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To cite this article: Carlos Marcelo Moroni, Lucio Abdiel Olmedo Espinosa, Moisés Manzano González, Víctor Andrés Korniejczuk, Dayra Abigail Guerrero Jiménez, Esteban Quiyono Escobar & Alberto Valderrama Rincón | (2021) Spiritual health, family functioning and symptoms of depression and anxiety among adults from a sample of northeastern Mexico, Cogent Psychology, 8:1, 1980259, DOI: [10.1080/23311908.2021.1980259](https://doi.org/10.1080/23311908.2021.1980259)

To link to this article: <https://doi.org/10.1080/23311908.2021.1980259>



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Published online: 06 Oct 2021.



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Received: 11 November 2020
Accepted: 29 August 2021

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Reviewing editor:
Maria Cristina Gugliandolo,
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HEALTH PSYCHOLOGY | RESEARCH ARTICLE

Spiritual health, family functioning and symptoms of depression and anxiety among adults from a sample of northeastern Mexico

Carlos Marcelo Moroni¹, Lucio Abdiel Olmedo Espinosa¹, Moisés Manzano González¹, Víctor Andrés Korniejczuk^{1*}, Dayra Abigail Guerrero Jiménez¹, Esteban Quiyono Escobar² and Alberto Valderrama Rincón³

ABSTRACT: Certain studies identify spiritual health and family functioning as predictors of a healthy lifestyle. Both constructs influence the presence of symptoms of depression and anxiety. To obtain more empirical evidence on this relationship, 128 adults from Northeast Mexico were administered the Spiritual Health Scale (ESE-UM), the Assessment of Family Functioning questionnaire, the Beck Anxiety Inventory and the Beck Depression Inventory. Significant effects of spiritual health and family functioning on depression and subjective anxiety were found. It is inferred that spiritual health and family functioning are protective factors for emotional problems.

Subjects: Health Psychology; Multidisciplinary Psychology; Counseling Psychology; Mental Health

Keywords: spiritual health; family functioning; depression; anxiety; emotional health

1. Introduction

For most individuals, family and spirituality are among the most valued aspects of their lives. Therefore, it is important to investigate how these variables affect the appearance of symptoms of

ABOUT THE AUTHOR

Marcelo Moroni is Dean of the School of Psychology at the University of Montemorelos, and a member of the Executive Committee of the recently created Interdisciplinary Institute for Research on Spiritual Health (Instituto Interdisciplinario de Investigación en Salud Espiritual [IIISE], <https://iiise.um.edu.mx/>), which coordinates projects research like the one reported here.

Among its programs, the IIISE promotes research on the development of spiritual health and its relationship with other constructs, evaluations of spiritual health in different contexts (geographical, socioeconomic, cultural, and religious), and interventions aimed at improving spiritual health. Co-authors collaborate with the IIISE in different capacities.

PUBLIC INTEREST STATEMENT

The purpose of the study was to observe how spiritual health and family functioning affect the presence of symptoms of anxiety and depression in individuals from northeastern Mexico.

It has been found that spiritual health allows a more positive view of life and less physical discomfort observed in depressive conditions. Likewise, a purpose in life and an awareness of the values that govern it reduce fear and anguish in the face of life events.

On the other hand, positive affective involvement and good communication with the family prevent physical discomfort and generate a better perception of life events. Likewise, positive communication with the family reduces fear and anguish in the face of life events, as well as physical discomfort caused by anxiety.

Spiritual health is a more significant protective factor than family functioning against depression, while family functioning is a more significant protective factor than spiritual health against anxiety.

depression and anxiety. Although this study did not aim to study the relationship between these two factors, theoretical models, such as systemic organizational theory, include spiritual development among the basic functions that a family must fulfill (Herrera Santí, 1997). According to this theory, the evaluation of family functioning should consider four goals: stability, growth, control, and spirituality. The goal of spirituality gives meaning to the recognition of the family as a social unit, brings hope, relief, and inner peace to the family system (Friedemann, 1995).

This paper, the product of a study conducted on the population of Northeast Mexico, tries to provide concrete information on the maintenance of good spiritual health and good family functioning as protective factors for healthy emotional functioning.

1.1. Spiritual health and symptoms of depression and anxiety

The exploration of spiritual health as a construct is a relatively recent phenomenon. However, the results of the studies carried out to date indicate its high importance in different areas of an individual's life, including the personal, professional, familial, and social.

Fisher (1998) has defined spiritual health as a dynamic state of being that is observed to the extent that people live in harmony within relationships in the following domains of spiritual well-being: with oneself, with others, with the environment and with the Transcendent. Often, the terms *spiritual health* and *spiritual well-being* have been used interchangeably. But Fisher et al. (2000) argue that "the quality of relationship in each domain constitutes a person's spiritual wellbeing in that domain". On the other hand, "an individual's spiritual health, his or her state of being, is seen to be indicated by the combined effect of spiritual wellbeing in each of the domains embraced by the individual" (p. 135). According to Pinto-Afanador (2007), spiritual well-being is the behavioral expression of spiritual health.

In this study, spiritual health is defined as "a state of well-being of the human being in harmony with what he considers sacred or superior to himself, with himself, with his fellow men and with nature. It involves experiencing a transcendent sense of life and an ultimate purpose, according to his/her belief system" (Korniejczuk et al., 2020, p. 570).

In recent times, anxiety and depression have been affecting the world's population more broadly than in past generations, regardless of age or gender. In 2017 alone, the World Health Organization reported more than 300,000,000 cases of depression and 260,000,000 of anxiety (World Health Organization, 2017). Although studies on anxiety and depression have been extensive, the information available regarding the influence of spiritual health on anxiety is relatively scarce, but of great importance. This is stated by Cornejo-Valle et al. (2019), who express how "healthy" spirituality has gone from being a uniquely Christian concept to a broader, deeper, and more interesting clinical research construct in society.

Spiritual health has been promoted as a means of prevention against mental illnesses and as a way of coping with them. An example of this is observed in a study carried out by Pinedo-Velázquez and Jiménez-Jiménez (2017), who decided to promote spiritual counseling as a tool to be used by nurses at a hospital internment center for the elderly. In this center, as mentioned by the authors, there is constant contact with patients diagnosed with terminal illnesses who present negative emotional reactions such as anguish, fear, anger, dissatisfaction, and, in certain cases, depression.

In a semi-experimental study carried out by Heidari et al. (2019), the effects of spiritual health on depression and hopelessness were analyzed. It was observed that the application of a spiritual intervention program in people with suicide attempts significantly reduced the symptoms of depression and hopelessness.

In another study of 73 Indo-American women cancer survivors, spiritual well-being and social support were found to be protective factors in reducing the risk of depression (Hsieh et al., 2020).

In a population of patients with spinal cord injury and their families, spiritual well-being was studied as a protective factor against anxiety and depression using the Beck Anxiety Inventory and the Beck Depression Inventory-II. Results showed that spiritual well-being contributed to the reduction of depressive symptoms (Sekely et al., 2020).

In a Muslim context, Elham et al. (2015) reported that performing interventions based on the spiritual needs in intensive care patients reduces spiritual distress and anxiety levels, concluding that spiritual care positively contributes to effective patient care. Those interventions included a 30-minutes caring presence, giving patients hope, talking about spiritual experiences, fostering a sense of generosity, and providing them with opportunities for worship and prayer, among other actions.

The positive results of spiritual health as a protector against anxiety are not limited to the elderly and adulthood; they have also been found in populations of children. In a longitudinal study, Pandya (2017) applied a spiritual intervention program in children from 6 to 8 years of age, to reduce phobia and social anxiety and developing social interaction skills. The results showed that the children who participated in the study and experienced spiritual well-being concerning themselves and others learned to face fears and anxiety caused by social interaction. Thus, by improving their social skills, their introversion and anxiety levels decreased.

It has been shown that spiritual health can be a protective factor not only of mental health but of general health in adolescents in Europe and North America (Brooks et al., 2018; Michaelson et al., 2016).

Very recent studies in different parts of the world and with different groups and populations have shown the association of spiritual health with the reduction of symptoms of depression. As an example of these studies, there are those carried out among older adults in Turkey living in nursing homes and community housing (Aydin et al., 2020), patients diagnosed with breast cancer (Soleimani et al., 2020) and hospitalized with serious illnesses in Iranian medical centers (Bashar et al., 2018; Khademvatani et al., 2015), adults from the general American (Roebuck III, 2020) and Korean population (Fukai et al., 2020), adults living in Spain during the pandemic of Covid-19 (González-Sanguino et al., 2020), American Methodist clergy (Milstein et al., 2020) and patients with chronic orthopedic diseases in China (Weng et al., 2021). Likewise, significant negative correlations were found between spiritual health and anxiety in studies already cited (Aydin et al., 2020; González-Sanguino et al., 2020; Soleimani et al., 2020; Weng et al., 2021) and in other Iranian samples, from hospitalized coronary patients (Hedayati et al., 2016; Khademvatani et al., 2015), from nurses, midwives and nursing students (Rahimi et al., 2017) and elderly from the general population (Solaimanizadeh et al., 2020).

In any case, although spirituality is not inherently good or bad, it can be used both constructively and destructively (Pargament & Mahoney, 2002; Ramírez Jiménez, 2020). As described by the DSM-5, spirituality can provoke distressing responses or questioning of spiritual values that can be a reason for clinical attention (American Psychiatric Association, 2013, p. 725). Likewise, it has been shown that spirituality can trigger a defensive posture over and against certain psychological needs, and even depressive and anxiety symptoms (Fukai et al., 2020; Picciotto et al., 2018; Rowell et al., 2020). However, most research reports positive relationships between spirituality and mental health. The most controversial results are observed in the relationship between religiosity and mental health (Koenig et al., 2012; Simkin, 2017).

1.2. Family functioning and symptoms of depression and anxiety

This study follows the McMaster Model of Family Functioning (MMFF) proposed years ago by Epstein et al. (1978). According to this model, six dimensions of family functioning were considered: problem solving, communication, roles, affective responsiveness, affective involvement, and behavior control.

According to the MMFF, problem solving refers to the ability of the family to solve problems without losing their affective functioning. Communication refers to the exchange of information between

family members. Roles are those family functions that members grant to each individual through behavior patterns. Affective responsiveness refers to the ability to react with appropriate feelings to stimuli. Affective involvement is shown through the interest and value given to the activities that each member performs. Finally, behavior control refers to the patterns that a family has to manage the behavior of its members in situations that involve (a) physical danger, (b) expression of physiological, psychological and instinctive needs, and (c) socializing inside and outside the family system.

In this study, the MMFF was used to conceptualize and measure family functioning. There have been some studies that used the same measurement model to associate their scores with the presence of symptoms of anxiety or depression. Keitner et al. (2003) reported a decrease in depressive symptoms in young Australian women with chronic depression using therapies based on the McMaster model of family functioning. Eliacik et al. (2016) reported inverse associations between family functioning scores and depression and anxiety scores in Turkish mothers who have children with breath-holding spells. Wang and Zhao (2013) associated episodes of major depression with dysfunction in Chinese families. On the other hand, Tufiño Blass (2018) found significant associations between the problem-solving dimension of the Family Functioning Scale and the level of anxiety before school exams in Peruvian adolescents.

In a sample of 500 university students, the relationship between cohesive-flexible family functioning and anxiety and depression was studied, considering positive family communication and self-compassion as mediating variables. Good family functioning is related to higher levels of positive communication and self-compassion and lower levels of depression and anxiety (Berryhill et al., 2018).

If the family does not provide adequate psychological functions, members may become depressed and angry, have criminal or aggressive tendencies, or low self-esteem. A family must provide both physical and psychological security, since it is in charge of providing each of its members with the confidence to face external pressures and, if necessary, fight against them. A person will feel safe when being with his or her family because of familiarity and knowing that they will show him or her unconditional love and respect. The main psychological function of the family is the formation of the personality and the character structure of its members. In addition, it provides them with a framework for their affective, behavioral, and sentimental development, and for the development of their maturity and balance (Barato, 1985).

1.3. Purpose of study

Considering that both spirituality and family constitute idiosyncratic aspects highly valued by Mexican culture (García-Méndez et al., 2017; Lehmann, 2002; Torres, 2017), this study attempted to observe the impact of two constructs related to them, the spiritual health and family functioning on the presence of depression and anxiety symptoms in a population sample from northeastern Mexico.

2. Method

2.1. Design

The study was exploratory, descriptive and correlational, with an ex post facto, cross-sectional design.

This study sought to determine whether there was a significant difference in depression and anxiety between individuals with high and low scores in the Spiritual Health Scale, with the general objective of analyzing how spiritual health impacts the intensity of symptoms of depression and anxiety. Symptoms of depression and anxiety were also contrasted between the groups comprising individuals with higher and lower scores in the dimensions of family functioning.

The participants were categorized into four groups, approximately equal in size, according to their scores on each of the constructs and their dimensions. The cut-off points corresponded

approximately to the 25th and 75th percentiles. For example, 33 participants were categorized in the group of those who showed the highest scores in spiritual health and 32 in the group of those who showed the lowest scores on the full scale of this construct. Extreme groups were determined for each dimension of the family functioning construct, with similar sizes.

2.2. Participants

The population chosen for this study consisted of adults who voluntarily agreed to participate, patients and relatives of patients who attended four community and health centers in north-eastern Mexico: a vision center, a family support center, a community center, and a youth integration center. They were invited directly by the researchers of the present study.

A total of 128 people participated in the study: 45 men (35%) and 83 women (65%), religious (82.8%), and non-religious (17.2%).

2.3. Variables and instruments

2.3.1. Spiritual health

To measure spiritual health, the Montemorelos University Spiritual Health Scale (ESE-UM, Escala de Salud Espiritual, in Spanish, Korniejczuk et al., 2020) was used, consisting of three subscales: (a) relationship with a Supreme Being ($\alpha = .959$), which can be defined as devotion, connection, and communication with a superior or sacred Being, generating in the individual the conviction that this supreme Being provides strength in difficulties, a relationship that implies living in accordance with what this supreme or sacred Being expects, knowing that it will help and guide set priorities and purposes with a transcendent meaning; (b) relationship with oneself ($\alpha = .913$), which can be defined as the state of knowledge that the individual has of themselves and of their values and principles and an experience according to them, because they produce harmony and peace for his or her life, while allowing it to be positive and productive; and (c) relationship with the environment ($\alpha = .911$), conceived as the relationship of commitment, reflection, and compassion that the individual has, appreciating the good, fair, and beautiful of others and nature, and that leads him to offer patience, respect, and love for others. Originally, in the process of elaboration of this scale, we worked based on a four-dimensional model—relationships with the transcendent being, with others, with the environment and with oneself—used by other researchers (Fisher, 2010; Fisher et al., 2000; Hatala et al., 2021; Valdivia et al., 2018), but a confirmatory factor analysis, using the principal components method and with Varimax rotation, allowed to identify only three factors, where the relationships with others and with the environment formed a single factor (Korniejczuk et al., 2020).

2.3.2. Family functioning

To estimate family functioning, the Family Functioning Assessment questionnaire (EFF, Evaluación del Funcionamiento Familiar, in Spanish), developed by Atri y Zetune (2006), was used. This instrument has a Cronbach's alpha reliability of .92, and is composed of 40 items that measure six subscales: (a) functional affective involvement ($\alpha = .92$), which measures the degree of interest that family members show for each other member; (b) dysfunctional affective involvement ($\alpha = .87$), which refers to the negative aspects of family functioning in the affective sphere, which may also present an overload on some member of the family that makes him/her a recipient of negative aspects of the family system, (c) functional communication patterns ($\alpha = .61$), which refer to the exchange of information through good verbal and non-verbal communication; (d) dysfunctional communication patterns ($\alpha = .50$), which are related to negative aspects of communication, both verbal and non-verbal, and which exhibit difficulties in the exchange of information and communication in the affective area; (e) problem-solving ($\alpha = .45$), which shows the family's ability to resolve their internal conflicts and to agree among them on the basis of a functional family organization; and (f) patterns of behavior control ($\alpha = .53$), which a family adopts to manage the behavior of its members in situations of risk.

2.3.3. Depression

To measure depression, a Spanish version of the Beck II Depression Inventory ($\alpha = .87$) was used, comprising two factors: cognitive-affective and somatic-motivational (González et al., 2015). In the cognitive-affective dimension, the following symptoms were included: sadness, pessimism, feeling of failure, dissatisfaction, guilt, expectations of punishment, self-contempt, self-accusation, suicidal ideas, crying episodes, irritability, social withdrawal, indecision, negative body image, slowing down, and fatigue. In the somatic-motivational dimension, the following symptoms are included: insomnia, loss of appetite, weight loss, somatic concerns, and low energy level.

2.3.4. Anxiety

To measure anxiety, a Spanish version of the Beck Anxiety Inventory ($\alpha = .82$) was used, comprising four factors: subjective, neurophysiological, autonomic, and vasomotor symptoms (Galindo Vázquez et al., 2015).

3. Results

This study aimed to determine the effects of spiritual health and family functioning on symptoms of depression and anxiety.

3.1. Spiritual health and depression

To determine the effects of spiritual health on depression, the means of depression were compared between individuals with the highest and lowest spiritual health scores on the general scale (highest, $n = 33$; lowest, $n = 32$) and in each of its dimensions (highest: relationship with a Supreme Being, $n = 32$, relationship with oneself, $n = 34$, relationship with the environment, $n = 32$; lowest: relationship with a Supreme Being, $n = 31$; relationship with oneself, $n = 34$; relationship with the environment, $n = 32$).

As the distribution of depression scores was not normal according to the Kolmogorov-Smirnov test, both for the general score (statistic equal to .155, $p < .001$) and for its two factors—somatic depression (statistic equal to .153, $p < .001$) and cognitive depression (statistic equal to .206, $p < .001$)—for the comparison of the two groups, the Mann-Whitney test was used (see Table 1).

Significant differences were obtained between the groups for both the total depression score, and for its factors, namely somatic and cognitive depression. Those who scored highest in spiritual health, both on the full scale and each of its factors, scored lower in depression and vice versa. The greatest contrast was found in cognitive depression.

Additionally, an analysis relying on the dimensions of the Spiritual Health Scale allowed us to see the effect of each one. Thus, the extreme groups in each of the three dimensions—relationship with a Supreme Being, with oneself, and with the environment—showed significant contrasts both at the level of the mean ranges of general depression score and at the level of its two factors, somatic and cognitive depression, except for the contrast in somatic depression between the extreme groups determined by the relationship with oneself. Those who scored higher in each of the dimensions of the scale showed significantly lower scores for depression and its factors compared to those who scored lower in them and vice versa. As in the groups determined by the general spiritual health score, in each of its three dimensions, the greatest contrast was observed in cognitive depression. The pattern of the contrasts between the groups was similar in each of the dimensions of spiritual health.

3.2. Spiritual health and anxiety

To study the effects of spiritual health on anxiety, the same selected groups were compared to analyze their effects on depression. The Mann-Whitney mean ranges difference test was used, as the scores obtained on the general anxiety scale and in its four dimensions did not present a normal distribution—general scale (statistic equal to .216, $p < .001$), subjective anxiety (statistic equal to .211, $p < .001$), neurophysiological anxiety (statistic equal to .234, $p < .001$), autonomic

Table 1. Analysis of Mean Ranges Contrasts of the General Depression Scale and its Dimensions Between the Groups with the Highest and Lowest Scores in Spiritual Health, and Effect Size

IV/ Dimensions	DV/ Dimensions	Mean ranges		Mann–Whitney		r
		Group A ^a	Group B ^b	U	p	
Spiritual health (SH)	Depression	41.19	25.06	266.0	.001	.428
	Somatic	39.11	27.08	332.5	.010	.319
	Cognitive	41.56	24.70	254.0	.000	.463
Relationship with a Supreme Being (RSB)	Depression	38.52	25.69	294.0	.005	.350
	Somatic	37.11	27.05	337.5	.029	.276
	Cognitive	38.68	25.63	289.0	.003	.372
Relationship with oneself (RO)	Depression	41.41	27.59	343.0	.004	.350
	Somatic	38.84	30.16	430.5	.069	.220
	Cognitive	43.29	25.71	279.0	.000	.461
Relationship with the environment (RE)	Depression	39.67	26.53	314.5	.005	.349
	Somatic	38.41	27.66	355.0	.022	.283
	Cognitive	39.23	26.95	328.5	.007	.334

^aGroup with the lowest scores in spiritual health (SH: $n = 32$; RSB: $n = 31$; RO: $n = 34$; RE: $n = 32$).

^bGroup with the highest scores in spiritual health (SH: $n = 33$; RSB: $n = 32$; RO: $n = 34$; RE: $n = 33$).

anxiety (statistic equal to .099, $p = .004$), and vasomotor symptoms (statistic equal to .191, $p < .001$). No significant differences were observed between the groups in the mean ranges of the total anxiety scale or each of its factors, except for a significant difference in subjective anxiety between the groups, with higher and lower scores in the relationship with oneself dimension and the general scores of the Spiritual Health Scale (see Table 2).

3.3. Family functioning and depression

As the distribution of depression values was not normal, as seen in the analysis of the effects of spiritual health, the Mann–Whitney test was used to compare the two extreme groups determined by their scores on the dimensions of family functioning (see Table 3).

Differences in the mean ranges of depression between the groups identified by the score obtained (high and low) in each of the dimensions of family functioning were determined. The group sizes were as follows: highest scores: functional affective involvement, $n = 30$, dysfunctional affective involvement, $n = 33$, functional communication pattern, $n = 37$, dysfunctional communication pattern, $n = 29$, problem solving, $n = 25$, behavior control patterns, $n = 28$; lowest scores: functional affective involvement, $n = 32$, dysfunctional affective involvement, $n = 32$, functional communication pattern, $n = 30$, dysfunctional communication pattern, $n = 31$, problem solving, $n = 25$, behavior control patterns, $n = 29$.

The analysis of the differences in depression between the groups determined by their highest and lowest scores in the functional affective involvement dimension showed that the contrasts were significant at both the general score level and in its two dimensions. Participants with lower functional affective involvement had significantly higher levels of depression than those with higher affective involvement, and vice versa.

The analysis of the differences in depression between the groups determined by their highest and lowest scores in the dysfunctional affective involvement dimension showed that the contrasts were significant, both at the general score level and in the somatic and cognitive depression dimensions.

Table 2. Analysis of Mean Ranges Contrasts of the General Anxiety Scale and its Dimensions Between the Groups with the Highest and Lowest Scores in Spiritual Health, and Effect Size

IV/ Dimensions	DV/ Dimensions	Mean ranges		Mann-Whitney		r
		Group A ^a	Group B ^b	U	p	
Spiritual health (SH)	Anxiety (total score)	35.58	30.50	445.5	.278	.135
	Subjective anxiety	38.53	27.64	351.0	.018	.294
	Neurophysiological anxiety	35.34	30.73	453.0	.320	.123
	Autonomic anxiety	34.33	31.71	485.5	.527	.078
Relationship with a Supreme Being (RSB)	Vasomotor symptoms	32.09	33.88	499.0	.699	.048
	Anxiety (total score)	33.31	30.73	455.5	.577	.070
	Subjective anxiety	35.71	28.41	381.0	.109	.202
	Neurophysiological anxiety	33.61	30.44	446.0	.487	.087
Relationship with oneself (RO)	Autonomic anxiety	33.19	30.84	459.0	.559	.074
	Vasomotor symptoms	29.94	34.00	432.0	.371	.113
	Anxiety (total score)	37.06	31.94	491.0	.285	.130
	Subjective anxiety	40.82	28.18	363.0	.008	.324
Relationship with the environment (RE)	Neurophysiological anxiety	36.13	32.87	522.5	.492	.083
	Autonomic anxiety	34.28	34.72	570.5	.914	.013
	Vasomotor symptoms	32.26	36.74	502.0	.344	.115
	Anxiety (total score)	34.44	31.61	482.0	.545	.075
	Subjective anxiety	37.33	28.80	389.5	.062	.231
	Neurophysiological anxiety	34.34	31.70	485.0	.568	.071
	Autonomic anxiety	36.34	29.76	421.0	.104	.202
	Vasomotor symptoms	31.67	34.29	485.5	.570	.070

^aGroup with the lowest scores in spiritual health (SH: n = 32; RSB: n = 31; RO: n = 34; RE: n = 32).

^bGroup with the highest scores in spiritual health (SH: n = 32; RSB: n = 32; RO: n = 34; RE: n = 33).

The analysis of the differences in depression between the groups determined by their highest and lowest scores in the functional communication dimension showed the same contrasts observed between the groups with extreme scores in the functional affective involvement dimension.

In the dysfunctional communication pattern dimension, although the contrast between the mean ranges of the general depression score was slightly significant, the contrasts were not significant for somatic or cognitive depression.

All the contrasts between the extreme groups were significant for the problem-solving dimension, both for the total depression score and for its somatic and cognitive dimensions.

Although there was a tendency for groups with higher scores in behavior control pattern to have lower scores in depression and vice versa, the contrasts in depression between such groups were not statistically significant the total depression score or for its somatic and cognitive dimensions.

3.4. Family functioning and anxiety

To study the effects of family functioning on anxiety, the same selected groups were compared to analyze the effects on depression and the same test of statistical significance was used. As the distribution of the anxiety values was not normal, as observed in the analysis of the effects of spiritual health, for the comparison of the two extreme groups determined by their scores in the dimensions of family functioning, the Mann-Whitney test was used. The differences in mean anxiety ranges between the groups determined by their level of family functioning (high and low) were calculated by dimensions of family functioning, as shown in [Table 4](#).

In the functional affective involvement dimension, the group with the lowest score showed significantly higher values in the subjective anxiety and the general score of the construct.

Between the groups determined by their extreme scores on dysfunctional affective involvement, no significant contrast was observed.

The contrasts between the groups with lower and higher scores in the dimension of functional communication pattern were similar to those observed between the extreme groups determined by their score in functional affective involvement, except that none of them were statistically significant.

The results between the groups determined by their extreme scores on the dysfunctional communication pattern dimension and those observed between the groups determined by their dysfunctional affective involvement were very similar. The group with the lowest score showed significantly higher values in the subjective anxiety and the general score of the construct.

No significant differences were observed in the overall anxiety score or its dimensions between the groups determined by their highest and lowest values in the problem-solving dimension.

Nor significant differences were observed in the overall anxiety score or in its dimensions between the groups determined by their highest and lowest values in the behavior control pattern dimension.

4. Discussion

Although this study did not have the objective of observing the relationship between spiritual health and family functioning, the correlation between spiritual health and the dimensions of family functioning showed significant Spearman ρ correlation coefficients in a range of .229 to .421 ($p = .010$ to $p < .001$). In a similar study among African-American families (Gray, 2001), a highly significant correlation was found between spiritual well-being and family functioning. Other studies looked at spiritual health as part of a healthy family (Lazaro, 2013) and family strength (Criado

Table 3. Analysis of Mean Ranges Contrasts of the General Depression Scale and its Dimensions Between Groups with Higher and Lower Scores on the Dimensions of Family Functioning, and Effect Size

Family functioning Scale/Dimension	Depression Scale/ Dimension	Mean ranges		Mann-Whitney		r
		Group A ^a	Group B ^b	U	p	
Functional affective involvement (FAI)	Depression	39.64	22.82	219.5	.000	.467
	Somatic	37.50	25.10	288.0	.007	.345
	Cognitive	39.70	22.75	217.5	.000	.483
Dysfunctional affective involvement (DAI)	Depression	25.27	40.50	280.5	.001	.404
	Somatic	26.64	39.17	324.5	.007	.333
	Cognitive	25.81	39.97	298.0	.002	.384
Functional communication pattern (FCP)	Depression	42.38	27.20	303.5	.001	.388
	Somatic	41.07	28.27	343.0	.007	.329
	Cognitive	41.33	28.05	335.0	.005	.345
Dysfunctional communication pattern (DCP)	Depression	26.18	35.12	315.5	.047	.257
	Somatic	26.94	34.31	339.0	.100	.212
	Cognitive	27.31	33.91	350.5	.129	.196
Problem solving (PS)	Depression	31.96	19.04	151.0	.002	.444
	Somatic	30.06	20.94	198.5	.026	.315
	Cognitive	32.18	18.82	145.5	.001	.478
Behavior control pattern (BCP)	Depression	32.93	24.93	292.0	.068	.242
	Somatic	31.28	26.64	340.0	.290	.140
	Cognitive	32.45	25.43	306.0	.100	.218

^aGroup with the lowest scores in family functioning (FAI: n = 32; DAI: n = 32; FCP: n = 30; DCP: n = 31; PS: n = 25; BCP: n = 29).

^bGroup with the highest scores in family functioning (FAI: n = 30; DAI: n = 33; FCP: n = 37; DCP: n = 29; PS: n = 25; BCP: n = 28).

Table 4. Analysis of Mean Ranges Contrasts of the General Anxiety Scale and its Dimensions Between the Groups with the Highest and Lowest Scores in the Dimensions of Family Functioning, and Effect Size

IV/ Dimensions	DV/ Dimensions	Mean ranges		Mann–Whitney		r
		Group A ^a	Group B ^b	U	p	
Functional affective involvement (FAI)	Anxiety (total score)	35.86	26.85	340.5	.049	.250
	Subjective anxiety	37.95	24.62	273.5	.003	.373
	Neurophysiological anxiety	35.13	27.63	364.0	.098	.210
	Autonomic anxiety	32.02	30.95	463.5	.767	.038
Dysfunctional affective involvement (DAI)	Vasomotor symptoms	31.84	31.13	469.0	.875	.020
	Anxiety (total score)	33.08	32.92	525.5	.974	.004
	Subjective anxiety	30.98	34.95	463.5	.393	.106
	Neurophysiological anxiety	33.09	32.91	525.0	.968	.005
	Autonomic anxiety	31.00	34.94	464.0	.318	.124
	Vasomotor symptoms	34.20	31.83	489.5	.606	.064
Functional Communication Pattern (FCP)	Anxiety (total score)	39.52	29.53	389.5	.037	.255
	Subjective anxiety	40.78	28.50	351.5	.009	.317
	Neurophysiological anxiety	38.93	30.00	407.0	.060	.230
	Autonomic anxiety	33.90	34.08	552.0	.965	.005
Dysfunctional Communication Pattern (DCP)	Vasomotor symptoms	36.80	31.73	471.0	.279	.132
	Anxiety (total score)	30.47	30.53	448.5	.988	.002
	Subjective anxiety	28.89	32.22	399.5	.455	.096
	Neurophysiological anxiety	29.61	31.45	422.0	.680	.053
	Autonomic anxiety	29.73	31.33	425.5	.687	.052
	Vasomotor symptoms	30.60	30.40	446.5	.964	.006

(Continued)

Table 4. (Continued)

IV/ Dimensions	DV/ Dimensions	Mean ranges		Mann-Whitney		
		Group A ^a	Group B ^b	U	p	r
Problem solving (PS)	Anxiety (total score)	28.58	22.42	235.5	.134	.211
	Subjective anxiety	29.24	21.76	219.0	.066	.260
	Neurophysiological anxiety	27.10	23.90	272.5	.433	.111
	Autonomic anxiety	24.08	26.92	277.0	.394	.120
	Vasomotor symptoms	25.96	25.04	301.0	.820	.032
Behavior Control Pattern (BCP)	Anxiety (total score)	31.41	26.50	336.0	.263	.148
	Subjective anxiety	31.98	25.91	319.5	.163	.185
	Neurophysiological anxiety	30.12	27.84	373.5	.600	.069
	Autonomic anxiety	29.26	28.73	398.5	.884	.019
	Vasomotor symptoms	28.91	29.09	403.5	.968	.005

^aGroup with the lowest scores in family functioning (FAI: n = 32; DAI: n = 32; FCP: n = 30; DCP: n = 31; PS: n = 25; BCP: n = 29).

^bGroup with the highest scores in family functioning (FAI: n = 33; DAI: n = 30; FCP: n = 37; DCP: n = 29; PS: n = 25; BCP: n = 28).

Morales et al., 2011). If the goals of spirituality are not developed, serious difficulties are generated in the evolution of the family system. With that said, the findings of the present investigation are discussed below.

According to the results, significant differences in levels of depression and anxiety were observed between the groups determined by their extreme scores—lower and higher—in the general scale of spiritual health and its dimensions, as well as in various dimensions of family functioning.

4.1. Spiritual health and depression

Significant differences in overall depressive symptoms and their cognitive and somatic dimensions were observed between the highest and lowest spiritual health groups. Individuals with high scores in spiritual health have fewer symptoms of cognitive depression, such as sadness, pessimism, failure, guilt, dissatisfaction with self, self-criticism, suicidal thoughts or ideas, and devaluation. Likewise, it was found that individuals with higher scores in spiritual health and its three factors have fewer sleep and appetite disorders and less tiredness, which are symptoms of somatic depression. These results are in accordance with Guerrero-Alcedo et al. (2016), who affirmed that care for spiritual needs, based on personal beliefs in the need to search for and relationship with the sacred, acts as a protective factor against the appearance of symptoms of depression.

The behavior of these variables indicates that spiritual beliefs positively affect the cognitive triad of depression; that is, the more the person perceives himself as spiritual, he/she improves his/her self-assessment, has a more positive perception of the environment and his/her vision of the future becomes more positive.

4.2. Spiritual health and anxiety

In contrast, in general terms in this study, no significant difference in total anxiety was found between extreme groups in spiritual health scores and their factors. This finding also agrees with a study by Guerrero-Alcedo et al. (2016), who reported no influence of spirituality on neurophysiological, autonomic, and vasomotor symptoms based on the Beck Anxiety Scale. However, there was an exception in the subjective anxiety, where a significant contrast was observed between the extreme groups determined by their score on the general spiritual health scale and the dimension of relationship with oneself. This finding is consistent with those of Armas-Arráez and López-Castedo (2018), who reported that low levels of anxiety are related to high levels of sense of life, which includes values, work, personal goals, and self-control, among other aspects.

These findings show that spiritual beliefs are not enough to inhibit the effects of anxiety, especially considering that three of the four factors of the instrument used to measure anxiety (González et al., 2015) fundamentally measure physiological anxiety.

No significant differences were observed in general anxiety symptoms and their dimensions between the groups with the highest and lowest scores on the dimensions of the relationship with a supreme being and relationship with the environment. It is likely, that spiritual beliefs about a supreme being and the relationship with the environment do not have a decisive influence on the autonomic nervous system that generates the presence or absence of somatic anxiety symptoms.

4.3. Family functioning and depression

Regarding family functioning and its impact on depression, it is interesting to note that the results indicate that participants who tend to have low functional affective involvement will have high cognitive depressive symptoms and somatic symptoms. Gallegos-Guajardo et al. (2016) explain that family functioning has a positive reciprocal influence on the lives of adolescents. Therefore, when there are greater satisfaction and family communication, there will be fewer acts of aggression, violence, and victimization at home. People who become victims or victimizers in the

school environment have the characteristics of little involvement with their parents and difficult family communication.

This result can be attributed to the fact that, as stated by Epstein et al. (1978), as there is little interest and attention to the emotional needs of other family members, individuals are unable to express their emotions and emergency thoughts, such as feelings of fear, anger, sadness, and disappointment, among others. This inhibited cognitive and emotional content may be one of the causes of the increase in depressive symptoms.

The lower the presence of dysfunctional affective involvement, the lower the presence of symptoms of depression, and vice versa. This finding is consistent with studies among adolescents with suicide attempts who have high rates of anxiety and depression and whose families are dysfunctional or severely dysfunctional. Dysfunctional family structures show a lack of positive characteristics such as affection, harmony, cohesion, and good communication (Hernández-Mirabal & Louro-Bernal, 2015).

Dysfunctional affective involvement implies a position of extreme interest or complete disinterest in the emotional needs of others. That is, the interest can be excessive, low, narcissistic, or without limits. On the contrary, in functional affective involvement, members can healthily express their emotions and thoughts, which leads to a lower possibility of the appearance of depressive symptoms.

Families with little functional communication tend to have cognitive and somatic depressive symptoms, and vice versa. Family members who are given the opportunity to be heard and are free to openly express their thoughts and feeling without restriction will develop better interpersonal relationships and indicate better satisfaction with life (Povedano et al., 2011).

Regarding the problem-solving dimension, the results of this investigation agree with those obtained by Álvarez-Zúñiga et al. (2009), who found that there is a statistically significant negative relationship between depressive symptoms and resolution of family problems.

Because problem-solving skills involve thinking about ways to solve them, this ability leads to a better perception of the future and the world, resulting in fewer mood symptoms.

4.4. Family functioning and anxiety

When analyzing the data, significant differences were observed in the levels of anxiety, in the general score of the scale, and the scores of its subjective dimensions between the groups, determined by their lowest and highest scores in the functional affective involvement dimension. These results show that if there is low functional affective involvement in the family, the members of such families will suffer from a greater number of subjective anxiety symptoms and vice versa. Expressing emotional disinterest in the fears or life changes of other family members may lead to unrealistic fears and perceptions of threat, resulting in symptoms of anxiety. Likewise, thoughts related to anxiety can be somatized. An example of this relationship is the one described by Zambrano-Guerra et al. (2016), who found that family functioning is affected and even destroyed when a member who consumes alcohol is present in the family and the family structure becomes affected by the addict. The same authors mention that anxiety symptoms are present in the relatives of alcoholics since there is little or no presence of functional involvement.

Families with a low pattern of functional communication are likely to have a high level of subjective anxiety symptoms. The family is a reliable place where individuals can communicate and receive support from other members. It is a place where problems can be discussed and solved since there is respect and the rules of conduct to follow are known. When this communication is affected, the individual manifests concerns and fears of subjective anxiety.

As there is little exchange of information about fears due to life changes, the person's thinking can generate unreal fears and perceptions of threat, becoming symptoms of subjective anxiety.

It is worth mentioning that no significant differences were observed in anxiety levels between the groups determined by their extreme scores -low and high- in the problem-solving dimension. This finding can be attributed to the fact that cognitive evaluation is used in solving a problem, and the instrument used to measure anxiety is mainly related to physical symptoms of anxiety.

Likewise, no relationship was found between anxiety levels and the groups determined by their extreme scores—lower and higher—in the behavior control pattern dimension. This can be explained by the fact that this dimension is mainly related to how the family decides to control its members' behavior and not to the presence of physical symptoms of anxiety.

In conclusion, participants with better spiritual health experience less sadness, pessimism, feelings of failure, feelings of guilt, dissatisfaction with themselves, self-criticism, and suicidal or devalued thoughts or ideas as well as less appetite and sleep disturbances. Similarly, people who know the purpose of their lives, their values and principles, and live according to them tend to experience fewer subjective anxiety symptoms, such as fears and worries, as well as greater ability to remain calm, relaxed, and feel safe.

Participants with low functional affective involvement tend to present a greater number of symptoms of depression and subjective and autonomic anxiety. In contrast, the better the family's functional affective involvement, the lower the number of depressive symptoms. Likewise, if there is less dysfunctional affective involvement, there will be a lower probability of symptoms of somatic depression and autonomic anxiety.

Families with a low functional communication pattern increase the risk of developing cognitive and somatic depressive symptoms and subjective anxiety among their members. In turn, a dysfunctional communication pattern favors the presence of cognitive depressive symptoms in the family structure. Furthermore, families with a high ability to solve problems show fewer symptoms of depression and anxiety. When parents increase the pattern of behavior control, the family will show a lower risk of witnessing symptoms of autonomic anxiety.

It was important to observe the behavior of emotional variables in their relationship with people's spiritual health and family functioning since it allows us to infer that spiritual health and family functioning are significant protective factors against symptoms of depression and anxiety.

In summary, in this study it was shown that both spiritual health and family functioning protect the individual against depression and some dimensions of both constructs protect the individual against subjective anxiety.

Due to its exploratory nature, the present study has faced a methodological limitation, the lack of a normal distribution of the sample in the constructs of the study, probably attributable to the participation of a non-randomly selected sample. The authors acknowledge that the results should be handled with caution and may not accurately represent the general population of northeastern Mexico. For future studies, it will be advisable to work with a larger and more representative sample to allow analyzes that contribute to measuring the impact of spiritual health and family functioning on the symptoms of depression and anxiety.

Funding

The authors received no direct funding for this research.

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Disclosure statement

No potential conflict of interest was reported by the author(s).

Citation information

Cite this article as: Spiritual health, family functioning and symptoms of depression and anxiety among adults from a sample of northeastern Mexico, Carlos Marcelo Moroni, Lucio Abdiel Olmedo Espinosa, Moisés Manzano González, Victor Andrés Korniejczuk, Dayra Abigail Guerrero Jiménez, Esteban Quiyono Escobar & Alberto Valderrama Rincón, *Cogent Psychology* (2021), 8: 1980259.

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