

# Religious involvement and sociodemographic factors: a Brazilian national survey

Envolvimento religioso e fatores sociodemográficos: resultados de um levantamento nacional no Brasil

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## Abstract

**Background:** The relationship between religious involvement and health has been subject to an increasing interest. However, studies investigating religious involvement are scarce outside United States and Europe. **Objectives:** This study describes religious involvement in the Brazilian population and its relationship with sociodemographic variables. **Methods:** In a Brazilian nationally probabilistic sample (n = 3,007), religious involvement variables and sociodemographic factors were assessed. **Results:** Five percent of Brazilians reported having no religion, 83% considered religion very important in their lives, and 37% attended religious services at least once a week. The most frequent affiliations were Catholicism (68%), Protestant/Evangelicals (23%), and Kardecist Spiritism (2.5%). Ten percent reported attending more than one religion. In line with studies in other countries, older age and female gender were independently associated with higher levels of subjective and organizational religiousness after controlling for other sociodemographic factors. However, educational level, income and black race were not independently associated with religious involvement variables. **Discussion:** This study shows high levels of religious involvement among Brazilians and suggests that religiousness may have different associations with other variables across different cultures. To better understand the influence of religion on health, it is necessary to expand this kind of survey to other cultures.

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**Key-words:** Religion, race, gender, age, Brazil.

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## Resumo

**Contexto:** As relações entre envolvimento religioso e saúde têm sido objeto de crescente interesse, mas há carência de estudos fora dos Estados Unidos e da Europa. **Objetivos:** O presente estudo descreve o envolvimento religioso na população brasileira e sua relação com variáveis sociodemográficas. **Métodos:** Numa amostra probabilística da população brasileira (n = 3.007), variáveis sociodemográficas e de envolvimento religioso foram avaliadas. **Resultados:** Cinco por cento dos brasileiros declararam não ter religião, 83% consideraram religião muito importante para sua vida e 37% frequentavam um serviço religioso pelo menos uma vez por semana. As filiações religiosas mais frequentes foram Catolicismo (68%), Protestante/Evangélica (23%) e Espiritismo Kardecista (2,5%). Dez por cento referiram frequentar mais de uma religião. De modo semelhante a estudos em outros países, maior idade e sexo feminino se associaram a maiores níveis de religiosidade subjetiva e organizacional, mesmo após o controle para outras variáveis sociodemográficas. Entretanto, nível educacional, renda e raça negra não se associaram de modo independente a indicadores de religiosidade. **Conclusão:** Este estudo mostra altos níveis de religiosidade entre os brasileiros e sugere que religiosidade, em diferentes culturas, pode relacionar-se de modo diferente com outras variáveis. Para uma melhor compreensão da influência da religiosidade na saúde, é necessário expandir esse tipo de estudo para outras culturas.

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**Palavras-chave:** Religião, raça, gênero, idade, Brasil.

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## Introduction

Religiousness and spirituality have been subject to an increasing interest among health researchers and clinicians. Hundreds of studies have been published investigating the relationship between religious involvement and mental and physical health. These studies tend to support a positive association between religiousness with better health and quality of life. Religiousness has also been recognized as an important source of support among people dealing with stressful situations<sup>1,2</sup>. Thus, many leading health organizations<sup>3-6</sup> have included recommendations for spiritual assessments as an integral part of patients' care. To improve health care and research it is important to know how religious involvement is distributed among clinical and general populations. Populational studies have shown high religiousness/spirituality in the US and lower but still significant rates among European countries<sup>7</sup>. Several studies performed in the United States (US) have found a positive association between religious involvement with female gender, aging and with African-American ethnicity<sup>8,9</sup>. However, there is a scarcity of studies on this issue performed outside the US<sup>7</sup>. It remains unknown if these

associations between religiousness with gender, aging and race are also true in other cultures. We are unaware of any national study on these issues carried out in Latin America, where religiousness is a very important cultural characteristic. Brazil is the largest and most populous country in Latin America, however, there has not been published a large national study investigating religious involvement among general population in Brazil<sup>10</sup>.

This study's main objective is to describe religious involvement in a Brazilian nationally probabilistic sample and the relationship between religious involvement variables and sociodemographic variables such as gender, race, age, income and educational level.

## Methods

A probability sample representative of Brazilian population over 13 years old was selected. Institutionalized population and Indians living in villages were not covered. We used a probabilistic sample stratified in three stages: 1) selection of 143 counties using probability proportional to size methods (PPS); 2) selection of 2 census sectors for each county, also using PPS and 3) within each census sector 8

households were selected by simple random sampling, followed by the selection of a household member to be interviewed using the “the closest future birthday” technique.

There was a 66% response rate and the final sample was composed by 3,007 subjects (2,346 adults  $\geq$  18 years old and 661 adolescents from 14 to 17 year old) from 143 cities. Adolescents were oversampled to provide more reliable results to this age group, but the results presented on this paper were adjusted for non-response, gender, age and region. Participants were submitted to face-to-face interviews administered by trained interviewers with a standardized questionnaire. Interviews took place at participants' homes. The study was conducted from November 2005 to April 2006<sup>11</sup>.

Participants were interviewed based on a sociodemographic questionnaire that investigated age, gender, race, familiar income, educational level, work and marital status, Brazil's region of where subject's live, and if they live in rural or urban areas.

Three religiousness' dimensions were assessed: affiliation, organizational and subjective religiousness. Religious affiliation was assessed using two questions. 1) What is your religion? Afro-Brazilian (umbanda and candomblé), Kardecist Spiritism, Catholicism, Protestant, other, and no religion. 2) Some people attend more than one religion, please let me know if you do and what other religion you also attend.

Subjective religiousness was assessed by the question: “How important is religion in your life?” (“very important”, “of some importance”, “indifferent”, “really not important”, and “no important at all”).

Attendance to religious meetings was the measure of organizational religiousness: “How often do you attend religious meetings?” ( $\geq$  once/week, 1-2 times/month, sometimes a year, rarely, never).

Participants were recruited on the basis of informed signed consent. The project received Institutional Review Board (IRB) approval at Federal University of São Paulo (Unifesp).

Statistical analyses were performed using Statistical Package for the Social Sciences (SPSS) 13. First, we present a descriptive analysis of the three dimensions of religions involvement measured. After, we proceeded a logistic regression with the adult sample using sociodemographic variables (age, gender, race, familiar income, educational level, work and marital status, and Brazil's region of where subject's live) to predict religious attendance and subjective religiousness in a multivariate analysis. For logistic regression, we dichotomized religious involvement variables: attendance ( $\geq$  1/week vs.  $<$  1/week) and importance of religion (very important vs. not very important). Results for logistic regression were presented as odds ratios (OR) with a 95% confidence Interval (CI). The significance level adopted was 95%.

## Results

Table 1 presents the distribution of religious involvement variables indicating a highly religious population and that around 10% attend religious meeting in more than one religion denomination.

Table 2 presents results of a multivariate logistic regression to determine which sociodemographic variables can independently predict religious involvement. Age, gender, and region were the only variables significantly associated with attendance to religious meetings after controlling for the other sociodemographic factors. Importance of religion was independently associated with age, marital status, race, gender, and region. Being older and female was correlated with higher religiousness levels. The other sociodemographic variables did not show a consistent pattern of association with religious involvement.

## Discussion

Our results show a high level of religious involvement in Brazilian population: 95% have a religion, 83% consider religion very important, and 37% attend religious services at least once a week. These

**Table 1.** Description of sample's religious variables

Variable	Adolescents (n = 661) %	Adults (n = 2,346) %
<b>Religious affiliation</b>		
Roman catholic	61.7	67.9
Protestant	26.7	22.9
Spiritism	0.3	2.5
Afro-Brazilian	0.4	0.5
Other	1.3	1.2
No religion	9.6	5
Attend more than 1 religion	8.8	10.4
<b>Church attendance</b>		
$\geq$ once/week	35.1	37.2
1-2 times/month	18.3	18.2
Sometimes a year	12.9	14.0
Rarely	16.8	18.7
Never	16.8	11.9
<b>Importance of religion</b>		
Very important	73.3	83.8
Some importance	17.6	9.8
Indifferent	5.4	4.3
Not important	1.3	0.8
No important at all	2.4	1.4

figures seem to be higher even than data from US general population: 89% have a religion, 57% consider religion very important, and 31% attend at least once a week<sup>12</sup>. Besides US, it is hard to find reliable data on religious involvement obtained from samples nationally representative of other countries. Data provided by European Values Study Group and World Values Survey Association are a notable exception<sup>13,14</sup>. Besides Malta (67.2%) and Romania (51.3%), in the remaining 30 European countries surveyed rates of people referring that religion was very important in their lives were usually much lower than 50%, total average was 20.9%. Despite a sharp variance among countries surveyed, church attendance was also lower than our results. Surveys in several countries (Italy, Portugal, Malta, Ireland, Northern Ireland, Poland, and Croatia) found that more than 50% of population attends religious service more than once a month, however total average was 31.6%. Regarding belonging to a religious denomination, results are not so different from our Brazilian data, ranging from 98.7% (Malta) to 24.9% (Estonia), a mean of 72.2% of Europeans<sup>13</sup>.

Two main limitations of the current study refer to have not being designed specifically to investigate religiousness and for exploring only three religious dimensions. However, the three religious variables studied are very well accepted in the literature, being actually the standard, and consistently associated to health variables.

We now discuss data related to religious issues derived from 35 countries (after excluding Brazil, North America and Europe, discussed above), including nations like China, India, Japan, Argentina, Mexico, South Africa, Singapore, and Saudi Arabia<sup>13</sup>: 87.8% of respondents referred belonging to a religious denomination (n = 56,136), 41,9% attends religious services at least once a week (n = 57,483), and 79.1% consider themselves a religious person (n = 52,981). These global rates are slightly lower than Brazilian data on religious involvement. However, there is large variation among those figures, lowest rates of church attendance ( $<$  10% at least once a week) in Azerbaijan, Vietnam, Japan, and China; and high rates ( $>$  50%) in Tanzania, Uganda, South Africa, Puerto Rico, Philippines, Pakistan, Nigeria, Mexico, Indonesia, and Bangladesh<sup>13</sup>.

Religious syncretism has been subject of several sociological studies, but, as far as we know, this study presents for the first time quantitative data of religious syncretism in a nationally representative sample of Brazilian population. 10.4% of adults reported attending more than one religion. This figure may underestimate religious syncretism in Brazil; many people may adhere to some religious

**Table 2.** Multivariate analysis for association between sociodemographic variables and religious involvement among Brazilian adult population (n = 2,346)

Variable	%	OR for frequent attendance* (CI 95%)	OR for religion importance* (CI 95%)
<b>Age</b>			
18-29	35.6	1	1
30-39	21.6	1 (0.7-1.4)	1.2 (0.8-1.9)
40-49	18.8	<b>1.6<sup>§</sup></b> (1.1-2.7)	1.4 (0.9-2.2)
50-59	12.4	<b>1.6</b> (1.1-2.4)	<b>2.4</b> (1.3-4.5)
≥ 60	14.5	1.4 (0.9-2.1)	<b>4.3</b> (2.1-8.8)
Female	52.4	<b>2.1</b> (1.7-2.7)	<b>2.2</b> (1.6-3.1)
<b>Marital status</b>			
Married	61.2	1	1
Single	6.4	0.9 (0.7-1.2)	<b>0.5</b> (0.3-0.7)
Widowed	6.1	0.7 (0.5-1.1)	0.6 (0.3-1.2)
Divorced/separated	6.4	0.7 (0.5-1)	0.6 (0.4-1)
<b>Race</b>			
White	51.3	1	1
Mulatto	34.4	1 (0.8-1.3)	0.9 (0.7-1.3)
Black	11.2	1 (0.7-1.5)	1 (0.6-1.5)
Other	3.1	0.9 (0.5-1.6)	<b>0.4</b> (0.2-0.8)
<b>Education (years)</b>			
≤ 4	36.8	1	1
5-8	24.5	1 (0.8-1.4)	1.1 (0.7-1.7)
9-11	28.2	<b>1.5</b> (1-2)	1.5 (0.98-2.3)
≥ 12	10.5	1.5 (0.8-2.6)	1.4 (0.7-2.7)
<b>Work status</b>			
Employed/student	68.1	1	1
Unemployed	4	0.7 (0.4-1.3)	0.6 (0.3-1.2)
Housewife	14.1	1.1 (0.8-1.6)	0.7 (0.4-1.1)
Retired	13.8	1.2 (0.8-1.7)	<b>0.5</b> (0.3-0.8)
<b>Familiar income/month (US\$)</b>			
≤ 230	35.3	1	1
230-400	19.6	0.9 (0.7-1.3)	1 (0.7-1.4)
400-630	19	1.1 (0.8-1.6)	1.1 (0.7-1.7)
630-1.300	13.7	1.1 (0.7-1.8)	0.8 (0.5-1.4)
> 1.300	6	0.7 (0.4-1.3)	0.8 (0.4-1.7)
<b>Region</b>			
Southeast	44.6	1	1
North	7.7	1.2 (0.6-2.5)	1.1 (0.5-2.4)
Midwest	6.3	0.6 (0.4-1)	0.9 (0.5-1.6)
Northeast	26.2	<b>0.4</b> (0.3-0.6)	1 (0.6-1.6)
South	15.2	<b>0.5</b> (0.3-0.8)	<b>0.5</b> (0.2-0.8)
R <sup>2</sup> Nagelkerke		0.127	0.134

\* Coded: ≥ once/week (37.2%) vs. less than once a week (62.8%).

† Coded: religion very important (84%) vs. not very important (16%).

§ OR statistically significant are in bold type.

tradition even if they do not attend a formal meeting. Religious books, TV and radio programs are popular in Brazil and were not assessed in our research. Thus, double religious affiliation deserves further studies and should be taken in consideration when analyzing religious involvement data in Brazil.

Regarding sociodemographic variables, our findings from Brazilian population are in line with previous findings from other countries (mainly US) indicating that female gender<sup>7,8</sup> and aging are related to higher religious involvement<sup>7,9</sup>. Subjects above 60 years old rated the highest level of religion's importance, but that was not the case for church attendance. Oldest subjects may have a high religiousness but they may not be able to attend religious services frequently because of physical limitations due to disability.

Surveys conducted in US usually find higher levels of religious involvement among African Americans<sup>8</sup>. However, this does not seem

to be the case in Brazil, where African Brazilians did show a religious involvement similar to Caucasians. One possible explanation for this discrepancy may be a higher level of racial miscegenation in Brazil compared to US<sup>15</sup>. However, subjects grouped under "other races" (basically Asians [1.3%] and Indians [1.5%]) considered religion less important in their lives compared to other racial groups.

Some authors propose that religiousness tend to be higher among subjects from lower socioeconomic strata. However in our sample, indicators of socioeconomic level such as income, education, and work status were not consistently related to religious involvement. Halman e Draulans<sup>7</sup> also did not find a correlation between education or economic development and religiosity in European countries.

## Conclusions

This national representative sample shows that Brazil, the second most populous America's country, displays, like US, high levels of religious involvement. In line with previous studies, female gender and aging were correlated to higher religiousness levels. However, differing from US studies, African descendants did not display an association with religious involvement. In the same line, income, education, work and marital status did not show a consistent association with religion.

Because religiousness has several connections with health, including health status, mortality, and use of health services<sup>1</sup>, it is very important to understand religions' distribution in population as a whole and in relation with sociodemographic variables. Our findings support that religion remains important for many human beings, including most of Brazilians. That importance is even higher among women and the elderly, two groups with specific health care needs and to whom religion is usually an important way to cope with stressful circumstances like illness. It is necessary to expand studies on populations' religiousness and its relationship with health to other cultures to recognize and address particular needs of specific populations.

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