

Homecare skills and overburden of caregivers of hospitalized chronic patients

Competência de cuidado e sobrecarga do cuidador da pessoa com doença crônica hospitalizada

Competencia del cuidar y sobrecarga del cuidador de la persona con enfermedad crónica hospitalizada

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Abstract

Objective: To describe care competence and its association with overburden of caregivers of patients with chronic diseases. **Method:** Quantitative, descriptive, cross-sectional study, with a convenience sample. Three instruments were used for data collection: the GCPC-UN instrument for caregiver-patient characterization, the Homecare Skills Questionnaire (CUIDAR, as per its name in Spanish), and the Zarit Burden Interview. Participants in this study were 102 caregivers of people hospitalized in a health institution who met the inclusion criteria. **Results:** Caregivers were mainly women, had a low level of education, high burden (56.8%), and high level of care competence (68.6%). A statistically significant correlation was found between overburden and overall scores on the CUIDAR instrument, as well as with the following categories: knowledge, uniqueness and anticipation. **Conclusion:** Homecare competence is associated with overburden of caregivers of people with CNCDS. Therefore, nursing teams have to identify the needs of caregivers and take action so as to contribute to seamless transitions to patients' homes.

Keywords: Chronic disease; Family caregivers; Caregiver burden; Nursing.

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Resumo

Objetivo: Descrever a competência de cuidar e sua associação com a sobrecarga do cuidador familiar da pessoa com doença crônica. **Método:** estudo descritivo, transversal, quantitativo, amostragem por conveniência. Foi aplicada a ficha de caracterização da díade Instrumento CUIDAR e Zarit. 102 cuidadores de pessoas com doenças crônicas em áreas hospitalares, que atenderam aos critérios de inclusão. **Resultados:** Predominam mulheres cuidadoras, baixa escolaridade, 56,8% sobrecarga, alto nível de competência para cuidar 68,6%. Relação estatisticamente significativa com a variável sobrecarga e a qualificação global da competência CARE, bem como com suas dimensões: Conhecimento, Singularidade, Antecipação. **Conclusão:** A competência para cuidar está associada à sobrecarga do cuidador de pessoas com doença crônica não transmissível. Portanto, a Enfermagem tem a responsabilidade de identificar as necessidades do cuidador e intervir nelas para contribuir com a transição para o papel de cuidador no domicílio do paciente.

Palavras chave: Doença crônica; Cuidadores familiares; Sobrecarga; Enfermagem.

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Resumen

Objetivo: Describir la competencia del cuidar y su asociación con la sobrecarga del cuidador familiar de la persona con enfermedad crónica. **Método:** Estudio cuantitativo descriptivo, transversal, muestreo por conveniencia. Se aplicó la ficha de caracterización de la díada, Instrumento CUIDAR y Zarit. 102 cuidadores de personas con enfermedades crónicas en las áreas hospitalarias, que cumplieran los criterios de inclusión. **Resultados:** Predominan las mujeres como cuidadores, nivel de escolaridad bajo, sobrecarga en un 56,8%, alto nivel de competencia para cuidar 68,6%. Relación estadísticamente significativa con la variable sobrecarga y la calificación global de la competencia CUIDAR así como con sus dimensiones: Conocimiento, Unicidad, Anticipación. **Conclusión:** La competencia de cuidar se asocia con la sobrecarga del cuidador de personas con enfermedad crónica no transmisible. Por lo tanto, Enfermería tiene la responsabilidad de identificar las necesidades del cuidador e intervenirlas para contribuir en la transición hacia el rol de cuidador en el egreso del paciente al hogar.

Palabras claves: Enfermedad crónica; Cuidadores familiares; Sobrecarga; Enfermería.

Introduction

On a global scale, chronic non-communicable diseases (CNCDs) led to the death of 41 million people in 2016, which represents 71% of total deaths (1). CNCDs are mainly associated with risk factors such as unhealthy diets, use of alcohol and tobacco, air pollution, and sedentariness (2-3). This group of diseases includes cardiovascular diseases, cancer, diabetes, respiratory diseases, and mental diseases (3). They can lead to dependence and need for support in daily life (4), requiring the assistance of informal caregivers (5), who can be family members or friends, paid or not, who are in charge of providing support for carrying out daily tasks to people who have experienced changes in their physical and/or mental health (6).

It is acknowledged that care of people with CNCDs is taken on by caregivers and family members, and these interactions may result in stress, due to the health conditions and the behavior of the people with these diseases. This situation faced by caregivers can result in overburden and feelings of impotence due to not knowing what to do or whom to ask for help, making that taking care of a ill person becomes an exhausting labor and a depressing process (7).

The burden of uninterrupted care associates with anxiety and depression in caregivers affecting their life quality (8).

For this reason, it is important that caregivers be prepa-

red to develop their abilities and skills, so they are able to take on homecare (9). The Homecare Competence questionnaire (CUIDAR), as for the acronym in spanish) includes the following dimensions: knowledge, related to concepts about diseases, their treatment, and daily care; uniqueness, related to personal qualities that contribute to being able to face and overcome issues and challenges; instrumental and procedural, related to the skills and abilities to carry out care tasks and meet basic needs; enjoyment, referring to the extent of well-being and personal satisfaction related to perceived quality of life; anticipation, referring to foreseeing the needs of caregivers and identifying risks; and relationships and social interaction, referring to social relationships and support networks that improve the task of providing care. Adequate levels of these factors help caregivers achieve balance in their daily lives, and helps in meeting the needs of both caregivers and the patients (10), making it easy to provide care and reducing stress, since these roles and responsibilities can result in overburden for caregivers when they do not have the needed skills and knowledge(11).

In a literature review, we found studies that address the issue of overburden of caregivers and their quality of life (12-15) but few address overburden of caregivers and homecare competence (16). Given this background, it is important to assess homecare skills before hospital discharge in order to be aware of the needs of patients with CNCDs and guide care plans and their follow-up (17), and by doing so, reduce the risk of overburden. A situation that demonstrates the gap in

knowledge of the impact in competence of caring and the overburden in caregivers which is a relevant aspect to generate strategies that contributes to improving the security of the people with CNCND during hospitalization and discharge.

For these reasons, the objective of this study was to describe homecare competence and overburden among caregivers of people with CNCNDs that are hospitalized.

Materials and Methods

Quantitative, descriptive, correlation and cross-sectional study. A convenience sample was used. Caregivers of patients with CNCNDs in hospital services were selected from the Internal Medicine department of a high-complexity public hospital. The inclusion criteria were being 18 years old or older; having been the main caregiver for more than three months; and having provided care for more than three hours a day. The sample was shaped of a hundred and two caregivers which constituted the quantity of population who were hospitalized during the time of data collection, they were informed of the objectives and procedures to be carried out, before signing free and informed consent was forms.

Data collection was carried out in the institution by the researchers and by trained research assistants, during day and night shifts, as well as on weekends. The collection process was carried out between June and September 2019, in compliance with the inclusion criteria. All caregivers who were contacted agreed to participate in the survey.

The instruments used were:

The GCPC-UN caregiver-patient characterization survey (18), with 42 items that survey the pair in three categories: overall conditions and sociodemographic profile; burden and perception of support; and available means of information and communication. The instrument's use was authorized by the research group on the care of chronic patients (GCPC) at the Nursing School of Universidad Nacional de Colombia (UN).

The homecare skills questionnaire - caregiver, short version, with 20 likert-type items, with the following response possibilities: hardly ever or never; sometimes; often; and almost always or always; with a scale

from 0 to 3. Scores are defined as follows: knowledge (low 0-3, average 4-6, high 7-9), uniqueness (low 0-6, average 7-9, high 10-12), instrumental and procedural (low 0-3, average 4-6, high 7-9), enjoyment (low 0-6, average 7-9, high 10-12), anticipation (low 0-2, average 3-4, high 5-6); relationships and social interaction, (low 0-6, average 7-9, high 10-12); and the overall score (low 0-36, average 37-48, high 49-60). The instrument has a Cronbach's alpha of 0.928 (9). The instrument was used with the authorization of the GCPC.

The Zarit burden interview (8), composed of 22 Likert-type items with five response options: 1 means never, and 5 means almost always. A score of under 46 means no overburden, from 46 to 56, mild overburden, and over 56, severe overburden. The instrument is valid and suitable for Colombia, with a Cronbach's alpha of 0.86 (19). The instrument was used with the authorization of the provider, the Mapi Research Trust.

Data were entered on a Microsoft excel® 2019 spreadsheet and processed in SPSS® statistics software version 23. Univariate descriptive analysis was carried out. Qualitative variables were described using frequency tables, and quantitative variables were described by central tendency measures (mean, median), dispersion measures (standard deviation), and position measures (minimum, maximum, range). Bivariate analysis was performed using the Kruskal Wallis test, and correlation analysis with the Spearman's method. We considered differences as statistically significant when $p < 0.05$.

Ethical aspects

The study was approved by the research ethics committee of Hospital Hernando Moncaleano Perdomo, minutes number 001-003 of 2019, considering the following bioethical principles: respect of human dignity, privacy, freedom of speech and feelings, confidentiality, and reciprocity.

Results

One hundred and two caregivers of CNCND patients participated in the study, of whom 74.5% were women, 66.7% were between 36 and 59 years old, with an average of 48.2 years ($SD \pm 14.9$), 43.1% had completed primary school, 53.9% worked in the household, 90.2% had low economic status, and 73.5% had a spouse.

se (Table 1).

Their relationship with the patient with CNCD was parent-child or spouse (38.2% and 37.3%, respectively). 20.5% of caregivers reported that they had a CNCD. 87% had been committed to care since diagnosis, 67.7%

had been the sole caregivers for more than 37 months (49%) and more than 20 hours a day (60.8%). Patients cared for were 60 years old or older (72.5%), with high levels of dependence (52.9%) and no intellectual alterations (61.8%), and they saw themselves as a light or moderate burden (43.13% and 36.3% respectively).

Table 1. Sociodemographic profile of caregivers of patients with CNCDs. Neiva, Huila, Colombia, 2019. (n=102)

Variable	Caregiver	
	n	%
Gender	Woman	76 74.5%
	Man	26 25.5%
Age group	18 to 35 years old	20 19.6%
	36 to 59 years old	54 53%
	60 to 75 years old	27 26.4%
	>75 years	1 1%
Occupation	Employed	20 19.6%
	Student	6 5.9%
	Household	55 53.9%
	Self-employed	21 20.6%
Economic Status	Low	92 90.2%
	Average	10 9.8%
Marital status	Married	40 39.2%
	Separated	5 4.9%
	Single	18 17.6%
	Consensual union	35 34.3%
	Widower	4 3.9%

Source: study data

A high percentage of caregivers of patients with CNCDs perceive mild or intense overburden when they took on their roles (Table 2).

Table 2. Overburden of caregivers of patients with CNCDs. Neiva, Huila, Colombia, 2019. (n=102)

Degree of overburden (Zarit)	n	%
No overburden	44	43.1%
Mild overburden	40	39.2%
Intense overburden	18	17.6%

Source: study data

With regard to homecare skills (CUIDAR instrument), the six dimensions showed high scores: knowledge, 54.9%; uniqueness, 56.9%; instrumental and procedural, 57.8%; enjoyment, 56.9%; anticipation, 59.8%; and

relationships and social interaction, 51%. Likewise, the overall score for skills was high, at 68%; however, average levels above 25% were found for all dimensions, including overall skills (Table 3).

Table 3. Homecare skills of caregivers of patients with CNCDS. Neiva, Huila, Colombia, 2019. (n=102)

Dimension	Level	n	%
Knowledge	Low	8	7.8%
	Average	38	37.3%
	High	56	54.9%
Uniqueness	Low	8	7.8%
	Average	36	35.3%
	High	58	56.9%
Instrumental and Procedural	Low	17	16.7%
	Average	26	25.5%
	High	59	57.8%
Enjoyment	Low	15	14.7%
	Average	29	28.4%
	High	58	56.9%
Anticipation	Low	1	1.0%
	Average	40	39.2%
	High	61	59.8%
Relationship and Interaction	Low	14	13.7%
	Average	36	35.3%
	High	52	51.0%
Overall Home-care Skills (CUIDAR)	Low	5	4.9%
	Average	27	26.5%
	High	70	68.6%

Source: study data

Statistically significant correlations were found between overburden and the following dimensions: knowledge ($p=0.001<0.05$); uniqueness ($p=0.005<0.05$); anticipa-

tion ($p=0.035<0.05$); and the overall score on the CUIDAR instrument ($p=0.035<0.05$); no correlations were found with the other three dimensions (Table 4).

Table 4. Association between homecare skills and overburden of caregivers of patients with CNCDS. Neiva, Huila, Colombia, 2019. (n=102)

CUIDAR dimension		OVERBURDEN						P
		No overburden		Mild overburden		Intense overburden		
		n	%	n	%	N	%	
Knowledge	Low	1	12.5%	6	75.0%	1	12.5%	0.001
	Average	11	28.9%	20	52.6%	7	18.4%	
	High	32	57.1%	14	25.0%	10	17.9%	
Uniqueness	Low	0	0.0%	7	87.5%	1	12.5%	0.005
	Average	13	36.1%	17	47.2%	6	16.7%	
	High	31	53.4%	16	27.6%	11	19.0%	
Anticipation	Low	1	100.0%	0	0.0%	0	0.0%	0.035
	Average	10	25.0%	21	52.5%	9	22.5%	
	High	33	54.1%	19	31.1%	9	14.8%	
Overall score on the CUIDAR instrument	Low	1	20.0%	4	80.0%	0	0.0%	0.035
	Average	10	37.0%	14	51.9%	3	11.1%	
	High	33	47.1%	22	31.4%	15	21.4%	

Source: study data

Caregivers who did not experience overburden had a high level of knowledge, as opposed to caregivers who experienced low and average levels of overburden.

A similar situation was observed with regard to uniqueness. Caregivers who had high scores on this dimension did not experience overburden, whereas caregivers with low levels of overburden had average or low scores.

For the anticipation dimension, caregivers who did not experience overburden had high scores, and caregivers with mild or intense overburden had low or average scores.

Regarding the overall scores on the CUIDAR instrument, caregivers who did not experience overburden had high scores, as opposed to caregivers who experienced mild overburden and had low or average scores.

Discussion

Care is directly associated with the family environment, where caregivers are usually spouses or children, and are mostly women, women are assigned care tasks, and make up an unpaid workforce, as shown in the literature (10,14,20-26). Women are assigned to care labors, to being in an informal labor which is not remunerated based on cultural and social representations (27). This is a key factor for understanding current gender inequalities associated with care of adult individuals with CNCDS (28), for which it is necessary to implement measures to increase equality in the care of people with chronic conditions. The majority of the surveyed caregivers had spouses, worked in the household, had been committed to care since diagnosis as sole caregivers, had low economic status, and had completed primary school. These findings are in line with those of previous studies (21,23,29).

This study found that six out of ten caregivers experienced overburden, while other studies have reported overburden in four out of ten (21), or one-third with intense overburden (22). Overburden can be associated with taking on responsibility for treatment, as well

as emotional and practical support tasks, decision-making, and health services paperwork (30), all of which are situations that lead to stress, are described as a burden, and affect the quality of life of caregivers in its social, personal and economic aspects (31).

The findings of this study allow us to conclude that there is a correlation between homecare skills and overburden. Likewise, they describe a correlation between the knowledge dimension and overburden. It is important to recognize that the caregiver does his own functions in solitude with low knowledge of them and without a familiar or healthcare system support leading to a physical tension and a great emotional burden, putting them at risk of becoming sick (32-34). During this process caregivers go through three stages: the first is intense, when they prepare to become a caregiver; in the second, they learn the routine and adapt to changes; and in the third, they feel they are competent to perform their duties, finding a purpose for their work and self-care (28). and improving their skills over time (11). Lack of appropriate communication about how to deal with these diseases results in lack of preparation to take on care, which leads to stress and overburden (35-36).

Moreover, a correlation was found between the uniqueness dimension and overburden. The acceptance and organization of the role of caregiver creates interdependence in the pair. Caregivers are aware that they live to take care of patients, who are now part of their lives, and they complement each other. This strong bond between caregivers and patients with CNCDs is "special," and when the care process takes place, leads to new roles and improved provision of care, as well as personal growth for the pair (37). Uniqueness can be a protective factor that allows them to overcome their problems as caregivers, resulting in reduced risk of overburden.

The results also show a correlation between the anticipation dimension and overburden, in which higher scores mean lower risk of experiencing overburden. Not being able to anticipate unexpected events results in a high percentage of caregivers who experience mild or intense levels of overburden.

Being supported by healthcare staff helps them define priorities, solve problems, and make decisions. Being informed increases confidence, even though the provi-

sion of care is complex due to the number of daily tasks to be performed, many of which cannot be anticipated (11). When caregivers are aware, they can anticipate care demands and prevent overburden.

Therefore, when nursing teams assesses homecare skills by means of the CUIDAR instrument before hospital discharge, they can anticipate needs, and together with caregivers, they can plan and define care strategies that strengthen the caregivers' role, with the aim of providing continuity of safe and high-quality care, with fewer readmissions and better outcomes.

Conclusion

- There was prevalence of women, the type of kinship was mostly spouses or children, most had low levels of education, were committed to care for long periods, and had low socioeconomic status. Mild or intense overburden was observed as a result of taking on the role of caregiver, and this can have a negative impact on quality of life.
- As for homecare skills, the knowledge, uniqueness, and anticipation dimensions had statistically significant correlations with overburden of caregivers. Therefore, it is important that nurses identify needs of caregivers during hospitalization relative in order to design care strategies to diminish the negative impact that disease and hospitalization bring along.
- Therefore, it is important to assess homecare before it is provided in order to implement a strategy that reduces the risk of overburden and prepares caregivers of patients with CNCDs to face the changes that are inherent to their role.
- Healthcare staff, especially nursing professionals, must implement support programs for caregivers aimed at preventing overburden and improving their homecare skills, which will have a positive effect on the quality of life of both caregivers and patients.

Conflicts of interest

The authors have no conflicts of interest.

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References

1. World Health Organization. World Health Statistics, 2019: Monitoring Health for the sustainable development goals. Geneva: Geneva: World Health Organization; 2019. 132 p.
2. World Health Organization. World Health Statistics, 2018: Monitoring Health for the sustainable development goals. Geneva; 2018. p. 100.
3. Zuccala E, Horton R. Reframing the NCD agenda: a matter of justice and equity. *Lancet*. septiembre de 2020. [cited 2022 Mar 02]; 6736(20):31910–3. [https://doi.org/10.1016/S0140-6736\(20\)31910-3](https://doi.org/10.1016/S0140-6736(20)31910-3)
4. Pedreira LC, Maria Cabral Ferreira A, Tadeu Reis Silva G, Maria de Oliveira Silva R, Marques Freitas C. Older Brazilian caregivers and their lived experiences of caring—A hermeneutic phenomenological study. *J Clin Nurs*. 2018. [cited 2021 Mar 15]; 27(17–18):3314–23. <http://dx.doi.org/10.1111/jocn.14207>
5. Aksoydan E, Aytar A, Blazeveciene A, van Bruchem - Visser RL, Vaskelyte A, Mattace-Raso F, et al. Is training for informal caregivers and their older persons helpful? A systematic review. *Arch Gerontol Geriatr*. 2019. [cited 2021 Mar 05]; 83(August 2018):66–74. <https://doi.org/10.1016/j.archger.2019.02.006>
6. Sambasivam R, Liu J, Vaingankar JA, Ong HL, Tan ME, Fauziana R, et al. The hidden patient: chronic physical morbidity, psychological distress, and quality of life in caregivers of older adults. *Psychogeriatrics*. 2018. [cited 2021 Abr 15]; 19(1):65–72. <https://doi.org/10.1111/psyg.12365>
7. Lima ICS, Lima SBA. Experiencing feelings and weaknesses of care in schizophrenia: family caregivers vision. *Rev Fun Care Online*. 2017. [cited 2022 Dbr 3]; 9(4): 1081-1086. <http://dx.doi.org/10.9789/2175-5361.2017.v9i4.1081-1086>
8. Sanches MR, Pipek LZ, Mesquita GHA de, et al. The impact of stressors and overload on informal caregivers of patients with cirrhosis: The first use of the Burden Scale for Family Caregivers in Brazil. *Journal of Health Psychology*. 2022. [cited 2022 Dbr 3]; 27(2):408-421. <http://dx.doi.org/10.1177/1359105320953464>
9. Carrillo GM, Herrera BS, Arias Rojas EM. Validation of an instrument to assess the homecare competency of the family caregiver of a person with chronic disease. *Investig y Educ en Enferm*. 2015. [cited 2021 Abr 15]; 33(3):449–55. <https://doi.org/10.17533/udea.iee.v33n3a08>
10. Liu HY, Yang CT, Wang YN, Hsu WC, Huang TH, Lin YE, et al. Balancing competing needs mediates the association of caregiving demand with caregiver role strain and depressive symptoms of dementia caregivers: A cross-sectional study. *J Adv Nurs*. 2017. [cited 2021 Abr 15]; 73(12):2962–72. <https://doi.org/10.1111/jan.13379>
11. Given B, Sherwood PR, Given CW. What knowledge and skills do caregivers need? *J Soc Work Educ*. 2008; [cited 2021 Mar 15]; 44(sup3):115–23. <https://doi.org/10.1097/01.NAJ.0000336410.30001.cb>
12. Tulek Z, Baykal D, Erturk S, Bilgic B, Hanagasi H, Gurvit IH. Caregiver Burden, Quality of Life and Related Factors in Family Caregivers of Dementia Patients in Turkey. *Issues Ment Health Nurs*. 2020. [cited 2021 May 17]; 41:8, 741-749. <https://doi.org/10.1080/01612840.2019.1705945>
13. Andrade G, Rangu S, Provini L, Putterman E, Gauthier A, Castelo-Soccio L. Childhood vitiligo impacts emotional health of parents: a prospective, cross-sectional study of quality of life for primary caregivers. *J Patient-Reported Outcomes*. 2020. [cited 2021 Ago 04]; 4(1):1–5. <https://doi.org/10.1186/s41687-020-0186-2>

14. Ramírez CA, Salazar Y, Perdomo AY. Quality of life of caregivers of persons with neurological disorder sequels. *Rev Cient la Soc Esp Enferm Neurol*. 2017. [cited 2021 Abr 08]; 45. <https://doi.org/10.1016/j.se-deng.2016.12.001>
15. Al Qadire M, Aloush S, Alkhalailah M, Qandeel H, Al-Sabbah A. Burden Among Parents of Children With Cancer in Jordan: Prevalence and Predictors. *Cancer Nurs*. 2020. [cited 2021 Abr 08]; 43(5):396–401. <https://doi.org/10.1097/NCC.0000000000000724>
16. Carreño S, Arias M. Competence to care in the home and burden in the caregiver of the child with cancer. *Gac Mex Oncol*. 2016. [cited 2021 Mar 16]; 15(6):336–43. <https://doi.org/10.1016/j.gamo.2016.09.009>
17. Carrillo GM, Sanchez B, Vargas E. Development and psychometric tests of the "cuidar" instrument - short version for the assessment of the competence for home care. *Rev la Univ Ind Santander Salud*. 2016. [cited 2021 Ago 08]; 48(2):222–31. <http://dx.doi.org/10.18273/revsal.v48n2-2016007>
18. Chaparro L, Sánchez B, Carrillo G. Survey characterization care dyad family caregiver – a person with a chronic disease. *Rev Cienc y Cuid*. 2014. [cited 2021 Abr 08]; 11(2):31–45. <https://doi.org/10.22463/17949831.196>
19. Barreto RV, Campos MS, Carrillo GM, Coral R, Chaparro L, Durán M, et al. Entrevista de Percepção de Carga do Cuidado de Zarit: Provas psicométricas para a Colômbia. *Aquichan*. 2015. [cited 2021 Mar 16]; 15(3):368–80. <http://dx.doi.org/10.5294/aqui.2015.15.3.5>
20. Ramírez CA, Chacón E, Perdomo AY. Dealing the toughness of Chronic disease, challenges of the dyad: caregiver/person cared for. *Cult los Cuid Rev Enfermería y Humanidades* 2018. [cited 2021 Abr 07]; 22(52):46–57. <http://dx.doi.org/10.14198/cuid.2018.52.04>
21. Torres B, Agudelo MC, Pulgarin M B-FD. Factors associated with overloading in the primary caregiver. *Medellin*, 2017. 2018. [cited 2021 Mar 15]; 20(3):261–9. <https://doi.org/10.22267/rus.182003.130>
22. Barrera L, Campos MS, Gallardo K, Coral RC H-BA. Social support perceived in people with chronic disease and their family caregivers in five macro regions of Colombia. *Rev Univ salud*. 2016. [cited 2021 Sep 10]; 18(1):102–12. <http://dx.doi.org/10.22267/rus.161801.23>
23. Sánchez LM, Carrillo M. Competency for homecare of that dyad person with cancer in chemotherapy and his caregiver family. *Psicooncologia*. 2017. [cited 2020 Sep 10]; 14(1):137–48. <https://doi.org/10.5209/PSIC.55817>.
24. Cantillo CP, Ramírez CA, Perdomo AY. Caring ability in family caregivers of people with chronic disease and perceived overload. *Cienc enferm*. 2018. [cited 2021 Sep 13]; 24(16):1–12. <http://dx.doi.org/10.4067/s0717-95532018000100216>
25. Kazemi A, Azimian J, Mafi M, Allen KA, Motalebi SA. Caregiver burden and coping strategies in caregivers of older patients with stroke. *BMC Psychol*. 2021. [cited 2022 Dbr 3]; 9, 51. <https://doi.org/10.1186/s40359-021-00556-z>
26. Bagnasco A, Rosa F, Dasso N, Aleo G, Catania G, Zanini M, Rocco G, Turci C, Ghirotto L, Hayter M & Sasso, L. Caring for patients at home after acute exacerbation of chronic obstructive pulmonary disease: A phenomenological study of family caregivers' experiences. *Journal of Clinical Nursing*. 2021. [cited 2022 Dbr 3]; 30(15-16):2246-2257. <http://dx.doi.org/10.1111/jocn.15613>
27. Gresswell I, Lally L, Adamis D, McCarthy GM. Widening the net: exploring social determinants of burden of informal carers. *Ir J Psychol Med*. 2018 Mar. [cited 2022 Dbr 3]; 35(1):43-51. <http://dx.doi.org/10.1017/ipm.2017.36>.
28. Batthyány K, Genta N, Perrotta V. The contribution of family and women to unpaid health care in Uruguay. *Rev Estud Fem*. 2017. [cited 2021 Oct 05]; 25(1):187–213. <https://doi.org/10.1590/1806-9584.2017v25n1p187>.
29. Vega OM, González DS. Social Support Perceived and Competence for Care in the Home, Ocaña, Colombia.

- Nova. 2019. [cited 2021 Oct 07]; 17(32):95–108. <https://doi.org/10.22490/24629448.3638>.
30. Lee VYW, Seah WY, Kang AWC, Khoo EYH, Mooppil N, Griva K. Managing multiple chronic conditions in Singapore – Exploring the perspectives and experiences of family caregivers of patients with diabetes and end stage renal disease on haemodialysis. *Psychol Heal*. 2016. [cited 2021 Oct 10]; 31(10):1220–36. <https://doi.org/10.1080/08870446.2016.1203921>.
31. Rico M, Quesada V, Polentinos E, Sánchez R, Rayo MÁ, Del Cura I; CuidaCare Group. Health-related quality of life in caregivers of community-dwelling individuals with disabilities or chronic conditions. A gender-differentiated analysis in a cross-sectional study. *BMC Nurs*. 2022. [cited 2022 Dbr 4]; Mar 29;21(1):69. <https://doi.org/10.1186/s12912-022-00845-x>.
32. Ahn S, Esquivel JH, Davis EM, Logan JG, Chung ML. Cardiovascular Disease Incidence and Risk in Family Caregivers of Adults With Chronic Conditions: A Systematic Review. *J Cardiovasc Nurs*. 2022 May-Jun 01. [cited 2022 Dbr 4]; 37(3):E47-E60. <https://doi.org/10.1097/JCN.0000000000000816>.
33. Javanmardifard S, Shirazi F, Jamalnia S, Sadeghi E. Relationship Between Caregiver Burden and Cognitive Impairment in Adult Patients with Type 2 Diabetes. *J Holist Nurs Midwifery* 2022. [cited 2022 Dbr 4]; 32(3):203-209. <https://doi.org/10.32598/jhnm.32.3.2207>
34. Sarabia C, Taltavull J. M, Miguélez A, Fernández A, Ortego C & Fernández R. Experiences of caregiving and quality of healthcare among caregivers of patients with complex chronic processes: A qualitative study. *Applied Nursing Research*. 2020. [cited 2022 Dbr 4]; 56, 151344. <https://doi.org/doi:10.1016/j.apnr.2020.151344>
35. Liu J, Liu Q, Huang Y, Wang W, He G, Zeng Y. Effects of personal characteristics, disease uncertainty and knowledge on family caregivers' preparedness of stroke survivors: a cross-sectional study. *Nurs Heal Sci*. 2020, [cited 2022 ene 05]; 7(e013210). <http://dx.doi.org/10.1111/nhs.12743>.
36. Li X, Xia X, Wang P, Zhang S, Liu M, Wang L. Needs and rights awareness of stroke survivors and caregivers: A cross-sectional, single-centre questionnaire survey. *BMJ Open*. 2017. [cited 2021 Oct 12]; 7(10). <http://dx.doi.org/10.1136/bmjopen-2016-013210>.
37. Chaparro L. How a "Special Caring Bond is Form Between Chronically ill Patient Fam Caregiver. 2011. [cited 2021 May 05]; 11(1):7–22. <http://dx.doi.org/10.5294/aqui.2011.11.1.1>.