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Association of stress and spiritual suffering in the primary caregiver of mechanically ventilated patients

Abstract

Introduction: The patient with Ventilation Mechanics (VM) becomes completely dependent on the care of the health service, the family becomes the primary caregiver, facing an alteration of their own welfare, disrupting their emotional environment under stress and S ufrimiento E spiritual (I know). Justification Within the approach to the care of the patient with Mechanical Ventilation (MV) assisted and its possible complications derive from being with a sedation, muscle relaxation, not being able to communicate and being away from their relatives they become dependent on health personnel, where nursing and especially family members play a fundamental role, the latter face to a strange environment that alters your spiritual and emotional well-being.

Objectives: To determine the association of spiritual suffering and stress in the primary caregiver of the patient with MV in the hospitalization area.

Methodology: Quantitative, correlational and cross-sectional study. It was held at a General Hospital in Guanajuato, Mexico. The sample 49 relatives of patients with MV (80% accuracy and 95% reliability) non-probabilistic sampling, by availability. The Instrument was used: Identification of Spiritual Suffering of Primary Caregivers of Patients with Mechanical Ventilation (ISECPPVM), E scala de E strés P ercibido (EEP), salivary cortisol sample was taken. The chi-square test was used for descriptive statistics for its ordinal values, all with a level of significance of P 0.05.

Results: Average age was 39.37±14.2 years, predominantly female 79.6%, main diseases pneumonia 20.4%.Level of SE, of the main caregivers of patients with MV, was moderate 73.5%.Stress was identified by means of the EEP questionnaire, the results were 51% high, the average salivary cortisol CTR Salivary Cortisol ELISA Kit was.131504 with a standard deviation of.074769.The chi-square test indicates that there is a significant association (p=0.001) but the sample should be considered to be enlarged.

Keywords: spirituality, spiritual, pain, patients, family relationships

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Ortega Jiménez Mayra del Carmen,[1] García Campos María de Lourdes,[2] Ortega Jiménez Marcela,[1] Beltrán Campos Vicente,[2] Padilla Raygoza Nicolás,[2] Ramírez Gómez Xóchitl Sofia,[3] Jiménez García Sandra Nelly[4]

[1]Department of Nursing and Obstetrics, University of Guanajuato, Mexico

[2]Department of clinical nursing, University of Guanajuato, Mexico

[3]Department of clinical nursing, University of Guanajuato, Mexico

[4]Department of Nursing and Obstetrics, University of Guanajuato, Mexico

Correspondence: Ortega Jiménez Mayra del Carmen, Department of Nursing and Obstetrics, University of Guanajuato, Mexico, Email mdc.orteg@ugto.mx

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Abbreviations: PSS, perceived stress scale; MV, mechanical ventilation; SE, spiritual suffering; CKD, chronic kidney desease; HCT, head trauma; RDS, respiratory distress syndrome

Introduction

The patient with MV becomes completely dependent on the care of the health service, the family member becomes the main caregiver, facing an alteration of their own well-being, disrupting their emotional environment under stress and spiritual suffering (SE).[1]

Spirituality is a part that helps well-being, in conditions such as anxiety state,[1] which also relates to the level of strength in the presence of the disease.[2]

Within the approach of the care of the patient with assisted MV and its possible complications derive from being with a sedation, muscle relaxation, presence of or tracheal tube, tracheostomy, not being able to communicate and being away from their relatives make them dependent on health personnel, where nursing and especially family members play a fundamental role, the latter face an unknown machine that gives respiratory support to their patient, thus having a strange environment that alters their psychological well-being, under the presence of stress and their spiritual alteration leading them to a well-being to a suffering. The needs of caregivers are increased by a situation of uncertainty/concern about the severity or sudden illness.[3]

The hospitalization service is the area that houses patients with MV with very long stays, their caregiver who is their relative is questioned about their meaning of life in the presence of their sick patient, and the nursing staff, because of its proximity who detects both the SE and the stress of family members, nursing should be prepared to detect and provide timely care aimed at reducing these mental health conditions, therefore the question arose: What is the association between spiritual suffering and stress in The primary caregiver of patients with mechanical ventilation?

Caregiver/ra, it is a person who cares, is a person very helpful, caring, thoughtful and tucked itself.[4] Stress Seyle it defined as a response of the body to the demands to be put.[5] Salivary cortisol is a steroid hormone produced in the hypothalamic-pitutitary-adrenal axis that is secreted in saliva, this when people get stressed. An elevated level of cortisol in saliva can be produced by many different factors, among which is psychological conditions.[6]

"Defining spiritual suffering as impairment of the ability to experience and integrate the meaning and purpose of life through

connection with the self, the others, art, music, literature, nature and/or a power superior to one's own self ".[7]

Objectives

General

To determine the association SE and stress, in the primary caregiver of the patient with MV of the hospitalization area of internal medicine.

Specific

Identify presence of SE in the primary caregiver of patients with MV, using the scale in the area of hospitalization of internal medicine.

Identify stress in the primary caregiver of patients with MV, using a scale of perceived stress, in the area of hospitalization of internal medicine.

To quantify the salivary cortisol of the primary caregiver of the primary caregiver of the patient with MV.

Measure the association SE and stress in instrument and cortisol results.

Ethical and legal considerations

Among the sections, mention is made of the "General Health Law on Health Research" and the principles of the Declaration of Helsinki.

This investigation was considered with minimal risk since, that psychological and physical damage to the patient will not be caused.

He was given informed consent, which was freely signed for the participation of the study. The strict confidentiality of the information was guaranteed, being only the knowledge of the researcher.[8,9]

Materials and methods

It was a study with quantitative, correlational and applied approach,[10] with cross-sectional design.[11] It was carried out in a general hospital in Guanajuato, Mexico. En the area of inpatient internal medicine.

The universe was made up of 100% of primary caregivers of patients with MV of their patient in the area of internal medicine.

Sample: 49 primary caregivers of patients with MV. This is 80% accurate and 95% reliable (EpiInfo 3.5.1 2008 CDC Atlanta GA, EU A).

Non-probabilistic sampling, by availability.

Inclusion criteria (for primary caregivers of patients with mechanical ventilation).

Primary caregivers who presented spiritual suffering, assessed by Identification of Spiritual Suffering of Primary Carers of Patients with MV

Older than 18 years.

Voluntary participation in the investigation by signing an informed consent form

Exclusion criteria

Primary caregivers who received remuneration for caring for the patient.

Instrument

The questionnaire to measure spiritual suffering was used as a basis the Scale of spiritual suffering elaborated by Villagómez-Razo A., Jordán-Jinez ML and García-Campos ML in 2004, 0.85 (cronbach alpha).[12] This instrument was adapted by Ortega Jiménez Mayra del Carmen, García Campos María de Lourdes, Padilla Raygoza Nicolás and Ortega Jiménez Marcela, with the authorization of the principal author, called Instrument: Identification of Spiritual Suffering of Primary Carers of Patients with Mechanical Ventilation (ISECPPVM), this is coupled to the study population of this research. Modification of the scale was constructed. It comprises two parts: 1.Sociodemographic data, 2.Modified questionnaire: 58 items considering the levels of SE to Mild, moderate and severe.

Scale to measure the Perceived Stress (EEP), allowed us to know if there are two dimensions one assertive and one negative, adapted to Spanish in Mexico by Landero and González. It consists of 14 items. The direct score obtained considers the levels high and low. In the Mexican sample, internal consistency was measured with Alfa of Cronbach is 0.83.[13]

For the sampling of cortisol in saliva was performed with a sterile salivete in a refrigerant bag.

In the first 72 hours of admission to internal medicine, the patient's saliva sample was collected, which does not generate pain or discomfort, it was transferred in the refrigerant bags and kept in refrigeration, until its cortisol analysis, finally, They performed the ELISA Test with a salivary cortisol measurement kit (CTR Salivary Cortisol ELISA Kit).

Procedures

Approval of the protocol: The research protocol was submitted to the CIDSC-3430810 Research Committee and Bioethics Committee with registration CBCCSS-00610092018 of the Celaya-Salvatierra Campus, of the University of Guanajuato.

Authorization

Once approved, it was presented at a General Hospital of the City of Guanajuato, to the Teaching area and to the Bioethics and Research Committee for authorization.

Informed consent

The primary caregiver who met all the inclusion characteristics was identified, data were collected, informing them of their participation, as well as the risks and benefits, the objectives of the study were explained and the objectives were answered. Questions and doubts to the primary caregivers, it was requested that they sign the informed consent and the patient information sheet about the investigation was provided.

Data collection

Once the consent was signed, the general questionnaire was delivered. The data obtained through the ISECPPVM and EEP questionnaire were integrated, assigning a qualification to the dimensions of the questionnaires and later for the analysis of results.

Statistical analysis

A database was developed in the statistical package SPSS version 21, normality tests were applied to the numerical study variables, descriptive statistics were used covering measures of central tendency

(mean, median and 95% confidence intervals), measures of variability (range, standard deviation and 95% confidence intervals) for sociodemographic and study variables. To measure the relationship between the study variables, the chi-square test was used for its ordinal values, all with a level of significance of 0.05.

Results

A total of 49 primary caregivers were studied, of patients with mechanical ventilation in the hospitalization area. Next, the results found are presented, first, the sociodemographic variables and then the study variables.

Sociodemographic variables of primary caregivers: Average age was 39.37±14.2 years, female sex prevailed 79.6%, Catholics 91.8%, secondary schooling with 42.9%, and civil status prevailed to be married 40.8%, the role it occupies in the Family was being a mother 55.1%, main occupation housewife 38.8 and the monthly economic income was from 0 to 1000 Mexican pesos 83.7%.

The main pathologies of patients predominated pneumonia 20.4%, atypical pneumonia 10.2%, disease Chronic Renal (ERC) 6.1%, ballistic trauma 4.1% respiratory distress syndrome (ARDS) 4.1%, sepsis 4.1% and Trauma craneoencef atic (TCE) 4.1%.The days of hospitalization predominated, three days 53.1%.

Among the first objectives was to identify the SE in the participating population, the results obtained were the following:

The level of SE, of the main caregivers of patients with MV, was moderate 73.5%, severe 24.5% and mild with 2%.

Other variables to study were stress, this was identified by the EEP questionnaire, the results of perceived stress are 51% high and 49% low.

In addition salivary cortisol was measured with CTR Salivary Cortisol ELISA Kit the result was.131504 with a standard deviation of.074769.This being a low cortisol value in the relatives of critically ill patients. Association between spiritual suffering and stress of the primary caregiver of the patient with mechanical ventilation measured by questionnaires. General Hospital of Guanajuato, Mexico, 2019 (Table 1).

Table 1 Level of Spiritual Suffering

			Level of Spiritual Suffering			Total
			Mild	Moderated	Severe	
Stress Level	High	fr.	1	14	11	26
		%	100%	37.80%	100%	53.10%
	Under	fr.	0	23	0	23
		%	0.00%	62.20%	0.00%	46.90%
Total		fr.	1	37	11	49
		%	100%	100%	100%	100%

X2=14.06, df=2, n=49, p=.001

Source: results of the statistical package SPSS version 21

For the level of severe SE and high stress a percentage (100%) higher than expected (53.1%) is observed, while for the level of moderate SE and high stress there was a percentage (37.8%) lower than expected (53.1%), the chi-square test indicates that there is a significant association (p=0.001).This is in relation to the results of the questionnaires.

Relationship of stress with salivary cortisol with the salivary cortisol test CTR Salivary Cortisol ELISA Kit, there is no statistical significance.

Discussion

Regarding some sociodemographic characteristics of the primary caregiver of this research, the female sex was found to be predominant, this is consistent with related studies where women occupy the caretaker role, thus being a characteristic of the Mexican population.[14–17]

Care of the patient within institutions hospital represents a network important support for the health sector of the population, women fungen a fundamental role in their role as caregiver, loves being home is a feature that allows you to be them side of his patient,[18] but at the same time this will generate a low economic income.[19]

A peculiarity of the study was that 91.8% mentioned being Catholics, although this is not completely spiritual, but it is an important component to present or not to present the SE.[20] Despite the diversity of religions that exist today, it continues to confirm the Catholic religion continues to be a majority.[21, 22]

Due to the above, these caregivers have been attributed the role of the primary caregiver role in whom the responsibility of other individuals falls, this has led to a lack of interest in their emotional care and there is an alteration in their spiritual well-being. Within this SE investigation, a moderate to severe level was found in its participants, that was measured through the questionnaire which was adapted and called ISECPPVM, compared to the results of Ruiz., Where SE was found only in half of the participants.[22]

A qualitative and individual approach is required to be able to give it a complete approach, in order to detect suffering clinically, it is necessary to establish an affective, cordial and respectful relationship with the patient through open communication using flexible methods and valuing space-time that is destined; and, above all, individualize each case.[23,24]

It is a broad responsibility on the part of the nurse practitioner to try to bring spiritual fulfilment [25] and its purpose which is happiness. Having a metaparadigma out of everyday stereotypes, we already talk about the suffering of the soul, whose reason for nursing is the care of the healthy or sick person. This is in line with what is mentioned with Muñoz et al., Where he concludes that it is the human resources nurses who, after a specialized development in skills, can assess, diagnose and treat the spiritual suffering of the human being.[26–28]

In this study, l will results in terms of the level of stress that handled the primary caregiver shows the 51% higher and 49% lower, the age was 39.37±14.2 years disagreeing with the study of Turró-Garriga O et al.,[29] where it was observed that young age was associated with greater psychological stress, and being the patient's son was associated with a greater sense of guilt. A higher psychological stress score was observed in the most distant relatives and in the relationship of dependency in the couple.[29]

It can be seen that there is very little difference between the level of high stress and low stress level of this research, this could

be due to the adaptation that the family member generates to the circumstances. Crespo et al., Mention in their results that several of the family members have an extraordinary capacity to adapt to the circumstances they have had to live. Thus, in recent years studies that propose a change of approach have proliferated, offering a less and more focused view of caregivers in the analysis of those capacities and strengths that act as protective factors against prolonged stress.[30]

The conclusion is reached where the level of SE and the level of stress per questionnaire in the chi-square test indicate that there is a significant association, however for the association of SE with cortisol in saliva no relationship was found. This is possible because of the sample size or the adaptation of stress itself to the factors surrounding the individual.

It is important to mention that with this research it is necessary to raise awareness among health authorities and professionals, regarding the importance of being the primary caregiver,[31] during the health-disease process, especially with those who have their family member in a critical stage with The purpose of managing spaces and activities that are aimed at your emotional and spiritual health.

Conclusion

It should be borne in mind that the primary caregiver suffers multiple alterations when being with his patient in a critical state, within which the SE that afflicts him is accompanied by stress which alters his well-being. This research study allowed us to know the measurement and association between two variables SE and stress of primary caregivers of patients with MV and the importance of being able to identify them with an instrument that can generate internal reliability.

Not all caregivers respond the same way to stress and to the SE, there is even a percentage of them that can be conside highly adaptable to it Rados, interpreter the characteristics of these people gives us the key to understanding, and enhance power, the mechanisms that act as protective factors in the circumstances of the illness of a loved one. Following this reasoning, it could be considered that the mode of evaluation of stressors depends simply on their frequency and intensity.

It could be mentioned that there are possibilities that people adapted to stress can improve their role as caregiver. Within the limitations of this study SE, it should consider its appearance cualitati vo and individual as a unique person. Despite studies on this subject, it should be taken into account that these primary caregivers are an essential part of the non-specialized care of the critically ill patient.

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Conflicts of interest

The author declares no conflict of interest.

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