






Risk factors associated with overload in informal caregivers of prostrate older adults

Factores de riesgo asociados a la sobrecarga en cuidadores informales de adultos mayores postrados

Fatores de risco associados à sobrecarga em cuidadores informais de idosos acamados

Annalie Fidelina Rondón-Vázquez^I , Adel Elio Peña-Carballosa^I , Nuris Nilda Almaguer-Cruz^I ,
Ricardo Lorenzo Mora-Betancourt^{II*} , Yunior Morales-Ricardo^{III} 

^I Policlínico Docente "Rubén Batista Rubio". Holguín, Cuba.

^{II} Dirección Municipal de Salud Cacocum. Holguín, Cuba.

^{III} Universidad de Holguín. Holguín, Cuba.

*Corresponding author: rlmora@infomed.sld.cu

Received: 30-12-2022 Accepted: 06-03-2023 Published: 24-03-2023

ABSTRACT

Introduction: population aging is one of the most important phenomenon of the 21st century. Research on this subject is becoming more and more necessary every day. **Objective:** to determine the risk factors associated with overload in informal caregivers of bedridden older adults in the health area of Cacocum, Holguín, year 2022. **Method:** a cross-sectional descriptive observational study was carried out in Cacocum, Holguín, from July 5, 2021 to August 29, 2022. A total of 129 caregivers of bedridden older adults (N=129) were selected as the study's population and the sample consisted of 106 informal caregivers (n=106), obtained by non-probability purposive sampling. The Zarit Scale was used to determine factors associated with overload in caregivers. Variables studied were as follow: age, sex, educational level, daily hours dedicated to caregiving, relationship between the caregiver and the patient, and the

manifestations of overload in caregivers. **Results:** there was predominance in the age group of 60 to 69 years and female sex. Caregivers with twelfth grade of education and manifestations of overload were predominant. There was a predominance of caregivers with family ties and a significant relationship with the patient. Predominated caregivers who spent an average of 18 hours per day in the care of the patients, and the caregivers who had spent 3 to 4 years in caregiving; a significant relationship with overload was found. **Conclusions:** the relationship established between the caregivers and patients in terms of filial relationship and the years spent in the care provided to the patient were the factors most associated with the development of overload.

Keywords: associated factors; overload; informal caregivers; older adult; Zarit scale

RESUMEN

Introducción: el envejecimiento de la población es uno de los más importantes fenómenos del siglo XXI. Cada día se hacen más necesarias las investigaciones respecto a este tema. **Objetivo:** determinar los factores de riesgo asociados a la sobrecarga en cuidadores informales de adultos mayores postrados del área de salud de Cacocum, Holguín, en el año 2022. **Método:** se realizó un estudio observacional descriptivo transversal, en el municipio Cacocum, Holguín, desde el 5 de julio de 2021 hasta el 29 de agosto de 2022. El universo estuvo constituido por 129 cuidadores de adultos mayores postrados (N=129) y la muestra por 106 cuidadores informales (n=106), obtenida por muestreo no probabilístico intencional. Para determinar la sobrecarga de los cuidadores se utilizó la escala de Zarit. Las variables estudiadas fueron: edad, sexo, nivel educacional, promedio de horas diarias dedicadas al cuidado del enfermo, vínculo del cuidador con el enfermo y presencia de sobrecarga del cuidador. **Resultados:** predominó el grupo de edad de 60-69 años y el sexo femenino. Predominaron los cuidadores con el duodécimo grado y los sobrecargados. Existió un predominio de cuidadores con vínculo familiar y una relación significativa con la sobrecarga. Predominaron los cuidadores que dedicaban 18 horas como promedio al día al cuidado del enfermo y existió un predominio de cuidadores que habían dedicado de 3 a 4 años al cuidado del enfermo, se halló una relación significativa con la sobrecarga. **Conclusiones:** el vínculo del cuidador con el enfermo en cuanto a relación filial y los años dedicados al cuidado del mismo fueron los factores más asociados con el desarrollo de sobrecarga.

Palabras clave: factores asociados; sobrecarga; cuidadores informales; adulto mayor; escala de Zarit

RESUMO

Introdução: o envelhecimento populacional é um dos fenômenos mais importantes do século XXI. A pesquisa sobre esse tema está se tornando cada dia mais necessária. **Objetivo:** determinar os fatores de risco associados à sobrecarga em cuidadores informais de idosos acamados na área de saúde de Cacocum, Holguín, no ano de 2022. **Método:** estudo observacional descritivo transversal realizado no município de Cacocum, Holguín, de 5 de julho de 2021 a 29 de agosto de 2022. O universo foi constituído por 129 cuidadores de idosos acamados (N=129) e a amostra por 106 cuidadores informais (n=106), obtida por amostragem intencional não probabilística. Para determinar a sobrecarga dos cuidadores foi utilizada a escala de Zarit. As variáveis estudadas foram: idade, sexo, escolaridade, média de horas diárias dedicadas ao cuidado do paciente, vínculo entre cuidador e paciente e presença de sobrecarga do cuidador. **Resultados:** predominou a faixa etária de 60 a 69 anos e o sexo feminino. Houve predominância de cuidadores com ensino médio completo e sobrecarregados. Houve predomínio de cuidadores com vínculo familiar e uma relação significativa com sobrecarga. Houve predominância de cuidadores que gastam em média 18 horas por dia cuidando do paciente e predominância de cuidadores que passaram de 3 a 4 anos cuidando do paciente, sendo encontrada relação significativa com a sobrecarga. **Conclusões:** o vínculo do cuidador com o paciente em termos de relação filial e os anos dedicados ao cuidado do paciente foram os fatores mais associados ao desenvolvimento de sobrecarga.

Palavras-chave: fatores associados; sobrecarga; cuidadores informais; idoso; escala Zarit

How to cite this article:

Rondón-Vázquez AF, Peña-Carballosa AE, Almaguer-Cruz NN, Mora-Betancourt RL, Morales-Ricardo Y. Risk factors associated with overload in informal caregivers of prostrate older adults. Rev Inf Cient. 2023; 102:4096. DOI: <https://doi.org/10.5281/zenodo.7767632>



INTRODUCTION

The aging of the population is one of the most important phenomena of the 21st century, since it brings profound changes in social, economic and cultural structures; a situation already experienced in developed countries where those over 60 years of age reach rates of 15% to 20% of the general population.⁽¹⁾

Worldwide, between 2015 and 2030, the population aged 60 and over will increase from 900 million to more than 1.4 billion people. This represents an increase of 64% in just 15 years, making it the fastest growing age group. In relative terms, the percentage of the population aged 60 and over will rise from 12.3% in 2015 to 16.4% in 2030.⁽²⁾

In the European Union, people aged 65 and over now represent one fifth of the bloc's population, while the number of people aged 80 and over has doubled in the last two decades, from 3% in 2001 to 6%. Meanwhile, the number of younger people has decreased from 23% in 2001 to 20% in 2021.⁽²⁾

Latin America and the Caribbean will experience a rapid change in its demographic structure in the coming decades. The ratio of people over 65 to younger adults and the old-age dependency ratio will increase by 11 and 14 percentage points over the next three decades, respectively. In this context, economic growth and public accounts are likely to suffer. But the consequences of population aging may be less worrisome than a measure such as the dependency ratio would suggest.⁽³⁾

Similarly, the Cuban population has experienced a simultaneous reduction in the percentage of people under 15 years of age, as opposed to an increase in the relative amount of the population aged 60 and over. By the end of 2021, people aged 60 years and over represented 21.6% of the total.⁽⁴⁾

In 2020, in Holguín province, there were 217,919 people over 60 years of age, 103,583 men and 114,336 women. The municipality of Cacocum had 8,054 of them.⁽⁵⁾

In the health area of Cacocum there are 3,543 older adults, of which 413 have diabetes mellitus, 2077 have arterial hypertension, 9 have chronic renal disease, 98 have stroke disease, 162 have physical-motor disabilities, 21 have visual disabilities, 74 have cancer and 129 are bedridden; which creates disability and different degrees of dependency of older adults.⁽⁶⁾

The realization of a descriptive study that allows knowing the characteristics of informal caregivers in charge of bedridden patients is novel because, besides not having been carried out before in this health area, it would constitute a useful tool at the moment of giving a differentiated attention to this risk group, which due to the work they perform have a higher risk of getting sick because of the overload they suffer.

Therefore, a study is carried out with the objective of determining the risk factors associated to the overload of informal caregivers of bedridden older adults in the health area of Cacocum, Holguin, in the period between July 5, 2021 and August 29, 2022.



METHOD

An observational, descriptive, cross-sectional study was carried out in patients of the health area corresponding to the Policlínico Docente "Rubén Batista Rubio", Cacocum municipality, Holguín province, with the objective of determining the risk factors associated to the overload of informal caregivers of bedridden elderly adults in the health area of this municipality, in the period between July 5, 2021 and August 29, 2022.

The population consisted of all caregivers of bedridden older adults (N = 129), from which a sample of 106 informal caregivers was obtained by non-probabilistic purposive sampling (n = 106).

Inclusion criteria: belonging to the Cacocum health area, being direct caregivers of bedridden older adults, performing the task of caregiver for more than one year and voluntariness to participate in the study.

Exclusion criteria: those caregivers who occupy the position of health social worker.

To determine the overload of the caregivers under study, the Zarit scale⁽⁷⁾ for measuring overload and the need for professional support for formal and informal caregivers was used, which is considered a self-administered psychometric test with an objective rating consisting of 22 items. This scale measures the perceived burden through three main components: impact of caregiving, interpersonal burden and self-efficacy expectations; these being the three main components to identify caregiver burden.

It has 5 response alternatives ranging from Never (0) to Almost always (4). The total score is the sum of all items, the range is from 0 (minimum score) to 88 (maximum score). This test has a sensitivity of 100%, specificity of 90.5%, and positive predictive value of 95.4% and negative predictive value of 100% for determining caregiver overload.

The degree of caregiver overload was identified and scored as follows: absence of overload (≤ 46 points); presence of overload (≥ 47 points).

The variables studied were: age, sex, educational level, average daily hours spent caring for the patient, caregiver's bond with the patient and presence of caregiver overload.

The data obtained were analyzed and processed using the methods and procedures of descriptive statistics: distribution of simple frequencies, absolute numbers and percentages. A database was created with the help of Microsoft Excel (Office, 2010) and then, using the SPSS program for Windows, version 28, the corresponding statistic was obtained.

The ethical principles of research according to the Declaration of Helsinki and those established by the International Ethics Commission were taken into account. The confidentiality of the data collected from the Zarit scale for measuring overload and the need for professional support for formal and informal caregivers was maintained.



RESULTS

Table 1 shows the distribution of informal caregivers of bedridden older adults according to age and sex, where a predominance of the 60-69 age group was observed with a total of 35 caregivers (33.0 %) and of females in all age groups.

Table 1. Informal caregivers of bedridden older adults according to age and sex

Age groups	Masculine		Feminine		Total	
	No.	%	No.	%	No.	%
30 - 39 años	1	5,26	9	10,34	10	9,43
40 - 49 años	1	5,26	18	20,68	19	17,92
50 - 59 años	6	31,57	28	32,18	34	32,07
60 - 69 años	9	47,36	26	29,88	35	33,01
70 y más	2	10,52	6	6,89	8	7,54
Total	19	17,92	87	82,07	106	100,00

Source: own elaboration.

Regarding the level of schooling and presence of overload, the highest values were observed in caregivers who passed the twelfth grade, with a total of 42 for 39.6%, while the number of overloaded caregivers were 99, making a 93.4%. The statistic showed that there was no statistically significant relationship between the level of schooling and the presence of overload (Table 2).

Table 2. Informal caregivers of bedridden older adults according to level of schooling and presence of overload

Schooling level	Overload presence		Absence of overload		Total	
	No.	%	No.	%	No.	%
Sixth grade	3	3,03	-	-	3	2,83
Ninth grade	26	26,26	1	14,28	27	25,47
Medium technician	9	9,09	2	28,57	11	10,37
Twelfth grade	40	40,40	2	28,57	42	39,62
University	21	21,21	2	28,57	23	21,69
Total	99	93,39	7	6,60	106	100,00

Source: own elaboration.

$\chi^2 = 0.459$ (Significant value when compared with the other group Pearson's chi-square, $\alpha = 0.05$).

Table 3 shows the distribution of informal caregivers of bedridden older adults according to the caregiver's relationship with the patient and the presence of overload. It is clear that the greatest number of caregivers have a family relationship with the patient, with a total of 101, or 95.3%. The statistic showed a statistically significant relationship between the caregiver's relationship with the patient and the presence of overload.

Table 3. Informal caregivers of bedridden older adults, according to the caregiver's relationship with the patient and the presence of overload

Caregiver's link with the patient	Overload presence		Absence of overload		Total	
	No.	%	No.	%	No.	%
Familiar	96	96,96	5	71,42	101	95,28
No familiar	3	3,03	2	28,57	5	4,71
Total	99	93,39	7	6,60	106	100,00

Source: own elaboration.

X²= 0.01 (Significant value when compared with the other group Pearson's chi-square, $\alpha=0.05$).

According to the average number of hours per day dedicated to the care of the patient and the presence of overload (Table 4), there was a predominance of caregivers who dedicated an average of 18 hours per day to the care of the patient, comprising 38 caregivers for 35.8%. The statistic showed that there was no statistically significant relationship between the average number of hours per day dedicated to caregiving and the presence of caregiver overload.

Table 4. Informal caregivers of bedridden older adults according to the average number of hours per day dedicated to caregiving and the presence of overload

Average hours per day spent on caregiving	Overload presence		Absence of overload		Total	
	No.	%	No.	%	No.	%
5,5	31	31,31	2	28,57	33	31,13
9,5	31	31,31	4	57,14	35	33,01
18	37	37,37	1	14,28	38	35,84
Total	99	93,39	7	6,60	106	100,00

Source: own elaboration.

X²= 0.301 (Significant value when compared with the other group Pearson's chi-square, $\alpha=0.05$).

Table 5 shows the distribution of informal caregivers of bedridden older adults according to years dedicated to caregiving and presence of overload. It shows that 63 caregivers (59.4%) had dedicated 3 to 4 years to the care of the patient, followed by those of 5 years and more, composed of 35 (33.01%). The statistic showed that there was perfect concordance between the number of years dedicated to caregiving and the presence of overload.

Table 5. Informal caregivers of bedridden older adults according to years dedicated to caregiving and presence of caregiving overload

Years dedicated to patient care	Overload presence		Absence of overload		Total	
	No.	%	No.	%	No.	%
1-2 años	5	5,05	3	42,85	8	7,54
3-4 años	59	59,59	4	57,14	63	59,43
5 y más	35	35,35	-	-	35	33,01
Total	99	93,39	7	6,60	106	100,00

Source: own elaboration.

X²= 0.00 (Significant value when compared with the other group Pearson's Chi-square, $\alpha=0.05$).



DISCUSSION

The results found in a study carried out by Pérez Cruz, *et al.*⁽⁸⁾ on family caregivers of dependent elderly in a medium-long stay hospital in Spain in the year 2020, coincide with the present research in that the greatest probability of carrying out the position of caregiver is a woman between 50 and 59 years of age.

Ossa Pérez,⁽⁹⁾ in a study conducted about overload and stress in family caregivers of elderly people in Colombia in 2018, states that it seems that having a higher level of schooling is a risk factor for presenting burnout syndrome due to overload, a result congruent with the present research.

The results found in a study by Soriano-Ursúa, *et al.*⁽¹⁰⁾ show that it is most common for caregivers and patients to live together, which is consistent with the present research, considering that living with the patient generates fewer opportunities for respite, involves caring for more demanding health conditions, involves the dedication of more hours of care, particularly at night, takes away much more from spaces for socialization, which facilitates isolation and, on many occasions, even requires giving up work.

Hernandez Ulloa, *et al.*⁽¹¹⁾ in a study on dementia and risk factors of informal caregivers in Havana and Matanzas in 2018, states that within the socio-cultural factors, some cognitive barriers that negatively influence caregivers who live with bedridden older adults are especially relevant. The authors believe that living with the patient generates greater affectivity and dedication to care, with the consequent overload.

In the study conducted by Bello Carrasco, *et al.*⁽¹²⁾ to caregivers of geriatric patients in Ecuador in 2019, the hours dedicated to daily care were: 24 hours the 55.56%, from 8 to 12 hours the 33.33% and from 4 to 8 hours the 11.11% of the caregivers studied, which coincides with the results of the present study, because most caregivers live with bedridden older adults and that implies a greater number of hours per day to care for the patient, with compromise of the socio-affective sphere and the development of overload.

Callís Fernández, *et al.*⁽¹³⁾ in their study about overload in caregivers of older adults with dementia in 2021, recorded that the average number of hours per day devoted to care is high, which coincides with the present study; precisely the constant supervision where the caregiver devotes most of the time, which explains the hindrance to their social life. The more time is dedicated to the patient in 24 hours, the greater the burden that these caregivers will present.

Carreño Moreno, *et al.*⁽¹⁴⁾ in their study on caregiving skills and overload in family caregivers of people with chronic disease in 2016, in relation to the dedication to caregiving, observed that most caregivers had been caring for their relatives for more than 37 months and that the overload of caregivers shows to respond to factors related to sex, degree of kinship and years of caregiving, which also coincides with this research.



The authors believe that the duration of the morbid processes faced by the patients is closely related to the time dedicated to their care. These processes are usually neurodegenerative, with long life expectation with good care. This coincides with the results obtained by Luengo Martínez, *et al.*⁽¹⁵⁾ in a study carried out in Chile in 2010 on 98 caregivers of bedridden adults, which states that with respect to the variable time in charge of the bedridden user, most of them have been caring for him for more than 1 year.

Knowledge of the fundamental factors associated with the overload of informal caregivers of bedridden older adults will make it possible to devise strategies to eradicate overload and achieve optimal care of the patient

One of the limitations of the study was the insufficient dispensarization of the population of informal caregivers of bedridden older adults, which made it impossible to study a larger sample.

CONCLUSIONS

The caregiver's bond with the patient in terms of filial relationship and the years spent caring for the patient were the factors most associated with the development of caregiver overload.

REFERENCES

1. Cardona D, Segura AM, Berbesí DY, Agudelo MA. Prevalencia y factores asociados al síndrome de sobrecarga del cuidador primario de ancianos. *Rev Fac Nac Salud Pú* [Internet]. 2013 May [cited 20 Mar 2021]; 31(1):30-9. DOI: <https://doi.org/10.17533/udea.rfnsp.12411>
2. Eurostat Statistics Explained. Estructura demográfica y envejecimiento de la población. ec.europa.eu, 2020. [cited 15 Mar 2022]. Disponible en: <https://bit.ly/40hhuKH>
3. Andres Roman D. Latinoamérica y el Caribe están envejeciendo, pero los pronósticos pueden ser mejores de lo esperado. *blogs.lse.ac.uk*; 2022. [cited 20 Oct 2022] Disponible en: <https://blogs.lse.ac.uk/latamcaribbean/2022/02/17/envejecimiento-latinoamerica-caribe-mejor-esperado/>
4. ONEI. El envejecimiento de la población. Cuba y sus territorios 2021. Centro de estudios de población y desarrollo. La Habana: ONEI; 2022. [cited 29 Dec 2022]. Disponible en: http://www.onei.gob.cu/sites/default/files/el_envejecimiento_de_la_poblacion_de_cuba_y_sus_territorios_0.pdf
5. Ministerio de Salud Pública. El Programa Nacional de Atención Integral al Adulto Mayor en Cuba apuesta por vejez activa y saludable salud.msp.gob.cu. [actualizado 28 Jan 2021; cited 24 Mar 2021]. Disponible en: <https://salud.msp.gob.cu/el-programa-nacional-de-atencion-integral-al-adulto-mayor-en-Cuba/>
6. Bermejo JC, Villacieros M, Hassoun H. Diseño y validación de dos escalas de medida de sobrecarga y necesidad de apoyo profesional para cuidadores formales e informales.



- Gerokomos [Internet]. 2017 [cited 6 Apr 2021]; 28(3):116-120. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1134-928X2017000300116&lng=es
7. Zarit SH, Reever KE, Bach-Peterson J. Relatives of the Impaired Elderly: Correlates of Feelings of Burden. The Gerontologist [Internet]. 1980 [cited 22 May 2022]; 20(6):649-655. DOI: <https://doi.org/10.1093/geront/20.6.649>
 8. Pérez-Cruz M, Muñoz-Martínez MA, Parra-Anguila L, Pino-Casado R. Necesidades atendidas por las personas cuidadoras familiares de mayores dependientes en un hospital de media-larga estancia. Gerokomos [Internet]. 2020 [cited 6 Apr 2021]; 31(3):130-135. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1134-928X2020000300130&lng=es
 9. Ossa Pérez WD. Sobrecarga y estrés en cuidadores familiares de personas mayores. [Tesis de Maestría]. Colombia: Universidad Nacional de Colombia; 2018 [cited 22 May 2022]; 128. Disponible en: <https://repositorio.unal.edu.co/handle/unal/75652>
 10. Soriano Ursúa IG, Castrejón Salgado R, Ávila Jiménez L, León Mazón MA, Toledano Jaimés CD, Albavera Hernández C, et al. Sobrecarga del cuidador primario de pacientes con cáncer terminal. Aten Fam [Internet]. 2022 [cited 1 May 2022]; 29(2):85-90. DOI: <http://dx.doi.org/10.22201/fm.14058871p.2022.2.82030>
 11. Hernández Ulloa E, Llibre Rodríguez JJ, Bosch Bayard R, Zayas Llerena T. Demencia y factores de riesgo en cuidadores informales. Rev Cubana Med Gen Int [Internet]. 2018 Dec [cited 6 Apr 2021]; 34(4):53-63. Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21252018000400007
 12. Bello Carrasco LM, León Zambrano GA, Covená Bravo MI. Factores que predominan sobrecarga en el cuidador formal e informal geriátrico con déficit de autocuidado. Rev Univ Soc [Internet]. 2019 Dec [cited 6 Apr 2021]; 11(5):385-395. Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2218-36202019000500385&lng=es&tlng=es
 13. Callís Fernández S, Ramírez Teopes K, Ramírez Teopes K. Sobrecarga en cuidadores de adultos mayores con demencia. Rev Med Isla de la Juventud [Internet] 2021 Jan [cited 17 May 2022]; 21(1):1-20. Disponible en: <http://www.remij.sld.cu/index.php/remij/article/view/277/475>
 14. Carreño Moreno S, Barreto Osorio RV, Duran Parra M, Ortiz VT, Romero E. Habilidad de cuidado y sobrecarga en cuidadores familiares de personas con enfermedad crónica. Rev Cubana Enfermer [Internet]. 2016 Sep [cited 27 Aug 2021]; 32(3). Disponible en: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-03192016000300009&lng=es
 15. Luengo Martínez CE, Araneda Pagliotti G, López Espinoza MA. Factores del cuidador familiar que influyen en el cumplimiento de los cuidados básicos del usuario postrado. Index Enfermer [Internet]. 2010 [cited 27 Aug 2021]; 19(1):14-18. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1132-12962010000100003&lng=es



Conflict of interest

The authors declare that there are no conflicts of interest with respect to this study.

Author contributions:

Conceptualization: Annalie Fidelina Rondón-Vázquez, Ricardo Lorenzo Mora-Betancourt.

Data curation: Yunior Morales-Ricardo, Adel Elio Peña-Carballosa.

Formal analysis: Ricardo Lorenzo Mora-Betancourt, Nuris Nilda Almaguer-Cruz.

Investigation: Annalie Fidelina Rondón-Vázquez, Ricardo Lorenzo Mora-Betancourt.

Methodology: Ricardo Lorenzo Mora-Betancourt, Nuris Nilda Almaguer-Cruz.

Project administration: Annalie Fidelina Rondón-Vázquez, Adel Elio Peña-Carballosa.

Resources: Annalie Fidelina Rondón-Vázquez, Ricardo Lorenzo Mora-Betancourt.

Supervision: Ricardo Lorenzo Mora-Betancourt, Nuris Nilda Almaguer-Cruz.

Validation: Annalie Fidelina Rondón-Vázquez, Ricardo Lorenzo Mora-Betancourt.

Visualization: Ricardo Lorenzo Mora-Betancourt, Nuris Nilda Almaguer-Cruz.

Writing-original draft: Annalie Fidelina Rondón Vázquez, Ricardo Lorenzo Mora Betancourt.

Writing-review and editing: Annalie Fidelina Rondón-Vázquez, Adel Elio Peña-Carballosa, Nuris Nilda Almaguer-Cruz, Ricardo Lorenzo Mora-Betancourt, Yunior Morales-Ricardo.

Funding:

The authors did not receive funding for the development of the present research.

Supplementary information (Open Data):

[Base de datos de Factores de riesgo asociados a la sobrecarga de cuidadores informales de adultos mayores postrados](#) (Risk factors associated with overload in informal caregivers of prostrate older adults database)

