

Mental Health and Quality of Life Among Adults With Single, Multiple, and No Religious Affiliations

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Abstract: Few studies have investigated the “multiple religious affiliations” phenomenon. This study aims to understand those with “multiple religious affiliations,” describing its prevalence and investigating if there are differences in mental health and quality of life between this group and those with a single religious affiliation and those with no religious affiliation. A total of 1169 adults were included, and 58% had a single religious affiliation, 27.7% had multiple religious affiliations, and 12.3% had no religious affiliation. Participants with a single religious affiliation presented better mental health and quality of life than those with multiple or no religious affiliations. Although most outcomes were similar between multiple and no religious affiliations, happiness and optimism were higher in the multiple religious group, and anxiety was lower in the no religious group. Health care professionals should be aware of the secondary religious affiliations of their patients to identify possible conflicts and to treat them comprehensively.

Key Words: Multiple religious belongings, religion and medicine, mental health, religious affiliations, psychiatry, spirituality

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The globalization of modern society lead to a progressive increase in cultural diversity and religious heterogeneity (Bulow et al., 2008). Religious diversity is an important aspect of many modern societies and should be explored further. In Brazil, the religious landscape has been changing in the last decades. Catholic is still the most common religious denomination with 65% of the population, followed by Evangelicals (22%) and those with no religion (8%). However, since 1980, the number of Catholics has decreased by approximately 27%, whereas the number of Evangelicals have increased by 234% and those with no religion have increased by 389% (Bernardelli and Michellon, 2018). All these processes have challenged the unity of Catholicism and increased the emphasis on plural societies (De la Torre and Martín, 2016).

Despite the high number of studies investigating religious denominations, most of them have used only the primary religious affiliation, not including questions related to secondary religious affiliation or even excluding those with multiple religious affiliations (Kovess-Masfety et al., 2018). Recent studies have shown that the numbers of those reporting multiple religious affiliations vary from 10% in the United States (Furman et al., 2007) and Brazil (Moreira-Almeida et al., 2010) to 17% in the Netherlands (Berghuijs, 2017). In the specific case

of Latin America, religions are currently experiencing a diversification and reconfiguration, influenced by Christian denominations and by the New Age, neo-pagan, neo-Indian, neo-esoteric, and self-styled religiosities, as well as through popular religious syncretisms.

In the last decades, there has been an increase in the number of people who define themselves as spiritualists or even “spiritual but not religious persons.” Recent studies are starting to understand these concepts, however achieving controversial findings (Vitorino et al., 2018). On the one hand, it seems that spirituality alone could have better outcomes in some studies (Daaleman et al., 2004; Farias et al., 2013). On the other hand, the lack of a formal religion may be responsible for the worse mental health outcomes in other surveys (King et al., 2013; Leurent et al., 2013).

Nevertheless, there is a lack of studies trying to understand the issue of multiple religious affiliation and its impact on health care. Likewise, to our knowledge, no study has ever investigated mental health outcomes of those with multiple affiliations. Therefore, the present study aimed to understand the group with “multiple religious affiliations” in a Brazilian sample, describing its prevalence and patterns and investigating if there are differences on mental health and quality of life (QOL) between this group and those with a single religious affiliation and those with no religious affiliation.

METHODS

Study Design

This is a Brazilian nationwide cross-sectional study carried out between June 2016 and August 2016. This study is part of the project “Spiritual and Religious Beliefs, Practices and Experiences in the General Population” developed by the Interfaith Coalition on Spirituality and Health (<http://coalizaointerfe.org>), a nonprofit Brazilian institution composed of health care professionals and representative members of all religious or nonreligious faith practices in Brazil. The Institutional Review Board of the Albert Einstein Hospital (São Paulo, Brazil) approved the study, and participants gave online informed consent.

Subjects

To be included, participants should be 18 years or older, be Brazilian residents, have online access, and be able to understand the questionnaire and fill in completely all the questions.

Procedures

For this survey, data were collected through a self-administered, online survey using panels from Qualtrics, one of the main companies offering online instrument services (Brandon et al., 2013). Qualtrics sent invitations to its panel partner organizations via e-mail and other online media, aiming to reach a general and representative sample of the Brazilian population. Respondents were invited to participate and

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complete the online survey, and those who agreed with the participation signed an online consent term.

As surveys were being completed, response patterns were monitored against established quotas and decisions made about sampling to meet them. Quotas were set to limit the respondents according to social class distribution, age, gender, and geographic location, so the population surveyed could meet the same profile of the general adult population in Brazil according to the 2010 Demographic census (IBGE, 2010). A previous article (Peres et al., 2018) showed that using this sampling procedure could result in accurate Brazilian nationwide representative surveys.

Instruments

The questionnaire addressed the following religious and mental health characteristics:

- Socioeconomic and demographic data included age, gender, marital status, education level, employment status, average household income, race/ethnicity, and geographic region in Brazil (north, northeast, southeast, center, or south regions of Brazil).
- For religious affiliation, questions were asked in the following way: “What is the best option below that defines your current religious affiliation?” Response options included “Catholic,” “Evangelical/Protestant,” “Spiritist,” “Jewish,” “Buddhist,” “Umbanda,” “Candomblé,” “Atheist,” “Agnostic,” “Spiritualist,” “Christian,” “Jehovah Witness,” “Seicho-no-ie,” “Wicca,” “No Religion,” and “Others.” If the response was “Others,” then an option for description appeared. After this question, individuals responded if they have another “secondary” religious affiliation besides the “primary” affiliation described. Afterward, the religious affiliations of participants were divided into the following: “single religious affiliation” for those who stated having only one religious affiliation, “multiple religious affiliation” for those reporting two or more religious affiliation (the primary religious affiliation and any other secondary affiliations), and “no religious affiliation” for those atheists, agnostics, and reporting no religious affiliation.
- Faith, peace, and meaning were assessed through the Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale (FACIT-Sp 12) (Peterman et al., 2002) validated into Portuguese in a mental health institution sample (Lucchetti et al., 2015). It is a self-report questionnaire composed of 12 items, divided into three dimensions: meaning, peace, and faith. Participants were instructed to indicate how true an item had been for them during the past 7 days, using a five-item response format ranging from not at all (0) to very much (4). Higher scores represent higher levels of meaning, peace, and faith.
- Religiousness was assessed through the Duke University Religion (DUREL) Index (Koenig et al., 1997) validated into Portuguese in a general sample and called PDUREL (Lucchetti et al., 2012). This is a five-item measure of religious involvement, which capture three subscales: a) organizational religious behavior (*i.e.*, religious attendance) (one item), b) nonorganizational religious behavior (*i.e.*, religious activities performed in private, such as prayer or reading religious books) (one item), and c) intrinsic religious motivation (*i.e.*, pursuing religion as an ultimate end in itself) (three items). Higher scores represent lower levels of religiousness.
- QOL was assessed using the Brazilian version of the World Health Organization Quality of Life - Brief Scale (WHOQOL-BREF) validated in a general sample (Fleck et al., 2000). This generic instrument of QOL with 26 items (5-point Likert) covers four domains: physical, psychological, social relationships, and the environment. A higher score represents better self-perception of QOL.
- Depression was screened using the Patient Health Questionnaire-9 (PHQ-9) (Kroenke et al., 2001). This instrument was validated in Brazil in a general population (Santos et al., 2013). PHQ-9 has nine items to evaluate the frequency of depressive symptoms in the

previous 2 weeks using the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV)* criteria as “0” (not at all) to “3” (nearly every day).

- Anxiety was assessed through the General Anxiety Disorder (GAD-7) (Spitzer et al., 2006) validated for the Brazilian population in patients with cancer (Bergerot et al., 2014). This is a seven-item instrument investigating anxiety disorders over the past 2 weeks using the *DSM-IV* criteria as “0” (not at all) to “3” (nearly every day).
- Optimism using the Life Orientation Test–Revised (LOT-R) (Scheier et al., 1994) was validated for the Brazilian population in university students (Bandeira et al., 2002). This 10-item instrument evaluates individual differences in optimism/pessimism. Each item is rated on a 5-point Likert scale from strongly agree to strongly disagree. The total sum score was calculated by adding the raw scores of the optimism subscale with the inverted pessimism raw scores.
- Happiness was assessed through the Subjective Happiness Scale (Lyubomirsky and Lepper, 1999) validated into Portuguese in a general sample (Rodrigues and Silva, 2010). This is a four-item (7-point Likert) scale measuring subjective happiness.

Statistical Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS 23) (SPSS Inc.). First, we investigated the religious profiles of the participants, identifying the primary and secondary religious affiliations and performing an alluvial graph of these patterns.

Afterward, we compared the sociodemographics (gender, age, marital status, income, and education) and the religious characteristics (DUREL Index and FACIT-Sp 12) among the three groups of religious affiliations (“no,” “single,” and “multiple”) using chi-square tests and analysis of variance for independent measures.

Finally, a general linear model (GLM) (Taylor, 2011) was used to compare QoL (WHOQOL-BREF), happiness (Subjective Happiness Scale), depression (PHQ-9 total score), anxiety (GAD-7 total score), and optimism (LOT-R total score) through the three groups of religious affiliations (“no,” “single,” and “multiple”). These groups were treated as fixed factors, and the models were adjusted for the following covariates: age, marital status, gender, and social support (WHOQOL-BREF social relationships), resulting in covariate-adjusted mean scores for the dependents variables. Data were also evaluated for linearity, multicollinearity, homogeneity of variance-covariance matrices, and outliers (Tabachnick and Fidell, 2001), and we used a post hoc test of Bonferroni. A significance level of 5% was chosen for the test, with a 95% confidence interval.

RESULTS

A total of 1169 (93.3% of total) participants completed the online questionnaires. Participants had a mean age of 40.7 years (SD = 15.3 years); most were women (52.0%), married (58.1%), with university-level education (55.1%), and with low-middle income (63.6% with <US \$2000.00 per month, below the medium class income range in Brazil).

Concerning the religious affiliations, 678 (58%) respondents had a single religious affiliation, 347 (27.7%) had multiple religious affiliations, and 144 (12.3%) had no religious affiliation. Figure 1 presents the most common primary and secondary religious affiliations. Catholicism is the most common primary religious affiliation (44.1%) followed by Protestantism (19.1%) and Spiritism (8.6%). In relation to the secondary religious affiliation, Catholicism (13.1%) is the most prevalent followed by Spiritism (8.3%), Protestantism (8.0%), and Spiritualism (4.7%).

Figure 2 presents an alluvial graph showing that 67% of Spiritists, 21.1% of Catholics, and 16.1% of Protestants had a secondary religious affiliation. The most common secondary affiliations were Protestantism and Spiritism for the Catholics, Catholicism and Christian for the Protestants, and Catholicism and Spiritualism for Spiritists. There were also some different combinations of religious affiliations such as “Catholics-Buddhists,” “Catholics-Umbandists,” “Protestants-Seicho-no-ie,” “Protestants-Spiritualists,”

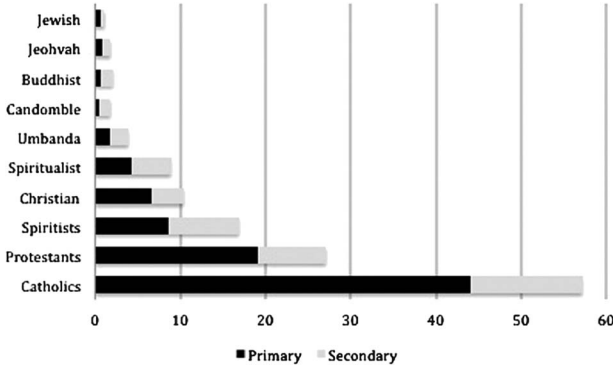


FIGURE 1. Percentage of primary and secondary religious affiliations in a Brazilian sample.

and “Spiritists-Buddhists.” In addition, 12% of Spiritists, 3.1% of Catholics, and 1.8% of Protestants reported having three or more religious affiliations (Fig. 2, Supplementary Table, <http://links.lww.com/JNMD/A94>, and the Sankey diagram, Supplementary Figure, <http://links.lww.com/JNMD/A95>).

Table 1 shows the comparison between the three groups of religious affiliations. Those with no religious affiliations were younger, not married, and with lower levels of religiousness and spirituality in relation to those with single or multiple religious affiliations. Those with multiple religious affiliations had similar sociodemographic and religious/spiritual characteristics as compared with those with single religious affiliation with the exception of FACIT-Sp 12 peace, which was slightly higher in the single religious affiliation group.

Mental health comparisons among the three groups are presented in Table 2. Multivariate GLM regression model revealed a significant main effect for WHOQOL-psychological ($p = 0.003$), WHOQOL-social ($p = 0.011$), depression ($p = 0.016$), anxiety ($p < 0.001$), optimism ($p = 0.022$), happiness today ($p = 0.005$), and happiness in 5 years ($p = 0.004$). Post hoc tests revealed the following:

- Participants with a single religious affiliation had better scores on WHOQOL-psychological than those with no religious affiliation ($p = 0.02$) and multiple religious affiliations ($p = 0.02$); had better WHOQOL-social than those with no religious affiliation ($p = 0.008$); had lower levels of depression than those with multiple religious affiliations ($p = 0.01$); had lower levels of anxiety than those with multiple religious affiliations ($p = 0.009$); has more optimism than those with no religious affiliation ($p = 0.02$) and multiple religious affiliations ($p = 0.03$); and had more happiness in 5 years than those with no religious affiliation ($p = 0.004$).
- Multiple religious affiliations participants had better scores than those with no religious affiliation on optimism ($p = 0.04$) and happiness in 5 years ($p = 0.006$) but worse scores on anxiety ($p < 0.001$). No other differences were found.

DISCUSSION

The present study found that more than one quarter of respondents presented multiple religious affiliations in this Brazilian sample. Participants with a single religious affiliation presented better levels of mental health and QOL than those with multiple or no religious affiliation. In the comparison between those with multiple and no religious

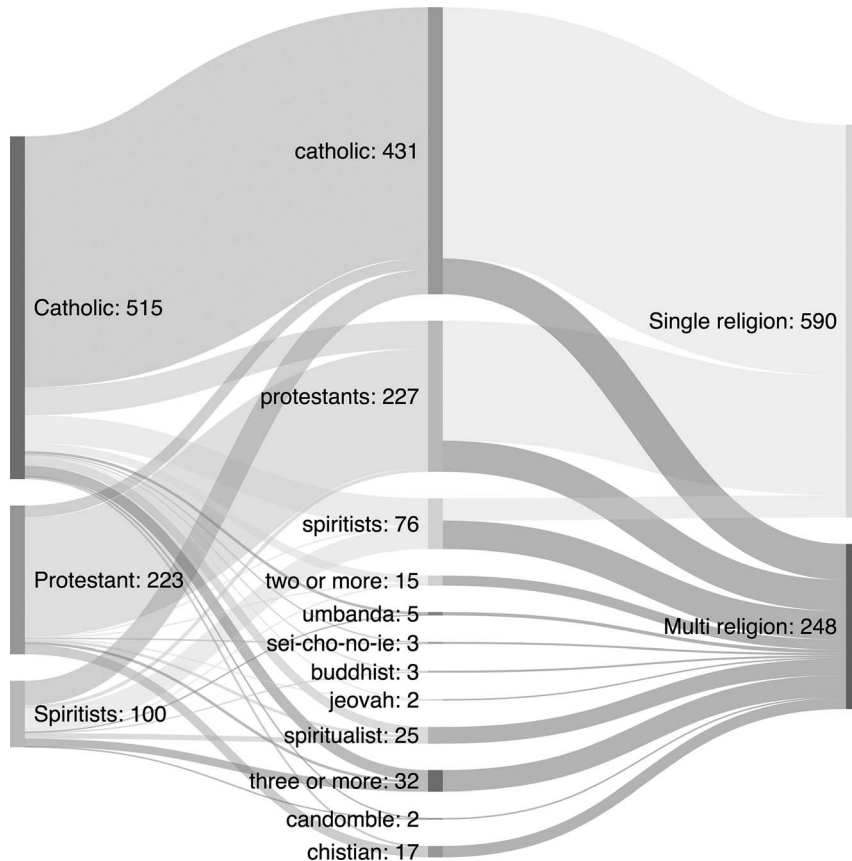


FIGURE 2. Alluvial graph showing the multiple and single religious affiliation patterns.

TABLE 1. Comparison of Sociodemographics and Religious Characteristics Between Participants With Multiple Religious Affiliations, Single Religious Affiliation, and No Religious Affiliation

	No Religious Affiliation	Multiple Religious Affiliations	Single Religious Affiliation	<i>p</i> *
Sociodemographics				
Gender				
Male	79 (54.9%)	152 (43.8%)	330 (48.7%)	
Female	65 (45.1%)	195 (56.2%)	348 (51.3%)	0.071
Age	36.8 (16.4)	43.1 (15.2)	40.3 (15.0)	0.001
Marital status				
Married	52 (36.1%)	221 (63.7%)	406 (59.9%)	
Not married	92 (63.9%)	126 (36.3%)	272 (40.1%)	0.001
Income				
High	43 (34.7%)	103 (35.9%)	214 (37.1%)	
Lower-middle	81 (65.3%)	184 (64.1%)	363 (62.9%)	0.857
Education				
University	80 (55.6%)	205 (59.1%)	359 (52.9%)	
Nonuniversity	64 (44.4%)	142 (40.9%)	319 (47.1%)	0.174
Religious characteristics				
Organizational religiosity (DUREL 1) ^a	5.35 (0.93)	3.20 (1.39)	3.18 (1.53)	<0.001
Nonorganizational religiosity (DUREL 2) ^a	5.24 (1.36)	2.74 (1.41)	3.07 (1.61)	<0.001
Intrinsic religiosity (DUREL 3,4,5) ^a	12.02 (3.38)	5.82 (2.54)	5.93 (2.88)	<0.001
Meaning (FACIT-Sp 12)	10.38 (3.68)	11.40 (3.43)	11.88 (2.97)	<0.001
Peace (FACIT-Sp 12)	10.00 (3.51)	10.35 (3.27)	10.57 (2.99)	0.144
Faith (FACIT-Sp 12)	5.00 (4.11)	10.93 (3.74)	10.81 (3.80)	<0.001

*Post hoc: Multiple religious affiliations and single religious affiliation were different from the nonreligious in all dimensions with the exception of FACIT peace. Multiple religious affiliations and single religious affiliation were different only in the DUREL question 2.

^aInverted scores.

affiliation, higher levels of happiness and optimism were found in participants with multiple religious affiliations, and lower levels of anxiety were found in the no religious group. These results advance further this field of knowledge, because we have very little information concerning those with multiple religious affiliations and its relation to health.

The prevalence of participants with multiple religious affiliations (27.7%) in this study was higher than those of other studies carried out in the United States (10%) (Furman et al., 2007), the Netherlands (17%) (Berghuijs, 2017), and even in Brazil (10.4%) (Moreira-Almeida et al., 2010). This difference could be explained by the online anonymous characteristic of the data collection process, which may have the

potential to avoid the social desirability bias because individuals tend to feel embarrassed answering the interviewer about some of their beliefs and different affiliations, as supported by a previous study (Peres et al., 2018). Another possible explanation is the fact that this online Brazilian representative sample may underrepresent some persons with limited access to the Internet, those with very little digital literacy rates, and those in rural areas, representing a more urbanized, wealthy, and educated sample.

Among the religious traditions, Spiritism carried a higher number of individuals with multiple religious affiliations followed by the Catholics, denoting that these denominations are highly syncretic. On the other hand, Protestants had the higher percentage of individuals

TABLE 2. Comparison of Sociodemographic and Religious Characteristics Between Participants With Multiple Religious Affiliations, Single Religious Affiliation, and No Religious Affiliation

	No Religious Affiliation (1)	Multiple Religious Affiliations (2)	Single Religious Affiliation (3)	<i>p</i>	Post hoc
WHOQOL-physical	69.19 (1.29)	68.01 (0.83)	70.39 (0.59)	0.064	—
WHOQOL-psychological	64.96 (1.12)	65.91 (0.72)	68.28 (0.51)	0.003	1 × 2 <i>p</i> = 0.85, 1 × 3 <i>p</i> = 0.02, 2 × 3 <i>p</i> = 0.02
WHOQOL-social	59.80 (1.84)	64.33 (1.19)	65.89 (0.85)	0.011	1 × 2 <i>p</i> = 0.12, 1 × 3 <i>p</i> = 0.008, 2 × 3 <i>p</i> = 0.86
WHOQOL-environmental	60.79 (1.22)	58.76 (0.78)	61.06 (0.56)	0.056	1 × 2 <i>p</i> = 0.41, 1 × 3 <i>p</i> = 0.99, 2 × 3 <i>p</i> = 0.05
Depression	6.61 (0.48)	7.78 (0.31)	6.73 (0.22)	0.016	1 × 2 <i>p</i> = 0.12, 1 × 3 <i>p</i> = 0.99, 2 × 3 <i>p</i> = 0.01
Anxiety	5.17 (0.43)	7.16 (0.28)	6.14 (0.20)	<0.001	1 × 2 <i>p</i> < 0.001, 1 × 3 <i>p</i> = 0.12, 2 × 3 <i>p</i> = 0.009
Optimism	14.92 (0.32)	15.86 (0.20)	15.88 (0.14)	0.022	1 × 2 <i>p</i> = 0.04, 1 × 3 <i>p</i> = 0.02, 2 × 3 <i>p</i> = 1.00
Happiness today	7.00 (0.15)	7.13 (0.10)	7.44 (0.07)	0.005	1 × 2 <i>p</i> = 0.85, 1 × 3 <i>p</i> = 0.02, 2 × 3 <i>p</i> = 0.03
Happiness in 5 yrs	8.31 (0.13)	8.79 (0.08)	8.77 (0.06)	0.004	1 × 2 <i>p</i> = 0.006, 1 × 3 <i>p</i> = 0.004, 2 × 3 <i>p</i> = 0.99

Controlled for age, marital status, gender, and social support.

with a single religious affiliation, showing that this tradition may be less syncretic. A previous study provided support to this statement showing that 9 of 10 Evangelical Protestants requested religious assistance from their own religious affiliation in a Brazilian psychiatric hospital as compared with half of the Catholics (Lucchetti et al., 2013). Nevertheless, it is important to highlight that, although Evangelicals/Protestants tend to have fewer secondary religious affiliations, their tradition had a strong influence of syncretism through the incorporation of native elements of African cultures in Latin America, and such influences appear in neopentecostal celebrations (Silva, 2014). Therefore, although an extrinsic syncretism (*i.e.*, multiple religious denominations) is not remarkable in this group, an intrinsic syncretism (*i.e.*, influence of other traditions in their celebrations) is usually seen and can denote a type of syncretism as well.

Another important finding is that those with multiple religious denominations did not have the same QOL and mental health than those with a single religious denomination. This is somewhat surprising giving that we found very similar religious/spiritual scores between these groups as evidenced by the FACIT and DUREL scores. Below, we will provide some possible justifications for these findings.

First, those with multiple affiliations may have been still searching for their religious/spiritual understanding and, therefore, have not yet found their “ideal” spiritual/religious community. Second, some studies have found a greater prevalence of mental disorders such as schizophrenia (Hergovich et al., 2008; Willard and Norenzayan, 2017) and depression (Haddad et al., 2016; Leurent et al., 2013) in those with a high frequency of spiritual experiences (*e.g.*, have mystical or supernatural experiences and feelings of universal connectedness) but without a defined organized religion (*e.g.*, “New Age” individuals) (Baetz et al., 2006). Third, having more than one religious community (*i.e.*, the case of multiple religious affiliations) may have weakened the social support because you attend less frequently a specific community (since you are attending various different communities), resulting in lower social ties to its members. Fourth, because the number of Protestants was greater among those with a single affiliation, we should consider the tendency for religious people (particularly Christian respondents) to belong to cultural groups whose *ethos* often emphasizes the goodness of God and the need for gratitude to Him. In this sense, to recognize and declare that they experience sadness, distress, and loneliness would be to affirm the weakness or absence of Jesus in their lives. Thus, these people would tend to overvalue more positive aspects, even presenting experiences of suffering. Fifth, there may be conflicting theological views between different religious traditions that could be responsible for the development of struggles and guilt. For instance, the belief of reincarnation in one religion (*e.g.*, Spiritism) could impact the doctrine of another religion (*e.g.*, Protestantism). Finally, because this is a cross-sectional study, the opposite could also happen in a sense that people with high levels of mental disorders tend to seek meaning and purpose through spirituality and religion, using them to cope with the extreme stress that these conditions may cause (Koenig, 2007).

These findings have important clinical implications because they highlight that health professionals must be aware not only of the primary religious affiliation but also of the secondary religious affiliation. In our study, it seems that having multiple affiliations may be associated with worse outcomes as compared with having just one affiliation. However, the reasons are not totally understood. Professionals must address these issues with their patients to understand if this secondary affiliation may serve as a functional source of support for the patient or may serve as a dysfunctional source of conflict and struggle. Future studies should investigate if these results are replicated in other countries and with other cultural contexts (*e.g.*, Asian traditions, secular societies) and explore the possible reasons for these findings.

The present study has some limitations. First, as previously noted above, data collection was carried out only in people who had online access to e-mail, social media, or online Web sites, weakening the generalization of data to other populations. Second, because this is a

cross-sectional study, cause-effect conclusions must be made with caution. Third, some religious beliefs such as Spiritualists and Christians were included in our analyses. Although there is still some discussion in the scientific community on whether spiritualism is a religion, there are several authors that consider this belief system as a religion (Lester, 1982; Porter, 2005). With respect to the Christian denomination, although some respondents perform the most common features of Evangelical/Protestant denominations, they do not feel comfortable answering that they are part of such denominations. Therefore, the use of Christians was an attempt to embrace the other branches or denominations of Christianity. Finally, although the questionnaire was anonymous, it is still subject to some social desirability bias. Nevertheless, we should note that this is the first attempt to understand an issue seldom investigated by the scientific community. For that matter, we used an anonymous questionnaire containing validated instruments and included a large sample representing all Brazilian regions, increasing the power of our analyses.

In conclusion, we found that 27.7% of this Brazilian sample had multiple religious affiliations. These individuals generally had worse mental health and QOL measures as compared with those with a single religious affiliation and similar levels as compared with participants with no religious affiliation. Health care professionals should be aware of the secondary religious affiliations of their patients to identify possible conflicts and to treat them comprehensively.

DISCLOSURE

The authors declare no conflict of interest.

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