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Research Article

Modification of social roles performance in people with Long COVID: A qualitative study.

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Short Title: Long COVID and Social Role Modifications

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Keywords: Long COVID; Social roles; Performance; Quality of Life, Barriers; Persistent symptomatology.

Abstract

Introduction: In the long term, the impact of Long COVID symptomatology can alter the organization of people's lives. This article aims to analyze by gender the modification and loss of social roles in people with Long COVID, as well as those barriers or strengths that this population may present when performing their roles. **Methods**: A qualitative design was implemented with 35 participants, recruited in primary care centers in Zaragoza (Spain) and “Long COVID Aragón” Patients Association. They were interviewed individually and were part of two focus groups. The research topics were modifications in the performance of social roles and the strengths and barriers that favored or hindered them. All analyses were conducted iteratively using NVivo software. **Results**: All participants reported a loss or modification of affective, social, work, and other roles. As factors that promote this loss (barriers) were named persistent symptoms, and the feeling of misunderstanding by the social and health system. The strengths to recover their roles and quality of life were their social network, their own search for health resources, and associationism. In the participants’ discourse, differences in gender roles are shown. **Conclusion**: Long COVID significantly impacts social roles, leading to disruptions in work, caregiving, or social activities. These findings highlight the need for tailored healthcare and social interventions to address gender-specific challenges and support social role recovery.

Introduction

COVID-19 has proven to be much more than a rapidly resolving acute respiratory illness [Szabo et al., 2023]. The extensive global effort to manage the waves of SARS-CoV-2 infections have led to significant health, economic, and social repercussions worldwide [Alwan, 2020].

The impact of this virus on human health varies considerably [Yong, 2021]. While most individuals recover from the disease, a significant proportion experience persistent symptoms that can last for several months [Besnier et al., 2022]. According with the National Academies of Sciences, Engineering, and Medicine (NASEM), Long COVID is defined as a chronic condition associated with SARS-CoV-2 infection, lasting for at least three months. It may present as a continuous, relapsing and remitting, or progressive disease affecting one or more organ systems [NASEM, 2024].

Long COVID is characterized by a complex, multisystem disorder with diverse clinical manifestation, impacting respiratory, cardiovascular, neurological, and other organ systems [Negrut et al., 2024]. The most commonly reported symptoms include muscle and joint pain, shortness of breath, fatigue, cognitive impairment or "brain fog", palpitations, headache, sleep disorders, and psychological problems. However, more than 200 persistent symptoms have been recorded [Alwan, 2021; Parums, 2024]. These symptoms significantly impair quality of life, reduce functional independence, and hinder the ability to resume normal activities [Hereth et al., 2022; Carlile et al., 2024].

In the long term, Long COVID symptoms and their associated impact can disrupt individuals' lives, affecting their ability to perform work, social and family roles. This can lead to limitations in occupational, social, or leisure activities, as well as difficulties with basic daily tasks such as dressing or grooming oneself [Sociedad Española de Médicos Generales y de Familia (SEMG). Colectivo de pacientes Long Covid ACTS., 2020].

While most studies on COVID-19 have primarily focused on understanding its nature, symptoms, vaccine effectiveness, and therapeutic management, research on the impact of Long COVID on functionality and quality of life remains relatively limited [Jandhyala, 2021].

'Social roles' refer to the patterns of behavior, activities, and responsibilities that individuals assume in various domains of life, such as family, work, social relationships, and community involvement. These roles provide structure to daily life, support personal autonomy, and contribute to an individual's sense of identity and well-being [Mize, 2017]. Most social roles are established during adolescence or early adulthood, allowing individuals to direct their behavior and gain a sense of control over their lives. This, in turn, positively affects both physical and mental health, as well as overall quality of life [Thoits, 2011]. Conversely, disruptions to these roles —whether due to accidents, disability, or other circumstances—can damage personal identity and reduce life satisfaction [Scott et al., 2019].

Long COVID symptoms can significantly impair work performance, family caregiving, social relationships, and physical activity, potentially leading to social isolation, stigmatization, and a loss of social identity for those affected [Hereth et al., 2022]. This results in substantial concerns regarding the inability to return to a previous quality of life and the recovery of lost roles [Sociedad Española de Médicos Generales y de Familia (SEMG), 2021]. Furthermore, the economic burden of Long COVID, —marked by reduced productivity, job loss, and increased financial strain from medical expenses—adds to the challenges faced by individuals and families, exacerbating social inequalities and deepening the overall impact of the condition [Al-Aly et al., 2024].

Gender roles, shaped by societal norms and traditions, influence how men and women are expected to behave, think, and feel [Devkota, and Pyakuryal, 2017]. From a young age, children begin to learn these roles by observing their parents, and during adolescence, they develop cognitive frameworks based on these gender norms [Marks et al., 2009]. Traditionally, women have been associated with nurturing roles and full-time domestic work, while men have been viewed as the primary breadwinners and decision-makers. While this traditional perspective still persists in some areas, gender roles are evolving in the 21st century, with increasingly positive and egalitarian attitudes towards women [Cameron, and Curry, 2020].

It has been well-documented that crisis exacerbate existing gender inequalities [Thorsteinsen et al., 2022]. Long COVID symptoms could create such crises within families, complicating pre-existing roles and leading to a disorganized home environment. Therefore, examining role changes in Long COVID patients must take gender differences into account.

This study aims to analyze, from a gender perspective and using a qualitative methodology, how social roles have been modified or lost among individuals with Long COVID. It also seeks to identify the barriers or strengths that this population perceives when carrying out their roles. By exploring this gap in the literature, this study will contribute to a better understanding of how gender and role disruptions intersect in the context of Long COVID.

Methods

Study design

A qualitative design was employed, using in-depth interviews and focus groups. An Inductive Thematic Analysis was conducted to identify emerging themes and subthemes related to the participants' experiences with social role modifications due to Long COVID [Naeem et al., 2023]. In-depth interviews were conducted in a calm environment and complemented by focus groups, which allowed for the emergence of new ideas through interpersonal interactions [L.Morgan, 1997]. The study adhered to the consolidated criteria for reporting qualitative research (COREQ) checklist (**Supplementary material**).

This research represents the first part of a study funded by the Carlos III Health Institute (PI21/01356), which aims to create community interventions to improve the quality of life of Long COVID patients from a citizen science approach [Samper-Pardo et al., 2022].

Ethical approval

Ethical approval was granted by the Ethics Committee for Clinical Research of Aragon (PI21/139). All the procedures adhered to the ethical standards of this Committee and the Declaration of Helsinki of 1975. Participants signed an informed consent form, and their data were anonymized and only used for the study's purposes.

Participant recruitment

The inclusion criteria of the participating patients were: 1) over 18 years of age 2) diagnosed with Long COVID by a general practitioner or specialist, and 3) having a confirmed COVID-19 infection via any positive test. The exclusion criteria were: 1) unable to respond to the interviewer, 2) cognitive impairment for any other reason; and 3) receiving palliative care.

An intentional sampling strategy [Miles et al., 2014] was employed to capture a wide range of experiences among Long COVID patients. The strategy was designed to ensure heterogeneity in the sample, considering sociodemographic and clinical characteristics such as age, gender, educational level, employment status and duration of Long COVID symptoms.

Recruitment was carried out in collaboration with seven Primary Health Care (PHC) Centers in Zaragoza (Spain), associated with the "Long COVID Aragón" Patients Association. It occurred over twenty days in November 2021. After explaining the study objectives to General Practitioners (GPs), they conducted the recruitment by creating a list of potential participants and using purposive sampling to ensure a heterogeneous and comprehensive sample [Hill et al., 1997]. Special attention was given to selecting patients with diverse experiences and backgrounds. GPs personally contacted potential participants to verify that they met the inclusion criteria. Interested individuals received an information document with contact details for further information and to confirm participation. A member of the research team (SL-H) conducted face-to-face meetings with interested participants to further confirm their eligibility. Participants who met all criteria and consented to participate were included in the study. Written informed consent was obtained from each participant.

The research team determined the sample size based on data saturation, defined as the point at which no new information emerges. Initially, 39 subjects expressed interest in participating. The final sample included 35 participants, as 4 withdrew due to scheduling conflicts. Data saturation was achieved when no new categories emerged from the focus group analyses [Hill et al., 1997]. The second focus group did not reveal additional categories, indicating that saturation had been reached and no further recruitment was necessary.

Table 1 summarizes the main characteristics of the 35 participants, including age, sex, marital status, education level, and employment status. The final sample comprised 71.4% women, with a mean age of 49 (SD:10.81). On average, participants had experienced Long COVID for 14.80 months (SD:3.90). The research team acknowledges the gender imbalance and attributes it to the characteristics of the Long COVID patient population, where women have reported higher rates of persistent symptoms [Pelà et al., 2022].

Given that one of the study's objectives was to analyze experiences by gender, the researchers ensured that both male and female perspectives were explored during interviews and focus groups. The research team made explicit efforts to recruit male participants; however, the gender imbalance persisted despite these efforts.

Procedure and data collection

Interviews and focus groups were conducted by a moderator (MS-P) and an assistant (RS-A), both of whom were graduates in Social Work and Occupational Therapy, respectively, with prior experience and specific training in qualitative research methodology. The moderator and assistant introduced themselves to the participants as the researchers responsible for the sessions, ensuring no prior relationship with the participants.

The sessions were held in November and December 2021. They took place in a room adjacent to the PHC center, designed to create a discussion environment separate from the clinical context. This neutral space aimed to ensure participants felt comfortable during the sessions.

The individual interviews and focus groups were guided by a standardized protocol that addressed several topics related to participants' experiences. The discussion topics, detailed in **Table 2**, were based on a literature review [Palmer, 2021; Jozuka et al., 2022; Ireson et al., 2022; MacPherson et al., 2022; Office for National Statistics]. The protocol addressed the research objectives indirectly. The initial questions were open-ended and progressive, starting with general inquiries such as 'How has the illness impacted your daily life?' and progressing to more specific topics like changes in work and social roles, and the barriers or strengths perceived in performing these roles. For example, a more focused question for the 'Changes in socio-affective roles' topic was: 'How has your relationship with your family or social circle has changed since experiencing Long COVID?'. This approach allowed for flexible exploration of participants' experiences and perspectives.

Both the researcher and the moderator maintained a minimal orientation role, focusing on discussing the topics outlined in the script. Given the potential for fatigue and cognitive difficulties among Long COVID patients, the researcher and the moderator ensured that participants were offered the opportunity to take breaks during interviews and focus groups if they felt fatigued or required rest. This approach was intended to minimize the risk of post-exertional malaise and to accommodate any cognitive challenges.

Individual interviews were initially conducted, followed by two separate focus group sessions with different participants in each group to ensure a variety of perspectives, until data saturation was reached. The focus groups were held after the individual interviews to facilitate deeper discussions on emerging themes. No pilot interviews were carried out. Individual interviews lasted between 20 to 60 minutes, while focus groups lasted between 50 to 75 minutes. There were no repetitions or interruptions during the sessions. All sessions were digitally recorded and transcribed to create a final set of qualitative data for analysis.

Data analysis

The interviews and focus groups were transcribed manually by two external researchers with previous experience in qualitative research. This manual transcription process was chosen to ensure accuracy and attention to detail. Since the interviews were conducted in Spanish, the transcriptions were subsequently translated into English.

Participant names were anonymized with numerical codes, and some participants reviewed and approved their transcripts. Field notes taken during the sessions were also included.

Data analysis was conducted using an Inductive Thematic Analysis approach to identify and develop themes from the data [Naeem et al., 2023]. The process involved reading through the transcripts and identifying significant segments of text. These segments were then assigned codes, which were later grouped into categories through a constant comparison process. These categories were refined in subsequent rounds of coding, and the final themes were drawn from the most significant and recurring patterns in the data. Categories were further subdivided into subcategories based on thematic uniformity.

All analyses were carried out iteratively using Nvivo software [Guizzo et al., 2003]. Two researchers (BO-B and SL-H) independently reviewed the transcripts, coding sentences that contained significant units of analysis. These codes were then grouped into categories through a combination of emerging codes. The researchers reviewed and compared their findings, agreeing on the final codes and categories. Two rounds of coding and discussion were carried out to refine the categories and enhance reliability. This process was repeated with subsequent transcripts. By the end of the second focus group, no new categories emerged, indicating information saturation.

Data from both individual interviews and focus groups were analyzed together. While the data were collected separately, the analysis was integrated during the thematic analysis process. Subcategories and themes emerged from the combined data sets. The focus groups allowed for further exploration of themes through participant interaction, contributing additional insights that were not as easily captured in the individual interviews. This integrative approach provided a more holistic understanding of the participants' experiences. The interaction during focus groups helped refine certain themes and subthemes that were not as pronounced in the individual interviews.

To ensure consistency, the moderator and assistant (MS-P and RS-A) independently coded the data, comparing their findings during regular meetings. Disagreements were resolved through discussion and consensus. Additionally, an independent reviewer (SA-L) reviewed the codes and categories at each stage to ensure the analyses were consistent and supported by the data, thereby enhancing reliability and transferability.

Finally, axial coding was performed to organize and restructure the categories identified in the initial open coding phase. During this step, new relationships between concepts were explored, helping to refine and deepen the understanding of the themes. The most significant categories were selected for further exploration, based on their relevance and their ability to provide meaningful insights into the research questions. This procedure was carried out by three researchers (MS-P, BOB, and SL-H) until a final agreement was reached.

Results

All participants completed the individual interview and attended the focus groups. As shown in **Fig. 1.**, two main themes were identified: 1) Changed or lost social roles; 2) Barriers and strengths in social roles performance. In addition, six subcategories were identified.

Changes in social roles and lifestyle.

All participants, both men and women, reported a loss of roles due to persistent symptoms. The primary symptoms impacting their lives were fatigue, cognitive impairment, and pain (headache, myalgia, joint pain).

"You are no longer what you were. I was an active person and now, I don't do anything… I just try, but I can't. At the work level, I am on sick leave. I think I will never be what I was. On a family level, I used to go out a lot and now it limits me because I can't walk that much, I can't lead the same life…"

(Woman, 44 years old)

Social and affective roles

On a social and emotional level, participants reported significant impact. They attributed this not only to symptoms that hindered their ability to engage in social or couple activities, but also to the anger and frustration stemming from months of stagnant health improvement. This feeling was particularly noted by men.

"At home, we spend the day arguing. We lose our temper at the break of dawn, and you do not see a way out."

(Man, 40 years old)

"I am not the same person, and on a couple level, it has affected me as well. Where I am best is at home and locked up. I am not the same person, and I see that I am consuming myself."

(Man, 62 years old)

Work role

Regarding the work role, most participants reported having lost their professional role, and those who were not on sick leave acknowledged that they were no longer performing their tasks at the same level as before the infection. Notably, women working as clinical assistants in nursing homes or the elderly highlighted the particular challenges they faced, describing their work as especially demanding and noting a sense of reluctance from their colleagues due to their illness.

All participants expressed feeling misunderstood by the healthcare and social systems, as after 12 to 18 months of sick leave, they were required to attend medical tribunals. These experiences were overwhelmingly negative, and many were forced to return to work even when they were not in a condition to do so.

Participants expressed frustration not only with the physical limitations imposed by Long COVID, but also with the systemic pressure to return to work, even when they were not physically or mentally prepared to do so. This dynamic contributed to feelings of helplessness and disillusionment with the healthcare system.

"I don't want any "disability", I want them to give me more extension of sick leave to see if they find a solution and I recover, but I find myself helpless… After 18 months of sick leave, they told me that I was fit to work, and I am not."

(Man, 62 years old)

"There is no understanding in terms of institutions. They do not help you. That is what has seemed the hardest to me lately, because they wanted me to go back to work no matter what, without even looking at me and without knowing how I really am, even though I have provided a thousand reports, is by decree. So that overwhelms me because if I can't do normal daily life, how am I going to consider having to go to work? They think you are fine and that you can lead the life you used to."

(Woman, 44 years old)

Caregiver role

In women's accounts, the role of caregiver emerged as a significant theme. When it came to caring for children, there was generally no loss of the caregiving role; rather, women made considerable personal efforts to continue fulfilling it despite their health status. In the case of caring for elderly relatives, depending on their level of social support, some women were able to cease this responsibility if their health deteriorated significantly, but they resumed it as soon as they were able. There was also a perception that children, especially younger ones, altered their routines to support their mother's health and even felt guilty about it. For participants living with a partner, the issue of household chores was also highlighted, with women typically referring to cleaning duties and men to tasks such as DIY or home repairs.

"It has affected me a lot on a work and a personal level. On a family level, I make an effort, I have a 14-year-old son. I separated and I live alone with him. Whether I like it or not, I must get up, cook his food, and go to work, because I must get on with my life and that of my son. But that does not mean that I am able to do it every day."

(Woman, 35 years old)

"At the family level, it has affected me a lot. I was a caregiver for a 91-year-old father, I shopped for him, did his housework, etc., and I had to delegate it because I wasn't even capable of taking care of myself. Today, I make an effort to be able to continue shopping for

him and so on, but I cannot afford to help him the way I used to.”
(Woman, 71 years old)
“My son worries that I take my medication… He is waiting for me to take them, to count them, to prepare them. It is nor normal in a 6-year-old.”
(Woman, 38 years old)
“I must rest because taking care of the child and the house is too much for me… I haven’t cleaned my windows for more than a year, and I don’t care. It has come to not matter to me because if I’m not able, I’m not able.”
(Woman, 43 years old)

"Doing housework is also hard. One day I began to disassemble the lamp in the living room, and we spend 15 days without a lamp because I could not lift it off the ground to place it."
(Man, 40 years old)

Other roles

They also reported the loss of other roles, such as that of a student or volunteer. In terms of lifestyle changes, the role of the athlete were altered for individuals who previously engaged in regular physical exercise.

"Last year I signed up for an Early Childhood Education degree, and I couldn't follow the classes. This year I have only signed up for a few classes..."
(Woman, 42 years old)

Barriers and strengths

In terms of barriers and strengths related to role performance, no gender differences were observed in the participants' accounts.

Identified barriers

The primary barrier participants faced in fulfilling their roles, aside from the persistence and intensity of their symptoms, was the perception that the health and social systems were not adequately responding to their needs. The response to Long COVID has been slow, characterized by a lack of understanding, and in some cases, even doubt or disbelief from certain healthcare professionals.

"The professionals do not believe you, or they directly tell you that they do not know what is best. Normally, what they do is treat you as if it were something mental, and it is not..."
(Man, 43 years old)

Identified strengths

The primary strength in recovering their health, and thus improving their quality of life and role performance, lied in the support of their social network. Additionally, they actively sought resources to enhance their health. For example, they viewed the creation of the Long COVID association as highly beneficial, as it provided a space for mutual understanding and helped alleviate feelings of guilt for not being able to fulfill their roles.

"Yes, I think that friends and family help me or try to, but understanding no one understands you more than the one who goes through it.
(Woman, 44 years old)

"Yes, I am in the Long COVID Aragon collective, and that has helped me. They understand you and you don't have to explain things. We support each other. In addition, it forces me to be active, because I'm quite involved."
(Woman, 44 years old)

Discussion

To the best of our knowledge, no qualitative studies have examined how the persistent symptoms of Long COVID affect social roles. Given the heterogeneous nature of the disease, its impact on individuals' roles and daily life organization can vary significantly. [Michelen et al., 2021]. Understanding these changes is essential for designing tailored interventions by multidisciplinary health teams aimed at helping patients restore their pre-illness quality of life. Our study highlights significant transformations—and in some cases, the loss—of social roles among Long COVID patients, particularly in the areas of work, household responsibilities, childcare, social relationships, and leisure activities. These findings contribute to the growing body of literature by emphasizing how persistent symptoms can lead not only to role loss but also to shifts in emotional well-being and interpersonal dynamics [León-Herrera et al., 2024; Samper-Pardo et al., 2023].

The findings indicate that most participants have lost their work roles. Among those still employed, many struggle to perform their tasks effectively or at the same pace as before the disease. Overexertion at work often results in negative perceptions of health and social systems, which are seen as compelling them to work despite their condition. Previous research has already demonstrated that persistent Long COVID symptoms, such as fatigue, pain, and cognitive impairment, diminish both physical and cognitive functioning, thereby reducing work capacity and leading to lost working hours compared to pre-illness levels [Davis et al., 2021; León Herrera et al., 2023].

The work role is a fundamental aspect of people's lives, with implications that extend beyond financial security. Employment offers daily structure, a sense of purpose, social interaction, and is strongly linked to better mental well-being. Consequently, job loss—whether temporary or permanent—or decreased productivity can significantly harm an individual's health and overall well-being [Modini et al., 2016].

Other important roles for both women and men were also disrupted. The Long COVID Patient Care Clinical Guide has already recognized a disability associated with the severity of these symptoms, which affects activities such as personal hygiene, household responsibilities, family obligations, and recreational pursuits [Sociedad Española de Médicos Generales y de Familia (SEMG), 2021].

One of the most impacted roles among participants was the social and affective role, resulting in a decline in social and partner-related activities. This was not only due to persistent symptoms such as pain, weakness, and limited energy—recognized in the literature as predictors of social isolation—but also to an emotional state marked by feelings of anger and frustration [Aghaei et al., 2022].

Despite the decline in gender role differences over the last century, this research reveals that traditional roles persist, with household chores primarily assigned to women and repair tasks to men [Cameron, and Curry, 2020]. Participants in the study viewed these activities as secondary or less important, as they could no longer perform them as they did before the illness. Consequently, Long COVID has led to significant modifications in these occupational roles.

Regarding the caregiver role—both formal (as professional caregivers) and informal (caring for children or elderly family members)—it was observed that this responsibility had not been relinquished, particularly among women. However, fulfilling these tasks required significant personal effort due to health limitations. Despite shifts in gender roles, women continue to dedicate more time to household and childcare responsibilities, even when working full-time [Ciciolla, and Luthar, 2019]. They face societal pressures and expectations to embody traditionally feminine qualities such as nurturing, deference, communality, and attractiveness [Harrington et al., 2022]. These expectations likely explain why many women, despite their health challenges, feel a strong sense of duty to maintain caregiving roles.

Other significant roles in participants' lives, such as being a student, volunteering, or engaging in physical exercise and sports, were also diminished or lost due to persistent symptoms. The reduction or loss of physical activities is particularly impactful, as it often triggers a shift in lifestyle. Existing evidence highlights that individuals with Long COVID frequently struggle to return to their pre-infection routines due to a lack of energy and other barriers imposed by the disease [Tapper, and Verhage, 2022].

This study thoroughly examined the barriers to performing social roles. Findings revealed that individuals with Long COVID face significant challenges in fulfilling their occupational and socioemotional roles due to persistent and intense symptoms. Participants also expressed dissatisfaction with the health and social systems, citing slow responses, ignorance, skepticism, and disbelief from health professionals. Despite ongoing efforts to better understand and manage Long COVID and the publication of several clinical guidelines, a substantial gap remains in practice [Koc et al., 2022].

Key factors supporting recovery and the restoration of pre-illness quality of life include having a strong social support network, actively seeking resources, and participating in associations like "Long COVID Aragón." Members of this group primarily use social networks for communication. As noted by Rushforth et al., online communities are valuable spaces where Long COVID patients can share experiences and exchange practical advice, such as recommendations on physical exercise and diet [Rushforth et al., 2021]. However, due to the syndrome's heterogeneity, what benefits one person may not work for another.

The findings of this study underscore the importance of addressing the psychosocial impact of Long COVID, as patients experience significant loss of roles in key areas such as work, family, and social activities. This loss of roles not only affects social well-being but also contributes to a decrease in emotional well-being, including feelings of frustration, sadness, and exhaustion [León-Herrera et al., 2024]. To address these challenges, it is essential for psychosocial interventions to focus on supporting the recovery of social roles and strengthening personal identity, aspects identified as critical for rehabilitation.

In particular, interventions could incorporate approaches that promote the reconstruction of professional and family roles, both for men and women, through psychological support and education on adaptive coping strategies [Kotkamp-Mothes et al., 2005]. Additionally, psychosocial support programs that include active participation in patient support groups and associations could be crucial in reducing social isolation, improving self-esteem, and promoting a sense of community among those facing similar situations[Rasmus et al., 2021; Anderson et al., 2015].

The findings also point to the need to integrate emotional support into rehabilitation programs, as participants emphasized the importance of being understood and supported by healthcare professionals who validate their experience and do not minimize their suffering. This perspective is key to designing interventions that not only focus on physical recovery but also offer a holistic approach that promotes the restoration of emotional and social well-being [Jasubhai, 2019; Scoles, 2024].

Limitations and future research directions

To date, no previous study has explored the impact of Long COVID on the performance of social roles, including gender differences and the factors that either facilitate or impede this performance. This study offers new insights into a condition that profoundly affects all areas of life for those affected.

However, the qualitative design of the study limits the ability to analyze role performance prior to the disease and does not establish causal relationships between the identified limitations, strengths, and participants' role performance. Furthermore, the sample size of 35 participants limits the generalizability of the findings. Future research should aim to include a larger and more diverse sample to better capture the full range of experiences and perspectives.

A key limitation of this study is the overrepresentation of female participants, which raises concerns about the generalizability of the findings. Additionally, the sample was heterogeneous in terms of age and employment status, factors that may have influenced the findings. A more homogeneous sample could provide a clearer understanding of the impact of Long COVID on specific demographic groups, while larger and more balanced samples are necessary to draw broader conclusions.

Finally, all participants in this study had a confirmed diagnosis of Long COVID, which may limit the generalizability of the findings to the broader population of individuals living with the condition. A significant proportion of individuals with Long COVID remain undiagnosed, and future research should include both diagnosed and undiagnosed individuals to better capture the diverse experiences of those living with Long COVID.

Future research should prioritize longitudinal studies to better understand the long-term trajectory of Long COVID symptoms and their impact on social roles over time. Additionally, there is a need to explore intervention strategies aimed at supporting the recovery of disrupted social roles, including tailored psychosocial and occupational rehabilitation programs. Studies focusing on gender-specific experiences and their implications for caregiving roles and household responsibilities would further enrich our understanding.

Further work should also investigate the role of healthcare and social systems in the recovery process and how these systems can be improved to better support individuals with Long

COVID. Collaborative research efforts that include patients, healthcare professionals, and policymakers are crucial to designing effective, person-centered interventions.

CONCLUSION

This qualitative study highlights that Long COVID leads to significant changes and, in some cases, the loss of social roles due to persistent symptoms and slow responses from health and social systems. However, factors such as social support, involvement in associations, and active resource-seeking can positively influence recovery. Despite the decreasing gender role differences in recent decades, participants still perceive the persistence of some traditional roles. These factors should be considered when developing and implementing personalized, holistic socio-health interventions aimed at restoring quality of life for this population.

Statements

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Statement of Ethics

Ethical approval was granted by the Ethics Committee for Clinical Research of Aragon (PI21/139). All the procedures adhered to the ethical standards of this Committee and the Declaration of Helsinki of 1975.

Participants provided written informed consent, and their data were anonymized and only used for the study's purposes.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

SL-H: Conceptualization, participant recruitment, methodology, data collection, thematic analysis, and manuscript writing; MS-P: Data collection, thematic analysis, review, and editing of the manuscript; BO-B: Conceptualization, supervision of the study, methodology, project administration, data collection, thematic analysis, review and editing of the manuscript; SA-L: Literature review, methodology, data collection, thematic analysis, review, and manuscript revision; RS-A: Methodology, data collection, thematic analysis, interpretation of results and manuscript revision.

Data Availability Statement

The datasets used and/or analysed during the current study are available from the corresponding author upon reasonable request.

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Figure Legends

Fig. 1. Graphic representation of the main aspects of the results.

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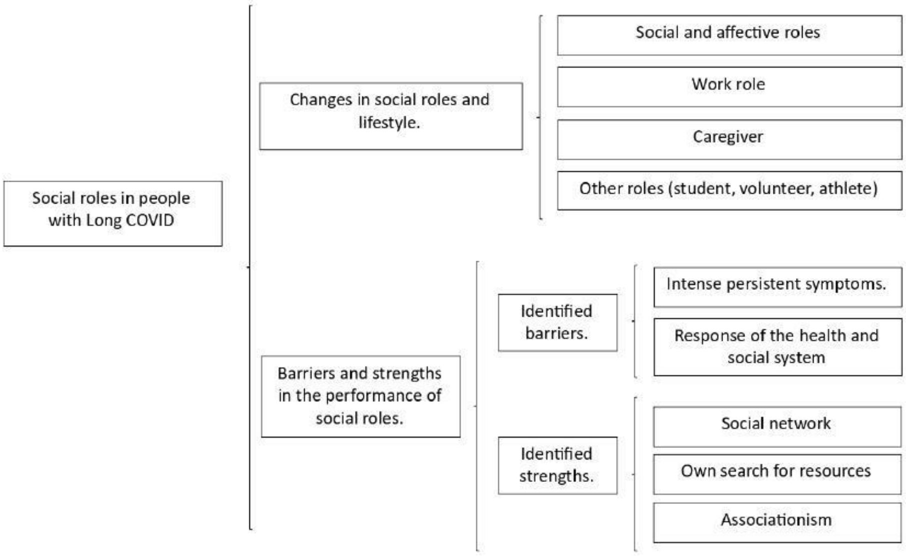

Table 1. Sociodemographic characteristics of participating patients

Variables	**Patients** **(n = 35)**
Age	
20-40 years	8 (22.9%)
41-60 years	20 (57.1%)
>60 years	7 (20%)
Sex	
male	10 (28.6%)
female	25 (71.4%)
Marital Status	
Single	4 (11.4%)
Married or in couple	19 (54.3%)
Separated or divorced	10 (28.6%)
Widowed	2 (5.7%)
Education level (%)	
No formal studies but can read and write	1 (2.9%)
Primary education	3 (8.6%)
Secondary education	19 (54.3%)
University education	12 (34.3%)
Employment status (%)	
Employee	6 (17.1%)
Employee with temporary work disability (TWD)	22 (62.9%)
Unemployed with benefits	1 (2.9%)
Unemployed without benefits	1 (2.9%)
Retired	5 (14.3%)

Table 2. Topic list and questions for patients.

Topic list	**Questions for patients**
Before the interview	1. Greeting, thanks, and introduction of the interviewers and the observer. 2. General information about the purpose of the session and the topic to be discussed. 3. Explanation of ethical aspects: informed consent, confidentiality, and permission to record. 4. Explanation of the interview dynamics ("We will ask some questions to find out about your experiences. We are interested in your opinion. Before we continue, do you have any questions, do you have any doubts? Do you agree to participate?")
Disturbance in the life	Changes in socio-affective roles. Changes in occupational roles. Changes in lifestyles.
Barriers and strengths	Barriers to developing the roles. Strengths for developing the roles.