Association between religion, mental health and social distancing during the COVID-19 pandemic

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Abstract
This cross-sectional study aimed to analyze the association of religiosity with behaviors and perceptions in the context of social distancing measures during the COVID-19 pandemic, as well as mental health outcomes, in a university community in Central-West Brazil. A sample of 1,796 subjects responded to an online form with socio-demographic questions and the DASS-21 and PWBS scales. Religion was associated with the frequency of interactions, perceptions of the duration of the social distancing measures, changes in emotional state and history of psychological illness. The prevalence of symptoms of depression, anxiety and stress was lower among people with religion and their scores in psychological well-being were higher.
Keywords: COVID-19; Physical distancing; Religion; Psychological well-being; Mental Health.

Associação entre Religião, Saúde Mental e Distanciamento Social na Pandemia de Covid-19

Resumo
Trata-se de um estudo transversal com o objetivo de analisar a associação entre religiosidade e comportamentos e percepções frente ao distanciamento social decorrente da pandemia de Covid-19 e estado de saúde mental em uma comunidade universitária do Centro-Oeste brasileiro. Participaram do estudo 1796 sujeitos, os quais responderam a um formulário *online* com questões sociodemográficas e às escalas DASS-21 e EBEP. Observou-se associação entre religião e frequência de interações, percepção sobre a duração do distanciamento social e mudanças no estado emocional e histórico de alterações psicológicas. Constatou-se menor prevalência de sintomas relacionados à depressão, à ansiedade e ao estresse e maiores escores de bem-estar psicológico entre aqueles com religião.
Palavras-chave: covid-19; distanciamento físico; religiosidade; bem-estar psicológico; saúde mental

Asociación entre religión, salud mental y distanciamiento social en la pandemia Covid-19

Resumen
Se trata de un estudio transversal con el objetivo de analizar la asociación entre religiosidad, comportamientos y percepciones frente al distanciamiento social resultante de la pandemia Covid-19 y el estado de salud mental en una comunidad universitaria de la región Centro-Oeste de Brasil. Participaron en el estudio 1796 sujetos, que respondieron un formulario en línea con preguntas sociodemográficas y las escalas DASS-21 y EBEP. Se observó asociación entre religión y frecuencia de interacciones, la percepción de la duración del aislamiento social y los cambios en el estado emocional y el historial de cambios psicológicos. Se observó una menor prevalencia de síntomas relacionados con la depresión, la ansiedad y el estrés, y puntuaciones más altas de bienestar psicológico entre quienes profesaban una religión.
Palabras clave: Covid-19; Distanciamiento físico; Religiosidad; Salud Mental; Salud Colectiva.

Introduction

Since January 2020, the world has been facing a high number of cases and deaths from COVID-19, a lack of safe therapeutic alternatives and the need to reinvent everyday life in the face of the challenges posed by the pandemic caused by SARS-CoV-2. This includes social distancing, which has been identified as the main preventive and control measure for the spread of the new coronavirus (WHO, 2020).

All over the world, preventive measures were adopted, such as the suspension of presential classes in schools and universities, the cancellation of sporting, cultural and leisure events, the implementation of restrictions on commerce and the movement of people in large urban centers, the closing of borders and restrictions on national and international movement, and the interruption of religious services and ceremonies, among others (Oliveira & Iquiapaza, 2020). These changes required the adoption of new of life, work and leisure habits and new forms of social interaction, increasingly mediated by digital technologies (Malta et al., 2020; Oliveira & Iquiapaza, 2020).

Studies have drawn attention to the negative effects of these changes on the mental health of different population groups, especially the more socially

http://dx.doi.org/10.1590/1413-82712023280107

vulnerable (e.g. Malta et al., 2020; Marelli et al., 2020; Yang et al., 2020). Social distancing can contribute to the manifestation and/or aggravation of psychological symptoms such as insomnia, anxiety, depression and, in some cases, contribute to the emergence of post-traumatic stress, psychotic outbreaks, panic syndrome and increase the possibilities of suicidal thoughts and behaviors (Ramírez-Ortíz et al., 2020; Yang et al., 2020).

Psychological well-being (PWB) levels are aspects that can be impacted by physical and social distancing measures as well as by the pandemic itself. Psychological well-being can be understood as the representation of "developing tasks characteristic of healthy development that are associated with indicators of quality of life, well-being and adaptive biological and psychosocial processes" (Machado et al., 2013, p.263).

Factors such as fear of being contaminated, of dying or losing a loved one, feelings of helplessness and anguish, uncertainties related to the availability of health treatment or equipment and supplies, and limitations in social interactions increase the risk of mental health impairment (Ramírez -Ortíz et al., 2020; Yang et al., 2020; Faro et al., 2020). In this context, religiosity is highlighted in the scientific literature as an important social element, capable of providing individuals with answers to questions that are difficult to symbolize, such as finitude and the meaning of life and suffering, in addition to contributing to hope and resilience in the face of illness processes (DeFanza et al., 2020) and when confronting individual and collective adversities (Bentzen, 2019; Dein et al., 2020).

As Jodelet (2013, p.91) highlighted, religiosity concerns the "way in which individuals and groups live their relationship with transcendental entities", whether or not they are linked to a formal institution. Religions, on the other hand, are characterized as dogmatic and institutional groups capable of producing connections between believers and the spiritual world (Jodelet, 2013). Other authors have also emphasized the need to differentiate religious experience (religiosity) from spirituality (Koenig, et al., 2012). In this same vein, while religions constitute a systematic set of beliefs, rituals, symbols and practices, spirituality is understood as a field that helps subjects (religious or not) in the construction of meanings for existence, mediating their relationship with the sacred and/or transcendental (Inoue & Vecina, 2017; Koenig et al., 2012).

In addition to its transcendent dimension and connection of subjects with the sacred (*religare*), studies highlight the importance of religions and religious groups in guiding beliefs and behaviors directed towards health, such as sexual practices, eating, the use of psychoactive substances, leisure practices and physical activity (Inoue & Vecina, 2017; Thiengo et al., 2019; Zimmer et al., 2016), also affecting the ways in which subjects experience the health/illness/care process (Jodelet, 2013; Moscovici, 2011; Porto & Reis, 2013; Zimmer et al., 2016).

Measures to contain the spread of SARS-CoV-2 have resulted in the closing of temples and places of worship and the suspension of pilgrimages, festivals and other collective religious celebrations (McPhetres, Jong & Zucerman, 2020). Accordingly, religious practices were abruptly modified, starting to be celebrated through virtual platforms, without the physical presence of the group and religious leaders, central elements in many religious expressions (Dein et al., 2020; Newport, 2020).

Studies have highlighted the importance of religiosity as a protective factor for coping with recurring psychological symptoms in the midst of the COVID-19 pandemic, such as fear, anxiety, sadness and stress (Awang et al., 2020; Minusssi, et al., 2020; Pirutinsky et al., 2020; Silva et al., 2020). The findings suggest that religions offer psychosocial support when faced with adversities such as grief, unemployment, difficulties in accessing basic food and hygiene items, and in the illness process itself (Awang et al., 2020; Pirutinsky et al., 2020).

On the other hand, other investigations have highlighted the negative impacts of religiosity on the way some followers experienced the pandemic, especially with regard to compliance with social distancing measures (Awang et al., 2020; McLaughlin, 2020; Singh, 2020; Yezli & Khan, 2020). In this direction, studies have indicated that, during the COVID-19 pandemic, practitioners of some religions presented lower adherence to measures to contain the pandemic, such as social distancing (DeFranza et al., 2020), were more susceptible to fake news and to false promises of a cure (Alimardani & Elswah, 2020; McPhetres et al., 2020) and were more likely to perceive the pandemic as "divine punishment" or as an event related to the Apocalypse (Dein et al., 2020).

In another study that analyzed user searches from 95 countries during the pandemic, using the Google search engine, Bentzen (2020) found an increase in prayer-related searches, up to a rate never previously recorded. Similarly, other studies identified the intensification of religious activities during the COVID-19

pandemic, translated into a greater frequency of prayers, especially for the end of the spread of the coronavirus, although, now, practiced individually, or via websites and digital platforms (Newport, 2020; Dein et al., 2020).

Internationally, studies have been conducted to analyze the role of religion in the daily lives of different population segments (Dein et al., 2020; Newport, 2020) during the current pandemic scenario, however, research of this nature is scarce in the Brazilian context. Therefore, the present study aimed to analyze the association of religiosity with behaviors and perceptions with regard to social distancing resulting from the COVID-19 pandemic, psychological well-being and mental health status in a university community of a federal public institution in Central-West Brazil.

Method

Study type and participants

This was an internet-based cross-sectional study that included a convenience sample of 1,796 members of a federal public university in the Central-West of Brazil, chosen because it is one of the largest higher education institutions in the Central-West region of the country and is one of the five Brazilian institutions that did not suspend their activities in the first months of the pandemic, starting to develop them remotely, without interruption in the academic calendar. The following inclusion criteria were considered: being a professor, student or technical member of the university community; being over 18 years of age; accepting the invitation and expressing online consent to participate in the research. Questionnaires from participants who did not sign the consent form were excluded.

Data collection instruments

A self-applied virtual form was constructed on the Google Forms platform aimed at the university community and composed of closed questions, organized in the following axes: sociodemographic profile of the respondents (e.g. whether or not they have a religion, gender, link with the university - professor, student or technical staff, etc.), behaviors during the first few months of the social distancing (e.g. whether or not they maintained physical/social distancing recommendations, whether or not they adhered to remote teaching/working, etc.) and assessment of the mental health status. For this last axis, the Depression, Anxiety and Stress Scale (DASS-21) and the Psychological Well-being Scale (PWBS) were used.

The DASS-21 was developed by Lovibond and Lovibond (1995) and later translated and validated for the Brazilian context by Vignola and Tucci (2013). It consists of 21 questions, which can be answered with 0 – does not apply to me, 1 – applies to me to some degree or at times, 2 – applies to me to a considerable degree or quite a lot of the time, and 3 – applies to me a lot or most of the time. Factor validity [three-factor structure; $\chi^2(166) = 1274.15$, CFI = 0.96, TLI = .95, RMSEA = .061 (90%CI = 0.058-0.064)] and reliability (anxiety = .85; stress = .90 and depression = .92) indicators were adequate.

The Psychological Well-being Scale (PWBS) was developed by Ryff and Essex (1992) and was translated and validated for the Brazilian context by Machado et al. (2013). The scale consists of 36 items, divided into six subscales, containing 6 items each, which assess the dimensions of Psychological Well-being (PWB). The items are answered on a six-point Likert-type scale, with the extremes "strongly disagree" and "strongly agree". The measure presented satisfactory indicators of factor validity [six-factor structure; $\chi^2(579) = 3004.06$, CFI = .98, TLI = .97, RMSEA = .048 (90%CI = 0.047-0.050)] and reliability (composite reliability - positive relationships with others = .82; autonomy = .70; environmental mastery = .76; personal growth = .84; purpose in life = .83; and self-acceptance = .83).

Procedures

Data were collected online between April and May 2020 after publication of the study and its questionnaire on the pages of the university's academic management systems. Data collection took place in the first two months of the implementation of social distancing measures at the institution and across the country.

When accessing the virtual form, participants indicated whether or not they agreed with the Consent Form before proceeding to effectively participate in the data collection. They were given the option of refusing to participate in the study and not responding to the scales. The research project was approved by the National Research Ethics Committee (CONEP), through authorization No. [information omitted for evaluation].

Data Analysis

Descriptive statistics (dispersion and centrality) and Pearson's correlation coefficient (r) were calculated, with Pearson's chi-square test used for comparisons. Multivariate Analysis of Variance (MANOVA) was performed in the SPSS (version 24) statistical program to identify the factors associated with religion.

The associations evaluated were between religiosity and adherence to social distancing recommendations, frequency of social interactions, feelings of lack of social contact and financial problems during social and physical distancing, perception of the duration of the social and physical distancing, perception of changes in the emotional state, and previous psychological alterations. Subsequently, the hypothesis of associations between religiosity and responses to the mental health assessment scales was tested, with regard to the presence of symptoms of anxiety, stress and depression. For this, a MANOVA was carried out, considering religion as an independent variable and having as dependent variables the factors of the psychological well-being scale (positive relationship with others, autonomy, environmental mastery, personal growth, purpose in life, and self-acceptance) and of the DASS-21 scale (anxiety, depression and stress). A confidence level of 95% was adopted and an association was considered statistically significant when the *p* value was <.05.

Results and Discussion

Characterization and behavior during social distancing

A total of 1,796 members of the university community participated in the study, with a mean age of 27 years, the majority of whom were female students, who declared themselves to be white and who only studied. Among the participants, 68.1% reported practicing some religion (Table 1).

As described in Table 2, most respondents stated that they maintained the social distancing recommendations, had adopted remote work/education, maintained social interactions daily, and missed social contact during the period of social and physical distancing. There were significant proportions of the respondents who reported having gone through financial difficulties, who said they had observed negative changes in their emotional state, who reported a diagnosis of some psychological change prior to the pandemic period and who reported feeling very afraid of being contaminated by the new coronavirus.

The data corroborate the results of a study that showed high rates of adherence to social distancing measures of the Brazilian population (Silva et al., 2020), as well as reflecting the changes imposed on the educational system, particularly with regard to the adherence of participants to remote teaching and work activities, especially in the first two months of the pandemic (Malta et al., 2020; Oliveira et al., 2020). In several countries, students, professors and university staff faced the need to adapt their work and study routines, starting to develop their activities at home (Li et al., 2020; Malta et al., 2020; Oliveira et al., 2020). Other studies (Li et al., 2020; Marelli et al., 2020) have shown that, although it is an important measure to reduce the speed of contagion by the new coronavirus, remote teaching/work activities put these subjects in a situation of greater vulnerability to mental illness, since, in countries like Brazil, access to equipment and resources, such as smartphones, personal computers, internet, etc., and favorable conditions for teaching and working/remote (private, silent, air-conditioned environments that promote concentration, etc.) are limited and unequal, especially among people with lower purchasing power (Li et al., 2020; Marelli et al., 2020).

Participants who reported having a religion maintained a higher frequency of social interactions during the social and physical distancing and perceived its duration as average/acceptable or long/exaggerated. In addition, they reported fewer psychological changes prior to the pandemic, as well as fewer negative changes in their emotional states during the period of social and physical distancing (Table 2).

These findings corroborate the international scientific literature that reports the influence of religiosity on people's mental health, reflecting higher levels of well-being and quality of life (Inoue & Vecina, 2017; Thiengo et al., 2019; Zimmer et al., 2016). Other studies have highlighted the influence of religious beliefs on the way subjects experienced social distancing and whether or not they adhered to the COVID-19 prevention measures (Awang et al., 2020; DeFanza et al., 2020; McLaughlin, 2020; McPhetres et al., 2020).

Studies show that people with religion are less likely to follow social distancing measures, maintaining more interpersonal interactions during this period, especially with people connected to their religious group (Awang et al., 2020; DeFranza et al., 2020; McLaughlin, 2020; Singh, 2020; Yezli & Khan, 2020). Similarly, studies have found a strong association between religious life and a better perception of the physical and mental health status, as well as the presence of fewer psychological symptoms (Inoue & Vecina, 2017; Koenig et al., 2012; Monteiro et al., 2020; Porto & Reis, 2013). Furthermore, religion was found to constitute a protective factor for the mental health of the university community during the COVID-19 pandemic (Domaradzki & Walkowiak, 2021).

Table 1.
Sociodemographic Profile of the Participants, Mato Grosso do Sul, Brazil, 2020

Variables	*n* (%)
Sex	
Female	1172 (65.3)
Male	616 (34.3)
Other	8 (0.4)
Profile	
Professors	104 (5.8)
Students	1416 (78.8)
Technicians	276 (15.4)
Race/Skin color	
Asian	67 (3.7)
White	973 (54.2)
Indigenous	21 (1.2)
Mixed race	569 (31.7)
Black	166 (9.2)
Marital status	
Married/Stable union	515 (28.7)
Single	1281 (71.3)
With children	
No	1383 (77.0)
Yes	413 (23.0)
Occupation	
Only study	941 (52.4)
Only work	306 (17.0)
Study and work	546 (30.4)
Did not respond	3 (0.2)
Religion	
With religion	1223 (68.1)
Without religion	573 (31.9)

In the present study, no association was observed between religion and maintenance of the social distancing recommendations, adherence to remote teaching and/or work, feeling of lack of social contact during social and physical distancing, experiencing financial difficulties, and fear of being contaminated by the SARS-CoV-2 virus (Table 2). It should be emphasized that the data collection was carried out in the first months of the pandemic in the country, coinciding with a period in which the Brazilian Central-West still had few cases of the new disease, which may have influenced the results of the present study. Participants who reported having a religion had a high rate of adherence to social and physical distancing measures and shared a feeling of lack of social contact. However, studies carried out in Malaysia, the United States of America, Japan and the United Arab Emirates have indicated lower adherence by religious groups to social distancing during the COVID-19 pandemic (Awang et al., 2020; DeFranza et al., 2020; McLaughlin, 2020; Singh, 2020; Yezli & Khan, 2020). It is necessary to consider that stricter measures adopted at the beginning of the pandemic, such as restrictions on the movement of people through cities and closure of the main social

Table 2.
Behaviors and Perceptions of the University Community Faced with Social Distancing Measures, According to Religion

	With religion	Without religion	*p*-value
Maintained distancing recommendations			
Yes	1191 (97%)	550 (96%)	.145
No	32 (3%)	23 (4%)	
Adopted remote work/teaching			
Yes	1091 (89%)	500 (87%)	.258
No	132 (11%)	73 (13%)	
Frequency of interactions during the distancing			
3 or 4 times a week	128 (10%)	47 (8%)	
5 or 6 times a week	49 (4%)	17 (3%)	
Daily	332 (27%)	190 (33%)	
Missing social contact			
Yes	961 (79%)	433 (76%)	.172
No	262 (21%)	140 (24%)	
Went through financial difficulties			
Yes	291 (24%)	140 (24%)	.813
No	932 (76%)	433 (76%)	
Perception of the duration of the distancing			
Short/normal	133 (11%)	95 (17%)	.002
Long/exaggerated	122 (10%)	47 (8%)	
Average/acceptable	968 (79%)	431 (75%)	
Fear of being contaminated			
No fear	81 (7%)	33 (6%)	.665
A little fear	162 (13%)	67 (12%)	
Some fear/moderate	462 (38%)	227 (40%)	
Very afraid	518 (42%)	246 (43%)	
Changes in Emotional State			
Negative changes	732 (60%)	392 (68%)	.000
Unchanged or indifferent	409 (33%)	139 (24%)	
Positive changes	82 (7%)	42 (7%)	
Previous psychological alterations			
No	776 (63%)	323 (56%)	.014
Yes	446 (35%)	249 (43%)	
Did not respond	1 (1%)	1 (1%)	

institutions, including religious services, may have contributed to the adherence to the measures (Silva et al., 2020) among the participants of the present study.

In addition, the Brazilian socio-political context produces intense social inequalities, so that a large part of the population lives daily with unfair and precarious living conditions, which compromise health, especially for the poorest and socially vulnerable groups (Faro et al., 2020; Santos, 2020). Added to this are the population's insecurities regarding the Brazilian National Health System (*Sistema Único de Saúde* - SUS) which, even before the pandemic, was already perceived

by the population as precarious and not very resolutive (Santos, 2020).

Religiosity and Mental Health

According to Table 3, there were differences in relation to religion in all factors of the DASS-21 and in five factors of the PWBS, with the exception of autonomy. Specifically, respondents who indicated not having a religion had higher scores in the depression, anxiety and stress factors. Among the indicators of subjective well-being, participants with religion scored higher in "positive relationships with others", "environmental mastery", "personal growth", "purpose in life" and "self-acceptance". Accordingly, symptoms related to depression, anxiety and stress and lower psychological well-being scores were more recurrent among people with no religion.

These findings corroborate the results of other studies that indicate the importance of religiosity as a protective factor for psychiatric symptoms and its association with greater well-being and better mental health outcomes (Awang et al., 2020; Dein et al., 2020; Porto & Reis, 2013; Zimmer et al., 2016). Religion, through its dogmas, rituals and, especially, the group processes established in religious life, offers the followers important material, emotional and social resources that can help them to face daily adversities, providing them with greater spiritual and social support (Jodelet, 2013; Moscovici, 2011).

In the case of the COVID-19 pandemic, it is necessary to consider that the rapid spread of the disease and the abrupt imposition of distancing measures favored feelings of fear and anguish among the population, which have been verified in different investigations (Silva et al., 2020; Santos, 2020). This new scenario imposed new challenges on the subjects concerning the material life and uncertainties regarding the maintenance of employment and in relation to access to food during the pandemic, as well as with regard to existential aspects, highlighting the subjects' finitude and impotence, enhanced in the midst of political and institutional obstacles to the management of the health emergency (Pirutinsky et al., 2020; Silva et al., 2020).

Studies carried out in different parts of the world have found a high prevalence of symptoms of stress, depression and anxiety among the university population (Islam et al., 2020; Kapasia et al., 2020; Li et al., 2020; Marelli et al., 2020; Yang et al., 2020). In general, these studies indicate that, while the spread of the new coronavirus is contained, social distancing measures and, consequently, remote teaching and work, change routines and place subjects in difficult adaptation situations, while they simultaneously strive to understand the new scenario and ensure their own survival (Islam et al., 2020; Kapasia et al., 2020; Li et al., 2020; Marelli et al., 2020; Yang et al., 2020). From this perspective, religions offer their followers not only explanations that help in the construction of meanings for the current

Table 3.
Comparison of Mean Values for the Scale Factors According to Presence or Absence of Religion

	With religion		Without religion			
	M	*SD*	*M*	*SD*	*F*	*p*
DASS-21 factors						
Depression	1.15	0.93	1.49	0.95	52.62	.001
Stress	1.38	0.88	1.55	0.87	15.07	.001
Anxiety	0.87	0.82	1.03	0.87	12.99	.001
Psychological Well-being Scale factors						
Positive relationships with others	4.07	1.09	3.87	1.08	13.14	.001
Autonomy	3.98	0.96	3.94	1.04	0.59	.444
Environmental mastery	3.59	1.26	3.19	1.22	40.74	.001
Personal growth	5.24	0.73	5.10	0.77	15.41	.001
Purpose in life	4.57	1.09	3.98	1.23	107.08	.001
Self-acceptance	4.27	1.23	3.79	1.32	56.51	.001

Note: M = mean; *SD* = standard deviation

crisis, but also social and group support that contribute to subjects increasing the feeling of self-efficacy and hope faced with a threatening scenario, such as in the first months of the pandemic, the object of this investigation (Jodelet, 2013; Moscovici, 2011; Newport, 2020).

It is inferred that, during the COVID-19 pandemic, religion has proved to be a resource for the university community, in relation to coping with emotional repercussions. These findings corroborate the scientific literature that has shown that university students from different parts of the world believe that religiosity helps in confronting the adversities imposed by the pandemic, constituting an important support for maintaining the psychological well-being of this public (Alzoubi et al., 2020; Noreen et al., 2020).

In this study, people who reported having a religion also had higher scores in the dimensions of "Positive Relationships with Others" (maintaining safe, welcoming, intimate and satisfying relationships), "Environmental Mastery" (ability to intervene in the environment in order to satisfy personal needs and values), "Personal Growth" (being open to new experiences and feeling a continuous personal development), "Purpose in Life" (having a sense of direction, goals and purposes in life) and "Self-acceptance" (positive attitudes towards oneself and acceptance of aspects of one's personality), when compared to the group of people with no religion (Table 3).

As already noted, religions provide symbolic elements and material conditions that help followers construct more positive ways of facing adversity, increasing resilience and self-efficacy, enabling these subjects to deal with suffering and illness in a healthier way (Bentzen, 2020; Inoue & Vecina, 2017; Koenung et al., 2012).

Only the "autonomy" dimension, related to the ability to be self-determined, independent and able to evaluate personal experiences based on ones' own criteria, presented no statistically significant difference, being high in both groups, with and without religion (Table 3). This finding can be better understood when we consider that, in addition to their potential for transcendental and supernatural connection, religions also prescribe norms and guidelines for the believers on how they should position themselves when faced with daily challenges, providing support that increases the feeling of self-efficacy when confronting adversity.

However, this is not a characteristic exclusive of religious groups. Observing the behavior of the population in the first months of the pandemic, there was an appreciation of altruistic and solidarity behaviors, especially from the formation of mutual support networks, aimed at different groups. It is also necessary to take into account that it is a university population that, amidst the adversities of the pandemic, also had the help of scientific knowledge, which may also have contributed to the high level of autonomy in both groups.

Finally, Table 4 shows that the dimensions of the DASS-21 were significantly related to all factors of the PWB measure. Specifically, depression, anxiety and stress were found to be negatively associated with all factors of psychological well-being. Therefore, the higher the scores in the depression, anxiety and stress factors, the lower the scores in the dimensions of psychological well-being.

Table 4.
Correlations between Factors of the DASS-21 and PWBS for the University Community

Variables	1	2	3	4	5	6	7	8	9
1. Depression	-	.74	.80	-.52	-.38	-.65	-.44	-.66	-.74
2. Anxiety		-	1,00	-.37	-.32	-.46	-.31	-.40	-.50
3. Stress			-	-.43	-.35	-.56	-.33	-.46	-.57
4. Positive relationships				-	.32	.46	.41	.50	.59
5. Autonomy					-	.43	.35	.38	.48
6. Mastery1						-	.47	.70	.73
7. Growth1							-	.66	.57
8. Purpose1								-	.80
9. Self-acceptance									-

Source: study data *Note: p* values < .01.

Final considerations

The results of the present study add to other findings in the national and international scientific literature that highlight the importance of religiosity in promoting mental health and the well-being of the population. In addition to its transcendental and supernatural dimension, religion offers the followers knowledge that helps them in the way they interpret themselves and the world around them, impacting on their beliefs and practices, including those related to the health/illness/care process. In contexts of global crises, such as the COVID-19 pandemic, religion and religious groups offer the faithful spiritual comfort, however, above all they provide group comfort and psychosocial support, indispensable for survival in moments of uncertainty.

In this study, an association was found between practicing some religion and the frequency of interactions during social and physical distancing, perception of the duration of the distancing, perception of changes in the emotional state, and the presence of previous psychological changes. There was a lower presence of symptoms related to depression, anxiety and stress among people with a religion. In addition, people who reported having a religion also presented higher scores in the PWBS dimensions, with the exception of autonomy, reaffirming the importance of religiosity as a factor that promotes psychological well-being.

Regarding the limitations of the present study, it should be emphasized that non-probabilistic sampling was adopted, with religion not being further explored through other correlated variables and that the statistical analysis did not involve a multivariable step to verify a model of factors associated with religion. Despite the limitations mentioned, the sample selected is similar to the study population and the findings are supported by the literature, as well as being consistent with the current situation of facing the COVID-19 pandemic by the university community.

However, it is necessary to take into account that data collection was carried out in the first months of the pandemic in the country, that is, April and May 2020, coinciding with a period in which the Brazilian Central-West still had a lower number of cases and deaths related to COVID-19, while the population also had less information about the new disease, which may have influenced the results of the present study. In addition, this investigation with the university community may present an important social desirability bias, especially with regard to responses on compliance with social distancing measures.

It is also necessary to consider that the data presented here refer to a university community in the Central-West region of Brazil, so that other studies, in different contexts, should be developed in order to identify possible differences depending on the local and regional cultural context. Further studies can be carried out considering the singularities of the different religious matrices that compose the Brazilian context, seeking to understand their effects on mental health, especially with regard to the beliefs and health behaviors of the followers during the pandemic.

Studies with a retrospective observational design can be developed to analyze factors that may have mobilized seeking religious practices during the pandemic, as well as the associations with mental health outcomes among individuals with and without religion. Another important aspect to be investigated is the relationship between religiosity and mental health, in the comparison between university communities that maintained teaching activities remotely and those that suspended these activities at the beginning of the pandemic. In addition, future investigations will be able to analyze the importance of religiosity in the resumption of daily activities in the post-pandemic period, analyzing the role of the religious group as a support for bereaved families, as well as for the reorganization of personal and community life projects.

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Recebido em: 11/04/2021
Reformulado em: 13/09/2021
Aprovado em: 14/10/2021

Acknowledgments:

Apoio financeiro da JBS S/A e apoio institucional da Universidade Federal de Mato Grosso do Sul (UFMS).

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