



ORIGINALES

Relationship between the spirituality of the informal caregiver and resilience in older adults with cancer

Relación entre la espiritualidad del cuidador informal y la resiliencia del anciano con cáncer

Elisa Rosas-Cervantes¹
María de Jesús Jiménez-González¹
Sandra Valenzuela-Suazo²
Raúl Fernando Guerrero-Castañeda¹

¹ University of Guanajuato Campus Celaya-Salvatierra. Celaya, Guanajuato, Mexico.
e.rosascervantes@ugto.mx

² University of Concepción. Concepción, Región del Bío Bío, Chile.

<https://doi.org/10.6018/eglobal.601201>

Received: 18/01/2024

Accepted: 29/01/2024

ABSTRACT:

Introduction: The increase in the number of older adults with cancer generates high rates of dependency, leading to an exponential growth in the demand for informal caregivers, which implies having to address specific care needs that are the competence of nursing and can be addressed from the spiritual sphere as proposed by the Transpersonal Human Caring Theory.

Objective: To determine the relationship between informal caregiver spirituality and resilience in the older adult with cancer.

Materials and Methods: This is a quantitative, correlational, non-experimental study in which 42 older adults with cancer and their informal caregivers participated. The level of spirituality of the caregivers and the level of resilience of the older adults were measured. The correlation between the variables was calculated using Spearman's ρ test.

Results: The mean age of the caregivers was 49.6 ± 15.6 years, 64.3% were female, 85.7% Catholic; 73.8% reported high levels of spirituality. Regarding the older adults, their mean age was 69.9 ± 7.1 years, 59.5% were female, 88.1% Catholic; the predominant type of cancer was gastric and leukemia; 83.3% reported high resilience. A positive correlation ($r=0.440$, $p<0.05$) was found between caregiver spirituality and older adult resilience.

Conclusions: The results provide scientific support for the Theory of Transpersonal Human Caring, as it acknowledges the conception of self and spirit (spiritual transcendence) described by Jean Watson.

Keywords: Caregivers; older adult; spirituality; psychological resilience; spiritual transcendence.

RESUMEN:

Introducción: El incremento de ancianos con cáncer genera altos índices de dependencia que conlleva la demanda exponencial de cuidadores informales, representando necesidades de cuidado específicas que son competencia de enfermería y se pueden abordar desde la esfera espiritual como lo propone la Teoría del Cuidado Humano Transpersonal.

Objetivo: Determinar la relación entre la espiritualidad del cuidador informal y la resiliencia del anciano con cáncer.

Material y método: Estudio cuantitativo, correlacional, no experimental. Participaron 42 ancianos con cáncer y sus cuidadores informales. Se midió el nivel de espiritualidad de los cuidadores y el nivel de resiliencia de los ancianos. La correlación entre las variables se calculó mediante la prueba ρ de Spearman.

Resultados: Edad media de los cuidadores 49.6 ± 15.6 años, 64.3% mujeres, 85.7% católicos; 73.8% obtuvo niveles altos de espiritualidad. En los ancianos, edad media 69.9 ± 7.1 años, 59.5% mujeres, 88.1% católicos; el tipo de cáncer predominante fue gástrico y leucemia; 83.3% obtuvo resiliencia alta. Se encontró correlación positiva ($r=0.440$, $p<0.05$) entre la espiritualidad del cuidador y la resiliencia del anciano.

Conclusiones: Los resultados constituyen un soporte científico para la Teoría del Cuidado Humano Transpersonal, pues acepta la concepción del ser y del espíritu (trascendencia espiritual) descritos por Jean Watson.

Palabras clave: Cuidadores; Anciano; Espiritualidad; Resiliencia psicológica; Trascendencia espiritual.

INTRODUCTION

At the present time, population aging has shown exponential growth in Mexico and throughout the world, as a result of the development of new technologies and research, the increase in life expectancy and the decrease in fertility ^(1,2).

According to 2017 data from the United Nations (UN), 13% of the world's population (962 million inhabitants) were elderly, and it was estimated that this number would double by 2050 (2100 million), and triple by 2100 (3100 million) ⁽²⁾. The Economic Commission for Latin America and the Caribbean (ECLAC) noted that in 2022, 13.4% (88.6 million) of the population of Latin America and the Caribbean were older adults and estimates that by 2030 this figure will reach 16.5% (114.9 million) ⁽³⁾. With respect to Mexico, data compiled by the National Survey of Occupation and Employment (ENOE) reported that in 2022, 14% of the Mexican population were older adults ⁽¹⁾. In addition, the National Institute of Geography and Statistics (INEGI) estimates that in the State of Sonora, in 2020 there were approximately 357 thousand older adults, of which 170 thousand were men and 187 thousand women ⁽⁴⁾.

In addition to the above, the epidemiological profile has reflected a tendency to displace infectious diseases by chronic degenerative diseases, among which malignant tumors stand out. Despite the evident increase in life expectancy, the quality of life of the older population is poor ⁽⁵⁻⁸⁾.

The increase in the number of older adults with cancer and other added pathologies predisposes them to drastic changes that cause them to have mixed feelings about their ability to cope with their lives, so their level of resilience may be diminished. Similarly, the physiological deterioration inherent to aging, together with the deterioration caused by diseases, generates high rates of dependency, which has been a trigger for the demand of informal caregivers, who sometimes dedicate many hours to the care of the older adult and are therefore subject to an overload of work. However, it is the emotional ties they have with the elder that drives them to provide the care ⁽⁹⁾. In turn, as the time and hours of caregiving increase, the relationship may be strengthened by positive stimuli, or it may deteriorate due to fatigue and other stressors ⁽¹⁰⁾.

Studies suggest that spirituality is a positive stimulus that fosters healthy relationships between the informal caregiver and the elderly person with cancer, given that its influence has been shown to reduce tension and stress, and helps to make sense of the disease by improving the older person's attitude towards it ⁽¹¹⁻¹³⁾. For Colleen Delaney this is a multifaceted concept that encompasses the relationship with God or a higher power, the relationship with oneself, with others and with nature, as well as the recognition of a sense of purpose in life ⁽¹⁴⁾.

Likewise, the person's spirituality is a triggering factor of resilient behaviors, which help to effectively cope with adverse situations ^(12,13). According to Palomar and Gómez, resilience is the capacity of people to achieve a healthy development despite the adverse situations that afflict them ⁽¹⁵⁾.

Jean Watson's Theory of Transpersonal Human Caring from its basic premises states that spirituality is built throughout life and is unique to each individual; it represents the essence and humanity of people and can be reflected in others depending on the strength and intensity of the same. Therefore, the relationships and loving care between the caregiver and the patient give them the ability to transcend, that is, to leave a mark on each other ⁽¹⁶⁾.

The changes related to aging, coupled with the secondary changes caused by a chronic disease such as cancer, predispose to an imbalance between the mind, body and soul of the older person, which acts as a barrier to achieving self-care and self-healing. As the informal caregiver is the person closest to the older adult during the disease process, it is important that the caregiver develops the ability to observe the internal condition of the older adult and identify the biopsychosocial, cultural, and spiritual needs that are afflicting the older adult. Pinzón et al. affirm that caring for a family member (whether parents, children, siblings, grandparents, spouses, among others) allows the humanized care proposed by Jean Watson in her theory to be visible, even though it is not professional nursing care, since it is possible to provide informal care with commitment, dedication, respect, empathy and reciprocity ⁽¹⁷⁾. However, it is the responsibility of nursing professionals to guide informal care to ensure that the older adults receive humanized care, even when they leave the hospital setting and return home, therefore, implementing spiritual care in informal caregivers could have an impact on the elderly's coping with illness.

The aim of this study was to determine the relationship between caregiver spirituality and resilience in the older adult with cancer.

MATERIALS AND METHODS

This was a quantitative, correlational, cross-sectional, non-experimental study. Its design was evaluated using the EQUATOR SPIRIT guide for study protocols and the STROBE guide for observational studies. Non-probabilistic convenience sampling was used, with an estimated influx of 120 elderly patients with cancer admitted to a hospital in Hermosillo, Sonora, Mexico between March and November 2020, a sample of 41 dyads was calculated. The dyads included were those in which the elderly person was hospitalized in the internal medicine, surgery or emergency departments, and their health condition allowed them to participate in the study, they were accompanied by their informal caregiver, and both gave their signed consent.

A separate sociodemographic data sheet was used for informal caregivers and older adults. The level of spirituality of the caregivers was measured using the Spanish version of the Colleen Delaney Spirituality Scale, which has a reliability of 0.92 and consists of 15 items distributed in the dimensions of higher power/universal intelligence, relationships with others and self-discovery, with Likert-type response options, and applied as a questionnaire ⁽¹⁴⁾. The level of resilience of the older adults was measured by means of an interview based on the Mexican Resilience Scale (RESI-M) by Joaquina Palomar and Norma Gómez, which has a Cronbach's alpha of 0.93; it consists of 43 items, divided into five factors related to resilience: strength and self-confidence, social competence, family support, social support and support structure ⁽¹⁵⁾.

The data were captured and analyzed with the Statistical Package for the Social Sciences (SPSS) version 25; once the normality and homoscedasticity of the data were analyzed, the correlation between the variables was calculated using Spearman's p test.

The entire study was developed taking into account the ethical principles for the protection of human research subjects and considering the Regulations of the General Health Law, which requires respecting the dignity, rights and welfare of the participants, as well as to maintain the anonymity and confidentiality of the data supported by the informed consent. In addition, it was reviewed and approved by the Bioethics Committee of an educational institution.

RESULTS

The Kolmogorov-Smirnov normality test performed for a sample found that neither the level of spirituality ($p=0.014$), nor the level of resilience ($p=0.009$) follow a normal distribution ($p<0.05$), so the tests chosen were non-parametric.

This study involved 42 dyads of older adults with cancer hospitalized in a medical institution in Hermosillo, Sonora, Mexico and their informal caregivers. Of these patients, 78.6% ($n=33$) were treated in internal medicine, 19.0% ($n=8$) in surgery and 2.4% ($n=1$) in the emergency department.

The common sociodemographic variables were analyzed for the older adults with cancer and their informal caregivers (Table 1).

Table 1: Common sociodemographic characteristics of elderly cancer patients and informal caregivers.

	Characteristic	Unit of Measurement	Informal Caregivers	Older Adults
Age		$\bar{X}\pm SD$	49.6 \pm 15.6	69.9 \pm 7.1
Sex	Men	f (%)	15 (35.7)	17 (40.5)
	Women	f (%)	27 (64.3)	25 (59.5)
Religion	Catholic	f (%)	36 (85.7)	37 (88.1)
	Christian	f (%)	3 (7.1)	3 (7.1)

	None	<i>f</i> (%)	1 (2.4)	1 (2.4)
	Other	<i>f</i> (%)	2 (4.8)	1 (2.4)
Participation in Support Groups	Yes	<i>f</i> (%)	6 (14.3)	7 (16.7)
	No	<i>f</i> (%)	36 (85.7)	35 (83.3)
Type of Support Group	Elderly Group / Informal Caregivers	<i>f</i> (%)	2 (4.8)	0 (0)
	Religious group	<i>f</i> (%)	4 (9.5)	7 (16.7)

Abbreviations: \bar{X} = Mean, SD = Standard Deviation, *f* = Frequency, %= Percentage. n= 42 dyads.

Regarding the specific data of informal caregivers, 38.1% (n=16) have a completed a bachelor's degree; other levels of schooling reported were commercial technical careers and social workers. Likewise, 54.8% (n=23) of the caregivers have a job; some of the jobs mentioned are located within the areas of education, health, government, self-employment, commerce, food and domestic employees. Regarding the relationship they maintain with the older person with cancer, 47.6% (n=20) are their children, followed by spouses with 26.2% (n=11). On average, they have been caring for the elderly for 9.1±13.8 years and dedicate approximately 12.9±8.0 hours per day to caregiving (Table 2).

Table 2: Sociodemographic characteristics of informal caregivers

Characteristics		Unit of Measurement	Results
Level of Education	Incomplete Elementary School	<i>f</i> (%)	2 (4.8)
	Completed Elementary School	<i>f</i> (%)	1 (2.4)
	Incomplete Middle School	<i>f</i> (%)	3 (7.1)
	Completed Middle School	<i>f</i> (%)	5 (11.9)
	Completed High School	<i>f</i> (%)	6 (14.3)
	Incomplete Bachelor's Degree	<i>f</i> (%)	3 (7.1)
	Completed Bachelor's Degree	<i>f</i> (%)	16 (38.1)
	Postgraduate	<i>f</i> (%)	3 (7.1)
	Other	<i>f</i> (%)	3 (7.1)
	Employees		<i>f</i> (%)
Relationship	Son/Daughter	<i>f</i> (%)	20 (47.6)
	Brother/Sister	<i>f</i> (%)	5 (11.9)
	Spouse	<i>f</i> (%)	11 (26.2)
	Grandchild	<i>f</i> (%)	2 (4.8)
	Daughter-in-law/Son-in-law	<i>f</i> (%)	1 (2.4)
	Friend	<i>f</i> (%)	3 (7.1)

Time of care (years)	$\bar{X}\pm SD$	9.1±13.8
Hours of care	$\bar{X}\pm SD$	12.9±8.0

Abbreviations: \bar{X} = Mean, SD = Standard Deviation, *f* = Frequency, %= Percentage. n= 42 informal caregivers.

According to the data of the older adults with cancer, a prevalence of gastric cancer and leukemia was found with 11.9% (n=5) each, with a mean time to diagnosis of 20.8±12.1 months; the most frequent treatment for cancer was chemotherapy in 81.0% (n=34) of the cases. Similarly, 78.5% (n=33) of the patients live with one or more noncommunicable diseases, with arterial hypertension being the most common, suffered by 33.3% (n=28) of the participants, followed by diabetes mellitus with 26.2% (n=22). As for the reason for hospital admission, 28.5% (n=12) were hospitalized for circulatory system alterations, mainly with severe anemia requiring blood component transfusions. The average time of hospital stay was 9.1±7.9 days (Table 3).

Table 3: Sociodemographic characteristics of the older adults with cancer

Characteristics	Unit of Measurement	Results
Type of cancer	Gastric Cancer	<i>f</i> (%) 5 (11.9)
	Leukemia	<i>f</i> (%) 5 (11.9)
	Breast Cancer	<i>f</i> (%) 4 (9.5)
	Brain Tumor	<i>f</i> (%) 4 (9.5)
	Lung Cancer	<i>f</i> (%) 4 (9.5)
	Prostate Cancer	<i>f</i> (%) 3 (7.1)
	Multiple Myeloma	<i>f</i> (%) 3 (7.1)
	Cervical Cancer	<i>f</i> (%) 3 (7.1)
Time to Diagnosis (months)	$\bar{X}\pm SD$	20.8±12.1
Treatment	Chemotherapy	<i>f</i> (%) 34 (81.0)
	Radiation	<i>f</i> (%) 8 (19.0)
Noncommunicable diseases	High Blood Pressure	<i>f</i> (%) 28 (33.3)
	Diabetes Mellitus	<i>f</i> (%) 22 (26.2)
	Kidney Failure	<i>f</i> (%) 2 (2.4)
	Hypothyroidism	<i>f</i> (%) 2 (2.4)
	Denied Information	<i>f</i> (%) 9 (10.7)
Reason for hospital admission. Disorders of the:	Cardiovascular System	<i>f</i> (%) 12 (28.5)
	Respiratory System	<i>f</i> (%) 7 (16.7)
	Digestive System	<i>f</i> (%) 6 (14.3)
	Musculoskeletal System	<i>f</i> (%) 6 (14.3)
Hospital Days	\bar{X} SD	9.1±7.9

Abbreviations: \bar{X} = Mean, SD = Standard Deviation, *f* = Frequency, %= Percentage. n= 42 dyads.

Subsequently, the levels of spirituality of the informal caregivers were determined, where 73.8% (n=31) obtained a high level of spirituality, 23.8% (n=10) a moderate level of spirituality, and 2.4% (n=1) obtained a low level of spirituality. Similarly, the levels of resilience of the older adults with cancer were determined, resulting in 83.3% (n=35) of the participants having a high level of resilience, while 16.7% (n=7) showed moderate resilience.

Finally, the spirituality of the informal caregiver was correlated with the resilience of the older adult with cancer, the correlation of the variables was carried out using Spearman's ρ test yielding a positive correlation, of moderate intensity ($r= 0.440$, $p= <0.05$), which proves the hypothesis that the higher the level of spirituality of the informal caregiver, the higher the level of resilience of the older adult with cancer.

DISCUSSION

The data related to informal caregivers indicate that the mean age is slightly above that reported by Donjuan et al. in their study "*Estrés, sobrecarga y espiritualidad relacionados con la calidad de vida de cuidadores de adultos mayores*"; this study involved informal caregivers of older dependents in a community center in Tamaulipas, Mexico, and reported that the mean age was 43 years⁽¹¹⁾. The maturity of the informal caregivers in this study holds promise for their spiritual development because, according to Jean Watson's philosophy, spirituality is built and developed through experience⁽¹⁸⁾.

Regarding sex, a significant prevalence of women was found, which is a constant pattern in caregivers (both formal and informal) taking into account that in the past caregiving was associated with females and continues to be a strongly rooted belief in most cultures, including the Mexican culture^(11, 19).

It was found that there is a predominance of the Catholic religion, which is consistent with what was reported by the 2020 Population and Housing Census, which reported that slightly more than 90 million Mexicans claim to be Catholic⁽²⁰⁾.

The most common relationship of informal caregivers to the older adults with cancer in their care was that of son, daughter, and spouse, matching what has been reported by Donjuan et al., as they found that 33.0% (n=32) were sons or daughters of the dependent older adult⁽¹¹⁾.

With regard to data specific to older adults with cancer, the mean age is very similar to that found by Castañeda and Guerrero in their study "*Espiritualidad en adultos mayores hospitalizados, oportunidad de cuidado para enfermería: aproximación cuantitativa*" carried out at the General Hospital of Rincón de Romos in Aguascalientes, Mexico, where the mean age was 69.7 ± 7.3 years⁽²¹⁾. Araújo et al. reported an average age of 71.4 years in their qualitative study conducted in Brazil, "*Espiritualidad y religiosidad en la experiencia del sufrimiento, culpabilidad y muerte del anciano con cáncer*"⁽²²⁾.

The sex of the older adults with cancer follows a similar pattern to that of informal caregivers, with a prevalence of women (59.5%); however, both Castañeda and Guerrero and Araújo et al. reported even greater participation of the female sex with

80.4% (n=119) and 65.0% (n=13) respectively, which could be related to national life expectancy in Latin America and the world, with women living longer ^(5, 6-8, 21,22).

Similarly, the Catholic religion is the most practiced by the elderly with cancer with 88.1%, which coincides with the findings of Castañeda and Guerrero in a Mexican population with 82.4%, and Araújo et al., where 60% (n=12) of the Brazilian elderly were Catholics ^(21,22).

The predominant types of cancer in the older participants in this study were gastric cancer and leukemia, followed by breast cancer, lung cancer, and brain tumors, which coincides with data from the Mexican Institute of Social (and Medical) Security, which attributes malignant neoplasms in Sonora to the high consumption of charcoal-cooked foods, together with alcoholism, smoking, overweight and obesity, with the digestive system being the most affected ⁽²³⁾.

When choosing the appropriate cancer treatment for an older person, it is important to take into account that the decline in physiological functions characteristic of aging reduces tolerance to the stress of the disease and to treatments, whether chemotherapy, radiation or surgery. The contrast of side effects could be the reason why chemotherapy is more frequently chosen; however, Bórquez and Romero, in their essay entitled "El paciente oncológico geriátrico" mentioned that the combination of chemotherapy and radiation is acceptable and tolerable for patients over 70 years of age ⁽²⁴⁾.

In addition to cancer, 78.5% of the older population suffers from one or more non-communicable diseases. This is consistent with the results of the 2015 National Study of Health and Aging (ENASEM), where 66.0% of the elderly reported suffering from at least one non-communicable disease (excluding those who suffer from these diseases and are not diagnosed); this prevalence increases with age, as does the probability of presenting multimorbidities ⁽²⁵⁾. In addition, the Government of Mexico adds that mental disorders such as dementia and Alzheimer's disease should also be considered in the care of the elderly, as they contribute to a decrease in their quality of life ⁽²⁶⁾.

When the level of spirituality of informal caregivers and the resilience of the older adults with cancer were analyzed, most caregivers reported high levels of spirituality, which is consistent with the findings of the study "*Relación entre la espiritualidad, calidad de vida y depresión en familiares de adultos mayores con demencias*" by Barreto et al., where they state that spirituality helps informal caregivers to cope with the illness of their loved one, reduces the risk of depression and increases quality of life ⁽¹³⁾. Likewise, Guerrero and collaborators, in their study entitled "Reflection on nursing care in the spiritual dimension for caregivers of older adults with Alzheimer's disease," affirmed that spirituality generates in the caregivers a feeling of well-being that allows them to overcome the difficulties related to the illness of the older adult ⁽¹²⁾.

On the other hand, most of the older adults obtained high resilience, which is similar to the results obtained by Cortés et al. in their study, which reported that 82.4% [n=145] presented high resilience; in addition, they found a significant correlation between resilience and the marital relationship ($X^2=10.06$; $p=0.002$), sexual activity ($X^2=7.06$; $p=0.008$) and recreational activities ($X^2=5.87$; $p=0.015$). In addition, by the Fisher's exact test, a significant correlation was obtained between resilience and mood

($p=0.001$) indicating that the elderly with high resilience levels are happier and more cheerful ⁽²⁷⁾.

Finally, a positive correlation was found between the spirituality of the informal caregiver and the resilience of older adults with cancer, which demonstrates the transcendence of the spirit described by Jean Watson in her Transpersonal Human Caring Theory, which is based on basic premises that infer that both the informal caregiver and the older person with cancer are spiritual, existential and mysterious beings, and that the spirit (in this case of the caregiver), which constitutes its level of humanity, can be reflected in the older adult with cancer through the transpersonal relationship they establish during the care.

In turn, Pinzón et al. support this theory in their study “*Perfil de los cuidadores informales de personas con enfermedades crónicas y calidad de vida*” by confirming that it is possible to observe the humanized care of which Jean Watson speaks even in non-professional care, since informal caregivers, moved by love and the desire to protect and maintain the integrity of their loved ones, provide care with commitment, dedication, empathy and respect. In addition, the trust established by the frequent contact facilitates the expression of feelings, emotions and experiences, which strengthens the interpersonal relationship and establishes ideal conditions for transpersonal care and spiritual transcendence ⁽¹⁶⁻¹⁸⁾.

The limitations of the study were the decrease in hospital occupancy and the difficult access to the sample due to the health measures implemented at the end of the COVID-19 contingency; however, these same measures could have tightened the interpersonal relationships between the informal caregivers and the elderly with cancer, facilitating spiritual transcendence.

CONCLUSIONS

The results obtained in this study demonstrate the importance of including informal caregivers in the nursing care of older adults with cancer, which provides a basis for the creation of nursing interventions aimed at spirituality.

The positive relationship observed between both variables constitutes scientific support for the Transpersonal Human Caring Theory, since it accepts the concepts of being and spirit described by Jean Watson, as well as the relevance of taking these elements into account in professional care through the 10 caritas processes proposed in the theory.

Finally, based on the results obtained and their analysis, we highlight the importance of informal care and the need for nursing to include informal caregivers in the professional care of older adults with cancer. This is a valuable opportunity to enhance care through the close relationship they maintain and the spiritual transcendence that occurs and, thus, move towards a more humane practice.

REFERENCES

1. Instituto Nacional de Estadística y Geografía. Estadísticas a propósito del día internacional de las personas adultas mayores [Internet]. 2022 [Referenced on January 17, 2024]. Available at: https://www.inegi.org.mx/contenidos/saladeprensa/aproposito/2022/EAP_ADULMAY2022.pdf
2. Organización de las Naciones Unidas. Envejecimiento [Internet]. 2023 [Referenced on January 31, 2023]. Available at: <https://www.un.org/es/global-issues/ageing>
3. Comisión Económica Para América Latina. Envejecimiento en América Latina y el Caribe: Inclusión y derechos de las personas mayores [Internet]. 2022 [Referenced on January 31, 2023]. Available at: https://mexico.un.org/sites/default/files/2022-12/S2201043_es.pdf
4. Instituto Nacional de Estadística y Geografía. Número de habitantes [Internet]. 2020 [Referenced on January 31, 2023]. Available at: <https://cuentame.inegi.org.mx/monografias/informacion/son/poblacion/>
5. Grupo Banco Mundial. Esperanza de vida al nacer [Internet]. 2020 [Referenced on January 31, 2023]. Available at: <https://datos.bancomundial.org/indicador/sp.dyn.le00.in?end=2016&start=1980>
6. Gobierno de México. Transición epidemiológica y salud pública [Internet]. 2022 [Referenced on January 31, 2023]. Available at: <https://www.gob.mx/inapam/articulos/transicion-epidemiologica-y-salud-publica?idiom=es>
7. Instituto Nacional de Estadística y Geografía. Esperanza de vida [Internet]. 2020 [Referenced on January 31, 2023]. Available at: <http://cuentame.inegi.org.mx/poblacion/esperanza.aspx?tema=P>
8. Instituto Nacional de Estadística y Geografía. Información por entidad: Sonora [Internet]. 2020 [Referenced on January 31, 2023]. Available at: <http://cuentame.inegi.org.mx/monografias/informacion/son/poblacion/dinamica.aspx?tema=me&e=26>
9. Instituto Nacional de las Personas Adultas Mayores. Cuidadores y cuidadoras de personas mayores [Internet]. 2020 [Referenced on January 17, 2023]. Available at: <https://www.gob.mx/inapam/es/articulos/cuidadores-y-cuidadoras-de-personas-mayores>
10. Bedoya N, Buitrago LA, Soto M. Burnout en cuidadores formales e informales del adulto mayor. revisión integrativa de la literatura. Cult Cuid [Internet]. 2020 [Referenced on January 17, 2023]; 17(1):80-92. <https://doi.org/10.18041/1794-5232/cultrua.2020v17n1.7209>
11. Donjuan BE, Duran T, Guerra JA, Ruiz JM. Estrés, sobrecarga y espiritualidad relacionados con la calidad de vida de cuidadores de adultos mayores. Salud, Ciencia y Tecnología [Internet]. 2023 [Referenced on January 17, 2023]; 4:646. <https://doi.org/10.56294/saludcyt2024646>
12. Guerrero RF, Chávez S, Reyes BR, Acevedo MN. Reflexión sobre cuidado enfermero en la dimensión espiritual a cuidadores de adultos mayores con Alzheimer. Horiz Enferm [Internet]. 2023 [Referenced on January 17, 2023]; 34(2): 404-417. http://dx.doi.org/10.7764/Horiz_Enferm.34.2.404-417
13. Barreto LV, Cruz MG, Okuno MF, Horta AL. Associação da espiritualidade, qualidade de vida e depressão em familiares de idosos com demências. Acta Paul Enferm [Internet] 2023 [Referenced on January 17, 2023]; 36:eAPE03061.
14. Delaney C. [The Spirituality Scale: Development and Psychometric Testing of a Holistic Instrument to Assess the Human Spiritual Dimension]. J Holist Nurs. 2005; 23(2):145-167. <https://doi.org/10.1177/0898010105276180>

15. Palomar J, Gómez N. Desarrollo de una Escala de Medición de la Resiliencia con Mexicanos (RESI-M). Interdisciplinaria [Internet]. 2010 [Referenced on February 27, 2019]; 27(1):7-22. Available at: <http://www.scielo.org.ar/pdf/interd/v27n1/v27n1a02.pdf>
16. Watson J. [Human Caring Science]. Jones & Bartlett Learning; 2011.
17. Pinzón ML, Aponte LH, Galvis CR. Perfil de los cuidadores informales de personas con enfermedades crónicas y calidad de vida. Orinoquia [Internet]. 2012 [Referenced on November 22, 2020]; 16(2):107-117. Available at: <https://www.redalyc.org/articulo.oa?id=89626049008>
18. Raile M. Modelos y teorías en Enfermería. Barcelona, España: ELSEVIER; 2015.
19. Del Ángel JE, León RC, Méndez G, Peñarrieta I, Flores F. Relación entre sobrecarga y competencias del cuidar en cuidadores informales de personas con enfermedades crónicas. MedUNAB [Internet]. 2020 [Referenced on January 17, 2023]; 23(2): 233-241. <https://doi.org/10.29375/01237047.3878>
20. Instituto Nacional de Estadística y Geografía. Demografía y sociedad [Internet]. 2020 [Referenced on January 17, 2023]. Available at: <https://www.inegi.org.mx/temas/religion/>
21. Castañeda T, Guerrero RF. Espiritualidad en adultos mayores hospitalizados, oportunidad de cuidado para enfermería: aproximación cuantitativa. Rev Cuid [Internet]. 2019 [Referenced on January 17, 2023]; 10(3):1-11. <https://doi.org/10.15649/cuidarte.v10i3.724>
22. Araújo R, De Oliva TM, Barbosa L, Bastos HCG, Santos MG, Araújo F. [Spirituality and religiosity in the experience of suffering, guilt and death of the elderly with cancer]. Rev Bras Enferm [Internet]. 2020 [Referenced on January 17, 2023]; 73(Suppl 3):1-7. <https://doi.org/10.1590/0034-7167-2019-0034>
23. Debate. La principal causa de cáncer en Sonora son los malos hábitos alimenticios [Internet]. 2017 [Referenced on February 25, 2019]. Available at: <https://www.debate.com.mx/mexico/La-principal-causa-de-cancer-en-Sonora-son-los-malos-habitos-alimenticios-20170807-0348.html>
24. Bórquez P, Romero C. El paciente oncológico geriátrico. Rev Chil Cir [Internet]. 2007 [Referenced on November 19, 2020]; 59(6):467-471. Available at: <https://scielo.conicyt.cl/pdf/rchcir/v58n6/art15.pdf>
25. López M, Aranco N. Envejecimiento y atención a la dependencia en México. BID [Internet]. 2019 [Referenced on November 19, 2020]; 15-20. Available at: https://gerontologia.org/portal/archivosUpload/uploadManual/BID_Envejecimiento_y_atencion_a_la_dependencia_en_Mexico.pdf
26. Gobierno de México. Calidad de vida para un envejecimiento saludable [Internet]. 2021 [Referenced on January 31, 2023]. Available at: <https://www.gob.mx/inapam/es/articulos/calidad-de-vida-para-un-3envejecimiento-saludable?idiom=es>
27. Cortés JE, Flores PE, Gómez CA, Reyes KS, Romero LA. Resiliencia y su relación con estilos de vida de los adultos mayores autovalentes. Cienc Enferm [Internet]. 2012 [Referenced on January 31, 2023]; 18(3):73-81. <http://dx.doi.org/10.4067/S0717-95532012000300008>

ISSN 1695-6141

© COPYRIGHT Servicio de Publicaciones - Universidad de Murcia