Universidad y Salud
ISSN: 0124-7107
ISSNe: 2389-7066

SECTION: SOCIAL DETERMINANTS OF HEALTH
Original Article

DOI: https://doi.org/10.22267/rus.232503.316

Physical dependence in older adults and job burnout in their informal caregivers in the COVID-19 context, a correlational study

Dependencia física en personas adultas mayores y sobrecarga en sus cuidadores informales en el contexto de la pandemia por COVID-19, un estudio correlacional

Dependência física em idosos e sobrecarga em seus cuidadores informais no contexto da pandemia de COVID-19, um estudo correlacional

Karina Reyes-Jarquín[1]* orcid.org/0000-0003-3660-3594

Beatriz Ortiz-Rojas[1] orcid.org/0009-0006-9008-3488

1. Universidad Nacional Autónoma de México, FES Iztacala. México

Received: Mar 09 - 2023 Revised: Aug 28 - 2023 Accepted: Oct 08 - 2023 Published: Nov 28 - 2023

***Citation**: Reyes-Jarquín K, Ortiz-Rojas B. Physical dependence in older adults and job burnout in their informal caregivers in the COVID-19 context, a correlational study. Univ. Salud. 2023;25(3):50-55. DOI: 10.22267/rus.232503.316*

Abstract

Introduction: The functional status of older adults (OA) is usually used as an indicator of their health. Increased dependence raises the need for an informal caregiver (IC), leading to a state of work overload, which was frequently observed during the COVID-19 confinement. **Objective:** To assess the relationship between physical dependence of OA, job burnout of their IC, and the confinement conditions in the context of the COVID-19 pandemic. **Materials and methods:** The participants included 77 OA together with their respective IC. The OA filled out a sociodemographic data sheet and a Confinement Conditions Questionnaire. In addition to these two forms, the IC filled out the Zarit Caregiver Burnout Scale and the ABVD Barthel Scale. **Results:** Statistically significant correlations were found between: physical dependence and job burnout (rho=0.475, p<0.01); physical dependence and confinement degree (rho=0.441, p<0.01); and job burden and confinement degree (rho=0.344, p<0.01). **Conclusion:** Caregivers develop a greater job burnout as a consequence of the OA's dependence. Furthermore, it seems that this burnout is more related to the confinement conditions experienced by older adults than to the caregiver's own conditions.

Keywords: Caregivers; functional status; aged; pandemic. (Source: DeCS, Bireme).

Resumen

Introducción: El estado funcional de las personas adultas mayores (PAM) suele tomarse como indicador de salud; la presencia de dependencia incrementa la necesidad de un cuidador informal (CI) que puede desarrollar sobrecarga, lo cual se agudizó durante el confinamiento por COVID-19. **Objetivo:** Evaluar la relación de la dependencia física de las PAM, la sobrecarga de su CI y las condiciones de confinamiento en el contexto de la pandemia por COVID-19. **Materiales y métodos:** Participaron 77 diadas conformadas por una PAM y su CI. Las PAM contestaron una ficha de datos sociodemográficos y Cuestionario de Condiciones de Confinamiento. Los CI, diligenciaron una ficha de datos sociodemográficos, Cuestionario de Condiciones de Confinamiento, Escala de Carga del Cuidador de Zarit y Escala de Barthel de ABVD. **Resultados:** Se encontró correlaciones estadísticamente significativas entre la dependencia física y la sobrecarga (rho=0,475, p<0,01); la dependencia física y el grado de confinamiento (rho=0,441, p<0,01); y la sobrecarga y el grado de confinamiento (rho=0,344, p<0,01). **Conclusión:** Los cuidadores de PAM desarrollan mayor sobrecarga frente a su dependencia física; además parece ser que la sobrecarga del cuidador está más relacionada con las condiciones de confinamiento de las personas adultas mayores, que con las propias condiciones de confinamiento del cuidador.

Palabras clave: Cuidadores; estado funcional; adulto mayor; pandemia. (Fuente: DeCS, Bireme).

Resumo

Introdução: O estado funcional do idoso (PAM) é geralmente tomado como um indicador de saúde; A presença de dependência aumenta a necessidade de um cuidador informal (CI) que pode desenvolver sobrecarga, que se agravou durante o confinamento da COVID-19. **Objetivo:** Avaliar a relação entre a dependência física dos PAM, a sobrecarga do seu CI e as condições de confinamento no contexto da pandemia de COVID-19. **Materiais e métodos:** Participaram 77 díades compostas por uma PAM e seu CI. O PAM respondeu a uma ficha de dados sociodemográficos e a um Questionário de Condições de Confinamento. Os CI preencheram ficha de dados sociodemográficos, Questionário de Condições de Confinamento, Escala de Sobrecarga do Cuidador de Zarit e Escala Barthel (ABVD). **Resultados:** Foram encontradas correlações estatisticamente significativas entre dependência física e sobrecarga (rho=0,475, p<0,01); dependência física e grau de confinamento (rho=0,441, p<0,01); e sobrecarga e grau de confinamento (rho=0,344, p<0,01). **Conclusão:** Os cuidadores do PAM desenvolvem maior sobrecarga diante da dependência física; além disso, parece que a sobrecarga do cuidador está mais relacionada com as condições de confinamento dos idosos do que com as próprias condições de confinamento do cuidador.

Palavras chave: Cuidadores; estado funcional; idoso; pandemia. (Fonte: DeCS, Bireme).

***Corresponding Author**
Karina Reyes-Jarquín
e-mail: krjarquin@gmail.com

Introduction

For older adults, their functional status is one of many health indicators due to the fact that they are vulnerable and susceptible to experiencing complications that impact negatively on their basic daily activities[1].

In this context, Aranco *et al.*[2] describe that in 2020 in Latin America and the Caribbean there were at least 8 million functionally dependent Older Adults (OA), who required support to carry out some basic daily activities. Specifically in Mexico, this study indicates that the prevalence of OA functional dependence was 25.5% between the 2012-2018 time period.

Physical and cognitive changes in old age decrease their personal and functional autonomy, increase their needs, and, at the same time, promote social isolation, which impacts the quality of life of the elderly[3].

Generally speaking, the people who help with those needs are relatives, people from the OA social circle or health professionals. Therefore, it is relevant to discuss the importance of informal caregivers and the consequences of their care providing endeavor.

Informal caregivers (IC) are those that provide care without having professional training, do not receive financial compensation, and dedicate long periods of time caring for OA. Usually, they are either close family members or people from the immediate social circle. This is the reason why the relationship between the IC and the OA is emotionally close as it is based on affection, fondness, work, and service towards the other[4-7].

As a consequence of the demands and attention required by OA, the caregiver experiences diverse psychosocial, family, and economic conflicts as well as loss of productivity[5-8].

Those life changes together with the demands involved in their jobs were considered by Bello *et al.*[5] to define IC burnout as:

"The state of emotional exhaustion, stress and fatigue that directly affects daily activities, social relationships, freedom, and mental balance. It is the degree to which the person perceives the negative effect of care in different aspects of their lives, such as physical and mental health, social interactions, and their economy"

Zarit *et al.*[9] has also characterized burnout as the attitudes and emotional reactions of the caregiver regarding the experience of caring and the degree of disturbances or changes in various facets of their domestic environment and their lives in general. This syndrome is mainly triggered by the following factors:

a) Emotional transfer of the patient's problems to the caregiver.
b) Repetition of conflictive situations.
c) Feeling overwhelmed by the overload of care, which in the long term leads to the inability to continue fulfilling those functions.

Since 2019, the world has been facing a health contingency, the COVID-19 pandemic which has greatly affected the OA.

The coronavirus does not affect everyone in the same manner. The OA are the most vulnerable group to suffer the severe disease caused by the SARS-CoV-2 virus, due to multiple reasons including comorbidity, immunosuppression and dementia[10,11].

Social confinement was a measure implemented with the purpose of stopping viral spread and protecting vulnerable groups. Nevertheless, this containment strategy has had adverse consequences due to the alteration of social and family dynamics. In the psychological context, people have experienced a decay in their well-being, high stress levels, and development of anxiety and depression[12].

Urzua *et al.*[13] defined quarantine or confinement as the isolation and restriction of the movement of people who either have been or are at risk of being exposed to the virus. Such confinement implies conditions of social distancing, isolation at one's own home, strict limitations on the freedom of movement, and suspensions of commercial and academic activities, authorizing only essential activities to obtain essential goods such as food and medicine as well to assist health centers for appointments or work[14]. Given the specific characteristics of the confinement, or the pandemic in general, these restrictions can be classified as a high psychological stress adversity, which has a greater impact than normative life events[15].

Forlenza *et al.*[16] described the appearance of mild symptoms in OA such as insomnia, irritability, eating disorders, sadness, and anxiety since the beginning of the pandemic. Likewise, Espin *et al.*[18] reported that OA can become more anxious, especially if they are isolated or have some cognitive impairment or dementia.

It has been shown that the work load of ICs increased during the pandemic. Indeed, Fajardo[18] indicated that caregivers were in a state of uncertainty that led to fear. Among the main challenges faced by ICs are emotional stress, chronic stress, and a reduction in medical care options because health professionals were taking care of people infected with the new virus[19].

Zorzo *et al.*[20] highlighted that ICs experienced emotional fluctuations during the pandemic due to the amount of information received about COVID-19 and changes in social restrictions, which were modified on a daily basis. Also, personal situations, deaths, loss of work as well as future activities and plans negatively affected ICs, which increase the level of emotional overload. Therefore, the objective of this study was to assess the relationship between the physical dependence experienced by older adults, the work overload of their informal caregiver, and the confinement conditions during the COVID-19-caused sanitary crisis.

Materials and methods

Type of study, design and sampling method

A quantitative, correlational, cross-sectional study with a non-experimental design was conducted, with a non-probabilistic and intentional sampling method. Those who fulfilled the inclusion criteria were included, and their participation was voluntary, consented and informed[21].

Participants

77 dyads (OA and IC) were included in this study, who were invited to participate through social networks such as Facebook, Twitter, and Instagram.

Selection Criteria

IC inclusion criteria: having worked as an IC for at least 6 months; to be over 18 years old; be able literate; have an electronic device with internet connection; agree to voluntarily participate in the research; and sign the informed consent form.

OA inclusion criteria: to be 60 years of age or older; be able literate; have an electronic device with internet connection; agree to voluntarily participate in the research; and sign the informed consent form.

Sample characteristics

With respect to the 77 OA, 74% (57 were women and 26%(20) were men. The minimum age was 60 years, whereas the maximum was 98 years, with an average age of 72.73 years (*SD* = 9.12). Regarding the Confinement Conditions Questionnaire, the averages were: 13.25 (*SD* = 3.09) for the confinement degree dimension; 9.56 (*SD* = 2.50) for the social relations dimension; and 22.22 (*SD* = 4.04) for the healthy habits dimension. Finally, an average of 8.38 (*SD* = 16.55) was registered for the ABVD Barthel scale.

In reference to the 77 ICs, 79.2% were female and 20.8% were male. The youngest and oldest ICs were 18 and 68 years old, respectively, with an average age of 40.44 (*SD* = 12.99). With respect to the Confinement Conditions Questionnaire, the averages were: 12.10 (*SD* = 2.49) for the confinement degree dimension; 10.45 (*SD* = 2.69) for the social relations dimension; and 22.36 (*SD* = 2.74) for the healthy habits dimension. Finally, the average results from the Zarit Caregiver Burden Scale were as follows: 11.69 (*SD* = 9.70) for the caregiver impact dimension; 3.53 (*SD* = 4.09) for the interpersonal relationships dimension; 3.88 (*SD* = 2.80) for self-efficacy expectation dimension; and the total average of the instrument was 19.09 (*SD* = 14.32).

Instruments

Two assessment methods were designed, one was focused on the OA and the other on their IC. The instrument for OA included:

A sociodemographic data sheet, with 8 items focused on identifying demographics, work, housing, health, free time and habits data.

A Confinement Conditions Questionnaire, designed specifically for this study, which consists of 23 items was divided in the following dimensions: confinement degree; social relationships; and healthy habits during the SARS-CoV-2 pandemic.

The assessment of the IC included:

A sociodemographic data sheet and *a Confinement Conditions Questionnaire*, as described before.

The Zarit Caregiver Burden Scale[9], a self-report instrument that evaluates the burden of primary caregivers by identifying common feelings experienced by those who provide care to another person. It has 22 items that are grouped in three factors: impact of care; interpersonal relationships; and self-efficacy expectations. This scale has the appropriate psychometric properties for the Mexican population[22].

The ABVD Barthel Scale[23], an instrument used to identify dependence on 10 basic and daily activities (ABVD): eating; moving from the chair to the bed; personal hygiene; using the toilet; bathing/showering; moving in general (walking on flat surface or using a wheelchair); going up/down stairs; dressing/undressing; defecation control; and urination control. This scale has the psychometric properties that are appropriate for the Mexican population[24]. The IC answered the questions of the ABVD Barthel Scale based on the OA under their care.

The data was collected during the health crisis caused by COVID-19, using virtual platforms such as Zoom, Google Meet or WhatsApp.

Statistical analysis

The Statistical Package for Social Sciences (SPSS version 21) was used for statistical analyses.

The Kolmogorov-Smirnov test was used to analyze sample distribution, which indicated that the variables Caregiver impact and Interpersonal relationships (Zarit Caregiver Burden Scale) did not fit a normal distribution, so the correlational analyses were carried out with the Spearman's rho coefficient. The statistical power was also calculated, which Cardenas defines[25] as "the probability of rejecting the null hypothesis when it is really false". It is used to obtain the reliability index for the statistical results, in which case, the analysis must have a value of ≥0.80. The Gpower 3.1 program was used to calculate statistical power.

Ethical considerations

This research followed the guidelines of the Psychology Ethics Code of the Mexican Society of Psychology (2010), which establishes the ethical principles for research with humans. The study was approved by the Ethics Commission of the National Autonomous University of Mexico "FESI" (CE/FESI/042022/1509). Likewise, an informed consent was used to explain the objective of the study and the management of confidential information.

Results

Table 1 shows the correlations between the OA physical dependence and IC burden, finding statistical significance in most of them. The statistical power confirmed these correlations.

The correlations between physical dependence and the three dimensions included in the OA Confinement Conditions instrument are shown in Table 2.

Table 1. Association between OA physical dependence and IC burden.

Burden	Physical dependence	Statistical power
Dimension "Caregiver impact"	0.510**	0.998
Dimension "Interpersonal relationship"	0.488**	0.995
Dimension "Self-efficacy expectation"	0.063	0.084
Total burden	0.475**	0.993

**p<0.01

Table 2. Association between physical dependence and confinement conditions of OA.

Confinement conditions	Physical dependence	Statistical power
Confinement degree	0,441**	0,983
Social relationships during confinement	-0,039	0,063
Healthy habits during confinement	-0,089	0,120

**p<0.01

Table 3 show the correlations between IC burden and confinement conditions. As observed, those correlations are weak and the statistical power value (<0.80) is not strong enough to assert that the null hypothesis is truly false. Finally, the correlations between OA confinement conditions and IC burden is shown in Table 4.

Table 3. Association between IC burden and confinement conditions.

	Confinement degree		Social relationships during confinement		Healthy habits during confinement	
Burden	*rs*	Power	*rs*	*rs*	Power	*rs*
Caregiver impact	-0.068	0.090	-0.294**	0.746	-0.070	0.092
Interpersonal relationship	-0.126	0.194	-0.247*	0.588	-0.089	0.120
Self-efficacy expectation	-0.137	0.221	-0.141	0.232	-0.027	0.056
Total Zarit	-0.093	0.126	-0.304**	0.775	-0.095	0.130

*p<0.05
**p<0.01

Table 4. Association between OA confinement conditions and IC burden.

	OA confinement degree		OA Social relationships during confinement		OA Healthy habits during confinement	
Burden	*rs*	Power	*rs*	*rs*	Power	*rs*
Caregiver impact	0.382**	0.936	-0.063	0.084	-0.011	0.051
Interpersonal relationship	0.268*	0.662	-0.051	0.072	0.026	0.055
Self-efficacy expectation	0.054	0.075	0.084	0.112	-0.015	0.051
Total Zarit	0.344**	0.874	-0.051	0.072	-0.003	0.050

*p<0.05
**p<0.01

Discussion

The general objective of this study was to assess the relationship between the physical dependence of older adults, the burnout of their informal caregivers, and the confinement conditions in the context of the COVID-19 health crisis.

The results indicate that the main basic daily activities where OA experience some degree of dependence are control of urinary incontinence and requiring assistance to go up and down stairs. Similar results were obtained by Esmeraldas *et al.*[3], who reported that at least 1% of the population aged 60 years or over is immobilized, 6% have severe limitations in their daily activities, and up to 10% of that population has moderate disability.

Regarding the relationship between OA physical dependence and IC burnout (total score, dimension "caregiver impact" and "interpersonal relationship"), it was found to be positive, moderate, and statistically significant. This relationship was strengthened by several factors, including new demands and ways to relate that arose during the confinement. The majority of the population, including ICs, adapted to their new work situation from home, were they met the demands that they faced. Besides, ICs had to provide assistance to the OAs, which included new care activities since they were considered the most vulnerable population to this new virus. In addition, ICs went through personal critical situations such as death of loved ones, loss of work, and future plans and activities[20,26].

Since OAs required assistance in some basic daily activities, they also required greater attention from their ICs. Thus, the greater the OA physical dependence, the greater burnout the IC will experience[20,26].

In addition, a moderate, positive, and statistically significant relationship between OA physical dependence and their degree of confinement was identified. In this context, social restrictions have an impact on both the physical and psychological health of OAs. Moreover, these restrictions limit physical activities, which results in a decline of those activities in which OAs had independence. Similarly, Espin *et al.*[17] describe the loss of interest in carrying out activities that they previously enjoyed doing, excessive and constant anxiety, and frequent loss of memory, which leads to a decrease in functionality.

OA physical dependence was not significantly related to neither healthy habits nor social relationships

established during the pandemic. Similarly, the IC burnout was not significantly associated with their healthy habits.

On the other hand, weak, negative and statistically significant associations between burnout and social relationships during the pandemic were identified. Nevertheless, the statistical power values suggest that further research on this field is required. In fact, it seems that social relationships could be a protective factor against burnout. In this regard, Balladares *et al.*[27] state that IC support networks were reduced because of the confinement. Furthermore, it is important to highlight that even before the pandemic, ICs used to limit their social relationships to take care of the OAs, which exacerbated during the confinement. Martinez *et al.*[28] indicate that social support is a protective factor against burnout since it facilitates coping, affects the caregiving activities and guarantees quality of life and emotional well-being of OAs.

Likewise, Monge *et al.*[29] conducted a study aimed at analyzing the relationship between social support, optimism, and vital satisfaction as possible protective factors against caregiver burnout. They describe that social support functions as a protective factor against burnout. Similarly, Cerquera *et al.*[30] have suggested that social support contributes to IC resilience, thereby functioning as a buffer against stress, burden, anxiety, and depression.

Finally, a very interesting result was the statistically significant association between IC burden and the OA confinement degree, not so with the IC's own confinement, which suggests that confinement of the caregivers is not what generates their burden. Instead, the fact that the OA is confined at home is what causes the burnout state since the pandemic induced a greater demand for care. Therefore, there is a negative consequence of confinement of both IC and OA, which requires further investigation.

Conclusions

Informal caregivers burnout is correlated with the physical dependence of older adults, which implies that the greater this dependency, the care provided will develop more negative emotions associated with the act of caring, a situation that will equally affect both the IC and OA.

As an interesting fact, it seems that the caregiver burnout is more related to the OA confinement conditions than to those of the IC.

In the context of the pandemic, the confinement strategies to reduce infections seem to have negative consequences for the OA, since a high degree of confinement was correlated to greater physical dependence.

In this study, data collection during this health contingency was a challenge because the recruitment of participants was conducted through social networks, which are not regularly used by the target population of this research: Older Adults and their Informal Caregivers. Therefore, it is suggested to continue this research avenue through the analysis of these variables in a post-confinement context.

Acknowledgments: The authors thank DGAPA for funding this research, undergraduate students, and the older adults and their caregivers who participated in this study.

Funding sources: Financial support was provided by DGAPA through the grant: (i) PAPIIT IA303521 entitled "Psychological impact of SARS-CoV-2 and burnout on caregivers of older adults with physical and cognitive impairment"; and (ii) PAPIIT IA300323 entitled "Social support, resilience, and loneliness of older adults in the COVID-19 post-confinement context."

Conflict of interest: None declared by the authors.

References

1. Jiménez-Aguilera B, Baillet-Esquivel LE, Ávalos-Pérez F, Campos-Aragón L. Dependencia funcional y percepción de apoyo familiar en el adulto mayor. Atencion Fam [Internet]. 2016;23(4):129-133. DOI: 10.1016/j.af.2016.08.002
2. Aranco N, Bosch M, Stampini M, Azuara Herrera O, Goyeneche L, Ibarrarán P, et al. Envejecer en América Latina y el Caribe: protección social y calidad de vida de las personas mayores. Banco Interamericano de Desarrollo; 2022. DOI: 10.18235/0004287
3. Esmeraldas Vélez EE, Falcones Centeno MR, Vásquez Zevallos MG, Solórzano Vélez JA. El envejecimiento del adulto mayor y sus principales características. RECIMUNDO [Internet]. 2019;3(1):58-74. DOI: 10.26820/recimundo/3.(1).enero.2019.58-74
4. Andreotti Diniz MA, de Souza Melo BR, Neri KH, Casemiro FG, Correa Figueiredo L, de Oliveira Gaioli CCL, et al. Comparative study between formal and informal caregivers of older adults. Ciênc Saúde Colet [Internet]. 2018;23(11):3789-3798. DOI: 10.1590/1413-812320182311.16932016
5. Bello-Carrasco LM, León-Zambrano GA, Covena-Bravo MI. Factores que predominan sobrecarga en el cuidador formal e informal geriátrico con déficit de autocuidado. Rev Univ Soc [Internet]. 2019;11(5):385-395. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2218-36202019000500385
6. Cordero-Cabrera M, Ferro-González B, García-Veloz M, Domínguez-Álvarez J. Cuidado informal al adulto mayor encamado en un área de salud. Rev Cienc Médicas Pinar Río [Internet]. 2019;23(2):195-203. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1561-31942019000200195
7. Pérez M, Álvarez T, Martínez E, Valdivia S, Borroto I, Pedraza H. El síndrome del cuidador en cuidadores principales de ancianos con demencia Alzhéimer. Gac Médica Espirit [Internet]. 2017;19(1):38-50. Available from: https://revgmespirituana.sld.cu/index.php/gme/article/view/517/html
8. Martin del Campo Navarro AS, Medina Quevedo P, Hernández Pedroza RI, Correa Valenzuela SE, Peralta Peña SL, Rubí Vargas M, et al. Grado de Sobrecarga y Caracterización de Cuidadores de Personas Adultas Mayores con Diabetes Mellitus tipo 2. Enferm Glob [Internet]. 2019;18(56):57-78. DOI: 10.6018/eglobal.18.4.361401
9. Zarit SH, Reever KE, Bach-Peterson J. Relatives of the Impaired Elderly: Correlates of Feelings of Burden. The Gerontologist [Internet]. 1980;20(6):649-655. DOI: 10.1093/geront/20.6.649
10. Pinazo-Hernandis S. Impacto psicosocial de la COVID-19 en las personas mayores: problemas y retos. Rev Esp Geriatría Gerontol [Internet]. 2020;55(5):249-252. DOI: 10.1016/j.regg.2020.05.006
11. Vega Rivero JA, Ruvalcaba Ledezma JC, Hernández Pacheco I, Acuña Gurrola M del R, López Pontigo L. La Salud de las Personas Adultas Mayores durante la Pandemia de COVID-19. J Negat No Posit Results [Internet]. 2020;5(7):726-739. DOI: 10.19230/jonnpr.3772
12. González-Soto CE, Agüero-Grande JA, Mazatán-Ochoa CI, Guerrero-Castañeda RF. Cuidado De La Salud Mental En Adultos Mayores En La Transición Pandemia Covid-19 - Nueva Normalidad. Cogitare Enferm [Internet]. 2021;26:e78463. Available from:

http://www.scielo.br/j/cenf/a/szGNNJ3VRqc84SZ3mMkhVMR
13. Urzúa A, Vera-Villarroel P, Caqueo-Urízar A, Polanco-Carrasco R. La Psicología en la prevención y manejo del COVID-19. Aportes desde la evidencia inicial. Ter Psicol [Internet]. 2020;38(1):103-118. DOI: 10.4067/S0718-48082020000100103
14. Sandín B, Valiente RM, García-Escalera J, Chorot P. Impacto psicológico de la pandemia de COVID-19: Efectos negativos y positivos en población española asociados al periodo de confinamiento nacional. Rev Psicopatol Psicol Clin [Internet]. 2020;25(1):1-22. DOI: 10.5944/rppc.27569
15. Sandín B, Chorot P. Cuestionario de Sucesos Vitales (CSV): Estructura factorial, características psicométricas y datos normativos. Rev Psicopatol Psicol Clin [Internet]. 2017;22(2):95-115. Available from: https://revistas.uned.es/index.php/RPPC/article/view/19729
16. Forlenza OV, Stella F. Impact of SARS-CoV-2 pandemic on mental health in the elderly: perspective from a psychogeriatric clinic at a tertiary hospital in São Paulo, Brazil. Int Psychogeriatr [Internet]. 2020;32(10):1147-1151. DOI: 10.1017/S1041610220001180
17. Espin Falcón JC, Cardona Almeida A, Miret Navarro LM, González Quintana M. La COVID-19 y su impacto en la salud del adulto mayor. Arch Hosp Univ Gen Calixto García [Internet]. 2020;8(3):391-403. Available from: https://revcalixto.sld.cu/index.php/ahcg/article/view/568/563
18. Fajardo Ramos E, Nuñez Rodríguez ML, Henao Castaño AM. Resiliencia en cuidadores en casa de adultos mayores durante la pandemia del COVID-19. Rev Latinoam Bioét [Internet]. 2021;20(2):91-101. DOI: 10.18359/rlbi.4813
19. Sheth K, Lorig K, Stewart A, Parodi JF, Ritter PL. Effects of COVID-19 on Informal Caregivers and the Development and Validation of a Scale in English and Spanish to Measure the Impact of COVID-19 on Caregivers. J Appl Gerontol [Internet]. 2021;40(3):235-243. DOI: 10.1177/0733464820971511
20. Zorzo ME, Abril Herrero MF. Pandemia covid-19: mejora de la calidad de vida de los cuidadores informales mediante la aceptación y orientación en valores. Rev INFAD Psicol [Internet]. 2021;1(1):445-452. DOI: 10.17060/ijodaep.2021.n1.v1.2086
21. Hernández R, Fernández C, Baptista P. Metodología de la Investigación. 4a Ed. Cuidad de México (MEX): McGrawHill; 2006. Available from: http://187.191.86.244/rceis/registro/Metodolog%C3%ADa%20de%20la%20Investigaci%C3%B3n%20SAMPIERI.pdf
22. Montero Pardo X, Jurado Cárdenas S, Valencia Cruz A, Méndez Venega J, Mora Magaña I. Escala de carga del cuidador de Zarit: evidencia de validez en México. Psicooncología [Internet]. 2014;11(1):71-85. DOI: 10.5209/rev_PSIC.2014.v11.n1.44918
23. Mahoney F, Barthel D. FUNCTIONAL Evaluation: The Barthel Index. Md State Med J [Internet]. 1985;14:61-65. Available from: https://pubmed.ncbi.nlm.nih.gov/14258950
24. Duarte-Ayala RE, Velasco-Rojano ÁE. Validación psicométrica del índice de Barthel en adultos mayores mexicanos. Horiz Sanit [Internet]. 2021;21(1):113-120. Available from: https://www.redalyc.org/journal/4578/457869056013/html
25. Cárdenas-Castro JM, Arancibia Martini H. Potencia estadística y cálculo del tamaño del efecto en G*Power: complementos a las pruebas de significación estadística y su aplicación en psicología. Salud Soc [Internet]. 2014;5(2):210-244. DOI: 10.22199/S07187475.2014.0002.00006
26. Tello de la Torre C, Várgaz Villamizar ÓH. Género y trabajo en tiempos del COVID-19: una mirada desde la interseccionalidad. Rev Venez Gerenc [Internet]. 2020;25(90):389-391. Available from: https://www.redalyc.org/articulo.oa?id=29063559020
27. Balladares J, Carvacho R, Basualto P, Coli Acevedo J, Molina Garzón M, Catalán L, et al. Cuidar a los que cuidan: Experiencias de cuidadores informales de personas mayores dependientes en contexto COVID-19. Psicoperspectivas Individuo Soc [Internet]. 2021;20(3). Available from: http://www.psicoperspectivas.cl/index.php/psicoperspectivas/article/view/2397
28. Martínez Rodríguez L, Fernández Castillo E, González Martínez E, Ávila Hernández YC, Lorenzo Carreiro A, Vázquez Morales HL. Apoyo social y resiliencia: factores protectores en cuidadores principales de pacientes en hemodiálisis. Enferm Nefrol [Internet]. 2019;22(2):130-139. DOI: 10.4321/S2254-28842019000200004
29. Monge-García V, Quero-Rufián A, Montoya-Juarez R, Hueso-Montoro C. Factores de protección en la sobrecarga de los cuidadores informales en un entorno rural. Enferm Comunitaria [Internet]. 2018;14. Available from: https://ciberindex.com/index.php/ec/article/view/e11151
30. Cerquera Córdoba AM, Pabón Poches DK, Granados Latorre FJ, Galvis Aparicio MJ. Sobrecarga en cuidadores informales de pacientes con Alzheimery la relación con su ingreso salarial. Psicogente [Internet]. 2016;19(36):240-251. DOI: 10.17081/psico.19.36.1295