IOSR Journal of Research & Method in Education (IOSR-JRME)
e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 7, Issue 5 Ver. V (Sep. – Oct. 2017), PP 10-15
www.iosrjournals.org

Spirituality And Perception of the State of Health In Students of The Health Area of A Mexican Public University

Jocelyn García-Alvarado[1], Arturo G. Rillo[1], Beatriz E. Martínez-Carrillo[2], María Luisa Pimentel-Ramírez[2], Jesús Hernández-Tinoco[3], Crisanto Martínez-Méndez[1]

[1](*Academic Area of Philosophy, Faculty of Medicine/ Autonomous University of State of Mexico, Mexico)*
[2](*Faculty of Medicine/ Autonomous University of State of Mexico, Mexico)*
[3](*Institute of Scientific Research/ Juarez University of the State of Durango, Mexico)*
Corresponding Author: Arturo G. Rillo

Abstract: *In order to analyze the relationship between spirituality and perception of health status in students of the health area in a Mexican public university, an observational, prospective, transversal and correlational study was carried out in 83 students of Medicine, Medical Bioengineering and the Master of Health Science, 18-30 years. Statistical analysis was performed through the Spearman correlation. The Parsian and Dunning (SQ) spirituality questionnaire and the health perception questionnaire (SF-36) were applied. 57% of the students were female and 43% were male. The mean SQ score was: Medicine, 3.1±0.8; Medical Bioengineering, 2.8±0.3, Master's Degree in Health Sciences, 3.4±0.4. The mean SF-36 score was: Medicine, 82±8; Medical Bioengineering, 82±8, Masters in Health Sciences, 82.5±8. No statistical significance (p <0.05) was found in the correlation between spirituality and health status perception. It concludes that spirituality in students is high, with a good perception of their health, emphasizing self-awareness and spiritual needs as the factors of spirituality that have greater relevance.*

Keywords: *religion, self-awareness, spiritual needs, spirituality, state of health*

Date of Submission: 25-09-2017 Date of acceptance: 07-10-2017

I. Introduction

Health is a complex and multidimensional concept that is usually understood from the paradigm of the biomedical model. [1-3] The biologicist approach of the health-disease process excludes from the understanding of the state of health, relations with the state of mind, mental health and spirituality. [4] However, the influence of spirituality and religiosity is currently recognized to improve the quality of life of patients with chronic diseases. [5] Like health, spirituality is part of the human experience, constituting itself in a dynamic and intrinsic aspect of humanity. Through spirituality, people seek the ultimate meaning of life; in addition to the individual's purpose, transcendence, connectivity and interconnection and with its natural and social environment, to maintain the emotional balance and health in general. [6]

Holistic approaches to health have promoted the incorporation of spiritual health [7] into the model that relates physical health to mental health and social health. [8]This enables the understanding of health, from the scope of the individual's spiritual dimension, to articulate different approaches to cognitive sciences, psychology, neurosciences, anthropology, sociology, theology, and philosophy. Among the health sciences, the scientific exploration of spirituality focuses on two areas: the relationship with the health-disease process and the influence on health professionals. In the investigation of the relationship between spirituality and the health-disease process, positive influence at the biological level (blood pressure, heart rate and respiratory rate), mental health (personal self-determination, self-esteem, coping with stressful events, sense of meaning and purpose in life) [9,10], disorders of body image [11], chronic diseases [12], mortality (prolongation of life) and quality of life [13], are described. This has led to the incorporation of spiritual care into health systems [14], medical care [15] and palliative care [16].

Studies that explore the influence of spirituality on health professionals analyze their attitudes and practices in addressing the spiritual needs of the patient. But research processes have also been carried out to incorporate spirituality into the training of health personnel, either through educational interventions [17], programs that develop virtues and sociomoral development [18,19], which makes it possible to explore attitudes, skills, beliefs and spiritual and religious practices of students in the area of health and their relationship to the spiritual care of the patient. [20-23]

The studies carried out in Mexico express a cultural interest in the use of traditional medicine, focused on nursing staff and palliative care. In the Mexican population of the health area, no studies related to spiritual formation were identified. In this sense, the study was conducted with the purpose of analyzing the relationship between spirituality and the perception of health status in students of the health area in a Mexican public university.

II. Material And Method

An observational, prospective, transverse and correlational study was performed, corresponding to a prospective cross-sectional survey design. We included 83 students enrolled in the Faculty of Medicine of the Autonomous University of the State of Mexico during 2016; corresponding 40 to the undergraduate Medical course, 29 to the undergraduate Medical Bioengineering and 14 to the Master of Health Science. The selection of students was done by non-probabilistic sampling for convenience, due to the accessibility offered by the students who accepted to participate in the study. To each one, two questionnaires were applied: one to measure spirituality and the other to evaluate the perception of health status; in addition socio-demographic characteristics were registered. The questionnaires were self-administered, with duration of application for both questionnaires of 20 minutes. The variables of the study were spirituality and perception of health status. The socio-demographic data recorded were age, sex, semester students and religious identity.

1.1. Spirituality

Spirituality was defined as the inner experience of the human being that is evidenced through self-consciousness, spiritual practices, spiritual beliefs and spiritual needs; being evaluated through the questionnaire of spirituality of Parsian and Dunning [24]. We used the Spanish version validated in 2012 with a Cronbach alpha of 0.70 [25]. It is integrated by 29 multiple choice items using a Lickert scale of 4 points (strongly disagree, disagree, agree and strongly agree); distributed in four subscales: self-awareness (10 items), spiritual beliefs (4 items), spiritual practices (6 items) and spiritual needs (9 items). The chosen values are added and offers an assessment of the spirituality related to: the higher values, the greater the amount of the measured attribute. When obtaining the average of the scores of each item, the spirituality score was considered according to the following: 0-1 = very low, 1.1-2 = low, 2.1-3 = moderate and 3.1-4 = high.

1.2. Perception of health status

The perception of health status refers to the information of a subjective nature, manifested by the individual about his state of health, as a product of his knowledge and interpretations, based on his experiences and values, and not only on the demand of the services; this has not necessarily been confirmed by medical personnel [26]. It was evaluated through the questionnaire of perception of health status SF-36 in its version used in Mexico [27,28]. The SF-36 consists of 36 items that allow to explore the perception of health status through two general categories that measure mental health and physical health, each category is divided into 4 subcategories respectively: physical function, physical role, body pain, general health, vitality, social function, emotional role and mental health, which represent the concepts frequently measured in health surveys and are not exclusive to a pathology or a specific age group. The range of scores for each item ranges from 0 to 100; the higher the scores, the better the perception of health status.

When obtaining the score of each of the SF-36 questionnaires, the perception of health status was assessed according to the following: 0-24.9 = very poor; 25-49.5 = bad; 50-74.9 = regular; 75-100 = good.

1.3. Statistic analysis

Data were processed in the SPSS version 20 statistical program. Data analysis was performed using descriptive statistics, Cronbach's alpha test, Kolmogorov-Smirnov test to verify the normality of the variables and Spearman's correlation. With the results obtained, the Parsian and Dunning spirituality questionnaire obtained a Cronbach alpha of 0.86 and the SF-36 health status questionnaire of 0.84.

1.4. Ethical considerations

The study was reviewed, analyzed and approved by the ethics committee of the Faculty of Medicine of the Autonomous University of the State of Mexico. All participants were provided with an informed consent letter.

III. Results

The 83 students included in the study had an age range of 18-30 years with an average value of 21±3 years. Table 1 shows that the female sex predominated with 57%; 48% were studying the degree of doctor surgeon; and 71% reported being Catholic.

1.5. Spirituality

When analyzing the results shown in table 2, it is verified that when obtaining the average of the score of the total of students included in the study it is observed that they present a high spirituality; highlighting that the domain with the highest average score is that of self-awareness and spiritual needs.

Table 1 Sociodemographic characteristics of the students who participated in the study, 2016.

Variable	Category	N	%
Sex	Man	47	57
	Woman	36	43
Study area	Medicine	40	48
	Medical Bioengineering	29	35
	Master in Health Science	14	17
Semester	First	14	17
	Second	29	35
	Fourth	19	23
	Sixth	21	25
Religious identity	Catholic	59	71
	Christian	7	8
	Agnostic	1	1
	Others	11	6
	Any	5	14

By disaggregating them by program, those students the Master of Health Science have a high spirituality, followed by medical students. In both cases, the predominant domain is the one of self-consciousness and the one of lower punctuation is the spiritual practices. In students of Medical Bioengineering, their spirituality is moderate, dominating the domain of self-awareness and corresponding to the lower score the importance of religious beliefs. (Table 2)

Table 2 Scoring of the Parsian and Dunning spirituality questionnaire, obtained by the study participants, 2016.

Study Area	Spirituality	Domains of spirituality			
		Self-awareness	Spiritual Beliefs	Spiritual Practices	Spiritual needs
Medicine	3.1±0.8	3.5±0.6	3±0.8	2.91±0.9	3.3±0.2
Medical Bioengineering	2.8±0.3	3.35±0.5	2.35±0.7	2.54±0.4	3.1±0.3
Master in Health Science	3.4±0.3	3.7±0.2	3.32±0.6	3.08±0.4	3.5±0.3
Total Sample	3.1±0.4	3.4± 0.8	2.8± 0.5	2.8± 0.4	3.2± 0.4

Values are expressed as mean ± standard deviation.

1.6. Perception of health status

The average score of the health status perception questionnaire for all students who participated in the study was 70±7.6; which implies that they perceive their state of health as regular.

Table 3 Scores obtained from the SF-36 questionnaire in students of the health area participating in the study, Mexico 2016.

	Medicine	Medical Bioengineering	Master in Health Science
Physical Health			
Physical function	96±8.5	96±9.8	98±3.6
Physical role	79±17.9	82±14.4	91.5±9
Body pain	81±15.5	78±14.8	76±17
General health perception	73±13.5	80±9.6	82±11.7
Mental health			
Mental health	73±12.9	78±9.1	75±10.6
Emotional role	77±18.7	77.8±24.8	86±18
Social function	81±14.94	90±11.4	85±14
Vitality	66±14.6	74±11.9	68±11.9
Perception of health status	82±8	82±8	82.5±8

Values are expressed as mean ± standard deviation.

Table 3 shows the average scores by health area. It can be observed that the students of the Master of Science in Health and of Medical Bioengineering perceive their general health as good. The lowest perception of general health was obtained by medicine with 73±13.5; however, they still obtained a good perception of general health. The sub-domains with highest mean scores were those of physical function in all three groups and the lowest scores were for subdomain vitality.

1.7. Spirituality and perception of health status

Table 4 presents the results obtained by correlating spirituality with the perception of health status and socio-demographic variables, using the Spearman correlation test. It can be observed that there is no statistical significance ($p > 0.05$) in the correlation between spirituality and perception of health status, health area, age, sex and semester. There is a negative correlation between spirituality and religion, however, it is a low or no correlation and the level of significance is borderline ($p = 0.05$). The analysis of the perception of health status showed no significant correlations and all were few or none. Correlating the health areas with age and the semester showed statistically significant moderate correlations ($p<0.05$). While correlating the semester with the health area, a moderate correlation was statistically significant ($p = 0.01$) and with age the correlation was positive and strong.

Table 4 Spearman correlation of the variables spirituality, perception of health status and socio-demographic, in students of the health area participating in the study, Mexico 2016.

	Spirituality	Perception of Health Status	Area Study	Age	Sex	Semester	Religion
Spirituality	1.000	.044	-.052	.030	-.156	-.018	**-.216***
	.	.695	.639	.791	.158	.872	**.050**
Perception of Health Status		1.000	.214	.196	.194	.175	.111
		.	.052	.076	.078	.114	.319
Area Study			1.000	.634**	.050	.733**	-.033
			.	.000	.655	.000	.770
Age				1.000	-.047	.787**	.050
				.	.671	.000	.656
Sex					1.000	.005	-.020
					.	.962	.855
Semester						1.000	-.022
						.	.842
Religion							1.000

The values express Spearman's rho and the value of p.
(*) The correlation is significant at the 0.05 level (bilateral).
(**) The correlation is significant at the 0.01 level (bilateral).

IV. Discussion

The specialized international literature has focused on establishing the relationship between spirituality, religion, health status and quality of life. Recently, studies have been carried out to explore these relationships among students in the health area, mainly at the nursing and medical level; noting that intervention strategies have been increased to improve the spiritual formation of students; [20-22, 29] however, not analysis has been carried out to identify the characteristics of spiritual profiles among students in the health area, considering both age, sex, religious identity and practice, or the school grade in which the students are located. In this sense, the socio-demographic results obtained are in agreement with the reported in the literature in relation to the greater proportion of women who study health professions. However, they differ in that the greater proportion of students included in the study report identity with the Catholic religion. This is congruent with the hegemonic cultural tradition in Mexico, although it would be necessary to differentiate if religious practices are carried out or it is assumed by cultural tradition the belonging to this religious group. The results obtained through the Parsian and Dunning spirituality questionnaire show that the students in the health area who participated in the study refer to a high spirituality. This questionnaire offers the possibility of exploring both self-awareness and spiritual beliefs, spiritual practices and spiritual needs. It emphasizes that among the students who participated in the study, self-awareness and spiritual needs predominate. These results are congruent with those reported by other authors who explore both self-esteem and intrapersonal, interpersonal and transpersonal connection, facilitating experiences of spiritual transcendence. [30] The highest frequency of health students' high responses in the questionnaire of spirituality was for self-awareness, self-awareness is conscious perception as a process of

interiorization that leads to the self as a conscious observer. This domain was the highest average score obtained in medicine, bioengineering and postgraduate, and the one that is most related in studies with health.

Regarding spiritual needs, as one of the domains of higher frequency of response among the students participating in the study, it becomes relevant to consider that there have been no differences in the understanding of spirituality between students and their clinical practice. [31] Identifying spiritual needs reflects the importance of having a meaning, direction, purpose and purpose of life, highlighting those activities designed to increase the peace and harmony of the individual. In this sense, highlights the study by Guck and Kavan [32] in a Catholic school of medicine where they found that students believe that spiritual beliefs are more important factors than religion in helping patients deal with chronic diseases and improve their health mental. The perception of the health status evaluated through the SF-36 questionnaire showed that the students who participated in the study considered to be in good health. This contrasts with studies that have reported deterioration in the perception of the state of health in the students of the area of health, mainly in mental health level. In this context, the study did not show a statistically significant correlation between spirituality and the perception of health status, which can be explained by the students' good perception of their state of health. The foregoing is supported by the study by Honiball et al. [33], who explored the concept of spirituality and the perception of spirituality in relation to workers' health. The results indicated that spirituality promotes the development of aspects related to people's health, such as self-awareness, inner peace, stress management and depression. In addition promoting honesty and reducing selfishness. In this study, self-awareness is highlighted as an important aspect of spirituality. In the students of the health area 90% obtained the highest frequency of high responses in the domain of self-awareness, studies indicate that spirituality is activated through self-consciousness, which is related to health.

V. Conclusion

The analysis of the obtained results allows to conclude that the spirituality in the students included in the study is high, with a good perception of their state of health, highlighting the self-awareness and the spiritual needs as the factors of the spirituality that have more relevance in this study. Considering that health is multicausal and multifactorial, the student of the health area should opt for a holistic and integral vision of health in the physical, social, mental and spiritual dimensions; however, among the limitations of the study are multiple meanings of interpretation of the term spirituality, the multiplicity of instruments used to measure spirituality, and the absence of profiles that characterize spirituality in students in the area of health.

These limitations allow open up horizons of understanding to orient research processes that strengthen the realization of interventions to develop spiritual competencies.

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Jocelyn García-Alvarado. "Spirituality And Perception of the State of Health In Students of The Health Area of A Mexican Public University." IOSR Journal of Research & Method in Education (IOSR-JRME) , vol. 7, no. 5, 2017, pp. 10–15.