table 2). We highlighted female ($\beta = 0.231$), low education level ($\beta = -0.122$), without partner ($\beta = 0.119$), older ($\beta = 0.098$), and better health perception ($\beta = 0.036$).

In all the dimensions, the highest average R/S was on females. In neither dimension was the income statistically significant.

**DISCUSSION**

The results of this study enabled us to know in detail from socio-demographic, economic, and health aspects a profile of the older people associated with each of the dimensions of religiosity/spirituality, not only for R/S in general.

Knowing the R/S in its specific dimensions, an approach not informed in the literature provides detailed information on which aspects of the R/S the socio-demographic, economic, and health variables exactly operate.

Regarding socio-demographic characteristics, this study showed that older women represented a higher percentage. A national study conducted by the FIBRA project in UNICAMP with community older adults indicates the same result. Regarding the age group, there were similar results found in research conducted by the Elderly Health Surveillance Network (REVISI) in Goiânia-GO with community older adults with a higher percentage age between 60 and 69 years old (50.1%) as well as in IBGE projections. According to the marital status, the study above with community older adults obtained similar percentage, indicating that most of the elderly lived with

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**Table 1 - Measures of central tendency, variability, and internal consistency of R/S dimensions in an elderly community population. Uberaba, MG, 2015**

<table>
<thead>
<tr>
<th>Dimensions BMMRS</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Average</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Spiritual Experiences (DSE)</td>
<td>7.00</td>
<td>36.00</td>
<td>30.70</td>
<td>30.00</td>
<td>4.19</td>
<td>0.83</td>
</tr>
<tr>
<td>Values and Beliefs (V/B)</td>
<td>2.00</td>
<td>8.00</td>
<td>7.09</td>
<td>7.00</td>
<td>1.02</td>
<td>0.57</td>
</tr>
<tr>
<td>Forgiveness (FORG)</td>
<td>3.00</td>
<td>12.00</td>
<td>10.90</td>
<td>12.00</td>
<td>1.64</td>
<td>0.65</td>
</tr>
<tr>
<td>Particular Religious Practices (PRP)</td>
<td>5.00</td>
<td>37.00</td>
<td>24.55</td>
<td>25.00</td>
<td>6.07</td>
<td>0.59</td>
</tr>
<tr>
<td>Religious/Spiritual Overcoming (R/S OVE)</td>
<td>9.00</td>
<td>28.00</td>
<td>25.84</td>
<td>27.00</td>
<td>2.68</td>
<td>0.62</td>
</tr>
<tr>
<td>Religious Support (REL SUP)</td>
<td>6.00</td>
<td>16.00</td>
<td>11.20</td>
<td>11.00</td>
<td>2.97</td>
<td>0.71</td>
</tr>
<tr>
<td>Organizational Religiosity (ORG REL)</td>
<td>2.00</td>
<td>12.00</td>
<td>5.52</td>
<td>5.00</td>
<td>2.94</td>
<td>0.65</td>
</tr>
<tr>
<td>Global Self-Assessment (GL SAS)</td>
<td>2.00</td>
<td>8.00</td>
<td>6.78</td>
<td>7.00</td>
<td>1.21</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Source: The authors, 2015.
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somewhere else. In education, equivalent results were found in studies of the FIBRA/UNICAMP project, REVISI, and IBGE projections, which obtained average years of study in line with the results of this research. Regarding the individual monthly income, research with elderly patients of a basic health unit (BHU) in a Brazilian capital found that the monthly income of most of the participants was up to one minimum wage (35.4%) which is similar to the findings of this research.

Considering the health perception variable, there was a similar result in a national study conducted by the FIBRA project with community older adults, whose participants rated their health as good (40.5%) or regular (38.5%). In the variable of number of diseases, a REVISI research in Goiânia-GO found similar data to this research. The aging of the world population is accompanied by growing prevalence of chronic and degenerative diseases.

In the R/S, the highest average was in daily spiritual experiences, showing how often older people experience R/S experiences. The second-highest average was religious and spiritual overcoming, showing R/S strategies used by the elderly population to deal with adverse circumstances. This information confirms a study that aimed to assess the stress level of older adults assisted by primary health care in Pium-hi, MG, suggesting that religiosity should be used as a promoter of well-being to prevent the evolution of stress. The lowest average was organizational religiosity, concerning the participation in religious meetings. International research of older adults from Leiria, Portugal, found a similar result. It indicated that contact with religiosity does not necessarily involve temple attendance and frequency.

In this research, we verified the socio-demographic, economic, and health factors associated with the dimensions of R/S, suggesting that in a health action or intervention with religiosity/spirituality as its main component, Nursing professionals should be aware of the profile of the older adults.

In daily spiritual experiences, were found that women practice religion more daily. This result is consistent with a study conducted with patients and caregivers of two general hospitals in Juiz de Fora, MG. It is also similar with research related to the Health, Well-Being, and Aging (SABE) study conducted with community elderly people in São Paulo, SP, which showed that women, in addition to cultural issues, are more willing to express their religious feelings, as well as more inclined to act and engage in church activities.

Regarding the values/beliefs, older women were more likely to conduct their life-long values and beliefs. This result is close to the study above conducted in Juiz de Fora, MG. It also corroborates research related to the SABE study, which finds that women attach more importance to religion and related values.

As forgiveness, we found that women are more apt to forgive. International research of older adults from the community of Leiria district, Portugal, also found similar results. This result is maybe because women are culturally encouraged to obey and allow, showing the conclusion of research on gender differences and religiosity conducted in the USA.

This research showed that women are more involved in individual private religious practical activities. This is in agreement with another study conducted with patients and caregivers of two general hospitals in Juiz de Fora, MG, which also found that females have a higher average in this dimension. We also confirmed research related to the SABE study, which perceived that women often practice private religious activities more.

This study was similar to other research in the item religious overcoming, which found a higher average among women. A study by Abdala et al. also found that belonging to a religion means a resource in facing problems of daily living, confirming that women are looking for more R/S strategies to deal with difficult circumstances.

Similar to another study, we found that women had a higher average in religious support, showing that they seek more support from God and the religious community. The authors stressed the importance of being part of a religious community as a social support network for the elderly population to deal with illness and other adversities.

Regarding organizational religiosity, the result was similar to another study, in which women had a higher average in organizational religiosity. Research related to the SABE study showed organizational religiosity acting as a mediator for the quality of life of the older adults to improve it on the physical component and mental health. These results indicated that females have more religious participation in religious ceremonies and meetings. This may be because older women feel the need of the company of others to talk and vent their problems, as well as to obtain affection, as a study found with older women in the municipality of Cruz Alta-RS.

The results are similar to other findings in the self-assessment aspect of R/S, which indicated that females scored higher in this dimension. In a study by Abdala et al., women consider themselves more religious than men.

The prevalence of women in all dimensions of R/S, indicating their greater involvement in religious issues, can be explained from the perspective of gender social relationships. Data in USA research revealed a gender difference in religiousness (such as frequency of prayer, belief in God, church attendance), showing that men are more secular and women more religious. The propensity for men to be more secular than women may be related to issues (power, privilege, financial freedom, independence, working outside the home) culturally proportionate to men and destitute of women, which led them to be victims of exclusion, exploitation, and
discrimination. All this reality has encouraged them to seek the comfort and support afforded by the religion.20

In this study, marital status obtained statistically significant differences regarding daily spiritual experiences, particular religious practices, organizational religiosity, and general self-assessment. A survey with older adults from the community of Portugal found statistically significant differences in daily spiritual experiences, values, and beliefs, and religious/spiritual support in the marital status variable.18 This research partially confirmed the data presented in this investigation. Also in this study mentioned above, the older adults without a partner had a higher score in the dimensions of the scale above, similar to this and other research.21 Social and religious support received after the death of a loved one may be fundamental to coping with grief.

The result of age-related organizational religiosity suggested that with increasing age, there is the further development of individual activities (prayer, televised religious programs, etc.). A previously mentioned study found a statistically significant difference in age-related organizational religiosity; however, no significant difference in global self-assessment was found18, partially agreeing with this research. Data equivalent to this research were found in another study in which 60 years old or older groups were more associated with the practice of religion.4 In this sense, the literature indicated that the higher the age group, the greater the practice of religion.9

In the daily spiritual experiences, forgiveness, and global self-assessment associated with the education level variable, as the education level decreases, the R/S outcome of these dimensions increases. Thus, the predictor of education level influenced the opposite way. A survey of 241 older women from Cruz Alta-RS aimed at investigating the level of resilience among older women and their association with spiritual well-being and social support, identified that most of older women had incomplete primary education (68.5%) showing how women were prevented from having access to education.5

In the particular religious practices dimension, the higher number of diseases had a higher average, meaning that older women with higher morbidities are more frequent in religious activities performed individually. As women usually get older and need family support because of the disease, they end up feeling saddened, which can lead to depression. In this sense, social support and spiritual well-being can help to overcome this context.5 As the variable number of diseases, similar result was found in a study in which 25% of the elderly reported having at least one chronic disease so that in their confrontation the importance and benefits of spirituality are emphasized.22

The results suggested that the religious/spiritual overcoming dimension associated with better health perception positively influences the R/S strategies used to deal with difficult life circumstances. As in this research, a study proved that R/S was important for participants’ quality of life. Also, we highlighted the relationship between spirituality and satisfaction with health and life, as well as religious practices as a way to establish social and leisure relationships for the elderly population.23 International literature reinforces that when R/S is present in life, they are responsible for subjective well-being.24

The limitation of this research was the cross-sectional design, not establishing a relationship with the causal inferences. However, the analyses for the gaps found in the scientific production on the topic have propositions for understanding the event.

CONCLUSION

For the item daily spiritual experiences, the associated factors were: female gender, low education level, and without a partner. In forgiveness, the predictors prevailed were female gender and low education level. In particular religious practices, the predictors that stood out were: female, without a partner and higher number of diseases. In religious and spiritual overcoming, female predictors and better health perception were associated. In organizational religiosity, the significant predictors were: female gender, without partner and older age. The general R/S self-assessment was the dimension in which the most predictors were associated: female gender, low education level, without partner, older age and better health perception. In the values/beliefs and religious support dimensions, female gender was the only statistically significant predictor.

The results of this research opened the knowledge of the socio-demographic, economic, and health characteristics of the older adults in the dimensions of R/S. This is innovative research on this topic with older adults from the community in Minas Gerais.

Given the importance of the health and well-being of the elderly population, about social and emotional support, the Nursing professionals need to pay attention to the inclusion of strategies that approach the R/S.

Also, these results may support multi-professional training and qualification of teamwork to address religious/spiritual aspects with older adults. They may also be an input for reflection on programs and policies for older people who have religiousness/spirituality as a source of support.

REFERENCES


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