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Relationship Between Fatigue, Perceived Social Support and Symptomatology of Long-COVID Patients in Spain

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ABSTRACT

Aims and Objectives: Long-COVID, identified in approximately 15% of symptomatic cases of COVID-19 in Spain, is a chronic multiorgan disease characterised by persistent symptoms, such as fatigue, dyspnoea, and cognitive difficulties. This study aims to evaluate the relationship between fatigue, perceived social support, and symptomatology in Spanish patients with Long-COVID, with the objective of identifying variables that contribute to holistic care.

Methodological Design and Justification: An observational, descriptive, cross-sectional study was conducted with a non-randomised sample of 374 patients belonging to Spanish associations of Long-COVID patients. It was conducted using self-administered questionnaires distributed between July and November 2022 through associations of patients with Long-COVID.

Ethical Issues and Approval: Ethical evaluation was requested by the research ethics committee of the Eastern Area of Valladolid, which granted approval with registration number PI-22-2747.

Research Methods: A total of 374 individuals who met specific criteria, including proficiency in Spanish and persistent symptoms, participated. Sociodemographic variables, persistent symptomatology, levels of fatigue (FSS scale), and perceived social support (DUKE-UNC-11 scale) were assessed. Descriptive statistical analysis, linear regression, and logistic analysis were employed to determine associations between variables.

Results: The sample predominantly consisted of women (79.9%) with a mean age of 47 years. Neurological symptoms (79.4%) and pain (75.9%) were the most prevalent. Notably, 54.5% of participants experienced severe fatigue, which was negatively correlated with perceived social support. Conversely, perceived social support exhibited a significant association with neurological, psychic, and pain symptoms. Additionally, variables such as age and fatigue level predicted affective and confidential social support.

Conclusion: Fatigue and pain are associated with low perceptions of social support, underscoring the necessity of integrating psychosocial assessments into care protocols for patients with Long-COVID. An approach focused on perceived social support could enhance the adaptation of these patients, contributing to a more comprehensive and personalised model of care.

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1 | Introduction

It is widely recognised that some patients presenting with a SARS-CoV-2 infection develop the clinical entity Long-COVID [1]. This disease primarily manifests as respiratory symptoms, but it is now understood to be a multifaceted condition affecting various organs. A systematic review culminating in a meta-analysis suggests that the prevalence of Long-COVID ranges between 10% and 15% of infected patients [2]. In the context of Spain, a report by the Ministry of Science and Innovation, through its COVID-19 working group, indicates that the prevalence of Long-COVID among all SARS-CoV-2 infections is 6.8%, while it increases to 15.2% when considering individuals with symptoms. Currently, it appears that the primary risk factors for prolonged symptoms are individuals between the ages of 30 and 50, with women being more susceptible and exhibiting more than three symptoms during acute infection [3].

Long-COVID disease manifests as a chronic pathology characterised by persistent and debilitating symptoms. As with primary infection, it presents with a wide range of symptoms, with fatigue, dyspnoea, and cognitive symptoms being the most prevalent [4, 5]. Fatigue, the predominant symptom in long-COVID patients, is characterised by a state of persistent exhaustion and tiredness that persists over time. The involvement of the immune system in its aetiology is suspected, which may explain the higher prevalence in women [6]. The clinical presentation of fatigue closely resembles myalgic encephalomyelitis or chronic fatigue syndrome [7]. This fatigue does not improve with rest and is often accompanied by pain, insomnia, and cognitive alterations [8]. Notably, this symptom extends beyond physical manifestations, encompassing psychological and social aspects as well.

The current health paradigm is gradually shifting away from the traditional biomedical model that primarily focuses on physical symptoms over other dimensions of the individual. While physical symptoms undoubtedly remain important, psychic, social, and environmental factors have been integrated into the concept of health, aligning with the holistic vision of the person advocated by the new One Health trends. Within this framework, perceived social support emerges as a particularly crucial aspect in the management of long-COVID patients [9, 10].

Perceived social support refers to an individual's interpretation of whether they are cared for, supported, and valued, as well as belonging to a social network that provides assistance when necessary. This form of support can originate from family, friends, colleagues, and the broader community [11]. According to Bellón et al., perceived social support encompasses two dimensions: confidential support, which entails the possibility of communicating intimately and safely; and affective support, manifesting in the form of love, affection, and empathy [12]. If Virginia Henderson's classification of human needs is considered, the tenth need corresponds to the absence of the opportunity to express emotions, fears, and opinions; and the thirteenth need pertains to participation in recreational activities and play. Both needs are closely interconnected with perceived social support, which also significantly influences an individual's mental well-being. Nursing professionals must be equipped to motivate individuals to discuss their needs and facilitate social

interactions to maintain their emotional balance, while simultaneously accommodating their preferences and interests [13].

Furthermore, understanding the perceived social support level of an individual can aid in identifying those at risk of social isolation, determining the specific aspects of assistance required, and devising nursing care that prioritises the improvement of social health, with secondary focus on enhancing health-related quality of life [14].

Considering the aforementioned considerations, the primary objective of this study was to elucidate the relationship between specific symptoms associated with various body systems experienced by Spanish long-COVID patients who are members of a patient association, the presence of fatigue, and perceived social support. Additionally, the prevalence of symptoms within this patient group and the level of perceived social support they perceive were determined. Identifying the symptoms most closely associated with perceived social support can lead to the refinement of guidelines for the application of nursing care for long-COVID patients with a holistic perspective that considers the individual's unique needs.

2 | Methods

2.1 | Design, Participants and Procedure

This is an observational, descriptive, cross-sectional study involving 374 Long-COVID patients.

Data collection for this study was conducted through self-administered questionnaires distributed online between 2 July 2022, and 30 November 2022. Long-COVID patient associations from across Spain were contacted to distribute the questionnaires to the affected individuals.

The sampling technique used was non-probabilistic, using volunteer patients from Spanish Long-COVID associations.

The inclusion criteria were that participants reported persistent symptoms of Long-COVID, were members of one of the patient associations contacted, possessed the necessary skills to complete the questionnaire electronically, and had adequate command of the Spanish language to comprehend the questions.

All participants provided informed consent before completing the questionnaire and were able to contact the research team to address any questions or concerns. Due to the collection of patient data, ethical evaluation was requested by the research ethics committee of the Eastern Area of Valladolid, which granted approval with registration number PI-22-2747. The research was conducted in accordance with the principles promulgated by the Declaration of Helsinki, ensuring the anonymity of patient data and preventing any potential identification.

2.2 | Variables

A preliminary phase of the questionnaire was conducted to ascertain the general well-being of the participants. This included

demographic data such as age, gender, and the autonomous community of residence. Additionally, it assessed their general clinical status, including any previous chronic diseases, their self-perception of their overall health, and the primary persistent symptoms they have been experiencing. Furthermore, it evaluated their clinical situation related to COVID-19, including the duration of their illness, the persistence of symptoms over time, whether hospitalisation was necessary, and the duration of their hospitalisation. It also assessed whether their health condition necessitated admission to the intensive care unit (ICU) and whether they received any vaccinations against SARS-CoV-2, along with the number of doses administered.

The second part of the questionnaire addressed aspects that impact the quality of life of the participants, including the following variables: Dichotomous Yes/No scale: Breathlessness; Likert scale from 1 (I have no trouble in that area) to 3 (I am disabled in that area) to assess: Mobility, Personal care, Everyday activities (e.g., work, study, housework, family or leisure activities), Pain/Discomfort and Anxiety/Depression; and, Likert-type scale from 1 (I only feel breathless when doing intense exercise) to 5 (I feel breathless when doing everyday things such as getting dressed, leaving the house or when standing up) in the category Breathlessness and activity. The Fatigue Severity Scale (FSS) was also included in this section [15, 16], which is a validated instrument to measure fatigue in chronic patients using a 9-question questionnaire that is interpreted considering a state of “fatigue” when the FSS score is ≥ 5 , and a state of “no fatigue” for scores ≤ 4 ; Scores between 4.1 and 4.9 were considered “doubtful fatigue”.

To ascertain the level of support received by these patients, we employed the Duke-UNC Functional Social Support questionnaire [17], which has been specifically adapted by De la Revilla et al. [18] for the Spanish language. This questionnaire evaluates both perceived functional and qualitative perceived social support, possessing the advantage of being multidimensional. It assesses confidential support, the potential for communication, and affective support, including demonstrations of love, affection, and empathy. It consists of 11 items whose responses are measured with a Likert scale that covers scores from 1 to 5 (1 = much less than you'd like, 2 = less than you'd like, 3 = not too much & not too little, 4 = almost as desired, 5 = as much as desired). The score range spans from 11 to 55, with a threshold of 32 points (15th percentile) to distinguish between low and normal perceived social support. Cronbach's alpha for internal consistency ranges from 0.82 to 0.94, depending on the study [19]. It is important to note that Cronbach's alpha varies depending on the dimension being analysed (0.88 for confidential support and 0.79 for affective support).

2.3 | Statistical Analysis

Measures of central tendency (mean) and dispersion (standard deviation [SD]), as well as absolute frequencies and percentages, were used to describe the data. Quantitative variables were analysed using normality tests (Kolmogorov–Smirnov) and, depending on the case, parametric (Student's *t*) or non-parametric (Mann–Whitney) tests were applied. Stepwise linear regression models (Wald) were carried out for perceived social support,

confidential support and affective support, in addition to a binary logistic regression model to assess low and normal perceived social support.

Data analysis was performed using IBM SPSS Statistics, version 26.0 (SPSS Inc., Chicago, IL, USA), while graphs were generated in R, version 4.0.3 (<http://www.R-project.org>; R Foundation for Statistical Computing, Vienna, Austria) and Microsoft Excel for Microsoft 365. In all tests, a confidence level of 95% and a *p*-value of less than 0.05 were considered significant.

3 | Results

The study sample comprised 374 participants. The mean age of long-COVID patients was 47.01 ± 9.85 years. In terms of gender, the majority were women (299, 79.9%). The Autonomous Community with the highest representation in the sample was Andalusia, with 58 individuals (15.5%). The majority (88.2%) had received COVID-19 vaccination, with 102 individuals having received three doses. Upon infection, 80 individuals were hospitalised, of whom 17.4% were admitted to the Intensive Care Unit. The average duration of hospital admission was 15.01 ± 17.29 days. Symptoms related to COVID-19 persisted for more than a year in up to 75.1% of cases, and 96.3% reported ongoing symptoms at the time of survey response. Notably, 41.2% of individuals with Long-COVID were experiencing temporary disability at the time of the survey. Furthermore, 81 individuals (21.7%) had a pre-existing pathology prior to the onset of the current disease. The most frequently reported symptoms were neurological in origin (79.4%), followed by pain (75.9%).

Regarding the self-assessment of health status on a scale of 0 to 10 points, a mean of 4.4 ± 2.06 was obtained.

The distribution of the sample in other variables related to symptoms that may affect quality of life related to Long-COVID-19 is presented in Table 1.

The total score on the DUKE-UNK-11 perceived social support questionnaire was 38.21 ± 11.18 . In the confidential social support subscale, the mean was 22.74 ± 6.65 , and in the affective support subscale, it was 13.39 ± 4.05 .

In relation to the FSS scale that measures the degree of fatigue, 17.9% were classified as having a low level of fatigue, 27.5% with moderate fatigue, and 54.5% with a high level of fatigue.

In the bivariate analysis between perceived social support and the different symptoms associated with Long-COVID, a relationship was found between the total score in perceived social support and neurological, psychological, locomotive symptoms, and pain (Figure 1a and Table S1). Additionally, a relationship was found between the confidential support factor and neurological, psychological, locomotive symptoms, and pain (Figure 1b and Table S1). Finally, a relationship was found between affective support and neurological, psychological, cardiovascular symptoms, and pain (Figure 1c and Table S1).

In addition, Wald's stepwise linear regression analyses were performed, to determine which variables influenced the total

TABLE 1 | Distribution of the sample of Spanish long-COVID patients in aspects that affect their quality of life.

Variable	n (%)
Mobility	
No trouble walking	162 (43.3)
Some trouble walking	205 (54.8)
Having to be in bed	7 (1.9)
Personal care	
No trouble with self-care	295 (78.9)
Some trouble washing or dressing on their own	76 (20.3)
Unable to wash or dress oneself	3 (0.8)
Daily activities	
No trouble performing daily activities	35 (9.4)
Some trouble with daily activities	243 (74.3)
Unable to perform daily activities	96 (25.7)
Pain	
No pain	33 (8.8)
Moderate pain	215 (57.5)
Severe pain	126 (33.7)
Anxiety and depression	
No anxiety and depression	100 (26.7)
Moderately anxious and depressed	194 (51.9)
Highly anxious and depressed	80 (21.4)
Feeling of suffocation	
No	92 (24.6)
Yes	282 (75.4)
Moments when you feel suffocated	
With intense exercise	62 (16.6)
Walking fast or climbing steep slopes	122 (32.6)
On a flat having to stop to rest	108 (28.9)
It is necessary to stop before 100m or within a few minutes of starting to walk on flat ground	24 (6.4)
I suffocate with daily activities like getting dressed	58 (15.5)

score of the DUKE-UNC-11 scale as well as the score of the two subscales.

For the total score of the scale (26.5% of participants with perception of low perceived social support), a model was found in which the total score in the fatigue severity questionnaire was involved. Linear models were also developed to predict scores on the two factors of the perceived social support scale. For confidential support, the model incorporated the patient's age. In

affective support, the total score on the FSS scale remained a component of the model (Table 2).

The self-correction of each model was determined using the Durbin-Watson statistic. For model 1, the value was 2.089. For model 2, the value was 2.09, and for model 3, the value was 2.005. In all cases, the test indicates that the successive error terms are negatively correlated. Furthermore, the fact that the values are far from 1 makes the models more reliable.

Finally, a stepwise binary logistic regression (Wald) was conducted, after converting the total score in perceived social support into a dichotomous dummy variable based on the cut-off point of the scale. Consequently, the categories of low and normal perceived social support were established. The results of this analysis are presented in Table 3.

This model suggests that with a significance level of $\alpha = 0.005$, approximately 74.7% of individuals would be accurately classified as having low or normal perceived social support. Furthermore, it exhibits greater specificity compared to sensitivity.

4 | Discussion

Part of the primary objective of this study was to ascertain the perceived social support perceived by patients experiencing long-COVID symptoms. It also aimed to determine which factors were related to perceived social support. Both aspects are discussed below.

Social support is defined as social relationships that provide tangible assistance or foster a sense of attachment to an individual or group perceived as caring and affectionate. This support can serve as a catalyst for bolstering the emotional and psychological resources necessary for managing the disease [20]. Data collection was undertaken to elucidate the patient profile, symptomatology, and perceived social support. The long-COVID patient profile identified in the study sample predominantly consisted of women with an average age of 47 years, which aligns with the profile described in previous studies on Long-COVID [3, 21, 22]. The symptoms reported by these patients encompass a range of conditions, including pain and those affecting the respiratory, neurological, and locomotor systems, which have also been extensively studied by other researchers [4, 5, 23].

To date, limited research has been conducted to investigate the perceived social support provided to individuals with Long-COVID and its association with the symptoms they experience. However, during the pandemic period, perceived social support was extensively analysed, underscoring its significance and its impact on the well-being of those affected, with implications for perceived health, even in the long term [24–26]. Perceived social support, in conjunction with patient agency, influences the experiential journey of long-COVID patients [20]. Notably, Lüscher et al. [27] conducted a study involving long-COVID patients and found that affective support was positively correlated with greater well-being (positive affect, $p > 0.01$) and reduced distress for both patients and their families.

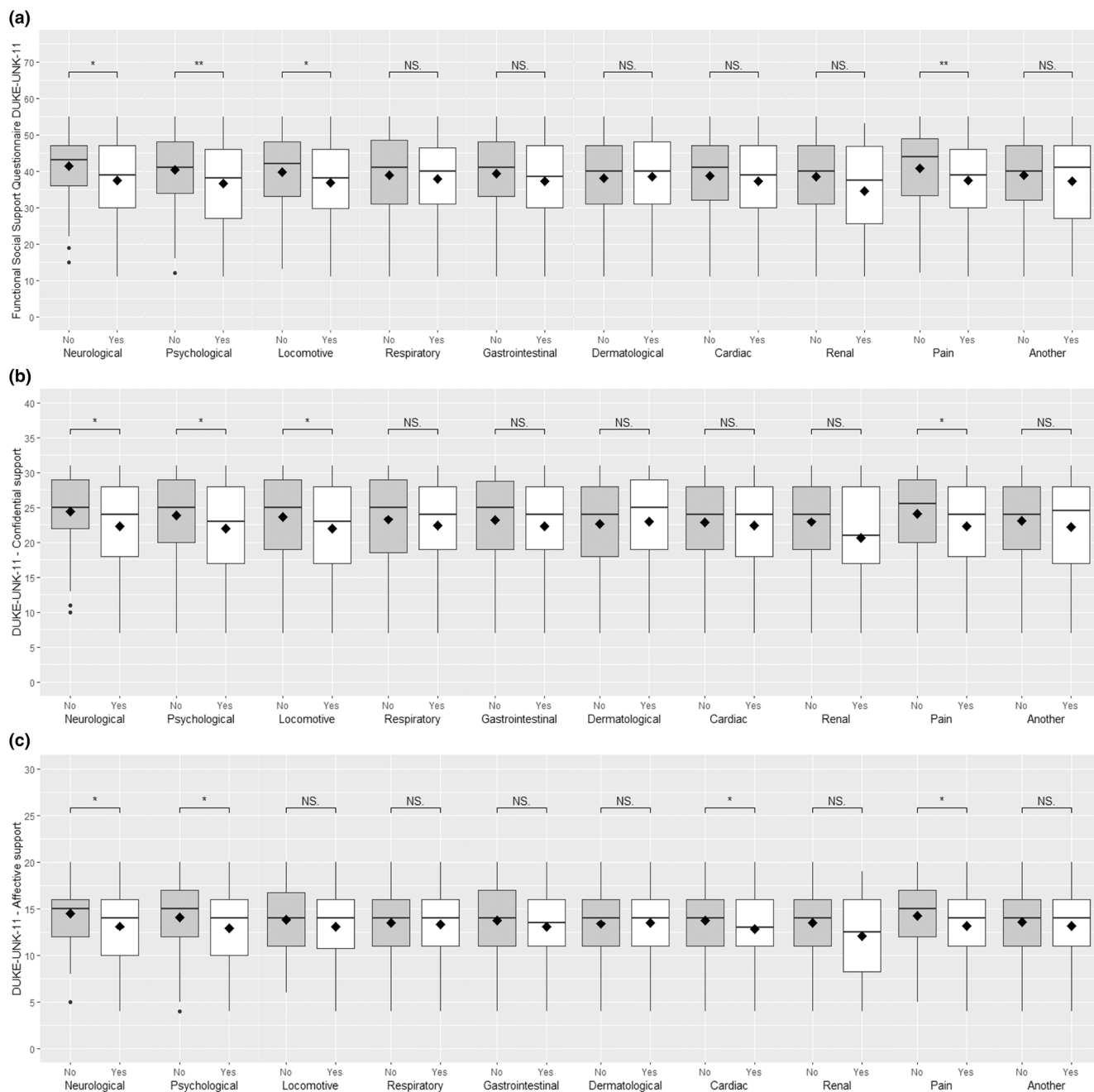


FIGURE 1 | Boxplot with relationships between Duke-UNC Functional Social Support questionnaire according to long-COVID symptoms: (a) Relationships between total score in perceived social support and long-COVID symptoms; (b) Relationships between total score in confidential support and long-COVID symptoms; (c) Relationships between total score in affective support and long-COVID symptoms.

TABLE 2 | Stepwise linear regression (Wald) models for perceived social support, confidential support, and affective support.

Variables retained in the Model	Perceived social support				Confidential support				Affective support			
	<i>B</i>	s.e.	<i>t</i>	<i>p</i>	<i>B</i>	s.e.	<i>t</i>	<i>p</i>	<i>B</i>	s.e.	<i>t</i>	<i>p</i>
Constant	41.712	1.823	22.884	<0.001	26.206	1.681	15.587	<0.001	14.683	0.660	22.252	<0.001
Total FSS	−0.071	0.035	−2.024	0.044	—	—	—	—	−0.026	0.013	−2.067	0.039
Age	—	—	—	—	−0.074	0.035	−2.112	0.035	—	—	—	—
Model statistics	Model 1: DUKE-UNC-11 = 41.712 − 0.071 × FSS				Model 2: Confidential support = 26.2 − 0.074 × Age				Model 3: Affective support = 14.683 − 0.026 × FSS			

TABLE 3 | Stepwise binary logistic regression models (Wald) for low and normal perceived social support.

Variables retained in the model	B	s.e.	Forest	p	OR
Constant	-1.216	0.617	3.886	0.049	0.296
Locomotive symptoms	1.910	0.536	12.703	<0.001	6.750
Variable & calculation	$Y = -1.216 + 1.910(1) = 0.695$				
Model statistics	Perceived social support model (low, normal = 0.1) = $1/1 + e^{0.695} = 3.004$				

Despite the average score obtained on perceived social support exceeding the criterion of low perceived social support, it is crucial to focus on individuals with low support due to the significant correlation between neurological, psychological, and pain symptoms. The physical symptoms reported by these patients are directly related to their perception of help or perceived social support. Our findings demonstrate that an increase in fatigue and asthenia correlates with a lower perception of social support. This relationship is inversely proportional, meaning a lower feeling of fatigue or asthenia translates into a more favourable self-perception of social support [28]. Furthermore, the relationship between the varied symptomatology present in patients with Long-COVID and the affective, confidential, and social support perceived by these patients is reflected in the regression models presented. These models reveal that certain variables, such as fatigue intensity and age, influence perceived support [29].

In the study presented, a significant correlation between the symptom of pain and the perception of social support is also identified. Although this relationship has not been previously explored in patients experiencing persistent post-COVID symptoms, studies of patients with chronic pain have demonstrated an association between perceived social support and improved coping strategies [30]. Furthermore, the study by Weiß et al. [31] highlights gender-specific effects of perceived social support on chronic pain. Specifically, solicitous perceived social support was found to reduce pain in men, while affective support proved more beneficial in women.

Our findings align with previous research that elucidates the impact of limited social connections on long-COVID patients. Corresponding analogies exist between the inadequate emotional support and the prevalent, customary symptomatology of these individuals, encompassing the domains of affective well-being, cognitive functioning, and behavioural patterns [32–34]. Various reviews highlight the correlation between loneliness, inadequate social and emotional support, and the persistence of long-COVID symptoms, particularly in terms of psycho-affective and behavioural aspects [25, 35]. Furthermore, perceived social support is suggested as a predictor of mental health [36], with anxiety and depression being inversely associated with perceived social support [37]. In other words, favourable perceived social support enhances patient resilience

in managing symptoms [38], a consideration pertinent to long-COVID patients.

Occasionally, perceived affective and perceived social support are not adequately valued or measured. To identify this perception of social support by the patient, tools must be employed that enable its quantification within the context of Long-COVID in a relatively straightforward manner for the patient through self-administered questionnaires. These questionnaires should yield substantial data and possess robust statistical power, as exemplified by the DUKE-UNC-11 questionnaire and its application in long-COVID patients and perceived social support associated with psychoaffective symptoms [39, 40]. In the systematic review conducted by Eberhardt et al. [41], it is concluded that the healthcare of long-COVID patients should adopt a holistic approach to integrate psychosocial support into their treatment strategy, thereby enhancing patient outcomes, acceptance, and adaptation to their new reality.

An inadequate social network, lacking sufficient support and conflict resolution strategies, exacerbates the symptoms and clinical manifestations of individuals affected by Long-COVID. Moreover, this situation contributes to the generally negative perception of the perceived social support provided to this group of patients. The immune and nervous systems fail to generate appropriate responses or actions to resolve these conflicts due to the inadequate social context [42]. Conversely, providing environments perceived as of high social quality, which address loneliness and other factors, can enhance the overall well-being of individuals, thereby reducing typical symptoms associated with Long-COVID [43, 44].

Deficiencies in perceived social support and its policies by the administrations result in the perception of aid and facilities by long-COVID patients that may not be optimal. Societies with similar characteristics to the Spanish one also experience a sense of inadequate perceived social support, leading to the proposal of projects and systems that provide the necessary tools to strengthen the need for increased perceived social support, which is undoubtedly diminished in this patient group [9].

Perceived social support is also of interest to nursing. This discipline began to take an interest in this dimension after learning about the positive effects it has on people, their health and their well-being [45]. As indicated above, Virginia Henderson, in her Human Needs model, highlighted social contact as one of the human needs, which facilitates adaptation to stressful situations. Therefore, this concept cannot be separated from nursing care, which is applied from a holistic biological, psychological and social perspective [13]. In the case of chronic patients such as those suffering from Long-COVID, needs are generated which are met by linking up with support groups, and the nurse must therefore encourage these contacts. Family support should not be forgotten as it is the most stable and long-lasting network and provides tangible help. Given the close relationship between perceived social support and nursing, it would be desirable to develop a nursing theory based on this type of support, which would be applicable by means of a middle-range theory to the chronic patient and which could be extended to Long-COVID patients. Further studies on perceived social support from the nursing perspective are required to achieve this [45].

This study presents certain limitations that should be taken into consideration when interpreting the results. The primary limitation lies in the non-random sampling technique employed, which restricts the generalizability of the findings. Despite achieving a statistically significant sample size to address this aspect, the possibility of self-selection bias cannot be entirely suppressed, potentially resulting in a lower male representation. Additionally, there is a concern about potential bias in the responses due to the influence of various factors on the perception of social support, including personal expectations and the conditioning of social prejudices regarding this aspect. The limited number of studies that evaluate this variable further hinders the ability to compare our results with those of other authors. Finally, the use of online questionnaires presents another limitation, as individuals without internet access or electronic device proficiency may have been excluded from the study. To mitigate this bias, we collaborated with patient associations of Long-COVID, who assisted their members in completing the questionnaires while ensuring the confidentiality of the data.

Despite the aforementioned limitations, the study possesses several notable strengths. These include strict adherence to the study protocol, the utilisation of validated and reliable instruments, the repeated statistical analyses to ensure the accuracy of the results, the continuous updating of the literature review to compare the findings with contemporary studies, and the novelty of the study, which underscores the necessity for a comprehensive approach in the care of post-COVID patients. This approach should integrate perceived social support as a crucial factor that influences the treatment of physical symptoms, thereby enhancing the patient's overall well-being.

5 | Conclusions

The findings of this study emphasise the significance of incorporating perceived social support into the comprehensive care of post-COVID patients. The nursing assessment of Long-COVID patients includes the Virginia Henderson needs assessment to determine the degree of social support perceived in these people. The perception of social support plays a pivotal role in the adaptation and management of symptoms, indicating that a greater focus on this aspect by nurses could substantially enhance patients' quality of life. A mid-range nursing theory developing perceived social support is required for application in the care of Long-COVID patients.

The physical symptoms experienced by patients of this type, particularly those characterised as fatigue or asthenia, are directly correlated with the perceived social support they perceive. Consequently, favourable self-perceptions of perceived social support are associated with a reduced prevalence of limiting or negative symptoms.

Incorporating perceived social support assessments into follow-up protocols could be a significant advancement towards more comprehensive and patient-centred care. This approach would not only enhance adaptation and symptom management, but it would also contribute to a deeper comprehension of the psychosocial requirements of long-COVID patients.

Despite the study's limitations, including non-random sampling and the use of online questionnaires, the findings provide a solid foundation for future research. It is imperative that new studies address residual physical symptoms and psychosocial support, a dimension related to their perception. Furthermore, it is crucial to develop specific intervention strategies that cater to the needs of patients.

Author Contributions

Rosa M. Cárdena-García: conceptualization, validation, formal analysis, data curation, writing – review and editing, project administration; **Carlos Durantez-Fernández:** methodology, software, formal analysis, data curation, writing – review and editing, visualisation; **Esther Bahillo Ruiz:** validation, investigation, writing – review and editing, visualisation; **Lucía Pérez-Pérez:** validation, investigation, writing – original draft, visualisation; **Elena Olea:** validation, investigation, writing – original draft, visualisation; **Alba Muñoz-Del Caz:** validation, investigation writing – original draft, visualisation; **Verónica Velasco-Gonzalez:** validation, investigation writing – original draft, visualisation; **Miguel Madrigal:** validation, investigation, writing – original draft, visualisation; **Lourdes Jiménez-Navascués:** validation, investigation, writing – original draft, writing – review and editing, supervision.

Disclosure

The authors agree to take responsibility for ensuring that the choice of statistical approach is appropriate and is conducted and interpreted correctly as a condition to submit to the Journal.

Ethics Statement

The study was approved by the Ethics Committee of the Eastern Area of Valladolid, registration number PI-22-2747.

Consent

All participants provided informed consent before completing the questionnaire and were able to contact the research team to address any questions or concerns.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data available on request from the authors.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.