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Research Article

Association between dimensions of religiosity and medication adherence among Brazilian older adults

Associação entre dimensões da religiosidade e adesão medicamentosa em idosos brasileiros

Asociación entre dimensiones de la religiosidad y adhesión medicamentosa en adultos mayores brasileños

Pedro Henrique Soares Silva[1], Maria Vitoria Cordeiro Vieira[1], Lucas Aur Pazetto[1], Mariana de Vasconcellos Nascimento[1], Larissa Helena Sacheto Abdo[1], Mariana Lima de Moura[1], Kaio Henrique Correa Massa[1]

[1]Universidade Anhembi Morumbi – São Paulo (SP), Brazil.

Abstract

Introduction: Medication adherence in older adults is influenced by multiple factors, including sociocultural aspects. Religiosity may play a relevant role in this context; however, evidence in the Brazilian setting remains limited. **Objective:** To analyze the association between religiosity and medication adherence among Brazilian older adults. **Methods:** This cross-sectional quantitative study examined the association between religiosity and medication adherence in 153 individuals aged 60 years or older. Religiosity was assessed using the Duke University Religiosity Index (DUREL) across organizational (OR), non-organizational (NOR), and intrinsic (IR) dimensions, while medication adherence was measured by the Morisky-Green Test and categorized as low, medium, or high. Sociodemographic (sex, age, education, marital status), lifestyle factors (smoking, alcohol consumption), and health data (chronic diseases, medication use) were also collected. Adjusted logistic regression models were used to analyze associations between each religiosity dimension and medication adherence. **Results:** The sample comprised 153 individuals, predominantly female (66%) and mostly aged 60–69 years (51.6%). Intrinsic religiosity showed the highest prevalence (88.9%), followed by non-organizational (86.3%) and organizational religiosity (39.9%). Low and medium adherence predominated (88.9%), with 64% reporting medication forgetfulness. Organizational religiosity was significantly associated with higher medication adherence (OR=2.54; 95%CI 1.16–5.58) and lower smoking prevalence. Women exhibited greater religiosity across all dimensions. **Conclusion:** Specific religiosity dimensions positively influence medication adherence in older adults, highlighting the relevance of incorporating spiritual aspects into clinical approaches to improve therapeutic outcomes in this population.

Keywords: Medication adherence; Aged; Chronic diseases.

Corresponding author:
Kaio Henrique Correa Massa
E-mail: kaio.massa@hotmail.com

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Resumo

Introdução: A adesão ao tratamento medicamentoso em idosos é influenciada por múltiplos fatores, incluindo aspectos socioculturais. A religiosidade pode desempenhar papel relevante nesse contexto, porém ainda há escassez de evidências no cenário brasileiro. **Objetivo:** Analisar a associação entre religiosidade e adesão ao tratamento medicamentoso em idosos brasileiros. **Métodos:** Trata-se de estudo transversal quantitativo que analisou a associação entre religiosidade e adesão ao tratamento medicamentoso. A religiosidade foi avaliada pelo Índice de Religiosidade da Universidade de Duke (DUREL) nas dimensões organizacional, não organizacional e intrínseca, enquanto a adesão medicamentosa foi mensurada pelo teste de Morisky-Green e categorizada em baixa, média e alta. Foram coletadas, também, informações sociodemográficas (sexo, idade, escolaridade, estado civil), de estilo de vida (tabagismo, consumo de álcool) e dados de saúde (doenças crônicas e uso de medicamentos). Modelos de regressão logística ajustados foram aplicados para analisar as associações entre cada dimensão da religiosidade e adesão medicamentosa. **Resultados:** A amostra totalizou 153 indivíduos com 60 anos ou mais, predominantemente do sexo feminino (66%) e majoritariamente composta por idosos entre 60–69 anos (51,6%). A maior prevalência foi observada para a religiosidade intrínseca (88,9%), seguida pela não organizacional (86,3%) e organizacional (39,9%). Predominaram as categorias baixa e média adesão (88,9%), sendo que 64% dos participantes relataram esquecimento no uso dos medicamentos. A religiosidade organizacional associou-se significativamente a maior adesão medicamentosa (OR=2,54; IC95% 1,16–5,58) e menor prevalência de tabagismo. Mulheres apresentaram maior religiosidade em todas as dimensões. **Conclusões:** Os achados indicam que dimensões específicas da religiosidade influenciam positivamente a adesão ao tratamento medicamentoso em idosos, ressaltando a relevância da incorporação de aspectos espirituais na abordagem clínica para melhorar os resultados terapêuticos dessa população.

Palavras-chave: Adesão à medicação; Idosos; Doenças crônicas.

Resumen

Introducción: La adherencia al tratamiento medicamentoso en personas mayores está influenciada por múltiples factores, incluidos aspectos socioculturales. La religiosidad puede desempeñar un papel relevante en este contexto; sin embargo, aún existe escasez de evidencia en el escenario brasileño. **Objetivo:** Analizar la asociación entre religiosidad y adhesión al tratamiento medicamentoso en adultos mayores brasileños. **Métodos:** Estudio transversal cuantitativo que analizó la asociación entre religiosidad y adhesión al tratamiento medicamentoso. La religiosidad fue evaluada mediante el Índice de Religiosidad de la Universidad de Duke (DUREL) en las dimensiones organizacional (RO), no organizacional (RNO) e intrínseca (RI), mientras que la adhesión medicamentosa fue medida por el Test de Morisky-Green y categorizada en baja, media y alta. También se recogió información sociodemográfica (sexo, edad, escolaridad, estado civil), estilo de vida (tabaquismo, consumo de alcohol) y datos de salud (enfermedades crónicas y uso de medicamentos). Se aplicaron modelos de regresión logística ajustados para analizar las asociaciones entre cada dimensión de la religiosidad y adhesión medicamentosa. **Resultados:** La muestra totalizó 153 individuos de 60 años o más, predominantemente del sexo femenino (66%) y mayoritariamente compuesta por adultos mayores entre 60–69 años (51,6%). La mayor prevalencia se observó para la religiosidad intrínseca (88,9%), seguida por la no organizacional (86,3%) y organizacional (39,9%). Predominaron las categorías de baja y media adhesión (88,9%), siendo que el 64% de los participantes reportaron olvido en el uso de los medicamentos. La religiosidad organizacional se asoció significativamente con mayor adhesión medicamentosa (OR=2,54; IC95% 1,16–5,58) y menor prevalencia de tabaquismo. Las mujeres presentaron mayor religiosidad en todas las dimensiones. **Conclusiones:** Los hallazgos indican que dimensiones específicas de la religiosidad influyen positivamente en la adhesión al tratamiento medicamentoso en adultos mayores, resaltando la relevancia de la incorporación de aspectos espirituales en el abordaje clínico para mejorar los resultados terapéuticos de esta población.

Palabras clave: Adhesión a la medicación; Anciano; Enfermedades crónicas.

INTRODUCTION

Religion refers to an organized system of beliefs, practices, symbols, and rituals shared by a community, typically structured institutionally. Religiosity, in turn, concerns the degree of individual engagement with religious beliefs and practices, which may manifest across organizational (participation in worship services or religious activities), non-organizational (private practices, such as prayer), and intrinsic (personal internalization of beliefs) dimensions. Spirituality, on the other hand, constitutes a broader construct related to the individual search for meaning, purpose, and connection with the transcendent, a search that may or may not be linked to a formal religious tradition.[1,2] Religiosity and spirituality have been associated with indicators of mental health, social support, and adaptive coping strategies for chronic diseases, particularly among older adults, a demographic in which these dimensions frequently assume a central role in organizing daily life and making health-related decisions. National studies also underscore

the importance of religiosity and spirituality in healthcare settings and highlight their positive impact on the lives of individuals living with chronic conditions.[3,4] According to the 2022 Census,[5] approximately 90% of the Brazilian population identifies as religious, with Catholics and Evangelicals constituting the most prevalent groups, accounting for 56.7% and 26.9% of the population, respectively. It is also worth noting that 90% of Brazilians feel that their beliefs enable them to overcome challenges and crises, such as illness, disasters, and conflicts.[6,7]

Religion and spirituality, though distinct, exert a significant impact on quality of life and have been increasingly investigated due to their influence on therapeutic efficacy and the coping with illness.[1,7] Religiosity can reinforce treatment, as religious beliefs and practices often offer comfort and hope to the patient, thereby fostering adherence to protocols established by healthcare professionals.[7] Conversely, for individuals without religious practices, Integrative and Complementary Health Practices, such as acupuncture, herbal medicine, and Reiki, have been incorporated into the Unified Health System (SUS) since 2006,[8] seeking to promote physical and psychological well-being. These practices have also proven effective in reducing adverse medication effects, depression, anxiety, chronic pain, and sleep disorders.[9,10]

According to the Brazilian Institute of Geography and Statistics (IBGE), older adults account for 14.7% of the Brazilian population.[11] Of these, more than 75% live with at least one chronic non-communicable disease, such as hypertension, diabetes, or cancer.[12] The management of these conditions generally requires the continuous use of medication, making treatment adherence essential for the stabilization and maintenance of health.[7,13] However, evidence derived from national population surveys indicates that between 30 and 50% of individuals with chronic diseases, including older adults, exhibit some degree of non-adherence to medication regimens, posing a significant challenge for clinical control and the prevention of complications.[14,15]

Despite the accelerated aging of the population and the high prevalence of religiosity in Brazil, there is a scarcity of national studies exploring the relationship between religiosity and medication adherence among older Brazilians. A large portion of research focuses on populations in other countries, disregarding the cultural, social, and religious specificities of the Brazilian context, which may influence therapeutic behavior. Thus, it is understood that investigations conducted within the national setting are essential for guiding care strategies that incorporate cultural and spiritual aspects to promote greater medication adherence and holistic health among older adults. In this regard, the present study aimed to analyze the association between religiosity and adherence to medication treatment among Brazilian older adults.

METHODS

This was a quantitative cross-sectional study conducted using a convenience sample. Data collection took place between March and July 2025, involving 153 participants seen in an outpatient clinic at an integrated health center (IHC) in the municipality of São Paulo, Brazil.

The sample size was estimated based on a Brazilian study that assessed the association between organizational religiosity and therapeutic adherence in hypertensive older adults, reporting an odds ratio (OR) of approximately 2.0.[13] This magnitude is consistent with international findings indicating a moderate association between religiosity/spirituality and health behaviors, including therapeutic adherence.[1,16] Considering an association of similar magnitude (OR ≈ 2.0) as the minimum relevant effect, a significance level of 5% and a statistical power of 80% were adopted. The calculation indicated a minimum sample size of 140 participants.

Included were older adults taking at least one medication on a continuous basis who consented to participate in the study. Individuals with cognitive or communicative impairments that precluded participation, as well as those who declined to provide consent, were excluded.

Adherence to medication treatment was assessed using the Morisky-Green test,[17] a validated questionnaire widely used in the healthcare field to measure patient therapeutic behavior. The instrument consists of four closed-ended questions that examine aspects such as forgetfulness, carelessness, and voluntary discontinuation of medication, classifying adherence as low (0–1 points), moderate (2–3 points), or high (4 points).

Participants' religiosity was assessed using the Duke University Religiosity Index (DUREL), a validated tool applied in health-related research.[18] The DUREL comprises five items that provide a comprehensive assessment of individuals' religious experiences and measure dimensions of organizational, non-organizational, and intrinsic religiosity.[12,19]

Sociodemographic information (sex, age, education, marital status) and data on lifestyle habits (alcohol consumption, smoking) were also collected, in addition to self-reported chronic diseases (hypertension, diabetes) and the total number of medications used, categorizing polypharmacy according to the criterion of using five or more medications.[20]

The interviews were conducted individually by trained interviewers in a private setting at the IHC, ensuring anonymity and confidentiality of information.

The dependent variable was religiosity, assessed in three dimensions: organizational, non-organizational, and intrinsic, respectively related to organized religious practices, private religious activities, and personal beliefs.

The independent variables included sociodemographic characteristics, lifestyle habits, and medication adherence. Age was categorized into age ranges (60 to 69, 70 to 79, and 80 or older). Education was grouped according to the highest level of completed education, and marital status was classified as presence or absence of a domestic partner.

The lifestyle habits assessed were alcohol consumption and smoking, self-reported by the participants. Chronic conditions such as hypertension and diabetes were also considered, as well as the number of medications in use, classifying polypharmacy as previously defined. Medication adherence, measured by the Morisky-Green test, was categorized as low, moderate, and high.

The exploratory data analysis included the description of variables by absolute and relative frequencies. Bivariate associations between the dimensions of religiosity and sociodemographic and lifestyle variables were assessed using Pearson's χ^2 test.

The association between religiosity and medication adherence was analyzed separately for each dimension of religiosity, using logistic regression models. The analyses were adjusted for sociodemographic characteristics and lifestyle variables that showed a statistically significant association in the bivariate analyses, adopting a stepwise forward method and verifying multicollinearity (VIF<5). The significance level established was 5% for all tests.

Data processing and all analyses performed were carried out using Stata V14.2 software (Stata Corporation, College Station, TX, USA, 2017).[21]

The study was approved by the Research Ethics Committee of Anhembi Morumbi University, under Opinion No. 7.275.667 and CAAE No. 84144824.0.0000.5492. All participants were duly informed about the objectives and procedures of the study and an informed consent form was signed before inclusion, guaranteeing respect for the privacy and confidentiality of the information obtained.

RESULTS

The sample consisted of 153 older adults, with a predominance of females (66%). The age distribution indicated that the largest proportion of participants fell within the 60-to-69 age range (51.6%), followed by the 70-to-79 (37.9%) and 80-and-over (10.5%) groups. Regarding educational attainment, 26.1% had not completed elementary school, while 33.3% had completed high school. The majority of the older adults reported living with a partner (56.2%), whereas widowhood was the predominant status among those without a partner (Table 1).

Table 1. Distribution of older adults according to demographic, socioeconomic, and lifestyle characteristics, presence of diseases, and medication use and adherence (n=153). São Paulo, Brazil, 2025.

	n	%
Sex		
Male	52	34.0
Female	101	66.0
Age group		
60–69 years	79	51.6
70–79 years	58	37.9
80 years or more	16	10.4
Education level		
Incomplete elementary school	40	26.1
Complete elementary school	37	24.2
Complete high school	51	33.3
Complete higher education	25	16.3
Marital status		
Without partner	67	43.8
With partner	86	56.2
Drinker		
Yes	12	7.8
No	141	92.2
Smoker		
Yes	28	18.3
No	125	81.7
Presence of hypertension		
Yes	105	68.6
No	48	31.4
Presence of diabetes		
Yes	60	39.2
No	93	60.8
Number of medications taken		
1	14	9.1
2	30	19.6
3	24	15.7
4	20	13.1
≥5	65	42.5
Polypharmacy		
Yes	65	42.5
No	88	57.5

Lifestyle analysis indicated that 92.2% of the older adults did not consume alcoholic beverages, while 81.7% were non-smokers. A family history of chronic diseases was reported by 69.7% of the participants, with hypertension (68.6%) and diabetes mellitus (39.2%) standing out as the most frequent conditions. Polypharmacy was identified in 42.5% of the sample, with the use of two or more medications being the predominant pattern (Table 1).

Regarding medication adherence, 43.1% of the older adults demonstrated low adherence; 45.7%, moderate adherence; and only 11.1%, high adherence to treatment. Forgetfulness was reported by 64% of the participants, while 49% admitted to being careless regarding medication schedules. Voluntary discontinuation of medication occurred in 34% of cases when participants felt better, and in 27% of cases when they felt worse (Table 2).

Table 2. Distribution of older adults by medication adherence according to the Morisky-Green test (n=153). São Paulo city, Brazil, 2025.

	n	%
Have you ever forgotten to take your medication?		
Yes	98	64.0
No	55	36.0
Have you ever been careless about the times you take your medication?		
Yes	78	49.0
No	75	51.0
Have you ever stopped taking your medication for your condition because you felt better?		
Yes	52	34.0
No	101	66.0
Did you stop taking your medication for your condition, on your own initiative, after feeling worse at any point?		
Yes	41	27.0
No	112	73.0
Were you informed about the importance and benefits of taking your medication?		
Yes	111	91.0
No	11	9.0
Do you forget to refill your medications before they run out?		
Yes	26	21.3
No	96	78.7
Medication adherence		
Low	66	43.1
Moderate	70	45.7
High	17	11.1

The Duke Religious Index indicated that approximately 40% of the older adults attended religious gatherings at least once a week, 56.2% engaged in individual religious activities daily, while 95.4% reported feeling the presence of God or the Holy Spirit. The prevalences found for the dimensions of religiosity were: 39.9% for organizational religiosity, 86.3% for non-organizational religiosity, and 88.9% for intrinsic religiosity (Table 3).

In the bivariate analyses, conducted separately for each dimension of religiosity, statistically significant associations were observed with sociodemographic variables and lifestyle habits. Regarding organizational religiosity, older adults aged 80 years or older participated less frequently in these activities (87.5% did not participate) compared to younger age groups. Smokers also demonstrated lower involvement in organized religious activities relative to non-smokers (Table 4).

Table 3. Distribution of older adults according to religiosity classification based on the Duke University Religiosity Index (DUREL) (n=153). São Paulo city, Brazil, 2025.

	N	%
How often do you attend religious gatherings?		
More than once a week	23	15.0
Once a week	38	24.8
Two or three times a month	27	17.6
A few times a year	28	18.3
Once a year or less	14	9.1
Never	23	15.0
How often do you engage in individual religious practices?		
More than once a day	38	24.8
Daily	86	56.2
Two or more times a week	6	3.9
Once a week	2	1.3
A few times a month	8	5.2
Rarely or never	13	8.5
I feel the presence of God (or the Holy Spirit).		
Completely true for me	127	83.0
Generally true	19	12.4
I am not sure	2	1.3
Generally not true	1	0.6
Not true	4	2.6
My religious beliefs guide my entire life.		
Completely true for me	105	68.6
Generally true	27	17.6
I am not sure	7	4.6
Generally not true	8	5.2
Not true	6	3.9
I strive to live my religion fully		
Completely true for me	90	58.8
Generally true	33	21.6
Not sure	9	5.9
Generally not true	7	4.6
Not true	14	9.1
Presence of organizational religiosity		
Not	92	60.1
Yes	61	39.9
Presence of non-organizational religiosity		
No	21	13.7
Yes	132	86.3
Presence of intrinsic religiosity		
No	17	11.1
Yes	136	88.9

Table 4. Bivariate analysis of religiosity according to demographic, socioeconomic, and lifestyle characteristics, presence of diseases, and medication use and adherence (n=153). São Paulo city, Brazil, 2025.

	Organizational religiosity			Non-organizational religiosity			Intrinsic religiosity		
	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value
Sex									
Male	69.2	30.8	0.099	26.9	73.1	0.001	19.2	80.8	0.022
Female	55.4	44.5		6.9	93.1		6.9	93.1	
Age group									
60–69 years	59.5	40.5	0.048	16.5	83.5	0.584	11.4	88.6	0.518
70–79 years	53.4	46.5		10.3	89.7		8.5	91.4	
80 years or more	87.5	12.5		12.5	87.5		18.7	81.2	
Education level									
Incomplete elementary school	57.5	42.5	0.757	12.5	87.5	0.898	7.5	92.5	0.763
Complete elementary school	67.6	32.4		10.8	89.2		10.8	89.2	
Complete high school	58.8	41.2		15.7	84.3		11.8	88.2	
Complete higher education	56.0	44.0		16.0	84.0		16.0	84.0	
Marital status									
Without partner	65.7	34.3	0.217	7.5	92.5	0.047	11.9	88.1	0.773
With partner	55.8	44.2		18.6	81.4		10.5	89.5	
Drinker									
No	60.3	39.7	0.895	12.1	87.9	0.04	9.2	90.8	0.011
Yes	58.3	41.7		33.3	66.7		33.3	66.7	
Smoker									
No	56.0	44.0	0.027	12.0	88.0	0.19	7.2	92.8	0.001
Yes	78.6	21.4		21.4	78.6		28.6	71.4	
Hypertension									
No	56.2	43.7	0.507	16.7	83.3	0.475	18.7	81.2	0.042
Yes	61.9	38.1		12.4	87.6		7.6	92.4	
Diabetes									
No	59.1	40.9	0.755	15.1	84.9	0.552	9.7	90.3	0.482
Yes	61.7	38.3		11.7	88.3		13.3	86.7	
Number of medications taken									
1	71.4	28.6	0.575	7.1	92.9	0.616	14.3	85.7	0.534
2	53.3	46.7		10.0	90.0		6.7	93.3	
3	50.0	50.0		20.8	79.2		4.2	95.8	
4	60.0	40.0		20.0	80.0		10.0	90.0	
≥5	64.6	35.4		12.3	87.7		15.4	84.6	
Polypharmacy									
No	56.8	43.2	0.33	14.8	85.2	0.661	7.9	92.1	0.148
Yes	64.6	35.4		12.3	87.7		15.4	84.6	
Medication adherence									
Low	69.7	30.3	0.109	7.6	92.4	0.106	7.6	92.4	0.246
Moderate	52.9	47.1		20.0	80.0		15.7	84.3	
High	52.9	47.1		11.8	88.2		5.9	94.1	

Regarding non-organizational religiosity, there was a higher prevalence among women (93.1%) compared to men (73.1%). Older adults without a partner exhibited a higher prevalence of non-organizational religiosity than those with a partner. Furthermore, non-drinkers demonstrated higher levels of this religious dimension relative to drinkers (Table 4).

Regarding intrinsic religiosity, significant differences were observed for sex, smoking status, and alcohol consumption. Women exhibited a higher prevalence (93.1%) than men (80.8%). The absence of smoking and the non-consumption of alcohol were associated with higher intrinsic religiosity (Table 4).

In the logistic regression models, adjusted for sociodemographic and lifestyle variables, a statistically significant association was observed between organizational religiosity and greater medication adherence (OR=2.54; 95%CI 1.16–5.58). Additionally, older adults living with a partner demonstrated a higher likelihood of organizational religiosity (OR=2.40; 95%CI 1.09–5.32). Furthermore, a lower likelihood of organizational religiosity was observed among older adults aged 80 years or more (OR=0.20; 95%CI 0.05–0.95) and among smokers (OR=0.31; 95%CI 0.10–0.91) (Table 5).

Table 5. Logistic regression models for the presence of organizational, non-organizational, and intrinsic religiosity in older adults, according to demographic and socioeconomic characteristics, risk factors, and medication adherence. (n=153). São Paulo city, Brazil, 2025.

	Organizational religiosity			**Non-organizational religiosity**			**Intrinsic religiosity**		
	OR	**95%CI**	**p-value**	**OR**	**95%CI**	**p-value**	**OR**	**95%CI**	**p-value**
Sex									
Male	1			1			1		
Female	3.31	1.43–7.67	0.005	4.32	1.44–12.98	0.009	6.17	1.64–23.18	0.007
Age group									
60–69	1			1			1		
70–79	1.3	0.63–2.69	0.471	1.76	0.59–5.27	0.312	1.16	0.35–3.90	0.804
80 or older	0.17	0.03–0.91	0.038	0.71	0.11–4.32	0.708	0.25	0.04–1.42	0.118
Education level									
Incomplete elementary school	1			1			1		
Complete elementary school	0.46	0.17–1.31	0.149	1.15	0.26–5.08	0.849	0.54	0.10–2.82	0.446
Complete high school	0.75	0.29–1.88	0.539	0.84	0.22–3.16	0.802	0.45	0.09–2.21	0.329
Complete higher education	0.58	0.24–2.19	0.579	0.76	0.16–3.62	0.74	0.29	0.05–1.66	0.164
Marital status									
Without partner	1			1			1		
With partner	2.4	1.09–5.32	0.029	0.62	0.19–2.03	0.431	2.49	0.69–8.91	0.16
Drinker									
No	1			1			1		
Yes	1.83	0.45–7.42	0.339	0.72	0.14–3.68	0.696	0.26	0.05–1.47	0.129
Smoker									
No	1			1			1		
Yes	0.31	0.10–0.91	0.034	0.52	0.14–1.86	0.314	0.22	0.06–0.81	0.022
Medication adherence									
Low	1			1			1		
Moderate	2.54	1.16–5.58	0.02	0.37	0.12–1.17	0.092	0.52	0.15–1.82	0.307
High	2.26	0.67–7.61	0.188	0.79	0.11–5.73	0.821	2.24	0.17–29.25	0.537

Regarding the other dimensions, non-organizational religiosity was significantly higher among women (OR=4.32; 95%CI 1.44–12.98). For intrinsic religiosity, prevalence was also higher among women (OR=6.17; 95%CI 1.64–23.18), while smoking was associated with lower religiosity in this dimension (OR=0.22; 95%CI 0.06–0.81) (Table 5).

DISCUSSION

The results of this study indicate a significant association between religiosity and medication adherence in older adults, particularly within the organizational dimension. One of the fundamental aspects linking religiosity to medication adherence is the strengthening of resilience and the patient’s coping mechanisms in the face of illness. In this sense, religiosity functions not only as emotional and psychological support but also as an important social and community factor, providing support networks that can be decisive for isolated or vulnerable patients. Kavvadia et al.[22] corroborate this view by demonstrating a positive relationship between medication adherence and religiosity.

The presence of religious beliefs, manifested through various forms of religiosity, can foster hope and generate positive, optimistic feelings regarding the illness, thereby enabling the patient to better cope with the psychological aspects arising from the disease and instilling a greater sense of purpose in their treatment.[23,24] Although we did not observe an association between intrinsic religiosity and medication adherence in the present study, Camargo et al.[25] reported a higher likelihood of treatment adherence among hypertensive patients with high levels of intrinsic religiosity. In this regard, internal motivation and the importance an individual attributes to their faith appear to have a positive impact on health-related behaviors.

Beyond the intrinsic dimension, our results did not identify a significant association between non-organizational religiosity and medication adherence. In certain religious contexts, a belief in “divine healing” may pose an obstacle to medication adherence, as the patient may believe that their recovery depends on a higher power, thereby relegating pharmacological treatment to a secondary role.[26]

The seeking of healers and alternative therapies, a practice particularly common among individuals living with serious illnesses, may contribute to the discontinuation of conventional treatment.[27] Even if not explicitly verbalized or encouraged by religious leaders, many patients believe that alternative therapies and faith alone are sufficient to effect a cure. Roura et al.,[27] studying healing practices among traditional healers, described that praying for the sick is a common practice, and more than one-third of these healers stated that such prayers were capable of curing diseases. In this context—beyond the potential for treatment interruption, even in the absence of an explicit recommendation from a religious leader—prioritizing these practices may delay the initiation of conventional treatment, thereby increasing the risk of adverse outcomes and mortality.[28]

There is also a segment of the population that views illness as a “divine punishment,” which may lead them to seek out integrative or holistic therapies, alternative religious practices, or even to forgo treatment entirely, assigning a moral or spiritual significance to their suffering that culminates in feelings of guilt and self-punishment. Consequently, individuals may come to view penitence as a means of coping with their health condition.[29]

Our results indicate a preponderance of older women across the various dimensions of religiosity. This predominance mirrors a global pattern and may be linked to lower mortality rates and a greater engagement in self-care practices among women. Historically, women have assumed responsibility for

family caregiving, including the care of children and the older individuals. Many religious institutions host group activities designed to assist vulnerable individuals, such as prayer groups and pilgrimages to sacred sites. Beyond seeking to enhance their life satisfaction through religious practice, these women are often prompted to seek spiritual solace by their close proximity to the frailty of those around them.[30]

A lower likelihood of organizational religiosity was observed among older adults aged 80 and above when compared to their younger counterparts. As individuals age, they confront physical frailty within their own bodies and face the fleeting nature of time as they draw closer to their own mortality. Through spirituality, they may find comfort and support, thereby coping with loss and feelings of physical incapacity. However, the heightened susceptibility to chronic and disabling conditions associated with aging may prevent older adults, particularly the very old ones, from attending religious services and gatherings; this factor could explain the lower proportion of older adults observed specifically within the dimension of organizational religiosity.[31]

Our findings indicated that older adults living with a partner demonstrated a higher likelihood of organizational religiosity. The valuing of family life and marital commitment is a dogma or similar value shared by various religions.[32] Thus, it can be stated that engaging in religious services or activities increases exposure to these doctrinal tenets, thereby fostering companionship.[33] It is also possible to posit a bidirectional relationship to explain this association: religion encourages marital stability, while life as a couple stimulates engagement in religious practices. In summary, organized religious involvement provides meaning, cohesion, and support to married life, making couples more inclined toward community participation and active living out of their faith.[34]

The observed association between higher religiosity and a lower prevalence of smoking is consistent with previous studies, which suggest that religiosity is linked to the internalization of norms that discourage harmful habits.[35,36] This relationship can also be explained by social and psychological factors. Participation in religious communities provides greater social support, a sense of belonging, and healthy coping mechanisms for dealing with stress.[36] From a psychological perspective, religiosity is also associated with a greater sense of purpose, internal control, and hope, factors linked to a lower likelihood of initiating or maintaining smoking behavior.[37] It is important to emphasize that this relationship does not imply direct causality, as factors such as socioeconomic status, stress, personality, and cultural context also influence smoking behavior.

This study makes an innovative contribution by exploring the association between three specific dimensions of religiosity (organizational, non-organizational, and intrinsic) and adherence to medication regimens among older Brazilians, a topic rarely addressed within the Brazilian context. By identifying that organizational religiosity is significantly associated with medication adherence, our findings underscore the importance of integrating religious and spiritual practices into the clinical care of the elderly population, thereby fostering a more comprehensive approach to healthcare.

The present study has limitations that should be taken into account when interpreting the results. First, the sample was selected by convenience, comprising older adults who were users of a single IHC in São Paulo, which limits the generalizability of the findings to other populations and contexts. Second, the cross-sectional design precludes the inference of causality regarding the observed associations between religiosity and medication adherence; these should, therefore, be interpreted solely as associations. Furthermore, medication adherence and religiosity were assessed using self-report instruments, which are subject to memory and social desirability biases. Finally, psychosocial factors that could act as moderators or mediators in this relationship, such as social support, were not assessed.

CONCLUSION

Our results highlight that religiosity, particularly in its organizational dimension, plays a significant role in medication adherence among older adults. Engagement with religious institutions appears to foster greater confidence in treatment and a more receptive attitude toward therapeutic guidance—an effect that is more pronounced among older women. However, the frailty often experienced by the very old individuals may limit their participation in collective religious activities, resulting in lower levels of organizational religiosity within this group. The presence of a partner was found to be associated with greater involvement in religious practices, possibly due to the mutual exchange of values and the encouragement of a greater appreciation for family life.

These findings underscore the importance of incorporating spiritual and religious components into healthcare practices, particularly for the older population. Understanding the impact of the various dimensions of religiosity on therapeutic behavior can contribute to the development of more sensitive and integrated clinical approaches, those capable of promoting medication adherence and, consequently, improving clinical outcomes.

CONFLICT OF INTERESTS

Nothing to declare.

AUTHORS' CONTRIBUTIONS

PHSS: Conceptualization, Data curation, Formal analysis, Writing – original draft. MVCV: Conceptualization, Data curation, Formal analysis, Writing – original draft. LAP: Conceptualization, Data curation, Formal analysis, Writing – original draft. MVN: conceptualization, Data curation, Formal analysis, Writing – original draft. LHSA: Conceptualization, Data curation, Formal analysis, Writing – original draft. MLM: Conceptualization, Data curation, Formal analysis, Writing – original draft. KHCM: Conceptualization, Formal analysis, Supervision, Writing – original draft, Writing – review & editing.

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