

# DEPRESSION, ANXIETY AND STRESS ACCORDING TO BELONGING TO A RELIGION DURING PANDEMIC IN MAIPÚ, CHILE, DURING 2022

DEPRESIÓN, ANSIEDAD Y ESTRÉS SEGÚN PERTENENCIA A UNA RELIGIÓN DURANTE LA PANDEMIA EN MAIPÚ, CHILE, DURANTE EL 2022

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## ABSTRACT

**Introduction:** A significant increase in the levels of depression, anxiety and stress has been found with the COVID-19 pandemic. Objective: To compare the levels of depression, anxiety and stress according to belonging to Adventism, during the pandemic in residents of the Maipú commune, 2022. **Methods:** Cross-sectional, analytical and correlational study, applied to a sample of 176 inhabitants of the Maipú commune, from the Metropolitan Region of Chile, using the Depression, Anxiety and Stress Scale (DASS-21) to measure levels of symptoms of depression, anxiety and stress in the population. The Mann Whitney U test was used to compare indicators of depression, anxiety and stress in both groups. Multivariate analyzes were made through logistic regression, taking as dependent variables: stress, anxiety, depression in a dichotomous way. A p value of <0.05 was considered statistically significant. **Results:** The Adventist population obtained better indicators, with lower scores in the subscales of depression ( $p=0.002$ ) and anxiety ( $p<0.001$ ), but not for stress ( $p=0.086$ ). The multivariate analyzes always showed a relationship between the variables stress, anxiety, depression ( $p\leq 0.001$ ). A statistically significant association was found between Adventism and anxiety (OR: 3.59; 95%CI: 1.19-10.82) but not Adventism with depression nor Adventism with stress. **Conclusion:** A statistically significant association was found between belonging to Adventism and anxiety, where non-Adventists presented greater anxiety than Adventists; however, no association was found when evaluating membership in Adventism with depression and stress.

**Keywords:** Pandemic; Religion; Depression; Anxiety; Psychological stress. (Source: MESH-NLM)

## RESUMEN

**Introducción:** Se ha encontrado un significativo aumento en los niveles de depresión, ansiedad y estrés con la pandemia de COVID-19. **Objetivo:** Comparar los niveles de depresión, ansiedad y estrés según pertenencia al adventismo, durante la pandemia en residentes de la comuna de Maipú, 2022. **Métodos:** Estudio transversal, analítico y correlacional, aplicado en una muestra a 176 habitantes de la comuna de Maipú, de la región Metropolitana de Chile, utilizando la Escala de Depresión, Ansiedad y Estrés (DASS-21) para medir niveles de sintomatología de depresión, ansiedad y estrés en la población. Se utilizó la prueba U de Mann Whitney para comparar indicadores de depresión, ansiedad y estrés de ambos grupos. Se hicieron análisis multivariados a través de la regresión logística, tomando como variables dependientes: estrés, ansiedad, depresión de manera dicotómica. Se consideró un valor de  $p<0,05$  como estadísticamente significativo. **Resultados:** La población adventista obtuvo mejores indicadores, con puntajes significativamente más bajos en las subescalas de depresión ( $p=0,002$ ) y ansiedad ( $p<0,001$ ), pero no de estrés ( $p=0,086$ ). Los análisis multivariados siempre mostraron relación entre las variables estrés, ansiedad, depresión ( $p\leq 0,001$ ). Se halló una asociación estadísticamente significativa entre adventismo y ansiedad (OR ajustado: 3,59; IC95%: 1,19-10,82), pero no de adventismo con depresión ni adventismo con estrés. **Conclusión:** Se encontró asociación estadísticamente significativa entre pertenecer al adventismo y ansiedad, donde los no adventistas presentaron mayor ansiedad que los adventistas; sin embargo no se encontró una asociación al evaluar la pertenencia al adventismo con depresión y estrés.

**Palabras clave:** Pandemia; Religión; Depresión; Ansiedad; Estrés psicológico. (Fuente: DeCS- BIREME)

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## INTRODUCCIÓN

In times of depression, anxiety, and stress, when threats to the survival of oneself and one's fellow beings become a significant problem, it is a mistake to think that mental health care can wait<sup>(1)</sup>. This is also a problem for public health in Chile due to the alarming increases in the symptoms of stress, anxiety, and depression. Not only with the onset of COVID-19, but because it is a problem that has been ongoing since before the pandemic<sup>(2)</sup>. COVID-19 brought devastating consequences in the psychological field, as seen above. Various investigations during the pandemic have shown alarming results of depression, anxiety, and stress<sup>(2)</sup>. Some of these are carried out by the Secretary of Health of the Chilean Government (MINSAL), and others by private entities such as universities and research institutes. In addition, various entities worldwide, such as the WHO, have also shown concern about the increase in these symptoms in the world population<sup>(3)</sup>.

Only a community that enjoys mental health can correctly face this pandemic and its short, medium, and long-term effects. The information obtained through this research will help strengthen the community to face future misfortunes vigorously.

Maipú is a commune immersed in Santiago de Chile with a population of 468,390 Inhabitants<sup>(4)</sup>, of which 1,800 inhabitants were invited to participate, and 175 agreed. According to epidemiological reports, Maipú is one of the communes most affected by the pandemic throughout Chile, which makes our research more interesting<sup>(5)</sup>.

During the daily evaluation, President Sebastian Piñera once said: "The world and Chile have been suffering the devastating consequences of the pandemic caused by COVID-19 for more than two years, and today, due to the new Ómicron variant, the world is having record levels of infections."<sup>(5)</sup>. Therefore, in the context of the 21st century, the possibility is raised that the belief in a higher power or the practice of religion positively influences the mental development of adults and young people, as suggested by Adventism with its lifestyle proposal in health benefits.

In this sense, our society presents high levels of symptoms of stress, depression, and anxiety, which harm people's lives. On the other hand, various studies show the beneficial impact of faith and the practice of religion, which has a positive effect by lowering the levels of depression, stress, and anxiety in people<sup>(6,7)</sup>.

Considering the current mental health situation, which also affects the commune, the objective of this study is to compare the levels of depression, stress, and anxiety according to Adventism membership during the pandemic in residents of the Maipú commune, 2022.

## METHODS

### Design and study area

This research design is quantitative, analytical, correlational, and transversal; it was carried out in a commune in Chile during the COVID-19 pandemic.

### Population and sample

The population was made up of residents of the Maipú commune, both members registered as members of the Seventh-day Adventist Church community and residents in general of the aforementioned commune. In the case of Adventists, access to the survey was shared in 11 churches, which contained 1,000 people, of which a total of 111 responded. In the case of the commune's inhabitants, access to the survey was shared in 4 neighborhood associations, which considered 800 people, of whom a total of 64 responded. The sample consisted of those who voluntarily agreed to participate in the survey. This study included men and women of both groups, the Adventist community, and the community in general. Non-probability sampling was performed for convenience.

In the case of the inhabitants of the Maipú commune, they were invited to participate voluntarily through telephone contacts obtained through the WhatsApp groups of the neighborhood associations. The members of the Adventist community received an invitation to participate through their local religious leaders who have the contacts of the parishioners and connected through WhatsApp, the social survey protocol in the COVID-19 pandemic established by the government was applied. Both samples met the study characteristics.





Participants between 18 and 70 years old were included. They completed the registration form and are residents of the Maipú commune, Metropolitan Region of Chile, who filled out informed consent and with internet access on their mobile devices. Non-resident participants in the commune of Maipú, Metropolitan Region of Chile, were excluded.

### Variables and Instruments

The independent variable was the Adventist religion categorized as belonging or not belonging to Adventism. The dependent variables were the level of depression, anxiety, and stress. For this, the Depression, Stress, and Anxiety Scale (DASS-21) were applied to measure the symptoms of depression, stress, and anxiety of the participants. It was translated and adapted in Chile by Vinet, Rehbein, Román, and Saiz (2008) and modified by Román (2010), the last version being the one used. It has 21 items, with four response alternatives in Likert format, ranging from 0: "It has not happened to me"; 1: "It has happened to me a little or some of the time"; 2: "It has happened to me quite a lot, or for a good part of the time"; 3: "It has happened to me a lot or most of the time."

The slogan indicates the extent to which the sentence describes what the person felt during the last week. Each subscale of the DASS-21 is measured through seven statements: depression (items 3, 5, 10, 13, 16, 17, 21), anxiety (items 2, 4, 7, 9, 15, 19, 20), and stress items 1, 6, 8, 11, 12, 14, 18); and the following cut-off points gave the interpretation: depression (mild: 5-6 points, moderate: 7-10 points, severe: 11-13 points, extremely severe:  $\geq 14$  points), anxiety (mild: 4 points, moderate: 5-7 points, severe: 8-9 points, extremely severe:  $\geq 10$  points) and stress (mild: 8-9 points, moderate: 10-12 points, severe: 13-16 points, extremely severe:  $\geq 17$  points). These categories were dichotomized for statistical analysis as mild, moderate/severe/extremely severe.

### Procedures

The informed consent and the data collection instrument were brought to the population through a link to access a Google Forms survey. This was printed, distributed in paper format, and shared through groups of social networks, both in the churches and in the corresponding neighborhood associations

### Statistical Analysis

IBM SPSS Statistics 25 software. The Mann-Whitney U test was used to compare the depression, anxiety, and stress scores of both groups. Statistical significance was considered for the hypothesis contrast at  $p < 0.05$ .

On the other hand, a multivariate model was carried out for each outcome (depression, anxiety, and stress), having as an independent variable belonging to Adventism and other variables such as the work of the head of the household, education of the head of the household, in addition to the presence or not of diseases diabetes, hypertension, respiratory diseases, and cancer; for all models, the other two outcomes not evaluated were also considered as adjustment variables.

### Ethical Aspects

Informed consent was requested from all participants, which was completed online. In addition, this study was approved by the Ethics Committee of the Adventist University of Chile to validate the procedure and guarantee the data's confidentiality.

## RESULTS

Regarding the population studied, it can be seen that the average age is  $44.7 \pm 14.9$  years of age in the Adventist population and  $47.1 \pm 13.1$  in the non-Adventist population; there were 33 males (29.5 %) in the Adventist group and 15 (24.2%) in the non-Adventist group; the other sociodemographic characteristics can be seen in Table 1.

Table 2 shows the difference in depression, anxiety, and stress scores according to belonging or not to the Adventist religion. It is observed that the median depression score in Adventists was 6, while in non-Adventists, it was 8 ( $p=0.002$ ). The median anxiety score was 5 for Adventists and 7 for non-Adventists ( $p < 0.001$ ). The median stress score was 8 for Adventists and 10 for non-Adventists ( $p=0.086$ ). Table 3 shows the frequencies of statements responded to according to whether or not they belong to the Adventist religion.



**Table 1.** Demographic characteristics of the study population, during the pandemic in Maipú, Chile, during 2022.

		Religion		p
		Adventist (n=112)	No adventist (n=62)	
Age (mean years $\pm$ standard deviation)		44.7 $\pm$ 14.9	47.1 $\pm$ 13.1	
Sex	Male	33 (29.5%)	15 (24.2%)	
	Female	79 (70.5%)	47 (75.8%)	
Diabetes	Yes	7 (6.3%)	13 (21.0%)	0.006
	No	105 (93.7%)	49 (79.0%)	
Hypertension	Yes	20 (17.9%)	17 (27.4%)	0.101
	No	91 (82.1%)	45 (72.6%)	
Respiratory Disease	Yes	7 (6.3%)	3 (4.8%)	0.495
	No	105 (93.7%)	59 (95.2%)	
Cáncer	Yes	7 (6.3%)	2 (3.2%)	0.317
	No	105 (93.7%)	60 (96.8%)	
Absence of chronic diseases	Yes	82 (73.2%)	42 (67.7%)	0.445
	No	30 (26.8%)	20 (32.3%)	

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**Table 2.** Comparison of depression, anxiety, and stress scores, according to Adventism membership, during the pandemic in Maipú, Chile, during 2022.

(n=174)	Religión	N	Mediana	Rango intercuartil	p
Depresión	Adventista	112	6.0	8.75	0.002
	No adventista	62	8.0	8.00	
Ansiedad	Adventista	112	5.0	7.75	<0.001
	No adventista	62	7.0	8.25	
Estrés	Adventista	112	8.0	7.00	0.086
	No adventista	62	10.0	8.00	





**Table 3.** Percentages of symptoms and indicators of depression, anxiety, and stress, according to belonging to Adventism, during the pandemic in Maipú, Chile, in 2022.

Porcentajes de síntomas e indicadores de depresión ansiedad y estrés	Adventist (n=112)				No adventist (n=62)			
	0 (Never)	1 (Rarely)	2 (Sometimes)	3 (Always)	0 (Never)	1 (Rarely)	2 (Sometimes)	3 (Always)
01. It has taken me a long time to release the tension	16.1%	34.8%	35.7%	13.4%	19.4%	30.6%	17.7%	32.3%
02. I realized that my mouth was dry	28.6%	38.4%	25.9%	7.1%	24.2%	33.9%	14.5%	27.4%
03. I could not feel any positive feelings	41.9%	30.4%	24.1%	3.6%	27.4%	37.1%	22.6%	12.9%
04. I found it hard to breathe	56.3%	21.4%	18.7%	3.6%	41.9%	24.2%	17.8%	16.1%
05. It was difficult for me to take the initiative to do things	31.3%	36.6%	22.3%	9.8%	35.5%	17.7%	29.1%	17.7%
06. I overreacted in certain situations	21.4%	42.8%	30.4%	5.4%	29.1%	35.5%	22.6%	12.9%
07. I felt my hands shaking	52.7%	30.3%	12.5%	4.5%	43.5%	22.6%	24.2%	9.7%
08. I have felt that I was expending a large amount of energy	27.7%	33.0%	25.9%	13.4%	22.6%	32.3%	20.9%	24.2%
09. I was worried about situations where I might panic or make a fool of myself.	41.1%	35.7%	17.8%	5.4%	30.6%	32.3%	12.9%	24.2%
10. I have felt that nothing excites me	42.9%	27.7%	21.4%	8.0%	30.7%	29.0%	25.8%	14.5%
11. I have felt restless	23.2%	40.2%	25.9%	10.7%	16.1%	37.1%	30.7%	16.1%
12. I found it difficult to relax	19.6%	40.2%	31.3%	8.9%	19.3%	30.7%	25.8%	24.2%
13. I felt sad and depressed	25.0%	34.8%	31.3%	8.9%	11.3%	48.4%	19.4%	20.9%
14. I did not tolerate anything that would not allow me to continue doing what I was doing	42.0%	33.9%	19.6%	4.5%	35.5%	24.2%	29.0%	11.3%
15. I felt like I was about to panic	52.7%	25.9%	17.8%	3.6%	35.5%	19.4%	24.2%	20.9%
16. I could not get excited about anything	44.6%	35.7%	12.5%	7.2%	27.4%	38.7%	19.4%	14.5%
17. I felt I was worth very little as a person	52.7%	25.0%	17.8%	4.5%	32.2%	33.9%	11.3%	22.6%
18. I tend to get angry easily	25.0%	40.2%	28.6%	6.2%	22.6%	33.85	19.4%	24.2%
19. I felt my heartbeat despite not having made any physical effort	40.2%	33.0%	23.2%	3.6%	25.8%	25.8%	30.7%	17.7%
20. I was afraid for no reason	43.7%	27.7%	25.0%	3.6%	27.4%	37.1%	11.3%	24.2%
21. I felt that life had no meaning	63.4%	25.0%	9.8%	1.8%	40.3%	25.8%	8.1%	25.8%

In the multivariate analysis carried out to evaluate the association between belonging to Adventism and depression, no statistically significant association was found between Adventism and depression, nor with the other factors evaluated; however, an association was found between the adjustment variables anxiety and stress with depression (Table 4)

**Table 4.** Evaluation of the association between Adventism and other factors with depression during the pandemic in Maipú, Chile, 2022.

Variables in the equation	Mild n (%)	Moderate/severely extremely severe Depression (%)	Total (n)	Value of p	OR*	95% Confidence interval	
						Inferior	Superior
Age (years, mean ± standard deviation)	47.6±13.3	42.9±15.3	174	0.319	0.98	0.95	1.02
Sex							
Female	66 (66.7)	60 (80.0)	126	Ref.	Ref.	Ref.	Ref.
Male	33 (33.3)	15 (20.0)	48	0.161	2.14	0.74	6.16
Hypertension							
No	80 (80.8)	57 (76.0)	137	Ref.	Ref.	Ref.	Ref.
Yes	19 (19.2)	18 (24.0)	37	0.574	0.68	0.18	2.59
Respiratory Diseases							
No	93 (93.9)	71 (94.7)	164	Ref.	Ref.	Ref.	Ref.
Yes	6 (6.1)	4 (5.3)	10	0.623	0.59	0.07	4.79
Cancer							
No	92 (92.9)	73 (97.3)	165	Ref.	Ref.	Ref.	Ref.
Yes	7 (7.1)	2 (2.7)	9	0.213	4.088	0.45	37.43
Diabetes							
No	87(87.9)	67 (89.3)	154	Ref.	Ref.	Ref.	Ref.
Yes	12 (12.1)	8 (10.7)	20	0.359	2.11	0.43	10.44
Head of households occupation							
Vulnerable (unskilled worker, unemployed, with and without insurance, employee without liability)	53 (53.5)	51 (68.0)	104	Ref.	Ref.	Ref.	Ref.
Not vulnerable (Middle-grade employee or management position)	46 (46.5)	24 (32.0)	70	0.662	1.25	0.45	3.46
Head of households education							
Completed primary or secondary schooling (minimum established by law)	48 (48.5)	42 (56.0)	90	Ref.	Ref.	Ref.	Ref.
Technical, higher or postgraduate education	51 (51.5)	33 (44.0)	84	0.503	1.43	0.50	4.09
Religion							
Non-Adventist	30 (30.3)	32 (42.7)	62	Ref.	Ref.	Ref.	Ref.
Adventist	69(69.7%)	43(57.3%)	112	0.972	0.98	0.32	2.97

\*Adjusted odds ratio, including adjustment for anxiety and stress

In the multivariate analysis to evaluate the association between relevance to Adventism and anxiety, a statistically significant association was found between Adventism and anxiety (aOR: 5.59; 95% CI: 1.19-10.82), but no statistically significant association was found with the other factors evaluated. Likewise, a significant relationship was observed between the adjustment variables depression and stress with anxiety (Table 5).





**Table 5.** Evaluation of the association between Adventism and other factors with anxiety during the pandemic in Maipú, Chile, 2022.

Variables in the equation	Mild n (%)	Moderate/severe/ extremely severe Anxiety (%)	Total (n)	P-value	OR*	95% Confidence Interval	
						Inferior	Superior
Age (Years, mean ± standard deviation)	47.0±14.1	44.4±14.5	174	0.833	1.00	0.97	1.04
Sex							
Female	51 (65.4)	75 (78.1)	126	Ref.	Ref.	Ref.	Ref.
Male	27 (34.6)	21 (21.9)	48	0.40	1.57	0.55	4.53
Arterial Hypertension							
No	67 (85.9)	70 (72.9)	137	Ref.	Ref.	Ref.	Ref.
Yes	11 (14.1)	26 (27.1)	37	0.22	0.39	0.09	1.76
Enfermedades respiratorias							
No	74 (94.9)	90 (93.8)	164	Ref.	Ref.	Ref.	Ref.
Yes	4 (5.1)	6 (6.3)	10	0.62	0.60	0.08	4.34
Cancer							
No	74 (94.9)	91 (94.8)	165	Ref.	Ref.	Ref.	Ref.
Yes	4 (5.1)	5 (5.2)	9	0.71	0.68	0.08	5.42
Diabetes							
No	72 (92.3)	82 (85.4)	154	Ref.	Ref.	Ref.	Ref.
Yes	6 (7.7)	14 (14.6)	20	0.56	0.60	0.11	3.26
Head of households occupation							
Vulnerable (unskilled worker, unemployed with and without insurance, employee without liability)	41 (52.6)	63 (65.6)	104	Ref.	Ref.	Ref.	Ref.
Not vulnerable (Middle-grade employee or management position)	37 (47.4)	33 (34.4)	70	0.85	0.91	0.32	2.55
Head of households education							
Completed primary or secondary schooling (minimum established by law)	38 (48.7)	52 (54.2)	90	Ref.	Ref.	Ref.	Ref.
Technical, higher or postgraduate education	40 (51.3)	44 (45.8)	84	0.66	0.79	0.27	2.28
Religion							
Non-Adventist	19 (24.4)	43 (44.8)	62	Ref.	Ref.	Ref.	Ref.
Adventist	59 (75.6)	53 (55.2)	112	0.02	3.59	1.19	10.82

\*Adjusted odds ratio, including adjustment for depression and stress

Finally, in the multivariate analysis to evaluate the association between relevance to Adventism and stress, no statistically significant association was found between Adventism and stress, not with the other factors evaluated; however, a significant association was observed with the adjustment variables anxiety and depression with stress (Table 6).

**Table 6.** Evaluation of the association between Adventism and other factors with stress during the pandemic in Maipú, Chile, 2022.

Variables in the equation	Mild n (%)	Stress Moderate/Severe/ Extremely Severe (%)	Total (n)	P-Value	OR*	95% Confidence Interval	
						Inferior	Superior
Age (years. mean $\pm$ standard deviation)	48.2 $\pm$ 13.7	42.5 $\pm$ 14.6	174	0.153	0.97	0.94	
Sex							
Female	66 (69.5)	60 (75.9)	126	Ref.	Ref.	Ref.	
Male	29 (30.5)	19 (24.1)	48	0.460	0.65	0.21	
Hypertension							
No	76 (80.0)	61 (77.2)	137	Ref.	Ref.	Ref.	
Yes	19 (20.0)	18 (22.8)	37	0.678	0.72	0.16	
Respiratory Diseases							
No	88 (92.6)	76 (96.2)	164	Ref.	Ref.	Ref.	
Yes	7 (7.4)	3 (3.8)	10	0.217	3.87	0.45	
Cancer							
No	89 (93.7)	76 (96.2)	165	Ref.	Ref.	Ref.	
Yes	6 (6.3)	3 (3.8)	9	0.685	1.63	0.15	
Diabetes							
No	84 (88.4)	70 (88.6)	154	Ref.	Ref.	Ref.	
Yes	11 (11.6)	9 (11.4)	20	0.966	1.04	0.19	
Head of households occupation							
Vulnerable (unskilled worker. unemployed with and without insurance. employee without liability)	51 (53.7)	53 (67.1)	104	Ref.	Ref.	Ref.	
Not vulnerable (Middle-grade employee or management position)	44 (46.3)	26 (32.9)	70	0.214	2.10	0.65	
Head of households education							
Completed primary or secondary schooling (minimum established by law)	49 (51.6)	41 (51.9)	90	Ref.	Ref.	Ref.	
Technical. higher or postgraduate education	46 (48.4)	38 (48.1)	84	0.339	0.56	0.17	
Religion							
Non-adventist	30 (31.6)	32 (40.5)	62	Ref.	Ref.	Ref.	
Adventist	65 (68.4)	47 (59.5)	112	0.395	0.58	0.17	

\*Adjusted odds ratio. including adjustment for anxiety and depression





## DISCUSSION

he populations compared in this work are characterized by having similar ages that vary around the ages of the average adult, an age that is characterized by presenting educated adults, who should already have established their roles in society, their values and principles, family and work responsibilities to fulfill, and how to remain independent from the demands of your day to day<sup>(8,9)</sup>.

The Mann-Whitney u test indicated significant differences in how depression and anxiety manifested in both groups<sup>(10)</sup>. However, in this case, the Adventist group presented lower symptomatology medians for this indicator, implying a better general development regarding mental health care<sup>(11,12)</sup>. Although the scientific literature has not previously compared the levels of depression in the Adventist and non-Adventist populations, this milestone would indicate that this variable of belonging to the Adventist Church could be a good link when establishing protective factors regarding health. In addition, this denomination actively promotes natural remedies, vegetarianism, and health care from a spiritual perspective<sup>(13)</sup>.

Regarding anxiety, which provided significant differences between both groups, it is likely that this difference in low symptomatology in the Adventist community is due to the fact that this population spends daily time reflecting on the Bible, worship, and praise. In addition, the population considers a superior being a personal God who cares for his creatures; this has to do with how they interpret their reality, understanding that this God is in control of everything<sup>(14)</sup>. The multivariate analysis always showed a relationship between stress, anxiety, and depression. At the same time, the non-Adventist population presented 3.59 times the possibility of anxiety concerning the Adventist population.

When comparing the symptoms and indicators of depression, anxiety, and stress, it can be seen that, in the Adventist population, these symptoms occur less frequently and at lower levels. In this sense, the items related to releasing the tension, lack of sensitivity, lack of initiative, lack of illusion, feeling sad and depressed, presence of unreasonable fears, and lack of meaning in life correspond to elements that occur less frequently in

this population. These elements can be evidenced in similar investigations<sup>(15)</sup>.

Regarding the diseases present in both populations, Adventist and non-Adventist, there were no significant differences regarding the presence of hypertension, respiratory diseases, and cancer. This is consistent with the fact that the absence of diseases also occurs in similar proportions in both populations. As a fundamental finding in this population, it is established that diabetes had a lower manifestation in the Adventist population, which was significant and can be associated with behaviors related to their practices<sup>(16)</sup> like exercise, healthy eating, and even the remedy called "trust in God," which from a public health perspective could reduce stress via the cortisol pathway<sup>(17,18)</sup>. In this sense, diabetes manifested in the present investigation corresponds to one of the diseases that should continue to be compared in subsequent studies.

One of the limitations is the type of non-probabilistic sample selection, which could generate selection bias. However, this study is transcendental since the influence of the Adventist religion is a subject little studied in mental health diseases. It is suggested to continue new investigations that allow explaining the habits, attitudes, and values dependent on the Adventist worldview that allow individuals to have better health; since previous studies on longevity in North American populations establish the existence of protective elements associated with the lifestyle practiced by Adventists for more than a hundred years<sup>(19)</sup>.

## CONCLUSION

In conclusion, lower levels of depression and anxiety symptoms were found in the Adventist population compared to the non-Adventist population. In addition, a statistically significant association was found between belonging to Adventism and anxiety, where the non-Adventist population presented a 3.59 times higher anxiety frequency than the Adventist population; however, no association was found when assessing membership in Adventism with depression and stress.





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