













ORIGINAL

## Level of caregiver overload in patients diagnosed with stroke in a specialized hospital institution in Metropolitan Lima

### Nivel de sobrecarga del cuidador de pacientes diagnosticados con ACV de una institucion hospitalaria especializada de Lima Metropolitana

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#### ABSTRACT

Caregiver overload exhausts the person both emotionally and physically, where both negative aspects are perceived that affect their health, therefore, the objective of the study is to determine the level of caregiver overload of patients diagnosed with stroke in a specialized hospital institution in Metropolitan Lima. It is a descriptive, quantitative, cross-sectional study, with a population of 100 family caregivers, who answered a questionnaire of sociodemographic aspects and the Zarit instrument. In their results, 22 % (n=22) have an absence of overload, 25 % (n=25) light overload and 53 % (n=53) intense overload. In conclusion, support systems for family members and caregivers of stroke patients should be strengthened.

**Keywords:** Caregivers; Stroke; Cardiovascular Diseases.

#### RESUMEN

La sobrecarga del cuidador agota a la persona tanto emocional como físicamente, donde se perciben ambos aspectos negativos que afectan su salud, por lo tanto, el objetivo del estudio es determinar el nivel de sobrecarga del cuidador de pacientes diagnosticados con ACV en una Institución Hospitalaria Especializada de Lima Metropolitana. Es un estudio descriptivo, cuantitativo, transversal, con una población de 100 cuidadores familiares, quienes respondieron un cuestionario de aspectos sociodemográficos y el instrumento Zarit. En sus resultados, 22 % (n=22) tienen ausencia de sobrecarga, 25 % (n=25) sobrecarga leve y 53 % (n=53) sobrecarga intensa. En conclusión, deben reforzarse los sistemas de apoyo a los familiares y cuidadores de pacientes con ictus.

**Palabras clave:** Cuidadores; Ictus; Enfermedades Cardiovasculares.

#### INTRODUCTION

Globally, the World Health Organization (WHO) estimates that 41 million people die as a result of non-communicable disease (NCD), equivalent to 71 % of deaths worldwide, with cardiovascular diseases being one of the leading causes of deaths caused by NCDs (17, 9 million each year), followed by cancer (9,0 million), respiratory diseases (3,9 million) and diabetes (1,6 million), associated with unhealthy diets, sedentary lifestyles, tobacco use and the harmful use of alcoholic beverages.<sup>(1)</sup>

This is why cardiovascular diseases are among the NCDs. One of the main ones is cerebrovascular accidents (CVA), currently established as the second cause of mortality and the first to cause severe and permanent

disability at the global and national level as a result of the transitory or permanent neurological sequelae, which compromise their functionality, capacity, independence and autonomy,<sup>(2,3)</sup> which constitutes a great challenge for the person, the family, and society; By 2020, these events accounted for 6,2 % of the total burden of disease in developed countries.<sup>(4,5)</sup>

Generally, stroke survivors usually present neurological deficits, mainly gait disorders or other disorders related to the motor skills of the peripheral limbs, frequently 42 to 67 % of the cases present dysphagia, causing aspiration in half of them and pneumonia in a third; according to what has been proven, between 20 to 57 % of the patient's present visual field defects, binocular alterations and visual perception;<sup>(6,7)</sup> It is estimated that up to 80 % of post-stroke patients experience one or more cognitive symptoms, the persistence of which negatively influences the rehabilitation process, which is a progressive and dynamic process, oriented towards the objective of achieving an optimal physical, cognitive, emotional, social and functional state.<sup>(8,9)</sup>

However, the obstruction of the functionality can maintain a severe neurological affectation, which causes risk factors in the caregiver at the moment of carrying out his care since the daily events have immediate and cumulative effects that have repercussions on the health of the caregivers.<sup>(10)</sup>

This is why the caregiver who assumes the role of caregiver is a family member who may enter into a crisis and may present symptoms such as tension, stress, frustration, fatigue, embarrassment, depression, and impaired self-esteem, resulting in physical, psychological, and emotional problems.<sup>(11,12)</sup>

Although informal caregiving affects the caregiver's quality of life and emotional health since it involves an excess of work that is usually long and without a set schedule, generating essential changes in their personal, family, work, and social life.<sup>(13)</sup>

In a study carried out in the United States, with the participation of 88 caregivers, the results showed that the minimum level of burden was predominant (49 %), and the mild or moderate level was 30 (34 %), while moderate to severe overload was 15 (17 %). The conclusion is that caregiver overload has long-term consequences in which the caregiver's physical and mental well-being is affected by the time spent caring for the patient.<sup>(14)</sup>

In a study carried out in Mexico, in which 259 caregivers participated, the results showed that 82,6 % of the caregivers were female, and 87,8 % of the caregivers had no caregiver overload. In contrast, 12,2 % had mild to moderate caregiver overload. The conclusion is that good care and strategies to maintain physical and mental well-being allow the caregiver to carry out his or her activities with respect to the patient.<sup>(15)</sup>

In another study carried out in Iran, in which 110 caregivers of stroke patients participated, they observed in their results that most of the caregivers presented mild overload 52,7 % (n= 58) to moderate overload 46,4 % (n= 51). This suggests the use of coping activities to reduce caregiver burden and thus benefit physical and mental health.<sup>(16)</sup>

Therefore, the objective of the research was to determine the level of caregiver overload in patients diagnosed with stroke in a specialized hospital in Metropolitan Lima.

## METHODS

In the study, according to its properties it is quantitative, with respect to its methodology it is descriptive-cross-sectional non-experimental.<sup>(17)</sup>

### Population

The total population consisted of 100 family caregivers of stroke patients.

### Inclusion Criteria

- Participants who have been a caregiver for more than 6 months or more
- Participants over 18 years of age
- Participants who voluntarily agreed to participate in the study.

### Technique and Instrument

The data collection technique was the survey, where sociodemographic aspects were pre-written and the Zarit instrument was used.

The Zarit Questionnaire is a caregiver burden assessment tool that is widely used globally. The instrument is composed of 22 questions distributed in 3 dimensions (impact of caregiving, interpersonal relationships, and self-efficacy expectations) that will be answered using a Likert-type scale ranging from "0= never", "1= rarely", "2= sometimes", "3= frequently," and "4= almost always"; being the sum of the variables, which will indicate if the overload is absent:  $\leq 46$ , if it is light: 47-55 or intense:  $\geq 56$ .<sup>(18)</sup>

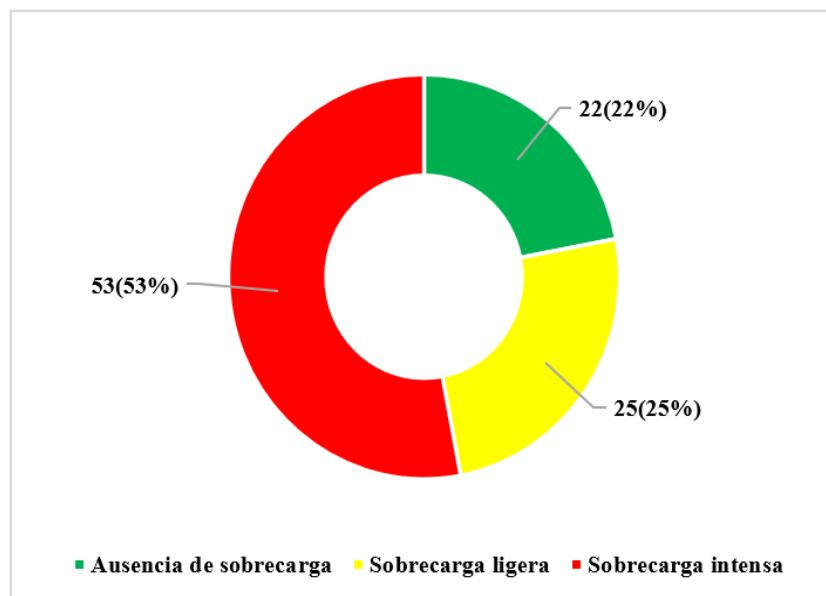
For reliability, Cronbach's alpha coefficient statistical process was used to obtain a result of 0,82, making the instrument reliable.

*Place and Application of the Instrument*

First, the administrative processes were carried out to obtain the corresponding authorization for access, and the caregiver was provided with information about what was going to be done in the data collection.

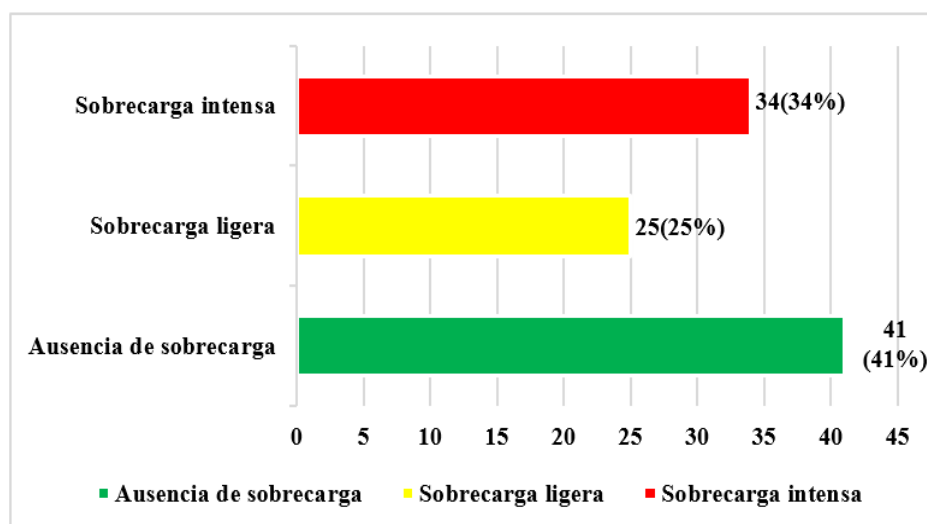
**RESULTS**

In Figure 1, we can observe that 22 % of the participants have an absence of overload, 25 % of the participants have a light overload and 53 % of the participants have an intense overload.



**Figure 1.** Level of caregiver overload in patients diagnosed with stroke in a Specialized Hospital Institution in Metropolitan Lima

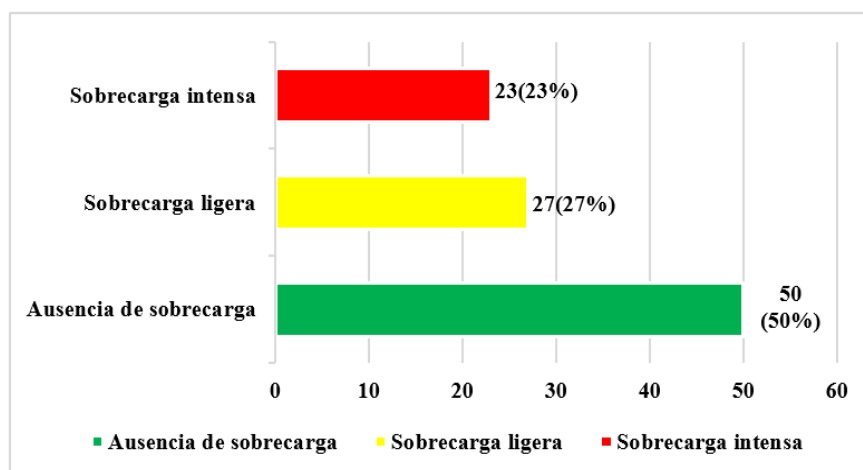
In Figure 2, with respect to the caregiving impact dimension, we can observe that 34 % of the participants have an intense overload, 25 % have a light overload and 41 % have no overload.



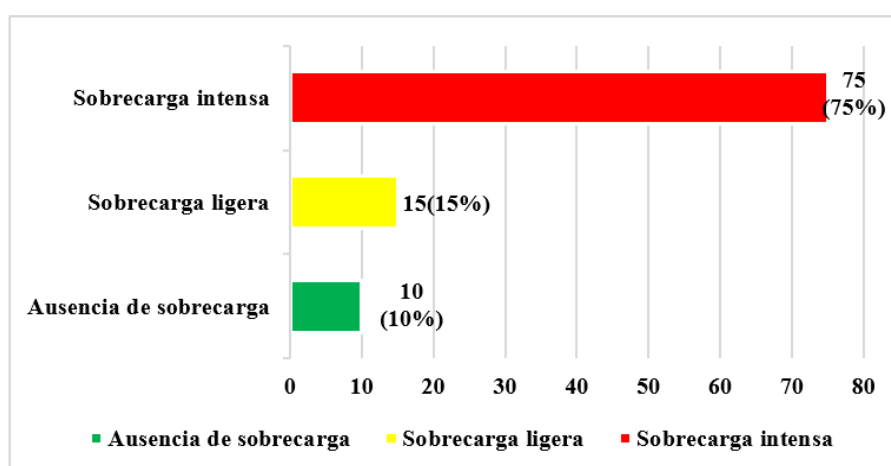
**Figure 2.** Level of caregiver overload in the impact of care dimension in patients diagnosed with stroke in a specialized hospital in metropolitan Lima

In Figure 3, with respect to the interpersonal relations dimension, we can observe that 23 % of the participants have an intense overload, 27 % have a slight overload and 50 % have an absence of overload.

In Figure 4, with respect to the self-efficacy expectations dimension, it can be observed that 75 % of the participants have intense overload, 15 % have light overload and 10 % have no overload.



**Figure 3.** Level of caregiver overload in the interpersonal relations dimension of patients diagnosed with stroke in a specialized hospital in metropolitan Lima.



**Figure 4.** Level of caregiver overload in the dimension of self-efficacy expectations of patients diagnosed with stroke in a specialized hospital in metropolitan Lima

## DISCUSSIONS

The topic covered in the study was caregiver overload of stroke patients, with the aim of contributing to a future analysis by public and private institutions to encourage the creation of programs for informal caregivers of patients.

The survival of stroke patients brings with them sequelae, most of which are motor, so they become dependent on a caregiver; regularly, a member of their family is designated as the primary caregiver, who will have to adapt his or her lifestyle to the care. Informal caregivers are the leading resource, instrument, and means by which specific or sometimes specialized care is provided to the sick, so they become a population vulnerable to suffering a generally high level of caregiver overload due to the multiplicity of roles and lack of preparation.

Regarding caregiver overload, evaluated in the study population, 53 % have an intense overload, a similar result to Achilike and collaborators, where 49 % had a minimal overload, and 17 % had a moderate or severe overload; similarly, Kazemi and collaborators,<sup>(14)</sup> stated in their study that 52,7 % had a mild overload and 46,4 % had a moderate overload.<sup>(16)</sup>

In relation to caregiver overload in its dimension impact of care, which refers to the emotional and physical state of the caregiver towards the patient's care, where reactions such as emotional discomfort, stress, anguish, and physical exhaustion are reflected, the absence of overload predominated in 34 %; which is understood as a good channeling of the responsibility of care by the caregivers, which will have a satisfactory impact on the quality of care provided, in such a way that the caregiver shows economic and emotional concern since the patient's care is under his or her responsibility.

In relation to caregiver overload in its interpersonal relations dimension, the absence of overload predominated with 50 %; a result that refers to the interaction established between the caregiver and the

patient mediated by communication, distinguished by an emotional basis and its experiential character in addition, the caregivers indicate an overload due to their self-control in the social environment, so they are not easily stressed when caring for their patient, consequently there is no adverse effect on their interpersonal relations, they also indicate that it is due to the time given to the patient.

In relation to caregiver overload in the caregiver's self-efficacy expectations dimension, intense overload predominated with 75 %; this refers to the way in which people believe in their abilities to achieve specific results; this concept confirms that a low level of self-efficacy increases the level of overload and vice versa.

The results obtained in this study reflect the need to continue research on the overload of the informal caregiver of stroke patients, in addition to promoting new coping strategies and training prior to caregiving.

## CONCLUSIONS

The participation of caregivers in training courses focused on good patient care should be encouraged, with the aim of acquiring the necessary knowledge and avoiding high levels of caregiver overload.

It is concluded that greater home surveillance should be carried out to determine the well-being of caregivers in the rehabilitation process of patients with stroke.

It is concluded that the support systems for family members and caregivers of stroke patients should be strengthened.

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#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

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*Writing - proofreading and editing:* Lucia Asencios-Trujillo, Lida Asencios-Trujillo, Carlos La Rosa-Longobardi, Djamila Gallegos-Espinoza, Livia Piñas-Rivera.