

RESEARCH

Characterization of informal caregivers of older adults in COVID-19 pandemic situation in Tamaulipas, Mexico

Caracterización de los cuidadores informales de adultos mayores en situación de pandemia por COVID-19 en Tamaulipas, México

Caracterização de cuidadores informais de adultos mais velhos na situação pandémica da COVID-19 em Tamaulipas, México

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Abstract

Introduction: COVID-19 mitigation measures increased the need for informal caregiving among older adults; characterizing caregivers will enable the development of strategies to support caregivers during the contingency. **Objective:** To describe the socio-demographic and health characteristics of informal caregivers of older adults, aspects of caregiving, and access to technology during the COVID-19 pandemic. **Methodology:** Cross-sectional descriptive study of 52 informal caregivers identified by snowball sampling. Unpaid caregivers over 18 years of age were included. Data were collected online, using a specially designed data form. Frequencies, percentages and measures of central tendency were calculated. **Results:**

67% were women, married (36%), Catholics (73.1%), with an average age of 37 years and 13 years of schooling. Thirty-six percent were engaged in the home and 21.2% were students. Seventy-three percent did not suffer from chronic diseases and slept 7 hours a day, dedicating 9.4 hours a day to care for people. Care by children predominated in 35%, who did not live with the older adult (54%), sharing the care with other people in 83%, 79% had no training and only 21.2% received training by nurses. 63% received information on COVID-19 prevention and 96% had internet at home. **Conclusions:** The informal caregiver is characterized by women with an average age of 37 years, high schooling and apparently healthy; which require guidance by nurses to perform care during the contingency.

Key words: Caregivers; Elderly; Coronavirus infections (DeCS).

Resumen

Introducción: Las medidas de mitigación por COVID-19 incrementaron la necesidad de cuidado informal en los adultos mayores; caracterizar a los cuidadores permitirá desarrollar estrategias que apoyen a los proveedores de cuidado durante la contingencia. **Objetivo:** Describir las características sociodemográficas y de salud de los cuidadores informales de adultos mayores, aspectos sobre el cuidado y acceso a la tecnología durante la pandemia por COVID-19. **Metodología:** Estudio descriptivo transversal, en 52 cuidadores informales identificados mediante un muestreo por bola de nieve. Se incluyeron cuidadores mayores de 18 años no remunerados. Los datos se recolectaron en línea, mediante una cédula de datos elaborada exprofeso. Se calcularon frecuencias, porcentajes y medidas de tendencia central. **Resultados:** El 67% eran mujeres, casadas (36%), católicas (73.1%), con un promedio de 37 años de edad y 13 años de escolaridad. El 36% se dedicaba al hogar y 21.2% eran estudiantes. El 73% no padecían enfermedades crónicas y dormían 7 horas diarias, dedicando 9.4 horas diarias al cuidado de las personas. Predominó el cuidado por hijos en 35%, que no vivían con el adulto mayor (54%), compartiendo el cuidado con otras personas en 83%, el 79% no tenían ningún tipo de capacitación y solo un 21.2% recibió capacitación por enfermeras. El 63% recibió información sobre prevención de COVID-19 y 96% tenía internet en su hogar. **Conclusiones:** El cuidador informal se caracteriza por mujeres con un promedio de 37 años de edad, escolaridad alta y aparentemente sana; las cuales requieren orientación por enfermería para desempeñar el cuidado durante la contingencia.

Palabras clave: Cuidadores; Adulto mayor; Infecciones por coronavirus (DeCS).

Abstrato

Introdução: As medidas de mitigação da COVID-19 aumentaram a necessidade de cuidados informais entre os idosos; caracterizar os cuidadores possibilitará o desenvolvimento de estratégias de apoio aos cuidadores durante a contingência. **Objetivo:** Descrever as características sociodemográficas e de saúde de cuidadores informais de idosos, aspectos do cuidado e acesso à tecnologia durante a pandemia de COVID-19. **Metodologia:** Estudo descritivo transversal com 52 cuidadores informais identificados por amostragem bola de neve. Foram incluídos cuidadores não remunerados maiores de 18 anos. Os dados foram coletados on-line, usando um formulário de dados especialmente elaborado. Foram calculadas

frequências, porcentagens e medidas de tendência central. **Resultados:** 67% eram mulheres, casadas (36%), católicas (73,1%), com idade média de 37 anos e 13 anos de escolaridade. Trinta e seis por cento trabalhavam em casa e 21,2% eram estudantes. Setenta e três por cento não sofriam de doenças crônicas e dormiam 7 horas por dia, dedicando 9,4 horas por dia para cuidar das pessoas. O cuidado por crianças predominou em 35%, que não residia com o idoso (54%), dividindo o cuidado com outras pessoas em 83%, 79% não possuíam capacitação e apenas 21,2% receberam capacitação por enfermeiros. 63% receberam informações sobre prevenção da COVID-19 e 96% tinham internet em casa. **Conclusões:** O cuidador informal caracteriza-se por mulheres com idade média de 37 anos, escolaridade elevada e aparentemente saudáveis; que necessitam de orientação do enfermeiro para realizar o cuidado durante a contingência.

Palavras-chave: Cuidadores; Idoso; Infecções por coronavírus (DeCS).

Introduction

At the end of December 2019, a new infectious coronavirus disease (COVID-19) emerged in the city of Wuhan, China, which rapidly spread to all continents causing a pandemic⁽¹⁾. This disease produces mild respiratory symptoms such as fever, cough and fatigue and in severe cases pneumonia and respiratory failure⁽²⁾. Although it can occur at any age, scientific evidence shows that the risk of severe symptoms increases in older adults (OA)^(3,4).

The elderly are one of the most affected population groups, with the highest morbidity and mortality rates due to COVID-19⁽⁵⁾. In Mexico up to September 2021, there were 3,433,511 total cases of COVID-19, of which 257,207 correspond to women aged 60 years or older and 284,367 to men aged 60 years or older⁽⁶⁾. In addition, a total of 258,491 total deaths from COVID-19 are reported, with the groups over 60 years of age again showing the highest mortality rates⁽⁷⁾. Therefore, in an attempt to reduce the number of infections and deaths, a strict home contingency was established for people aged 60 years and older.

Social isolation measures increased the need of the OA for an informal caregiver⁽⁸⁾. Results from a study in China report that a quarter of the population started as informal caregivers during the COVID-19 pandemic. Because reliable access to food, money, and basic supplies is difficult especially for OAs, and



with the closure of day care centers and adult care centers, informal caregivers are the primary caregivers during the health contingency^(9,10).

According to the literature, it is known that the informal caregiver has a characteristic profile and is the one who performs the activities that the primary caregiver cannot carry out, without receiving financial remuneration ⁽¹¹⁾. Usually the caregiver is a woman, who lives with the person under her care and with a primary kinship (spouse, siblings and/or children)^(12,13). Although the characteristics of the informal caregiver are known, social distancing, economic changes, and the need for care within the household may have changed the profile of caregivers during the COVID-19 pandemic.

In addition, during the contingency, informal caregivers modified their sleeping habits, diet, exercise and social activities, increasing the risk of developing overweight, obesity, anxiety and/or depression⁽⁹⁾. Characterizing informal caregivers will allow nursing professionals to identify inadequate health behaviors, provide recommendations for self-care and care of the elderly. Therefore, the objective of this study was to describe the socio-demographic and health characteristics of informal caregivers of the elderly, as well as aspects of care and access to technology during the COVID-19 pandemic.

Methodology

Cross-sectional descriptive study, the population was 52 informal caregivers of OA in Nuevo Laredo, Tamaulipas. Identified through non-probabilistic snowball sampling. Inclusion criteria were being 18 years of age or older, currently being in charge of the care of a person ≥ 60 years old and not receiving economic remuneration for caregiving.

A data collection questionnaire of 29 items was used to collect the data. The sociodemographic variables investigated were: age, sex, years of schooling, marital status, occupation and religion. Data on the health profile included questions on diseases suffered, number of medications consumed and hours of sleep. Subsequently, caregiving characteristics were questioned, such as: kinship relationship, living with the OA,

sharing caregiving, hours dedicated to caregiving, caregiving training, and information on COVID-19 prevention. Finally, access to and use of technological devices in the home was investigated.

Prior to data collection, approval was obtained from the Ethics and Research Committee of the UANL School of Nursing: FAEN-D-1585. In accordance with the Regulations of the General Health Law on Health Research⁽¹⁴⁾, the study was considered a risk-free research (article 17), the confidentiality of the participants was assured by assigning a folio to the forms (article 16), and written informed consent was provided to the participants (articles 20 and 21).

Data collection was done electronically using Google forms, during the months of October to December 2020. Initially, a digital invitation was prepared informing the objective of the study, participation requirements, possible risks, contact details and electronic link to the questionnaire. Afterwards, the invitation was sent to potential participants via private message on social networks; those subjects who agreed to participate were asked to enter the electronic link. On opening the link, the informed consent form was displayed, and after participants were informed of the objective, the risks and the freedom to discontinue their participation in the study whenever they wished, they had to select the option of accepting or not accepting to participate in the study. Then the questionnaire appeared, which had an average response time of 10 minutes.

The data were processed and analyzed in the Statistical Package for the Social Sciences (SPSS) version 20. Descriptive statistics, frequencies, percentages and measures of central tendency were used to respond to the study objective.

Results

Fifty-two caregivers participated, 67.3% were women, the average age was 37 years (SD = 17.8) and the average formal education was 13 years (SD = 5.2). 36.5% were married and single respectively, 17.3% were widowed and 9.6% were in common-law unions. Slightly more than half of the participants (59.6%) reported being employed. Of the caregivers, 36.5% were engaged in housework, 21.2% were students and



nurses, respectively, and 7.6% were teachers. Of the caregivers, 73.1% were Catholics, 21.2% were Christians, 3.8% had no religion and 1.9% were other.

Regarding the caregivers' health profile, the majority (73.1%) reported not suffering from any chronic disease; the most frequent diseases were type 1 diabetes mellitus (9.6%) and other diseases (11.5%) such as migraine, osteoporosis, hypothyroidism and asthma, followed by arterial hypertension (3.8%) and heart disease (1.9%). On average, caregivers consumed one medication (SD = 1.3 medication per day, slept 7 (SD = 1.9) hours per day, and spent 9.4 (SD = 6.4) hours per day caring for the older adult.

Just over a third (34.6%) of the caregivers were children, followed by grandchildren (26.9%) and friends/neighbors (24.9%). A total of 53.8% of the caregivers did not live with the older adult, and 83% shared the care with other people. 71.2% of caregivers did not receive caregiving training and only 21.2% received training by nurses. More than half (63.5%) received information on COVID-19 prevention, which was obtained from the Internet (19.2%) and by health personnel respectively (Table 1).

Regarding access to technological devices during the COVID-19 pandemic, 51.9% of the study participants had a television, computer and/or cellular phone at home. Of the caregivers, 96.2% had internet at home, of which 82.7% had a wireless connection and 13.5% had a cell phone connection (data). 32.7% reported using social networks such as facebook, whatsapp, instagram and youtube with ease. The majority of caregivers (73.1%) reported using social networks to keep in touch with friends and family, 15.5% to check news, 5.8% to share videos or photographs and to consult information simultaneously.

Table 1. Descriptive data associated with older adult care (n= 52).

Variable	<i>f</i>	%
Caregiver's kinship relationship		
Son or daughter	18	34.6
Grandchild	14	26.9
Friend or neighbor	13	24.9
Daughter-in-law/son-in-law	4	7.7
Nephew	2	3.8
Brother-in-law	1	1.9
Lives with the elderly		
Yes	24	46.2
No	28	53.8
Share care with others		
Yes	43	82.7
No	9	17.3
Received care training		
Yes	15	28.8
No	37	71.2
Training type		
None	41	78.8
Mobilization	5	9.6
Bathing, diet and positions	3	5.8
Medications	2	3.8
Peritoneal dialysis	1	1.9
Person who trained you		
Nobody	37	71.2
Nurse	11	21.2
Physician/Therapist	4	7.6
Received information on prevention from COVID-19		
Yes	33	63.5
No	19	36.5
COVID-19 Source of information		
Nobody	19	36.5
Internet	10	19.2
Health personnel	10	19.2
TV	5	9.6
Work	4	7.6
Brochures	3	5.8
Family members	1	1.9

Source: Results of the data compilation.

Discussion

Regarding the socio-demographic characteristics, a predominance of the female sex was found, this data coincides with the findings of national and international studies carried out before and during the



pandemic ^(15,16,17), where it is observed that more than half of the informal care is provided by women and more in times of COVID-19 ⁽¹⁸⁾. Although it is confirmed that women continue to be in charge of caregiving, the number of men in the study was higher than reported in other research ^(16,19), which indicates a greater gender balance among caregivers and could be attributed to the increase in caregiving needs during the health contingency.

The average age of caregivers was 37 years, lower than reported in the international literature (20,21). However, this finding is consistent with the results of a study conducted in China, which confirms that younger adults are more likely to be informal caregivers during the COVID-19 pandemic ⁽¹⁵⁾. This is due to confinement and home-based academic and work activities.

The average schooling was higher than that reported in a study that mentioned a schooling of 1 to 4 years of study ⁽²²⁾. This data is congruent with a study carried out on informal caregivers in Austria ⁽²³⁾, where the people who began to provide care during the contingency have more education than continuous caregivers.

Regarding the variables of marital status, occupation and religion, it was found that the caregivers were mostly married, dedicated to housework and Catholic, similar to the results obtained in various studies ^(16, 24,25).

In relation to the health characteristics of the participants studied, it was reported that more than half of the caregivers did not have chronic diseases; this data differs from the findings of other authors ^(26,27), where more than half of the caregivers had at least one chronic disease. However, this could be attributed to the fact that in our study the caregivers were younger and that caregivers with chronic diseases probably stopped providing care during the pandemic because they, like the OAs, are considered an at-risk population.

The average number of hours of sleep was 7 hours per day, which coincides with a national study ⁽²⁸⁾ where a mean of 6.7 hours was reported. This meant that the caregivers did not have adequate rest due to the workload, since the duration of sleep was below the recommended daily hours.

According to the characteristics of caregiving, it was found that the main caregivers are the sons and daughters, similar to what was reported in a study of informal caregivers in Mexico ⁽²⁹⁾. An important finding was that grandchildren, friends and neighbors have a very similar participation in caregiving responsibilities as sons and daughters. This indicates that during the pandemic, care is not necessarily provided by a family member, but by the person who has safe access to the older adult.

It was found that a large proportion of the participants did not receive training in caregiving, similar to what has been reported in other studies ^(30,31). These results confirm that caregivers provide care based on their experience, which not only indicates a risk to the quality of care provided, but also a risk to the physical and mental health of the caregiver.

Most caregivers obtained information on COVID-19 prevention through various sources, including the Internet, health personnel, and television. Although no studies were found that analyzed this variable, one study reported that half of the informal caregivers believed they had sufficient knowledge to manage the additional risk caused by coronavirus ⁽¹⁵⁾. This shows that among the main sources of information on COVID-19 prevention are the Internet and television, being a great opportunity for nursing professionals to orient and provide information to informal caregivers on communication channels, telephone numbers or websites of private health coverage that can provide remote care and support for daily tasks during the contingency ⁽³²⁾.

Regarding access to and use of technological devices, almost all caregivers had internet access, one or more technological devices at home and easily managed social networks, which differs from what is reported in the literature ⁽⁹⁾. This indicates that informal caregivers have the necessary tools and skills to receive virtual training on topics such as routine care, prevention of COVID-19 infection, design and



implementation of cleaning and disinfection protocols in the home, early detection of symptoms of COVID-19 infection, and orientation in taking vital signs ⁽³³⁾. However, this data could be biased because the subjects required internet and an electronic device to participate in the study.

Conclusions

The findings determined that informal caregivers are women with an average age of 37 years, high schooling and apparently healthy. The characteristics that stood out were; a greater gender balance, younger caregivers and higher academic preparation. Although sons, daughters and grandchildren continue to be in charge of caregiving, one third of the care is provided by others not related such as; daughters-in-law, sons-in-law, nephews, nieces, brothers-in-law, friends or neighbors of the older adult.

The absence of caregiver training on usual care emphasizes the need for nursing professionals to seek strategies that support the informal caregiver despite social distancing, in order to ensure the quality of care provided to the older adult, as well as adequate risk management for COVID-19 and future health emergencies.

Informal caregivers have electronic devices such as television, computer and cell phone in their homes and access to the internet and make use of social networks for communication, watching news and consulting information. This is a great opportunity to promote virtual education to caregivers on aspects of care needed for their family members, friends or person in need of care and for caregiver self-care. And in times of pandemic it is critical that caregivers have information to be able to perform care and care for themselves. Nursing professionals need to be responsible for the information circulating on social media to ensure that it is correct.

The main limitation was not having access to health institutions for recruitment and data collection due to social distancing measures. Another limitation was that recruitment was based on social networks, so caregivers who did not have access to these resources could not participate.

For future research, it is recommended to include psychosocial variables, such as the level of stress, anxiety and caregiver overload. As well as an analysis by groups; those who provided care before and those who assumed caregiving responsibilities during the COVID-19 pandemic.

Conflicts of interest

The authors stated that they have no conflicts of interest in relation to the article.

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