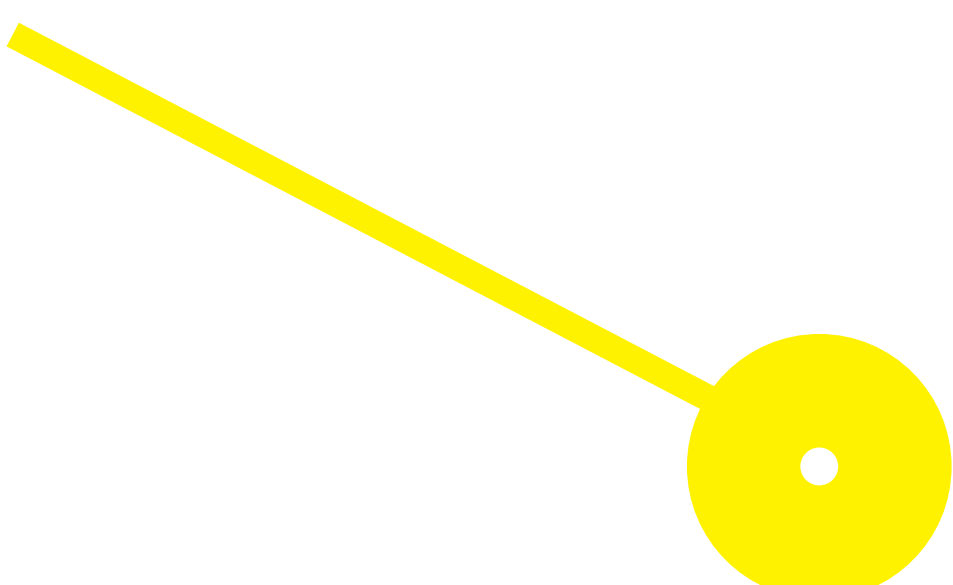




Health professional's perspective on individual resilience promoters - a qualitative study

Ana Eduarda Leite Costa

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Health professional's perspective on individual resilience promoters – a qualitative study

Autor

Ana Eduarda Leite Costa

Orientador(es)

Professora Doutora Raquel Simões de Almeida

Professora Doutora Artemisa Rocha Dores

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Resumo

Introdução: Os profissionais de saúde são uma população suscetível de ser afetada física e psicologicamente durante crises de saúde, como a recente pandemia de CoVID-19. A resiliência pode ser definida como a capacidade de superar a adversidade e tem sido apontada na literatura como um possível fator de proteção contra o sofrimento psicológico em situações de crise. Assim, este estudo pretende, com base nas experiências da pandemia de CoVID-19, compreender as perspectivas de profissionais de saúde portugueses relativamente aos fatores que reforçam a sua resiliência individual.

Métodos: Para alcançar o objetivo do estudo foi conduzida uma investigação qualitativa. Foram realizadas entrevistas a 25 participantes que foram recrutados através do método de amostragem não probabilística intencional. As entrevistas foram analisadas com base na análise temática com recurso ao software WebQDA.

Resultados: Os fatores que parecem ter atenuado o impacto da pandemia nos profissionais de saúde incluem o apoio social de familiares e amigos, o apoio organizacional de dirigentes e colegas, o envolvimento em atividades promotoras de bem-estar, as competências pessoais, a capacidade de aprender com a experiência, a implementação de medidas para aumentar a sua segurança e as suas experiências profissionais anteriores à pandemia.

Conclusão: Os resultados obtidos permitiram desenvolver orientações estratégicas para os serviços de saúde para a promoção da resiliência dos profissionais de saúde. Estes resultados são de elevada relevância para os terapeutas ocupacionais, que poderão auxiliar na promoção da resiliência através do envolvimento em ocupações significativas, que estes consideram que é um mecanismo natural de promoção da saúde.

Palavras-chave: Saúde Mental; Resiliência; Profissionais de saúde; Pandemia de CoVID-19; Estudo qualitativo

Abstract

Background: Healthcare professionals are a population susceptible to being affected physically and psychologically during health crises, such as the recent CoVID-19 pandemic. Resilience can be defined as the ability to overcome adversity and has been pointed out in the literature as a possible protective factor against psychological distress in crisis situations. Thus, based on the experiences of the CoVID-19 pandemic, this study aims to understand the perspectives of Portuguese healthcare professionals regarding the factors that reinforce their individual resilience.

Methods: To achieve the aim of the study qualitative research was conducted. Interviews were performed with 25 participants who were recruited using the non-probability purposive sampling method. The interviews were analyzed based on thematic analysis using WebQDA software.

Results: The factors that appear to have mitigated the impact of the pandemic on healthcare professionals include social support from family and friends, organizational support from leaders and colleagues, involvement in well-being-promoting activities, personal skills, ability to learn from experience, implementation of measures to increase their safety, and their professional experiences prior to the pandemic.

Conclusion: The results obtained allowed the development of strategic guidelines for health services to promote the resilience of healthcare professionals. These results are of high relevance to occupational therapists, who might have a role in promoting resilience through engaging in meaningful occupations, which they see as a natural health-promoting mechanism.

Keywords: Mental health; Resilience; Healthcare workers; CoVID-19 pandemic; Qualitative study

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1. Introduction

Adversity is present and common in people's lives. This can range from mildly unpleasant situations to being exposed to real events of clear violence or threat to personal integrity (1). This issue becomes particularly topical today as we continue to be affected by the multiple risks and calamities that once afflicted humanity (1), such as pandemics. The CoVID-19 pandemic was the most recent global health crisis affecting society. This began in 2020 and since its onset millions of lives have been lost, public health systems have been in shock, and various economic and social disruptions have arisen (2,3).

Based on experiences from previous pandemics, such as SARS CoV-1 and Ebola, it is easy to assume that a pandemic is challenging (4), and generates high levels of stress (5). Due to the global increase in these crises, particularly at the health sector level, healthcare professionals are more likely to be affected physically and psychologically compared to other occupational groups because they are generally at the forefront of a response to adverse events in this area. Thus, the CoVID-19 pandemic seems to have significantly affected the mental health, well-being, and possibly work effectiveness of healthcare professionals (6).

These findings can possibly be explained by the occupational context of healthcare professionals that requires them to face several challenges in addition to those faced by the general population, such as fear and general uncertainty (5,7). Healthcare workers are prone to direct exposure to pathogens, reorganization of workspaces and routines (2,7), increased workload (5,7), lack or inadequacy of personal protective equipment, burnout (2,7), ethical issues related to decision making (2,5,7), separation from family, and feelings of failure in the face of unfavorable prognoses (5,7).

In this way, the prevention of psychosocial risks becomes crucial for healthcare professionals, mainly in moments of crisis (5). Resilience has been highlighted in the literature as a possible protective factor against psychological distress in crisis situations (8). However, understanding how this protective effect occurs is hampered by the existence of a wide range of definitions of the concept of resilience that is neither clear nor unambiguous, but it is possible to identify several points of confluence between the various definitions (1).

The concept of resilience, according to the American Psychological Association (APA), describes the process of adapting to adversity, trauma, tragedy, threats, or significant sources of stress (9). However, Connor and Davidson believe that resilience is not a process, but rather a personality

trait that encompasses a set of characteristics that enable individuals to cope with adversity and adapt to the circumstances (10).

Despite the various definitions, resilience can be briefly defined as the ability to overcome adversity, although this overcoming may include longer or shorter lasting signs of the impact of the adverse event. Thus, resilience refers to a reorganization of personal perspectives, beliefs, and values, which help to minimize the negative consequences of potentially damaging experiences (1).

Resilience can be influenced by internal and external factors (11), from individual characteristics, such as intelligence and problem-solving ability, to contextual variables, namely family context, social context, and cultural and normative particularities (1,12).

An adverse event may impact the individual moderately, minimally, or almost not at all. In the first two cases, functioning prior to the adverse event is re-established, corresponding, according to some authors, to the lowest and intermediate level of resilience, respectively. In the last case, in which the impact is almost non-existent, and the individual acquires higher functioning after the adversity, it corresponds to the highest level of resilience (12).

Positive effects of resilience during pandemics, such as decreased burnout and depression, can be found in the literature (13). In addition, psychological resilience, coping behaviors, and social support have shown positive results in the mental health of healthcare professionals, particularly regarding well-being, mitigating the consequences of being on the frontline of the pandemic (13,14). Therefore, studies have been conducted on the development of resilience, focusing on healthcare professionals (15).

Some strategies for promoting resilience before and during disease outbreaks have already been reported in the literature. These include the provision of literacy and training, interventions to create a sense of readiness, psychosocial support, and treatment, monitoring the health status of healthcare professionals, paying attention to the type of tasks, the mix of tasks and responsibilities, and the intensity and burden of those tasks, as well as to working patterns and conditions (15).

Occupational therapy recognizes that catastrophic events, such as CoVID-19, impact occupational participation, as people have been forced to change their choices, habits, and occupational roles during the pandemic, in addition to the deprivation related to leisure and social activities, as an example. This change in participation led to emotional impairments, and occupational therapists emerge as qualified professionals to help people cope with the

psychosocial consequences of the CoVID-19 pandemic through involvement in meaningful occupations, which are an agent of change to increase health and well-being (16).

Given the data mentioned above, there is an urgent need to focus research on resilience and strategies to promote it in order to provide healthcare professionals with the tools to cope more effectively with adverse situations in the future. This is a relevant subject for mental health promotion of healthcare professionals, namely during adverse situations. Thus, this study aims, based on the experiences of CoVID-19 pandemic, to understand the perspectives of Portuguese healthcare professionals regarding the factors that reinforce their individual resilience.

2. Methodology

This qualitative study is part of the European project "Empower4Pandemias - Learning From Covid19", in which one of the supervisors of this work is involved. Briefly, the main objective of the project is to pilot a blended learning training to enhance resilience skills of professionals and decision makers in the healthcare and emergency sector and related public administrations to strengthen their individual and organizational resilience to better cope with pandemic crisis. To reach the aim of this research, a qualitative study was design (17), using the thematic analysis. The study was conducted based on the guidelines of Tong, Sainsbury, Craig "Consolidated criteria for communication of qualitative research (COREQ)" (18) and O'Brien et al "Standards for communication of qualitative research" (19).

2.1. Participants

Participants were recruited through the non-probability purposeful sampling method which aimed to select individuals with the highest and lowest resilience scores in this project previous survey (20). The inclusion criteria outlined for this study were: being a healthcare professional (doctors, nurses, allied healthcare professionals or psychologists were recruited), having worked during the CoVID-19 pandemic in Portugal, and being professionally active at the time of data collection.

Participated in this study 25 healthcare professionals, 17 female (68%). The age of the participants ranged from 25 to 70, with a mean age of 45 years ($SD=12,4$). As for the professional category, the sample is made up of 5 physicians, 5 nurses, 10 allied healthcare professionals, and 5 psychologists. Most participants of the sample have a bachelor's degree ($n = 13$), 9 participants

have a master's degree, and 3 participants have a PhD. More detailed information about the participants can be found in the Table 1.

Table 1- Sample sociodemographic characterization

Participant	Gender	Age (Years)	Occupation	Academic degree	Type of institution	Professional experience (years)	Leadership role
1	Female	40	Medical Doctor	Bachelor's degree	Public Hospital	14	Yes
2	Male	38	Medical Doctor	Master's degree	Emergency medical service / Public Hospital	15	Yes
3	Female	29	Nurse	Bachelor's degree	Public Hospital	6	No
4	Male	41	Nurse	Bachelor's degree	Public Hospital	19	No
5	Male	42	Nurse	Bachelor's degree	Public Hospital	21	Yes
6	Female	41	AHP* – Occupational therapist	Bachelor's degree	Public Hospital	19	Yes
7	Female	49	AHP – Speech therapist	Bachelor's degree	Public Hospital	28	Yes
8	Female	60	AHP – Physiotherapist	Bachelor's degree	Public Hospital	37	Yes
9	Female	54	AHP – Physiotherapist	Master's degree	Public Hospital	33	Yes
10	Male	27	AHP – Occupational therapist	Master's degree	Public Hospital	6	No

11	Female	32	Medical Doctor	Master's degree	Public Hospital	7	No
12	Male	25	Nurse	Bachelor's degree	Public Hospital	3	No
13	Male	33	Nurse	Bachelor's degree	Private Hospital	4	No
14	Female	48	Medical Doctor	Bachelor's degree	Public Hospital	21	No
15	Female	32	Medical Doctor	Master's degree	Public Hospital	7	No
16	Female	54	AHP - Pharmacy technician	Master's degree	Public Hospital	33	Yes
17	Male	62	AHP - Radiology technician	Bachelor's degree	Public Hospital	36	No
18	Female	34	AHP - Occupational therapist	Master's degree	Private clinic	11	Yes
19	Female	30	AHP - Occupational therapist	Master's degree	Public Hospital	6	No
20	Female	37	AHP - Physiotherapist	PhD	Public Hospital	17	No
21	Female	44	Psychologist	PhD	Emergency medical service	21	Yes
22	Female	60	Psychologist	Bachelor's degree	Public Hospital/ Private clinic	33	No
23	Female	44	Psychologist	Bachelor's degree	Hybrid hospital/	20	No

					Private clinic		
24	Male	70	Psychologist	PhD	Public Hospital	36	Yes
25	Female	61	Psychologist	Master's degree	Private clinic	30	No

Note: AHP –Allied Health Professionals

2.2. Procedures

The first procedure performed was a literature review on the subject. In the next stage a semi-structured interview guide was developed and pilot-tested for clarity and completeness after the interview script was reviewed and approved by a panel of experts in this field.

Next, participants in the “Empower4Pandemias” project were invited to participate in online one-to-one interviews. The purpose of the study, details of what would be asked of participants, and contact information for the research team was sent via email with an attached consent form that was reviewed with participants at the start of interview sessions. Zoom interviews were scheduled at a mutually agreed upon time.

The interviews were conducted via Zoom by two researchers who were trained on how to conduct the interviews. The duration of the interviews varied between 30 and 90 minutes, with the average being 60 minutes and were audio recorded with participants' permission. All interviews took place ensuring privacy, with no one else present apart from the participant and interviewer.

Interviews were professionally transcribed verbatim and fieldnotes were written after each interview to record aspects of the interview that may not be captured on the recording such as general observations and thoughts.

Ethical approval was sought from School of Health, Polytechnic Institute of Porto Ethics' Committee and the international project “Empower4Pandemias” was approved by UMIT Ethics Committee (RCSEQ AZ2102).

2.3. Data collection

Data collection occurred between May and June 2023. The interview guide (see appendix 1) consisted of open-ended questions with probes related to key areas of interest about the healthcare workers' lived experience during the pandemic and was divided into eight sections: (1)

General questions about roles and responsibilities, (2) Experiences about the initial phase of the pandemic, (3) Work routines and challenges during the CoVID-19 pandemic, (4) Patient care during the pandemic, (5) Organizational support, (6) Individual skills and stress, (7) Individual learning, and (8) Additional information. In addition, the following sociodemographic data were also collected: age, gender, work experience in years, academic degree, profession and area of work, and type and size of organization.

2.4. Data analysis

Interview transcripts were analyzed using thematic analysis (21). Initially, a pre-analysis of the transcripts was performed through a free reading and then the first author read the first two transcripts and identified relevant themes and subthemes. A coding system was developed and agreed by all authors. Subsequent analysis of the remaining transcripts followed the coding system and any new themes and subthemes were added. Meetings were held to harmonize the themes to be retained. Results were discussed until consensus on interpretation was reached. The thematic analysis was conducted using the software WebQDA.

3. Interpretative task

In accordance with the objectives set for the study, through the analysis of the interviews, four categories emerged that intend to contribute to the understanding of the factors that influenced the experiences of healthcare professionals about the CoVID-19 pandemic and thus identify guidelines for health services.

Thus, the first theme refers to "Organizational factors", which is divided into five subthemes: "Support and assistance measures", "Contingency measures", "Work changes", "Teams" and "Quality of services".

The second theme refers to the "External factors", subdivided into the subthemes "Climate of instability/uncertainty", "Positive impact and learning about the pandemic", "Concerns of patients", "Stress sources", "Challenges faced" and "Support networks".

The third theme, addresses the "Personal factors", divided into the subthemes "Individual skills to deal with crises", "Emotional impact of the pandemic", "Participation in activities that promote general well-being", "Adoption of protective measures" and "Previous professional experiences".

The fourth theme refers to "Strategic guidelines for improving health services" and includes the subthemes "Training of professionals", "Support and well-being measures", "Telehealth", "Reorganization of services" and "Professional acknowledgment" (see appendix 2).

3.1. Theme 1 – Organizational factors

The first theme encompasses the participants' reports about the organizational aspects that were present during the pandemic.

3.1.1. Subtheme – Support and assistance measures

With regard to the help and support provided by health organizations to healthcare professionals, in general, there are participants who are very satisfied with the measures taken as can be seen by the following quotes " I didn't feel at all helpless or, or without support." (P16); " I always felt supported." (P8). However, less than satisfied participants were also identified, and in addition to not feeling supported they also felt an added pressure caused by the institution in a challenging phase in itself, which can be evidenced by the following quotes " there was even pressure to, not to get sick" (P13); "I didn't have any support quite the opposite" (P20); " I didn't feel very supported" (P7).

As for the measures adopted by the organizations to support healthcare professionals during the pandemic, the participants identified the availability of personal protective equipment, the implementation of psychological support measures, the training of professionals, the adoption of strategies to balance professional and personal life, the establishment of working conditions, and the valuing of the professionals' work during this phase by giving them rewards.

According to the participants, most organizations since the initial phase made an effort to acquire all essential materials for the protection of healthcare professionals and in a timely basis. " They were able to give us the materials that we needed and the equipment in a faster way" (P12); " everything that needs to be acquired ah was acquired at that time" (P2); "[The employee] ends up, feeling very safe and very confident because he knows that the organization is going to have all the necessary" (P18). However, there were organizations that delayed in this response and did not provide the necessary safety to professionals, with some participants pointing this out as something negative in terms of support from the organization "protective equipment was lacking in my hospital and so that measure was not taken initially" (P17). The lack of personal protective

equipment (PPE) or the inadequate PPE is a factor described in the literature that damages the mental health of the professionals since they do not feel safe performing their tasks (22–25).

Regarding psychological support, several measures were identified by the participants, namely the development of support offices in the institutions themselves, the hiring of more psychologists to respond to the offices mentioned before, the implementation of phone lines operated by psychologists to support professionals, the establishment of reference psychologists for the institution's professionals, especially those who were providing emergency services, and raising awareness among professionals of warning signs that they should be alert to in their own mental health. *"They provided us with a psychological help office" (P16); "we made a small information in an SMS message that was disseminated to all the emergency department employees [...] saying "the phone number of the psychologist who is assigned to you is this one, if necessary, you want to get in touch with this direct link" (P24); "the hospital provided a psychological support line." (P7); "they even made an alert of some characteristics that we could feel and that we should not deny." (P6); " an occupational psychologist was recruited who is there half time just for the professionals." (P8). This support was relevant since psychological follow-up with mental healthcare professionals is identified in the literature as essential to cope with adversity (26).*

This support mentioned earlier was available not only from the professionals' work institutions but also from other entities such as the 24 hour health line, professional associations and the National Institute of Medical Emergency (INEM) *"INEM has a department and a center for psychological care and crisis intervention that works perfectly well and opens its doors to all internal and external professionals. The hospital also had an office available for this purpose. The medical association also had an office available for this purpose. The line health twenty-four also, ah not having I needed to use it, those who needed it had that support yes." (P2). However, it was also possible to notice that, despite the institutions having provided these resources of psychological support, some participants have not felt the need to use them. Two reasons were identified, the first was the ability to manage the situation individually and the second was the psychological support at a personal level that the participants had and maintained. "I didn't appeal, but there was" (P19); " I didn't attend, but yes, I knew it existed yes. I didn't attend the hospital one, I had the private one" (P12); "Ah, I never used it, but there was if I needed it " (P2). Additionally, although some of them did not use the services, they point out that it was an added value for professionals to know that*

if necessary they would have this support available " Somebody knowing that they have someone to call on ah, I think it's important "(P6)

Despite the psychological support measures described above having been implemented in the health services, there were participants who reported that there were no psychological support measures in their institutions, or that it was not provided at the right time. "That psychology appointment could have been earlier" (P19); "the support and the presence of psychology would have made a difference especially in that initial phase"(P15); "at the psychological and emotional support level I think was lacking ah particularly in the post-covid " (P7).

Another institutional support provided to healthcare professionals was the empowerment of these professionals through training sessions and the provision of information through various tools. With regard to training, there was streamlined training in the institutions about PPE's " it was the PPE and sanitization part" (P19). The literature also emphasizes the importance of not only providing healthcare professionals, especially those on the front lines, with adequate materials, but also providing training and supervision in the use of these personal protective materials so that they can work safely (15,27).

Other training sessions were about the CoVID-19 disease and the respective care procedures "in general, it focused a lot on the treatment of CoVID-19 itself and the care procedures to be followed" (P10); "only focused on CoVID-19" (P8). The literature highlights the need to provide training for professionals to deal with the pandemic, including providing training sessions on the epidemiology of CoVID-19, impact on activity, transmission of the infection, diagnosis of CoVID-19, and on personal protective measures, including personal protective equipment, procedures and isolation (28).

Stress management trainings were also conducted " a training on stress management [...] we had a training there that helps us in some way to deal with those and other situations" (P15), and spaces were created to help professionals manage the pandemic "to have a place where, where they could rationalize ah, some interpretations and could make more rational decisions" (P21).

Some trainings were provided online through webinars "we held webinars also on, on that not only on the obviously more technical issue of, of responding to COVID but also on the skills and literacy for our professionals" (P21), through the distribution of flyers and the dissemination of videos "we even created the flyer based on a model of, which is a model also very dedicated to resilience [...] and

we also made a video promoting [...] disseminated on the intranet" (P24) " we had several initiatives particularly with flyers that we were developing as we identified this need directed to our professionals" (P21).

In addition to work institutions, professional associations also provided training during the pandemic in an accessible and free-of-charge way for healthcare professionals " they [professional association] gave us a lot of support, free of charge, a lot of free online training, a lot of guidelines, a lot of manuals, a lot of documents" (P23).

As for the participants' satisfaction with the training provided by the organizations, some participants indicate that there was a gap between the training and the professionals' needs "there was insufficient training" (P22); "the training part failed " (P2). **However, there are also those who indicate that the training was sufficient** " I don't think we missed training, I think we had a lot of training available" (P23); "we had training every day" (P3).

Regarding the information provided by various channels, the participants generally considered that the organization kept them up to date with the latest regulations and data on the pandemic. "They sent emails ah, with the ah with the data [...] at that time, we liked to be updated"(P20), " a lot of information. [...] which made it so that afterwards we also had clear information about things that were happening." (P18). **However, the perspective concerning the adequate provision of this information is diversified among the participants, with some considering it to be adequate** "the information was a very important thing and it worked well because it was very fast." (P16) **and those who consider that it could have been more adequate** "that information sharing was delayed, and it was not always the most assertive." (P2).

Another focus of the support provided by the organizations to the professionals was the development of strategies to make it easier to balance professional and personal life during the pandemic. To this end, rooms were set up in the hospitals so that professionals would not have to go home "A place was created almost informally where they could sleep, because they didn't want to go home for fear of infecting people" (P22) **and couples where both were healthcare professionals and had children were taken into consideration** "prevented the issue of family assistance, also that was here a little safeguarded, because in fact what is our priority is not ah, are our descendants [...] we felt that we were ah was safeguarded here the question of our son's safety." (P4).

The concern with working conditions was also an institutional preoccupation, namely at the staff resources level, work overload, safety, work schedules, meals for the professionals *"providing what are the human resources, providing what are the conditions for professionals to be able to work safely, with quality" (P4); "providing meals to the people who were ah responsible for the COVID [...] who were in the COVID areas had, had long periods of work, but also had long periods of rest" (P1); "the coordinator always tried to ensure that the work was minimally balanced so that we wouldn't overload ourselves too much" (P19).*

Something that participants emphasized in the institutional support was the recognition of their work and the provision of benefits, particularly monetary benefits *"the administration, the director nurse of the hospital came to the services to thank the team for all the effort" (P3); " everyone received a benefit [...] a monetary benefit" (P11).* **In Portugal, in 2020, the government established a compensation measure for healthcare professionals in the national health service who have, for at least thirty days, performed acts directly related to Covid-19 infected patients and suspects in the context of observation, clinical evaluation, and therapeutic approach, as well as contact identification, active and overactive surveillance of contacts and confirmed cases of disease, epidemiological research, and collection and processing of samples for laboratory testing for SARS-CoV-2 (29). Similarly, other countries such as the Czech Republic, Denmark, Israel, Italy, and others have also implemented a variety of strategies to financially support healthcare professionals to mitigate their loss of income and help alleviate financial pressures due to additional expenses (30) .**

In terms of leadership, it was highlighted as something positive and that helped to overcome this phase, the fact that the managers listened to the professionals *" at least trying and responding to the requests that came." (P16); "this empathy, this presence that was always available to us [coordinator], to listen to us." (P18); "this openness and support and total availability to receive them, to welcome these ideas and implement them" (P21) and the trust deposited in the professionals "the credibility and confidence in our work" (P21).* **The concern expressed by the managers towards the professionals was also mentioned as something significant for them during difficult phases of the pandemic** *"I was lucky to have a management that was very attentive to what was happening, concerned about their employees" (P18); "our superiors and effectively we were looking, we were asking how we were how we were coping." (P10); "they showed beyond this openness also concern for us " (P21).* **These reports are positive, in line with published data indicating that**

healthcare professionals felt supported by the leaders as they were present during the crisis and showed concern for the team members and their work. This made it easier for the professionals to adapt to the pandemic as they felt they had someone who understood, supported and cared for them, by creating a climate of stability and involvement among the teams at a moment of chaos. Thus, the support of leaders provided through incentives, feedback, information, and practical help is a promoter of mental health for healthcare professionals (31).

However, one participant was dissatisfied with the leadership by the team manager during the pandemic period *"there was a lack of leadership. The support that he had to give was missing, with what is expected of a leader in a situation like this is to be a leader, that support was missing"* (P2).

This participant's report is consistent with most of the data published in the literature regarding the support provided by leaders during the pandemic. Results from a qualitative study reveal that healthcare professionals felt excluded from the decision making process producing feelings of frustration and pressure (32). These findings are reinforced by data from a scoping review about healthcare professionals' experiences in the pandemic, which also reports dissatisfaction with institutional leadership and feelings of exclusion from decision-making processes (33).

3.1.2. Subtheme – Contingency measures

To control the pandemic, the Portuguese government, when declaring the State of Emergency, defined several contingency measures for the general population that included teleworking, cancellation of public events, closure of non-essential services, a ban on movement between municipalities, mandatory confinement for suspected or confirmed cases, a general duty of house-arrest, safety and hygiene rules, and individual protection, among others (34–36).

Health services were considered essential services (37) and thus, given the contingency measures implemented by the government, health institutions also instituted several contingency measures. These included the closure of non-urgent services and the reorganization of services that maintained their activity, the use of personal protective equipment, personal hygiene, social distancing, disinfection of materials and spaces, regular testing, isolation and quarantine, and changes in patient visits.

One of the first measures to be implemented was the closure of services and/or suspension of non-urgent interventions, including surgeries and interventions with high risk of contagion

"several therapies that closed immediately, as is the case of the therapeutic pool " (P8); " we started to cancel all non-urgent" (P16). **The outpatient services were initially closed and the health services kept their activity in inpatient units with restrictions** "most of our treatments were cancelled, we stayed mostly with inpatients " (P19); "the service then suddenly closed to outpatients so almost overnight. Then we stopped having patients coming from the outside to do physiotherapy in our service and started to provide care only to inpatients" (P9). **In the private sector, namely in the area of psychology, appointments were initially canceled** "in my private the first thing was to cancel the appointments " (P23).

In some cases, organizations even closed for a period of time, either by orders from health authorities or to reorganize themselves in response to the pandemic "my workplace ah closed, closed ah complying with the regulation" (P25); "the service was closed for about a month and a half" (P9); "we closed the clinic to reorganize the services [...] for about 6 weeks" (P18).

Regarding the services that remained open during the pandemic, there was a need to reorganize them in order to be able to respond to this phase efficiently and safely. One of the central measures was the definition of circulation circuits to avoid contact between people "The circulation of people was done by, by routes so that they didn't meet a lot." (P16); " the entrance is always made by the same place and the exit is always made by other place " (P6) **and to move CoVID-19 patients more safely inside hospitals** "there were elevators just for CoVID-19 patients " (P8); " we had circuits even in the emergency rooms intended only for CoVID-19 patients" (P15).

Another measure implemented in this context was the closure of the professionals' meal areas "there was no canteen, no bar, no, the food machines were all turned off" (P11). **An adjustment was also needed with regard to the rehabilitation gyms** "at the gym we had a different reorganization because, for example, we did not occupy all the boxes " (P9).

Contingency spaces for suspected cases were also designed, as well as the constitution of alert teams for these spaces "the patient containment room ah that could be infected and there was a team assigned to, to examine the patient " (P6) **and units and teams were also developed for patients infected with Sars-Cov-2** " we ended up with a building that is the satellite pavilion in which almost all the floors had CoVID-19, CoVID-19 contingencies. Intensive care even started having only CoVID-19 patients" (P9).

Additionally, physical barriers such as acrylics were implemented in the services "we used to use acrylics on the table" (P23); "we started to have acrylics on the tables to separate people" (P9) **and a new system of screening hospital waste to decrease the chance of contamination** "There was also the concern of waste sorting as well, that also changed [...] there was a lot more waste that was for incineration" (P8).

Professional monitoring was also guaranteed "we did bi-daily monitoring every day" (P18). Research shows that physical health monitoring is important during a health crisis as a form of organizational psychosocial support. However, it is believed that mental health monitoring should be implemented in the same way as physical health monitoring, checking for staff concerns and mental status. According to Rieckert's et al. (2021) study, this monitoring should occur through a daily check-in/check-out as indicated in the report of participant 18 (15).

In order to have safe care activities, the use of PPE was instituted. Participants indicated that the PPE's that were used during the pandemic included mask, gloves, suits, caps, aprons, gowns, visors, and goggles, as can be seen by the following quotes: "super-hot suits, the masks" (P13), "The gloves in the beginning were fundamental" (P16), "the gowns, the gloves, the masks, the caps." (P8), "the mask and the visor" (P23), "it was the apron and the gloves, the cap, the goggles" (P1), "the P2 masks" (P11). **In addition to this equipment being used by healthcare professionals, masks were also required from patients** "patients had to wear masks at admission" (P11).

In combination with PPE, the use of uniforms and the prohibition of the use of external clothes was also implemented in the services "even our entrance [...], without external clothes" (P23), "we started not using this uniform and to use those green hospital uniforms that are washed in the hospital and that stay in the hospital" (P9).

To complement the safety provided by PPE, personal hygiene, especially hand hygiene and disinfection, both by professionals and users, was a key measure in the fight against the pandemic, particularly in health services "we go wash hands" (P16), "The patient disinfecting his hands when he enters" (P9); "We take a shower after, after coming from the COVID area" (P1).

One of the rules imposed by the government was social distancing, thus, in health services, some strategies were implemented to reduce the social contact between professionals, between users

and between professionals and users "we stopped being able to deprive with each other" (P5); "we had to decrease as much as possible the contacts and the communication with the patients" (P6).

The circuits, which have already been mentioned above, contributed to this, but it was not enough, so the need emerged to develop more measures to avoid contacts, namely the reduction of technicians "personal contacts were reduced, they were reduced to the strictly necessary technicians (P22); "the closure or alteration of the functioning of dining spaces [...] we didn't all go at the same time [...] that was to minimize there the contacts" (P9); "each one ate in his office so that we wouldn't contact anyone" (P1) **and schedule changes** "we stopped going there on Saturdays to avoid contact to avoid people being together" (P16).

The disinfection of spaces and materials was also a measure established to prevent the spread of the virus, and, therefore, it was reinforced even though it was already a recurring issue in health services "We also trained the operational assistants to disinfect all material, everything that was used was disinfected" (P8); "we also started to be more careful with everything being disinfected" (P9); "there was more care in the, in the processes of disinfection of objects" (P6).

Testing was one of the preventive measures that was most present in the health services in Portugal, and Portugal was more capable of performing more tests than most European Union countries, thus allowing the pandemic to be controlled more effectively (36). Diagnostic tests for the Sars-Cov-2 virus were performed in suspected cases of infection in both professionals and users due to contact with an infected person or the presence of symptoms indicating infection. This was one of the main focuses of the occupational health departments of health organizations "our occupational health, at the slightest sign that there might be an infection, they were asking us for a CoVID-19 test " (P16); "When there was a colleague who was treating a patient and was identified as having CoVID-19, the information was immediately given to occupational health and the person was immediately tested" (P9); "Whenever there was a patient who was identified [...] all patients were tested" (P9). **In addition to these motives, even if there was no suspicion of infection, testing was also performed in order to try to ensure that it was a space free of Sars-Cov-2 infection, particularly at the time of admission of new patients and during surgeries** "we had to perform COVID tests on all surgeries we were going to perform " (P13); "in our unit it was called a clean unit, that is, all patients that would probably be admitted to our service would have at least an initial negative test for COVID." (P4).

When the test indicated infection, the measure to be followed was the isolation of positive cases

"If there was anyone with CoVID-19, they were removed from that ward and placed in a contingency ward " (P9); " if there was an outbreak of COVID all patients with COVID would go to a certain unit" (P22); " they had covid and were in a closed isolated room " (P6).

For those who had been in contact with positive cases or for those who were going to be admitted to a unit (as an alternative to testing) prophylactic isolation was implemented "

when those doubts arose we had to let, ah, put the patient in isolation too" (P13); " there began to be areas only for patients admitted doing their days in isolation and then they would be placed in their respective units" (P10); " He [patient] was already infected. We were working with him. [...] We started being put in prophylactic isolation fourteen days at home." (P9).

One of the changes in health care institutions that the participants most often mentioned was the cancellation of visits to hospitalised patients at an earlier stage, which were considered a high risk for virus spread "

*"there were no visits, they were at least cancelled" (P23); "visits were only allowed to patients who were dying" (P3) or the change in their dynamics "our visits were, for example, outside, i.e., the person had a window, a glass, ah, separating the patient from the family " (P23); "restrictions on visits, i.e., they were still limited to half an hour two periods alternating beds" (P20); "patients had a long time without visits, visits were very controlled " (P9). **However, there was an improvement from the first to the second wave regarding visits, which were already made easier** "In the second wave they already allowed visits but limited one visit and the visits were interspersed, they were completely interspersed [...] We created some institutional tablets mainly for the second wave and the patients already had access to talk, with some control from us " (P6).*

As for the outpatient setting, accompaniment was also restricted "

visits could only enter the outpatient setting could also only enter in cases of patients who could not communicate, with language changes or, or cognitively were not able to go to the doctor's appointment alone or low mobility" (P6).

Some of these measures are mentioned in a contingency plan for intensive care services for the pandemic of CoVID-19 published as an example protocol that includes measures divided by pandemic phases. The measures mentioned include cancellation of non-urgent surgeries and therapeutic activities, reorganization of spaces, sectorization of work teams, reorganization of

work routines, sectorization of users, strict patient admission criteria, prioritization of care, redesign of hospital waste screening, and the use of PPE (28).

From the participants' testimonies, it is possible to understand that there was an adjustment of the measures over time in the light of new knowledge that was being acquired, new directives from the government and health authorities, and the progression of the pandemic itself *"Initially, there were no circulation corridors either, they were done a posteriori" (P17); "the PPEs were also decreasing, in a first phase it seems that we were all going to the moon and then in a, in a later phase it was only protection and a mask and little more than that" (P24); "time went by and then slowly they started to normalize more" (P9).*

Finally, it should be noted that, despite these measures having been introduced in the health services, according to the participants, it was not always easy to respond to them due to, for example, the lack of PPE (33) which affected the working conditions, safety and comfort of healthcare professionals *"we had to ration the number of masks, we often had to keep the mask in the locker for a next shift, for example, that greatly increased the risk of contagion and was always something uncomfortable for us too. [...] Or sometimes we didn't have a gown and we had to stay for hours with the same gown, we couldn't go to the bathroom because we didn't have a gown to change" (P3); "some equipment was not adjusted, namely the visor type protections, many of them exerted pressure on certain areas of the head and it was uncomfortable, it created pressure" (P5).*

The use of PPE was critical in containing the spread of the virus, however it also had negative consequences for healthcare professionals, namely decreased work capacity due to heat, discomfort, and difficulty of movement (38). This, according to evidence, can potentiate exhaustion and dissatisfaction with the job, constituting a risk for bad mental health outcomes, especially when the PPE provided is inadequate (25,38–40).

On the other hand, they also mention that these gaps were eliminated over time *"Meanwhile, things were evolving positively, there began to be more material available, there was no longer a lack of masks or anything." (P17) and that they ended up feeling safe and transmitting that safety to the patients "because I had all the, the individual protections and that also made it possible to pass the message that, besides me being safe, the patient was safe" (P18).*

3.1.3. Subtheme – Work changes

Participants indicated that there were several changes at the work that occurred during the pandemic, mainly due to the country's contingency measures *"My routine changed completely" (P14); "the work routine was completely changed" (P24); "all the dynamics that we were used to, hum, had to change [...] dynamics started to change weekly not to say daily." (P10).*

The first thing that happened in some cases was lay-off, which means they laid off professionals for a period of time *"so there were many colleagues who went on lay-off, who went home" (P13); "we had maybe two months ah that psychology was laid off, but then it was called in again" (P23).*

Further measures include changes in the hours of work and schedules, changes in workload, implementation of teleworking, mirror-working, changes in the functions performed and/or the roles, implementation of telehealth, and changes in the intervention itself. Concerning the changes in the hours of work, some of the participants indicated that during the pandemic they actually worked more hours than they normally work, with longer shifts and many overtime hours *"sometimes worked three, four extra hours a day" (P19); "I started to work much more" (P23); "shifts often much heavier" (P13), "we started to do instead of doing seven-hour schedules we just do twelve-hour schedules." (P3). In addition, these participants also identified changes in their work schedules* *"our schedules that we had all structured became different [...] I had an entrance time, but then my exit time was always uncertain" (P19). However, another part of the participants stated that the hours remained the same during the pandemic but the schedule changed* *"In terms of schedules, ah the forty hours continued, but I didn't work on weekends and started to do so" (P15); "it didn't change much [...] so maybe what could what I can say is that ah was, it was more continuous work ah, less breaks ah at work" (P21). Other participants affirmed that nothing changes in term of schedules* *"I was doing exactly the same schedule" (P7); "The schedule was the same" (P20).*

Some participants were satisfied with the changes as they considered that it worked well for the phase they were going through *"I think that the schedules made sense [...] I think that worked well" (P13); "in terms of scheduling strategy they really managed to implement a good thing" (P3).*

With regard to workload, the professionals' reports are varied. On the one hand, some participants stated that there was a significant reduction in work, due, for example, to the closure of services *"there was a huge reduction in cases" (P25); "the hospital's activity decreased dramatically [...] there*

were not so many patients doing chemotherapy" (P16) or due to the facts that patients did not use health services "the number of patients in the emergency room also decreased substantially, because people were more at home, so also there were not so many work accidents that we see a lot" (P11); "And there were very few patients too." (P17). **However, this decrease in workload was accompanied by an exacerbation of diseases and health conditions that were coming to healthcare professionals** "we never worked so little, in terms of volume, as in the pandemic. The problem is that they were all, the few patients we had were all very serious [...] In terms of volume of work, we never worked so little. We worked with heavier patients" (P2).

On the other hand, other participants reported an increase in the workload and even overload "in our hospital, we reached a very, very high volume of patients [...], and that was a lot, the work overload" (P19), "the volume of patients increased more than expected" (P10), "later, when surgeries started again [...] an avalanche of people who came through there" (P13). **Some explanations pointed out in the literature for the increased workload in health care settings during the pandemic include the lack of professionals, misunderstanding about the disease, and no training. This overload has been pointed out as a factor promoting poor mental health outcomes among healthcare professionals (22–24).**

Teleworking was also a reality that participants mentioned during this phase "they let me be teleworking because I already had many patients teleworking." (P6); "we also started to distribute teleworking work posts and have service posts outside these central offices." (P21). **Scientific evidence shows that telework during the pandemic was a supportive tool for professionals as it allowed them to reduce their physical presence at the workplace. Some data elucidates that telework for healthcare professionals can improve work-life balance, increasing job satisfaction and protecting their mental health (41). Nevertheless, risks to psychological well-being and quality of life associated with telework such as emotional exhaustion, occupational stress, and musculoskeletal disorders are also described (42). Thus, we believe that telework in the health sector can be implemented in some cases that the tasks allow it, as long as it is done with precaution and the associated risks are prevented.**

For those professionals who were not teleworking, their reality was the mirror work in order to decrease the probability of spreading the virus "we were submitted to what we call a mirror schedule. [...] Trying to extend the shifts and keeping the teams together so that there would be less

crossing between elements" (P4); " we had teams working in a mirror and then we rotated among ourselves" (P15); "we worked in a mirror" (P24); "We had to work in a mirror because otherwise the risk of contamination of all the professionals would be greatly increased" (P3). **The opinion of the participants regarding this working modality is also not consensual. Some healthcare professionals considered that this was a good measure** "the mirror was, it was in fact a good strategy and it worked." (P4); "Yes I think that the hospital organized well ah, in terms of putting teams there is working mirror" (P15), **while others considered that it could have been avoided or done more effectively** "the mirror teams there would be no need" (P16); " the mirror teams I think could work better. I don't think it worked because it overloaded the ones who stayed" (P10).

Another aspect that the participants indicated as a modification was the change of work positions or functions during the pandemic "some of us stayed, including me, we were allocated to the CoVID-19 hospitalization of patients that is not in my area of expertise" (P15), "with most specialties what they did was to get the interns from various specialties and put them to do some task related to Covid" (P11).

This issue was controversial, with some participants considering that it was an unnecessary change and that it caused discomfort to professionals "some places that were maladjusted to the functions they performed or to the physical conditions due to some limitations of some professionals were allocated to services where they did not feel physically able to perform those functions." (P5); "there would be no need for us to have left our specialties to go and treat patients that we are no longer used to treating because it goes completely outside of what we are specialists in, hum even because we didn't have such a large number of inpatients that would justify that." (P15). **In fact, also the literature reports that the changes in roles and responsibilities were perceived as chaotic, unfair and unsatisfactory (33). Accordingly, scientific evidence adds that staff reallocation should be prudent and based on a voluntary decision by the health professional affected, in order to protect the mental health of the professionals and consequently absenteeism (23).**

During the pandemic, social contact was to be reduced to an essential minimum in all settings. To ensure continuity of care, health services had to reinvent themselves, moving from face-to-face care to online or hybrid care (43). So, the pandemic has prompted the implementation of telehealth worldwide (44), predominantly via videoconference and telephone call (45).

Telehealth was provided by several professionals from diverse health areas in several different ways. In the field of psychology, teleconsultation was a very present reality "We started to attend by teleconsultation." (P25), "the face-to-face activity had to be transformed into a non-face-to-face activity. So at least about the activity by appointment" (P22); "this part of us starting teleconsultations that was to last." (P23).

For the AHP, namely the occupational therapists, teletherapy was also a very present phenomenon "We started to do teletherapy support in the rehabilitation area." (P6). **As the literature reports, occupational therapy departments have had to change the way they deliver care rapidly, looking for alternative approaches to performing their duties and new methods of working, including the use of telehealth (46). Two methods of providing occupational therapy care through telehealth are highlighted. The first was the use of channels such as social media and email and the other method was telephone calls (47).**

The reports of the participants in this study are in line with these data as they show that in occupational therapy patients were supplied with various resources such as exercises and photographs that supported the continuity of outpatient rehabilitation that was suspended due to contingency measures "we sent exercise plans by email and that went quite well" (P20), "we were taking photographs to exemplify to the patient" (P9). **In the other professional areas they also used telehealth through telephone appointments** "telephone appointment was, it was really an innovation" (P12) **and resource sharing** "we had to create pamphlets to give to patients to, to give them directions" (P1).

In fact, healthcare professionals highlight the usefulness of this practice during the pandemic and also the benefits that continued after this phase "we kept this, this practice in some cases [...] patients who are hospitalized and then have to wait for the outpatient clinic we kept these practices" (P20); "from then on, progressively, we resumed the number of cases in follow-up, some were maintained by teleconsultation [...] the number of requests for teleconsultation increased" (P25).

Despite the usefulness emphasized by the participants, they also indicate negative points related to telehealth practices, namely the lack of access to digital devices or the users' lack of digital literacy "the part about the video calls that were not always possible because most of our patients do not have those computer skills, nor those devices available" (P1), **the non-accounting of these practices as working hours** "those who were working with outpatient telephone assistance were

not accounted for by the institution, there was no way of accounting " (P9) **and the difficulty in having real perceptions about the users in some areas** "we started the part of teleconsultation for our area of physiotherapy is not very linear, right? Without seeing the patient, it is very complicated for us to make decisions and specially to treat" " (P1).

In this stage the interventions suffered changes as well. One of the changes was the place where these occurred "I did some appointments in the garden" (P22), " we operated, but it also had to be in a room that was not ours, that we were, we were not so familiar with " (P11). **The other alterations were related to increased precautions to prevent infection, such as the impossibility to use some materials in the rehabilitation area** "in the therapy area, we even ended up not using certain materials with the patients" (P6); "We were used to working in a context where we had access to any material [...] and I still had to be doubly careful, which was, what kind of material can I use material that has to be sanitized, material that cannot even endanger the health of the patient." (P18).

Additionally, prioritizing patients who would receive treatments and restructuring treatment plans was also a daily reality during the pandemic "we had to select together with the medical team, which patients could be seen where there was less risk [...]. for a public health issue as well." (P18), " Patients started to go only once a week, instead of several times a week " (P18).

3.1.4. Subtheme – Teams

In this sub-theme, the participants highlighted the positive and negative aspects related to the teamwork that took place during the pandemic. With regard to the positive aspects, the relationship between the team, team spirit, team management and team adaptability were highlighted. Regarding the negative aspects, the overload of team members due to several factors associated with the team itself was identified.

Two key aspects were highlighted in regard to the teams' relationship that contributed to better cope with this phase: **the good environment** "this part was positive because there was already a good environment " (P15) **and the knowledge that the elements have of each other** "so when we hear company directors say that it went well despite people not being present, what I think is that it went well despite people not being present because people knew each other [...] When we know each other beforehand it is easy to adjust" (P22). **Working environments in healthcare settings have been described in the research findings as supportive and empowering, and great emphasis**

was placed on teamwork during the pandemic, corroborating the reports of the participants in this study (33).

Team spirit was the aspect most emphasized by the professionals when the subject was the work teams. In fact, the participants considered that the pandemic awakened unity, commitment, empathy and mutual help among healthcare professionals and that this way they were able to face this difficult phase more gently "what made it easier was the teamwork and the understanding between us." (P10); "the commitment of the team [...] the union that after so much was strengthened ah during that, that time, right? People came together, didn't they? Because they realized that unity is strength " (P4); "What makes me proud in the middle of all this is the capacity of all professionals or we supported each other [...] The support in the sense of being in the same boat." (P16); "team spirit increased, ah there was a lot more empathy, there was a lot more teamwork " (P18); "I don't think we've ever been so together and so, so united" (P8). **Evidence points to team spirit, communication, compassion, high levels of interaction and familiarity among team members as factors promoting wellness and mental health of healthcare professionals during health crises (26,32).** Furthermore, one study indicates that a lack of familiarity with teammates, particularly when dealing with new team members, made it difficult to adapt to the new situation (33).

The pandemic, and the fact that they worked in smaller teams made those teams more cohesive "it was a single team instead of having a rotation of various elements within a team [...] It made the teams more cohesive and more aware of the dynamics of each of the elements of the team. Ah and that ends up bringing some advantages." (P2). **According to data described in the literature, when a team is cohesive, the elements are willing to take risks and leave their comfort zone to support their colleagues, involving themselves, for example, in extra functions, such as helping, encouraging, and taking on additional responsibilities (32).**

The participants in this study reported that members of the teams helped each other in various ways. One of the ways they helped each other was by performing tasks that were not the job of particular professionals or by increasing the number of working hours to relieve the overload of other professionals "We just had a very complicated phase of many of us working with COVID and that was when the, the psychology, the social workers, helped the nurses, helped the assistants, so, we put our hands to, it was really roll up our sleeves" (P23); "we had a total availability from the part of the, from the colleagues to work, to do in 12 hours if it was necessary" (P16); "Other specialties that

came to help us in moments of caring. Much of the medical and surgical specialties made up the so-called covid team" (P14).

Also, the articulation between the various units of a health service and the multidisciplinary work were identified as positive aspects in this phase "There was a lot of mutual help between units. [...] there was really the feeling we were all helping each other." (P14); "the issues of multiprofessional teams are useful here" (P22); "the multidisciplinary liaison was also always ideal." (P4).

Another aspect that was mentioned was the attempt of the teams to organize themselves to define guidelines and procedures so that the intervention was as uniform as possible, which also facilitated the work of healthcare professionals " there was a joint union of professionals to understand how we were going to act" (P7); " we discussed among ourselves in a way that we rarely discuss, discuss. Discussing what are we going to do next? how are we going to approach this?" (P14).

Regarding team management, the team members showed empathy for the leaders and were willing to help in this management "my boss had as many unknowns as us ah and she herself felt and was much more confused in the management of the team that she had to do. Ah, therefore, I think that we were the ones who were more willing to help her in the management of the whole service " (P12). **But there are also participants who emphasize that the good leadership they had helped them to face this phase in a more positive way** "So I was also lucky, being in a team with a, ah, the leadership of the team was very good [...] And that motivated us a lot and made this team want to stay as a team" (P14).

Moreover, the participants also identified the acceptance of the current reality and the teams' adaptability as a strength and as a factor that allowed for a better response to the pandemic "this implies that the teams have to deal with people with whom they usually do not deal, so it required an effort of adaptation, which I think was achieved" (P22); "what these five elements did immediately was to check the literature to see if there was any documentation in the area of psychology that could serve as support for patients, families and healthcare professionals" (P24); "but I was also shifted in the workplace to a different place, I was dealing with different teams" (P5).

Despite all the positive aspects regarding the teams, overload was very present in this phase as the teams were reduced due to factors such as the retention of professionals in the public health

services "the fact that many professionals were retained, unable to come to the private sector, to our service, meant that there was a greater overload on the professionals in the house. [...] we went from a team of fifteen to a team of a little more than five." (P13) **and the professionals who needed it used special support measures, such as family support** "we also had some colleagues who had access to certain social measures, namely family support because of their children and everything. So, we had a significant reduction of professionals working" (P18).

In this way, and associating Rieckert's et al. (2021) recommendations, we believe that the implanting of full-time professionals in health services whenever possible should be done to increase the continuity of care (15).

In summary, considering all the above reports and according to data collected from the literature, team support can be a protective factor for healthcare professionals during a pandemic (39).

3.1.5. Subtheme – Quality of services

It is known that the CoVID-19 pandemic has affected the quality of healthcare services in most European countries (48) and the participants' reports confirm the healthcare professionals' perception of this change. Participants described the quality of organizations' management of the pandemic, the quality of patient care, and the safety of services in relation to the contagion from CoVID-19.

In terms of the management of the pandemic, the participants overall feel that there was **appropriate management of the pandemic** "overall it handled well." (P13), "I think it went well (P14); "I think it all worked well" (P23); "they were excellent, and it was all very well organized and architected." (P3); "I think there was a, an ah a management I would say enviable of the pandemic. (P1), **both in terms of respect for the guidelines received by the health authorities and flexibility in adjusting the measures taken** "And we were trying to change, we were trying to improve with the mistakes, we were preceding, we were adopting strategies and then we were evaluating those strategies and realizing that they could be adjusted in the best way" (P13); "the essential services, I think that in that aspect they were good in an initial phase, like everything, because they had the ability to recognize, there it is, after one or two months to call us" (P23).

Still related to the participants who consider that there was a good management of the pandemic, they identify among the positive things the focus on the pandemic itself, the ability to manage

professionals and the investment in human and material resources. "Never of lack of material, never of lack of medicines. [...] The priority was the pandemic" (P16); "flexibility and of, of adaptation to new circumstances was the rule prevailed and that was answered by the from my point of view" (P22); "in fact not being prepared as anyone was ah I understand that, that, that INEM was effective in managed" (P21); "technically and technologically everything that was needed appeared" (P2).

Precaution was also a positive aspect identified by the participants in this management "people reacted according to what they knew, they reacted preventively according to what they knew" (P14); "given the lack of knowledge, I don't think my hospital has taken any unreasonable attitude or done anything wrong. I think they were always very careful" (P11); "So I think this part of, of safeguarding, I think it was, I think it was legitimate, I think, and we had it I think at the right time" (P23). **In addition, one participant identifies the quick and effective action taken by health organizations, particularly in the adoption of contingency measures and the creation of pandemic response protocols, as something also very positive and appropriate in terms of pandemic management** "we were the first hospital to use masks while the DGS was still saying that masks were not indicated and we were already using masks" (P24); "for the national and international recognition that the hospital center had, I think that it was undoubtedly unequivocally the hospital that best dealt with the pandemic itself" (P24).

They also consider that the organizations took the necessary measures to address the needs felt by healthcare professionals "what was implemented was effective and I feel that it was an adequate management, which allowed meeting the needs" (P21) **and they state that they would not have done anything different** "I don't think there were many things that I would have changed if I were the one in charge of the service" (P22); "I don't see anything that could have been done differently" (P15); "Honestly, I think that with the conditions that we had at the time and with the knowledge that we had at the time ah, we can't do anything better" (P23).

On the other hand, some participants consider that this management was not as adequate, namely regarding the speed with which the measures were implemented "it took some time to try to adapt ah and there were a number of guidelines that came out ah long after the needs were found, and I think they could have been quicker to give those kinds of answers" (P12). **Also in other studies, negative reports were found from healthcare professionals regarding the guidelines that were provided late or unclear, leading to uncertainty about the protocols needed to maintain**

safety, thus also harming the mental health of professionals and their adaptation to the new situation (22,23)

There are also reports regarding the disorganization they experienced in the health services *"the hospital was very disorganized a lot and I often had the feeling that it really felt like I was in a battlefield" (P20); "A lot of disorganization, a lot of confusion" (P2)* **and the provision of means that would allow professionals to continue to intervene** *"I made a proposal to make video calls and make video calls with my personal cell phone to patients in the national health system and, therefore, I think that this cannot happen." (P7).*

One aspect mentioned by a participant was the demand for productivity by organizations on healthcare professionals, which he considers to have been inadequate *"neither can be demanded from us as for example issues of productivity or good care or, I think one thing leads to another having time to recover, having resilience, should increase for sure our productivity levels and our motivation, but for that we need to value ourselves" (P10).*

One participant is also very dissatisfied with the organization's inability to learn from the pandemic and with the current situation of the organization, considering the previous situation, which, in his perspective, is worse *"it was not a good management, and it was not learned from the mistakes and the pandemic was not used to create good practices and routines that could have been used now. [...] I look at, at that institution and it's worse than it was before the pandemic" (P2).*

Regarding the quality of patient care, several participants state that the quality of patient care has decreased. One of the factors that justify this perspective of professionals is that other health conditions apart from CoVID-19 were not given adequate attention and that there was an alarmist discourse that conditioned people to seek health services *"Something that went really wrong. Ah they got very patient untreated" (P2); "They ended up harming other patients who needed our care anyway because at that moment it seemed like there was only CoVID-19 and the rest didn't matter" (P15); "the fact that we had to suspend a lot of our production left uncovered a group of people that we recognize that were harmed by not being able to enjoy the health service" (P5); "This excess mortality was also due to the lack of, of surveillance of many patients" (P17).* **In parallel, there is the fact that the response to CoVID-19 patients was not effective in all phases of the pandemic** *"we did not respond to, to the COVID patients at the beginning [...] that this was a great, great handicap of our service" (P1).*

Furthermore, they also considered that the time that users spent in health services was not adequate, either because they stayed too long due to the lack of answers "COVID patients who are still in isolation, but no longer need hospital care [...] but with this isolation situation we still don't have many places where we receive COVID patients" (P3), **either because it was a short period of time because they wanted to avoid the spread of the virus** "Most patients never had such a short period of hospitalization, everything was done so that the patient could go home or go home more quickly to avoid the spread and contamination" (P6).

According to the Portuguese Health Regulatory Authority's report, there were actually some significant changes in health organizations to face the pandemic that may have impacted the quality of services, namely the decrease in face-to-face medical care, decrease in first appointments, increase in telehealth appointments, reduction in surgical activity, reduction in medical and surgical hospitalization, reduction in episodes in hospital emergency rooms, and reduction in primary care assistance activity (49).

Besides, some professionals, especially in the rehabilitation area, were limited in the use of spaces and materials due to contingency measures, which also led to a decrease in the quality of the intervention "the patient also felt that his care provision was not the same because he couldn't, he didn't have access to certain equipment that he once had." (P18); "I constantly had wheelchairs passing beds going by, it was very confusing it was very, very confusing and I felt that I couldn't perform my duties very effectively either" (P20); "the fact that I didn't have a place with some privacy to treat patients" (P20); "If I didn't have some bars, if I didn't have a foot pedal to put patient to work[...] who really suffered was the patient, because then we couldn't guarantee the quality of the treatments?" (P8); "the quality of the treatments, was also not the same, in the inpatient departments, it's not the same as in the departments" (P8). **Also, in the area of speech therapy, the fact that the pandemic was associated with a respiratory infection caused a decrease in the quality of intervention in this professional area** "we stopped seeing ah and we stopped being able to assess the patient, because we had no access to the mouth, we had no access to the communication part, it was difficult for, for us as therapists to assess and intervene with the patient" (P7).

They also consider that there was no proper follow-up to individuals who lost someone to the disease, which means that the bereavement intervention was also impaired by the attention

focused on infection control "we didn't tune in well enough with the people who were having losses" (P22); "for many people is still something unresolved, something still painful, because they couldn't say goodbye to their relatives" (P24). **Regarding this topic, the literature recommends that there should be a grief counselor for patients and their families in order to relieve the pressure on healthcare professionals (27).**

In spite of all these negative aspects, some participants consider that some measures were taken to try to ensure the quality of care, namely the referral of users to more appropriate specialties "some of the cases I referred to child psychiatry and psychiatry and even pharmacological intervention was necessary, only psychology did not respond" (P25); **the pragmatism and effectiveness of the interventions** "although we gave less intervention time to the patient, the other time we were there was a rich time" (P18); **the respect for the ethical assumptions associated with the intervention** "we took some, some care, even at the ethical level of, we could even have attitudes here that were always preserving the, the, the anonymity of whoever wanted" (P24) **and the carefulness in the relationship with the relatives of inpatients** "communicating in a more efficient way with, with their, with the relatives of their patients, there was at that time a care [...] was to schedule times for someone from the hospital to call to, to the families. We all know how difficult it is when you have someone in a hospital, and you want to know information is very difficult" (P24).

The last topic related to the quality of services is safety in terms of virus containment. On this point, several participants indicate that the health services where they worked proved to be safe since both users and professionals did not become infected in the service but in places outside the organization "we in our service at the level of patients never had any patient with, with that had developed Covid" (P13); "People were contaminated outside the hospital setting [...] the hospital setting was safe" (P16); ", there were no chains of transmission in there" (P18). **In the services where there were infected patients, the percentage was small and the severity of the infection was low** "we had very few patients with COVID and those who had it were not serious, [...] I don't remember a patient who died with COVID" (P23).

3.2. Theme 2 – External factors

The second theme covers the participants' reports about the external factors that influenced their experience of the pandemic phase.

3.2.1. Subtheme – Climate of instability/ uncertainty

In this subtheme, some aspects related to the instability and uncertainty experienced during the pandemic that made the participants feel a lack of control of the situation emerged *"Losing control of a situation that, at the outset you think, that depends on you, control and in that, in that situation it was not possible."* (P25).

Effectively, healthcare professionals have struggled with uncertainty since the beginning of the pandemic (50) that is related to the lack of knowledge about the disease, the impossibility of predicting clinical and situational outcomes, the absence or inconsistency of measures, and the need for constant adaptations.

Several participants mentioned unfamiliarity with the disease as an external factor that impacted their professional experience of the pandemic *"also the unknown, ah, of what we were, what we were dealing with and the fact that it was new to everyone"* (P13); *"A lot of unfamiliarity of what was going on"* (P14); *"unknown and alarmism"* (P17); *"the unknown, it was the surprise"* (P24); *"it was the unknown and it was very complicated"* (P16), **making professionals feel helpless and disoriented** *"that unknown is, it's really scary, it's a situation where we find ourselves almost with our hands and feet tied because we have someone there in front of us who is a human life and we don't know how we should react or what to do"* (P3). **There was a lack of knowledge about the virus itself, its transmissibility and how long it remained on surfaces** *"in what way was it really transmissible, if it was really as they said, because there were lots of sources of information"* (P19); *"We didn't know if it remained, if it remained active on surfaces, right? Ah a long time or a short time or how long, it was a novelty for everyone"* (P4) **and about the associated symptoms and progression of the disease** *"everything was so uncertain in terms of symptoms and progression of the disease"* (P5); *"we didn't know very well how this pneumonia was going to manifest itself."* (P12); *"I saw very young people pass away, I saw older people, it was uncertain whatever the type of ages [...] it was all very uncertain because we didn't have much knowledge."* (P19); *"We didn't know how it was going to develop the second after"* (P3). **The lack of knowledge about the right way to intervene in this disease was also present in the lives of healthcare professionals** *"it was not knowing if what we were doing would be exactly right"* (P24); *"would be a relearning ah of everything that we could have seen until up to today's date."* (P4).

Associated with this generalized lack of knowledge about the disease arises the impossibility of predicting outcomes, both clinical *"there were patients who were there with just a breathing difficulty and 3 or 4 hours later they couldn't breathe" (P16); "we never knew if they were infected, they weren't" (P8)* **and situational** *"I knew that today I was going to work, tomorrow I might not." (P18); "I knew where I was today, but tomorrow I didn't know what would happen" (P5); "we also didn't know if the virus would end tomorrow, if next week, if next month" (P23).* **These situations potentiated the climate of instability and uncertainty and affect the healthcare professionals lives** *"and the uncertainty of not knowing if it was going to go right or wrong." (P19); "I think it's the uncertainty of what tomorrow would be like" (P10).*

In fact, the lack of knowledge about the virus and the evolution of the pandemic was also described in the literature as a factor that aggravated the pressure, fear, and uncertainty of healthcare professionals as they were dealing with a situation for which they were not prepared (40).

Additionally, the lack of measures and guidelines in some periods also contributed to this climate of instability and uncertainty thus causing psychological suffering *"the hospital was in chaos because we didn't know very well what to do, there were no guidelines, there were no measures taken yet" (P19).* **Participants felt that at some moments they had no orientation from health organizations and health authorities about their work situation** *"the Government was going to establish if it would close, if it wouldn't close, if we were going to be quarantined, if not [...], we didn't know who was going to intervene with the patients, how we were going to intervene, how our schedules were going to be" (P19)* **and about the procedures to be adopted** *"the uncertainty of not knowing very well how to do it, how not to do it" (P19); "we didn't know how many inpatients there were, we didn't know where we were going to put them" (P8).*

One participant also highlights on this topic the incongruence of the guidelines and measures implemented *"this week is to use gloves, the week after that it's not, right? This week it's to wear a mask, next week it's not. Ah and incongruity of things. We all [human beings] already deal badly with incongruities" (P23).* **This aspect may also have caused some suffering to healthcare professionals due to the human nature highlighted by participant 23.**

Considering all the instability experienced, healthcare professionals were subject to constant adjustments and adaptations during the pandemic *"there were daily changes." (P8); "How were we*

coping? Day to day." (P4); " things changed week after week we had to, we had to adapt (P10); "today one guideline, tomorrow we have another. Today we had one way of conduct and then we had another." (P7). One participant mentions that despite experiencing an unstable period this was an interesting challenge and allowed reflection on the human being's accustoming to routines "it was almost necessary every day for us to adjust procedures, which is an interesting challenge isn't it? We are, just then we think, we realize how used to routines we are." (P22). This constant adaptation due to the challenges inherent to the pandemic probably contributed to the development of resilience in the professionals, according to some scientific data (51).

It is important to emphasize that it is relevant to consider the uncertainty intolerance of healthcare professionals since higher uncertainty intolerance is associated with higher levels of stress and anxiety, which means that higher uncertainty intolerance may be a significant predictor of psychological distress in healthcare professionals during stressful and uncertain events such as a pandemics (50).

3.2.2. Subtheme – Positive impact and learning about the pandemic

Despite all the difficulties experienced by healthcare professionals during the pandemic, participants also identify some good aspects associated with this period "*CoVID-19 also brought good things" (P16). These positive aspects include the recognition given to some professional categories, the valorization of multidisciplinary work, the improvement of hygiene and disinfection, the use of technologies, and scientific production. All these aspects contributed to formulating the learning and understanding the impact on the professional role and in participants' personal lives.*

In fact, some professional categories, such as psychology, gained great prominence during the pandemic. According to the participants' reports, the role of psychology was highly disseminated during this phase due to the repercussions of the pandemic on the population's mental health "*I think that we finally started to demonstrate a little bit with COVID the importance, psychologists have never been talked about as much as at this moment, when the pandemic started" (P23). This dissemination was reflected in the increase in population demand for psychologists "there was also much more demand from" (P25) and in the demystification of the role of the psychologist "people valued more and from the moment that people started to go to the psychologist they started to realize that after all we are not just for crazy people, as they say [...] so I think that was the*

added value" (P23). **According to one participant, it may be an opportunity to hire more psychologists for the National Health Service** "the emphasis that was given to our area and I think it opened some doors even for the state level to hire more [...] psychologists for the National Health Service" (P23).

In occupational therapy, one participant also identifies that a major step forward was taken, namely in the possibility of this professional category to access interventions that until now were not considered important "If when I joined the hospital they told me that I would end up in intensive care treating respiratory patients, I never in my life thought that would be possible, right? I think it was a very big step" (P19).

With this recognition given to professional categories, there was also an appreciation of multidisciplinary work, both between professional categories and between health units, which, likewise, the participants point out, as something positive left by the pandemic "our contact with primary care has improved strongly and we depend on it a lot. And I think this inter-help between the hospital and primary care was, it was a very good thing" (P14); "We are all needed [...] Work more and better in multidisciplinary." (P13); "as healthcare professionals we depend a lot on each other [...] we can put the patient as best as possible, the doctor do as best as possible, if the nursing work, is not good, the patient, will not, will not get better." (P14).

Additionally, the pandemic era was a time where disinfection and hygiene measures were a big focus, and in this way this becomes a learning that translates into a positive impact, as these measures prevail increasing individual safety and promoting public health. In line with this, participants state that people have learned the rules of breathing etiquette and hand washing and that this is a relevant learning that should be maintained "it was a learning, wasn't it? Everyone now knows how they should cough, everyone knows that they should disinfect their hands." (P8).

They also identify the remaining emphasis on the cleaning and disinfection of the spaces and the attention provided to the healthcare professionals' uniforms, aspects that the pandemic has strengthened, "we had been saying for many years that these drawers are very dirty, we need to clean them, this was great, CoVID-19 was great because it solved that issue immediately" (P16), "The improvement in the care provided to disinfect the materials" (P9), "we all started to wear uniforms, the uniform stays in the hospital, it is washed, where it has to be washed [...] with the detergents that have to be washed " (P16).

Another positive aspect strongly emphasized by the participants was the exponentiation of the use of technologies for various purposes. On the one hand, the more frequent use of video calling platforms allowed maintaining contacts with friends and family in a more present way *"The fact that people can't be together and the and the benefit that new technologies give us ended up bringing us "* (P16); *" there was also much more the use of technologies. I remember my mother learned how to make calls on WhatsApp, I didn't know, at 90, we used to have dinners each one in her house, but all on WhatsApp"* (P8). **On the other hand, these same platforms allowed online trainings, an aspect also highlighted by professionals, which allowed more access by professionals, removing some barriers, for example, geographical** *"trainings that I would never take because they take place on the islands, I think there are many that have come to stay and I thank God, because some I can take that I would never take"* (P23).

In addition, technology allowed the accompaniment of cases, in a more informal way, namely in the area of psychology, to people abroad who needed support *"Ah and the funny thing is that I ended up not accompanying my clients, but accompanying people in social networks that we didn't know anywhere"* (P23), **and this follow-up extended over time** *"two people that I still accompany today, one is in Barcelona and the other is in Paris, but they are Portuguese, they are two Portuguese girls, and I still accompany them by teleconsultation because it went very well and we decided to maintain some frequency of accompaniment."* (P23).

The pandemic was one more historical moment as others we know. In this way, it allowed the production of scientific evidence that will contribute so that future generations can use the knowledge gained from this experience in other similar crises *"with everything that happened, we created evidence, didn't we? [...] and this creating evidence and that can help in future situations, so I think this is a, is a legacy that we leave [...] yes I have no doubt that we left a lot of documentation and a lot ah, a lot of evidence on how it is that we dealt, good or bad, with better things, other things not so well achieved ah, but that will be left for the future, that we have no doubt will happen again, right?"* (P21).

Published literature shows that healthcare professionals experienced personal and professional growth due to the demands of the pandemic period (24,33) Effectively, the pandemic allowed healthcare professionals to acquire knowledge about time management, protective equipment, medication, emerging diseases and infection control. Moreover, they also pointed out that during

care delivery healthcare professionals experienced positive feelings such as self-confidence and personal satisfaction as they had the opportunity to demonstrate their skills and perceived their ability to overcome difficulties. Additionally, there is also scientific evidence that healthcare professionals have relearned to value their lives and to prioritize what is really important to them. This cognitive restructuring has transformed them, leaving them more able to manage times of crisis and to have a deeper perception of life (24).

The reports of the participants in this study regarding the learning and the impact on their professional and personal roles are in line with the data in the literature as they reveal this growth mentioned above.

Regarding professional life, participants emphasize learning about the volatility of situations, unpredictability in healthcare, and enhancement of their professional practice role. This experience, in fact, taught healthcare professionals that there is nothing certain and stable, and that even when there is already extensive experience it is possible to be surprised "*I learned that no, that our certainties are really, very little, they are not certainties.*" (P14); "*nothing is certain, people sometimes think everything is certain, don't they?*" (P23); "*the big lessons ah was that, first no matter how prepared we may be there is working in this, in this area for many years, ah that there are always situations and contexts that overcome us*" (P21). **Thus, it is important to remain aware of the unpredictability that exists in the health area and prepare as early as possible in order to avoid suffering associated with surprise and lack of preparation** "*we have to be prepared for that and know that it is not because we are specialists in one area that we have to forget the rest of medicine*" (P15); "*we have to make very good short, medium or long term plans, but knowing that those plans can always be drilled and having to have a plan A, B or C*" (P2).

The pandemic also reinforced, according to the participants, that constant adaptation is a requirement for those who work in this context "*We are always able to reinvent ourselves and adapt to situations*" (P19); "*to be able to reorganize ourselves differently, reorganize our work differently that we were not used to*" (P9).

These learnings were reflected in the improvement of the professional role in several ways. On one side there is the improvement of the ways of working, having experimented and identified new ways of intervention, as for example in the area of rehabilitation "*We don't always have this*

context of intervention. Maybe it even opens doors for us to change forms of intervention and counseling" (P6); "maybe now we've discovered that there are also other ways to support." (P9).

Another perspective is the motivation to change the career path due to the experience of the pandemic "at a professional level and I think it led me a little bit to even take the master's degree that I'm taking in palliative care ah, when I also had this, this, this closer contact with the finitude of" (P23). **Yet another facet is to recognize the importance of their own professional role** "every day we saw changes in patients, every day we saw some improvements in some patients and we noticed that we undoubtedly made a difference and that our role was very important" (P19) **and promote it by identifying action points** "our role as occupational therapist improved maybe here it improved I think it came here with more focus on our role, on what may be our role from now on in issues of routines and even issues of occupational balance. As an OT, personally I think that without a doubt it made us better professionals in general, for whatever reason, I think it made us more prepared for anything that comes at the health care level." (P10).

As for the learnings and the impact on personal life reported by the participants, the following stand out: the relativization of problems, the appreciation and resignification of activities, and the reflection on their personal life. With this experience, healthcare professionals learned to relativize problems, meaning, to value and invest time and effort in situations that are really important and to leave to the background those situations that were once major problems but turned out to be minor challenges "made us think a lot about what was really important in life effectively [...]I learned above all that there are many things that are not problems" (P6); "we value life more, right? Ah we realize that sometimes we waste time on things that don't matter for anything, right? And focus on what is important, isn't it?" (P4).

This experience of the pandemic also enhanced the value of rest activities "it was good, because it allowed us to rest" (P13), **leisure activities** "in terms of lessons, it is really about taking advantage of the small leisure moments, the free moments in life as well" (P3) **and social participation, namely participation in the family** "we created the routine of at least at the weekend, we had lunch and dinner together, something that was very rare in that sense, it was also positive and it was very" (P8) **and in peer groups** "I'm a very sociable person and, and that I have several groups of, of interest and of companionship but I still came to love that more" (P6).

This pandemic also encouraged individual reflection on their own skills and learning *"it was interesting for me to realize that I overcame this challenge and that I was able to manage all these nuances and demands" (P21); "I think this pandemic showed us a little bit that we are resilient, right?" (P20); "I learned that we have to know how to deal with situations, we also have to control our emotions and our stress" (P9); "maybe that was the big lesson, to look at myself" (P7).*

Some values such as humanism, tolerance, and friendship were also raised in this phase and emerge in the personal reflections of the participants as positive aspects of the pandemic *"what I learned a lot from this was ah tolerance that has to be greater and greater. [...] on a personal level to have a little more tolerance, that, that sometimes there isn't" (P23); "I learned that I have friends for life." (P8); "I learned a very big lesson, of humanism" (P7).*

3.2.3. Subtheme – Concerns of patients

In addition to their own concerns, healthcare professionals were also constantly exposed to their patients' concerns, which also conditioned the way they coped with this phase. In fact, the evidence points out that one factor that led to psychological suffering in healthcare professionals was the contact with the suffering and death of patients (38,52,53).

The main concerns of users identified by the participants were fear, concern about their health condition, and isolation. When referring to fear, participants mainly mentioned the fear that users felt about going to health services, which consequently was reflected in the avoidance to the use when necessary *"Everybody wanted to avoid leaving home, probably a lot of people didn't go to the hospital when they should have gone, right?" (P11); "Patients were literally afraid to go to the hospital. Really sick people" (P4) aggravating the clinical pictures* *"I had patients that didn't accept to go for treatment because they were afraid of leaving infected. Some patients even refused to go to the hospital and some cases went really bad" (P8); " people appeared much later and appeared with the severity of the psychopathological conditions much more established " (P22).*

Participants feel that this fear was instilled and exacerbated by the media's negative approach towards health services during the pandemic *"The media approach was a scary approach" (P18); "the media also contributed a lot to people being very fearful, right? The hospitals were the, well people thought they were going to the hospital and coming out of there with CoVID-19 (laughs)." (P9).*

Concomitantly, the fear of infection, disease progression and death also emerged as concerns of the users "the fear of dying [...] I think that was the biggest, biggest concern [...] being afraid of having sequels from this disease and not knowing what to expect" (P15); "the fear of going to intensive care" (P12); "first, was getting infected [...] because they realized that the situations that were serious" (P18); "especially the fear of getting infected, it was the fear of the, of the unknown [...] people are afraid of being contaminated " (P24); "mainly the fear of being infected" (P4); "they were scared, afraid. They saw they were dying, they said they were dying and they realized they were dying" (P14).

These concerns were due to the lack of knowledge that everyone had about the disease, namely the impossibility to predict clinical outcomes, as mentioned earlier in this paper "It was the uncertainty of everyday life, will I get better, will I not." (P19); "It was the fear of the unknown [...] their concern was always what was coming next, if they were going to die, if they were going to have to go to intensive care" (P3).

Regarding their health status prior to the pandemic, for example regarding the rehabilitation of previous conditions, users also revealed to the participants some concern namely regarding the quality of treatment and the suspension of treatment "the fear of not having the proper treatments." (P1); "They were quite afraid that not having, were compromising, right? Their rehabilitation process because they felt they were holding up." (P20); "great concern of not having the support that they should have" (P7).

Isolation was also a major concern observed by the participants in the users "Maybe there is some isolation phenomenon here too" (P4). **This isolation was exacerbated by the absence of visits for a significant period of time, which distanced patients from their families and raised the feeling of abandonment** "I think that isolation was also one of the things that worried them the most because they didn't know how their families were doing" (P19); "they don't feel the warmth of having a family member next door, having a relative there [...] that was what was the hardest thing to see." (P13); "they felt abandoned in the hospital, there were many patients who really felt that they were abandoned." (P20), "Many patients feel totally abandoned." (P14); "But the visits was also something that upset a lot ah, the patients" (P6). **This feeling of abandonment felt by the users was also something that healthcare professionals had to deal with and that affected their emotional status** "The loneliness of the patient, that's what struck me. I think ah that, the images that will stay forever in my memory, is the patient ah being in an inpatient setting with many people and no one" (P7).

This sub-theme is particularly relevant since, as mentioned above, this confrontation with the patients' suffering led to psychological distress for health care professionals. Regarding for example restrictions on visits, respondents in one study pointed out that professionals were also exposed to an ethical challenge when dealing with patients in a poor prognosis or near death state, since professionals were not allowed to permit visits but considered it important to have family members present at these moments (33,38).

3.2.4. Subtheme – Stress sources

Healthcare professionals were exposed to several sources of stress during the pandemic, some of them like the general population, but others resulting from their work context. One of the general sources of stress was the unknown and the unpredictability *"all that stress without knowing very well what we were dealing with at that time and everything in general"* (P13); *"every day was unknown, I did not know what was coming next, I did not know what I would find [...] not knowing when this situation would end, ah, for how long it would last"* (P7).

Then follows the fear of being infected and the reaction to the infection as one of the sources of stress identified *"I personally was even worried about myself, about the fact that I might get infected right at the beginning [...] how my body, my organism would react, if I would be okay"* (P13); *"the fear of me getting contaminated because I was coming into contact with them."* (P3); *"there would also be a good probability of being infected, how I could react, how I could evolve"* (P4). These data match the described evidence, since the fear of contagion is often mentioned as a source of stress and anxiety among healthcare professionals (38,39,53).

This stress, also in line with what is described in the literature, worsened when they considered the possibility of infecting others, either in the health services *"It was not transmitting the infection to them, not being a vehicle for transmission"* (P20); *"it was the fear of passing it to patients and that could be fatal in some way"* (P10); or at home *"We are always afraid of bringing diseases home, aren't we? We have our own and that worried me"* (P15); *"it's obviously, always the fear of bringing home"* (P14); *"the fear of being contaminated and bringing it home, right?"* (P20); *"the ignorance of being able to bring home eventually to, to my family ah the virus"* (P24) (22,38,53).

In fact, the concern with the family was the major source of stress for the professionals. In the first instance, the fear that someone in the family would get infected *"my biggest stress was if*

someone in my family, the people close to me, if they got infected, how would they react? I was always much more worried and it was always a much greater stress." (P13). **Furthermore, healthcare workers who lived with children or elderly tended to have a greater concern as evidenced by participant reports (31)** "I have a kidney sick child and I'm really, really afraid that I would bring that bug home and that it would do a lot of harm to my child. [...] That upset me." (P8); "I have a mother who is also elderly, I confess that in the beginning, what was most worrying" (P8); "I lived with my grandmother who was a risk patient, it weighed even more" (P15); "especially with my parents, right? They are very old, but the concern for the elderly has always been very present and, therefore, here, managing this level of concern for them, perhaps I can identify that it was what generated the most stress" (P21). **Corresponding to the data from this study, the literature describes that knowing that family was safe and secure decreased the stress of healthcare professionals (39).**

Consequently another source of stress arises, the pondering or the need to distance from the family to protect them "the fact that we also can't be with the family at that time because we were afraid of taking something" (P13); "it was very bad not spending Christmas with my parents, having to spend it alone, not spending 2020 Easter with them, to protect them because I was going to work" (P16); "I wondered if, if it would be, if the decision to keep me living with them would be the best" (P14). **Indeed, data from the literature indicate that professionals were confronted with the issue of implementing changes in their lives to protect their loved ones, namely by hypothesizing or actually staying away and leaving home to minimize the risk of transmission. This fact also proved to be a source of stress for this population (33).**

Still regarding the sources of stress associated with the family, the participants also identify family management, namely of the children with their conjugals "having to leave my children at school. [...] Because my wife is also a doctor, so we had to go to work [...] was effectively my stress was ah the management of the, of the kids." (P2); "The management, in this case ah, at home, in this case of the descendant and the, of the dynamic with, with my wife, also how it would happen" (P4).

Changes in personal routine and domestic life were also identified as sources of stress "everything that this implies in terms of routine, normal routine" (P22), **namely the confinement and isolation and the consequences of these situations** "that stress of me having to leave the hospital and having to come home immediately because at the time you couldn't go" (P13); "I had no housekeeper [...] coming home and having to do the cleaning and having to make dinner and having to make lunch

for the next day and having everyone telecommuting and I didn't know which way to turn. That was stressful for me" (P8); "depending on others to do some supermarket shopping, ah it was a bit boring, it was something that probably caused me some stress" (P9).

Along with the sources of stress identified above, sources of stress were also reported on a professional basis, namely in terms of changes at work that have been previously mentioned such as overload "My biggest sources of stress was work overload" (P19); "what happened was that I had days and days and days working alone ah and bearing the work alone. This for me was a big source of stress and very exhausting." (P7); "the alteration of the flow of work [...] all of these were reasons for stress." (P17) **and the schedules changes** "having to do the weekends and nights ended up being very heavy and a source of stress." (P15). **According to studies, the increase in working hours and work intensity are a risk factor for psychological distress, namely a source of stress in professionals (39). Thus, the literature corroborates the reports of the participants in this study.**

As well as these, sources of stress associated with teams and supervisors were also identified "I sometimes had working with some colleagues who were not so flexible even in managing critical situations" (P12); "not knowing how to deal well with, with the lack of leadership" (P2) **and the changes in salary** "the absence of salary." (P25). **From the leaders' perspective, the constant concern with their team also proved to be a source of stress** "I am a team leader very concerned about the conditions, not only of my team, but of all INEM professionals and I am very concerned and, therefore, during this period I felt that this concern became more present [...] Ah and occupied a large, a large space of my life ah that already exists in day-to-day life" (P21).

Still regarding the sources of stress in the work environment, the concern with professional performance was a source of stress several times reported by the professionals "I was afraid that I wouldn't be able to take care of them." (P15); "it was concern about whether the attitude I was having towards this patient was the right one" (P14); "it was mainly this requirement to be able to respond to what is ah a mission of a psychology service" (P24); "the concern to always try to provide the best care" (P3). **Some professionals even mention that they did not feel able to deal with certain situations that arose and that situations tested their limites,** "some limit situations that, that yes that caused me some stress because I was not at all ah able, to that." (P23), "having to take like sometimes a patient to an intensive care unit [...] the patient has a cardiorespiratory arrest in the

middle of the journey and the lack of instruments for that and never having witnessed that previously, were things that tested us" (P12).

Based on these reports and the existing literature, the researchers believe that various contexts and measures affected the healthcare professionals' experiences during the pandemic, causing stress and testing their resilience.

3.2.5. Subtheme – Challenges faced

When questioned about the challenges faced during the pandemic, some participants mentioned the assessment and intervention with the patient, especially in the initial phase of the disease, "how to act as a speech therapist, that is, how to intervene and assess a patient at the beginning of the pandemic, then how healthcare professionals act, okay? In a planned and organized way." (P7). In the rehabilitation field, namely in occupational therapy and physiotherapy, the inability to use materials or to be restricted to using them due to the measures described above presented a challenge, considering that the professionals had to adapt to this condition and try to provide the most adequate care even with the restrictions " I would come in with the suit and only me, without any material, ah, without anything to work with the patients [...] it was only me and the patient and it was the way I had, how I had to adapt"(P19); "the challenge was to have to reinvent the dynamics of the sessions, sessions that were already planned to have a type of material [...] so the challenge here was to try to come up with certain strategies, namely to think of sanitized material" (P18); "I was limited because if I at other times could lead to some additional material, right? Some device, some kind of material now I wouldn't take anything, right?" (P20). In the psychology field, the biggest challenge was related to the closing of clinics or suspension of services, since these professionals wanted to do more but did not know how. Thus, for example, volunteering for the 24 hour health line emerged, even if they were requested to perform functions that were not associated with their area of expertise "they closed the clinics, they closed some places, but "ok, but how can we help?" [...] most of us ended up going to support the NHS twenty-four hour line and what we did was the triage part." (P23). This performance of functions was also a challenge for these professionals since they identified the difficulty of distancing the psychology actuation from the one requested by the managers of the SNS24 line "that was the biggest difficulty was I felt that there was even a person at the other end of the line who needed me as a psychologist, but I was not there as a psychologist." (P23).

The implementation of intervention through teletherapy was also a challenge for some professionals "online appointments were also a problem for me [...] I think that face-to-face is, it's a thousand times different, a thousand times different" (P23). **To justify this, participants indicate issues such as user compliance** "the new situations didn't want to start follow-ups by other means than face-to-face." (P22) **and the difficulty of understanding reality** "it was a challenge to have to give that to do patient care and have to guide them by phone without being seeing, right? Because the physical therapist is a professional who works a lot with his hands, who has to feel, who has to see, has to evaluate and we didn't have that " (P9).

Also in regard to the challenges associated with the intervention, the difficulty in guiding the intervention based on the literature emerges in the professionals' reports, since it was limited and not very solid "our part also implied a research work in addition to the care work, here at the hospital, it always implied a lot of work at home, a lot of study and research [...] and try to guide ourselves in real scientific evidence. That's what was also tricky, because a lot of the articles from information that came out of the measure already turned out to be very little, very unsound in that it investigates scientific sustainability and that's a challenge, that's a challenge" (P16).

Other professional challenges were described by the participants, including the difficulty in managing the time for interventions "time management, we had very little time to see the patient, very little time to clean." (P18) **and the change in clinical responsibilities** "I was one of the youngest at the time [...] I was often alone with the patients and, therefore, I had to be the only person who wanted to provide care and I had to manage the best way I knew" (P12); "being responsible for patients with respiratory pathology, but not as a physiatrist as a general practitioner " (P15).

Additionally, dealing with the deniers, that is those people who devalued the disease and denied protection, was also highlighted as a challenge for healthcare professionals "there are other people who don't accept the rules and say that it's a joke and that it's all lies and it's very difficult to deal with that kind of patient" (P13); "the deniers, like there are everywhere " (P23).

More recently, the most frequently reported professional challenge is dealing with clinical situations that were neglected during the most critical phase of the pandemic, either by decision of the patients themselves or due to the prioritization of intervention in health services "Stopping the hospital's activity, we are now paying the bill [...] nowadays there are diseases with little chance

of treatment or cure" (P16); "all the patients that were left untreated during the pandemic period [...] there ended up being some repercussion in the other types of pathology, no doubt" (P2).

On a personal level, aspects related to routine, such as doing supermarket shopping, which used to be something natural, became a major challenge for healthcare professionals, especially during general confinements "We had something to pick up at four, five o'clock in the afternoon at the supermarket that we didn't have" (P6); "Groceries were a hassle because, for example, by the time I got home the bakery was already closed, the stores were already closed" (P8).

Occupational balance and participation in meaningful occupations also became a challenge for healthcare professionals as their routines and lifestyles underwent many changes during the pandemic, such as increasing the time they spent at work and limiting leisure and social activities due to contingencies (54,55) "a pandemic is one of the things that deprives us the most in occupational terms [...] in addition to this occupational deprivation, it also makes us, have occupational imbalance of our life, right? That we cause us to stop, from, from doing the activities that were meaningful to us." (P18). **The main reasons for this difficulty identified by the participants were the work overload and the decrease in opportunities for socialization and leisure** "I used to go to the gym, I stopped going but also because it closed [...] I was more conditioned because it was more home-work and work-home" (P19); "Having a much more restricted life, much more ah the whole, the very circulation in the day-to-day is very restricted" (P22); "Our life is home, supermarket and work" (P6); "On the other hand, we lacked this social interaction, this support, this comfort [...] and I think this was a big challenge, both personally and professionally" (P18). **Rest was also conditioned** "there is all the deprivation that we went through about the activities that we used to do for leisure, my own rest that wasn't like it was before I think all that influences me" (P10).

Another major challenge was the balance between personal and professional life, in particular the difficulty in abstracting from work when leaving the health institution "maybe the biggest challenge was trying to abstract a little bit from work because we brought work home, we got home, we turned on the TV and the work was there" (P10). **In addition, managing family needs such as housekeeping and childcare, while at the same time being committed to fighting the pandemic and responding professionally to it was also difficult for professionals** "It required a great deal of availability, especially availability that was then reflected in terms of family, right?" (P14); "my wife, she is a speech therapist, she works on her own [...] it impaired her professional activity, right? This

was also something that affected me. [...] it was 2 psychological burdens, because the bills had to be paid also at the end of the month" (P17), "mainly reconciling the needs of my family with the needs of work" (P21); "I was already carrying a great personal load to work because we are both healthcare professionals. [...] it had a very big impact with a three-year-old child at home. [...] this management was, it was extremely difficult" (P6).

The literature also shows that the healthcare professionals who worked actively in the CoVID-19 services found it difficult to balance work and family life. Most of the healthcare professionals spent more time in the professional role and less time in the parental, family, and social roles during the pandemic when compared to the time spent in these roles during the pre-pandemic period. This change causes emotional reactions such as stress, sadness, concern, and anger affecting the mental health of healthcare professionals (55).

As mentioned in another topic of this paper, the media played a central role in the perspective of the whole population towards the pandemic, which was not always a positive role. In fact, besides all the other challenges that have already been described, dealing with the negative and sometimes unrealistic messages about the pandemic and the health services was also challenging for the healthcare professionals who were actually responding to the pandemic "the whole social alarmism that this caused. I think that was amplified and systematically being bombarded all day long with Covid, pictures, government measures and a whole bunch more things." (P17); " on television it was constantly playing those terrible news" (P20); "a lot of journalistic speculation ah, information that was given that was perfectly disjointed and, and very and very much in an alarmist dimension " (P24).

These reports are in agreement with the reports of participants in another qualitative study where they mentioned that one of the main challenges was prolonged exposure to news and social media, underlining that the news generated panic and there were several unreliable CoVID-19 related breaking news during this phase (56).

3.2.6. Subtheme – Support networks

Participants mention support networks when referring to something that helped them cope with the challenges that emerged from the pandemic. These support networks include:

1. **The peer groups** "One of the groups we had was of NHS professionals [...] It was especially active in that period, let's say each one of us shared tricks that we had found and solutions that we had found. So these informal groups also had that was a WhatsApp group that is still maintained [...] I think that is always useful, isn't it?" (P22).
2. **The family** "I also have a good family support" (P23); "with the family support" (P4), **namely the marital partners** "the management of tasks with my husband, in fact here a very significant mutual support ah, so an external resource that was very valid" (P21); "I was very lucky to have a, a spectacular husband who was able to stay at home [...] this allowed me to always, always maintain my activity without having to worry about this" (P1).
3. **Friends** "I didn't stop being in touch with my friends. [...] people might go out for a little walk and so we would meet and walk each of us on one side of the street." (P22); "The friend's social support even if it was by video call" (P10).
4. **The community** "entities outside the hospital created an hour before the time we go on duty so we can go" (P6).

Social support has been described several times in the literature as something that facilitate the response to adversity and is therefore widely associated with resilience (14,51,57,58). Studies show that social support, namely from family and friends, has a positive relationship with the mental health of healthcare professionals during stressful and traumatic events, such as calamities, accidents, disasters, and disease outbreaks (26,51). This is proven in studies that have found that social support can reduce symptoms of emotional exhaustion, depression, and anxiety, as well as feelings of depersonalization and feelings of impaired personal accomplishment (51).

In addition, it was also described in the literature that spending time with family and friends was seen as a form of relaxation and detachment from work (26).

Therefore, maintaining social contacts, even if in a different way than usual, for example through online communication to comply with government-imposed contingency measures and to prevent infection of oneself or others, becomes crucial to promote healthy emotional states in healthcare professionals (14,23). In fact, social support is a resource for people to cope with the uncertainty caused by negative events such as the CoVID-19 pandemic and increase their sense of control over their lives, facilitating adaptation to adversity (51,58).

3.3. Theme 3 – Personal factors

The third theme includes the participants' answers about the personal factors that helped or hindered their experience of the pandemic.

3.3.1. Subtheme – Individual skills to deal with crises

Individual competencies are undoubtedly influential in each person's experience when facing a crisis, in this case, a pandemic. Throughout the interview, the participants mentioned those they considered to be the fundamental competences to adequately deal with the pandemic. For the analysis of this subtheme the table 2 was constructed according to the model proposed by Marius Herberg and Glenn-Egil Torgersen (59).

Table 2- Individual skills to deal with crises.

Competency Group	Competencies Included	Quotes
General Preparedness	<p>Readiness</p> <p>Adaptive planning-processes</p> <p>Training and emergency exercise</p>	<p>"I had to prepare beforehand, and have to study new things again. [...] the accompaniment of the literature" (P12)</p> <p>"I accepted things naturally and I think I adapted" (P9)</p> <p>"I chose to be a health professional, I chose to be an occupational therapist and I will touch the patient knowing the increased risk that I will have, but that was my decision" (P18)</p> <p>"we had to adapt and I had to adapt [...] Of course we were ah updating constantly too" (P23)</p> <p>"in a very positive way that on a professional level I thought it was an experience an, an experience ah which I had prepared myself to live and to work for" (P2)</p>
Characteristics and Competence of the Individual	<p>Attitudes and values</p> <p>Self-efficacy</p> <p>Stress and pressure management</p> <p>Emotional competence</p> <p>Relational and human competence</p> <p>Mental abilities and capacity</p>	<p>"the ability to emotionally self-regulate ourselves in situations that come our way" (P19)</p> <p>"stress management, the ability to know how to deal with stress management [...] I realized it's one of the most important things a health professional can have" (P13)</p> <p>"I always tried to put myself in even more challenging situations so that I myself ah have the feeling that I could overcome them" (P12)</p> <p>"knowing myself, so I know when I'm getting close to my limit and when I realized I was getting close to my limit I put a brake there" (P23)</p> <p>"So for me empathy is the main thing" (P6)</p> <p>"From the humility of knowing, right? Ah and nobody knows everything" (P4)</p>

	Learning and reflection ability Context Understanding Ability to Act Communication Skills	<i>"I think assertiveness was also important" (P20)</i>
Ability to Maintain Sound Relations	Interaction (relationships, trust and psychological safety, social support, affirmative communication, situational awareness) Leadership Competencies Organizational Culture	<i>"the ability to lead [...] and I, as a team leader, I don't make any decision without listening to everyone [...] sometimes that idea that may seem completely out of place is what solves the problem for us." (P16)</i> <i>"to realize that no, that there is a purpose, a goal, we are all members of a team [...] knowing how to work as a team, in these situations is essential" (P14)</i> <i>"Knowing how to listen, knowing how to perceive the reality at each moment and not being afraid to make decisions, because at the limit the decisions are always ah of the, of the leader" (P24)</i> <i>"It is necessary to have the profile of a leader, ah leader, leader in the sense of knowing how to organize, that is, when faced with a situation [...] a person who guides the team" (P7)</i> <i>"I am a good mediator of conflicts and normally I am a person who likes to talk about situations and likes to listen" (P5)</i>
Creative Behavior and Improvisational Skills	Foundation Learning culture	<i>"the so-called open mind. That we have to be open-minded, because we have to adapt quickly to new situations" (P17)</i> <i>"I started working in a place where nobody knew what an occupational therapist was, that there was no material practically and that the budget they gave me to start the service was very small and I had to adapt, and , and I managed to make my point (P19)</i>
The Ability to Reflect and Learn	Active measures Reflection and creation	<i>"I don't talk much about covid. I didn't think much, there it is, that's another problem. I think we still don't reflect much on that period" (P14)</i> <i>"the pandemic brought, brought us at a time in fact some reflections, but did not bring what was important, which was the healing of these reflections." (P24)</i> <i>"I don't even really remember. This really, a person wants to say, it was so striking, but a person forgets quickly" (P11)</i> <i>"I think we quickly forget that the pandemic passed. It passed (irony)" (P1)</i> <i>"learning makes us stronger in the, in the future" (P4)</i>

This model identified the competencies that influence resilience based on unforeseen situations, such as the Covid-19 pandemic (59). Our participants, when asked about competencies that helped them deal with the pandemic and/or that they would consider important to develop to

better deal with a situation similar to this one, also addressed several points identified in this model.

Relational factors, such as interaction and leadership that are associated with trust, communication, and psychological safety, were identified as essential in dealing with the unforeseen, as they allow to balance the uncertainties that this involves, by reducing the need for control of the situation, increasing decision making, and empowerment (59). Aspects such as the ability to listen to others, mediate conflicts, organize and guide responses mentioned in the reports of the participants of this study are in line with these relational competencies identified by the model, and may thus be reflected in an increased resilience response.

Furthermore, an organizational culture that allows, on the one hand, planning and training for this situation and, on the other hand, pausing to reflect on and learn from the unforeseen also seems to have an influence in this regard. The ability to reflect and learn was identified as a key element in the development of knowledge and new ways of acting, also through improvisation. Thus, a link between the ability to learn on the journey and creative processes and behaviors was established in the study of Marius Herberg and Glenn-Egil Torgersen (59). Linked to this topic, aspects such as being open-minded and improvising when faced with difficulties were identified in the reports of the participants in the present study.

The participants in this study generally affirm that there was still limited reflection on what they experienced during the pandemic or that, although there was some reflection, it did not translate into learning. This was identified as aspects that failed and hindered the experience of the pandemic, which will be something to avoid in the future. For these reasons the authors of the competencies model argue that it is important to enhance reflection, the sharing of experiences and promoting adaptation to surprise (59).

Personal factors can motivate individual and collective actions to adapt and adjust to change, thus promoting resilience. Emotions seem to play an important role in the ability to tolerate, adapt, and respond appropriately to unforeseen events (59). Some emotional factors were also found in the participants' accounts of skills that helped them cope with the adversity of the pandemic. These factors included stress management, self-awareness of their limits, and emotional self-regulation.

3.3.2. Subtheme – Emotional impact of the pandemic

The pandemic and its associated issues, including work-related factors, had a negative emotional and psychological impact on healthcare professionals, as identified by the participants as an **emotionally demanding period** "with a greater emotional load" (P2); "it was quite complicated to deal with this whole situation of emotions" (P3); "then it's that we really felt the psychological impact that this had" (P1); "Emotionally it was very demanding and very stressful, very exhausting" (P19). **Also the literature proves these data, stating the significant psychological impact of the pandemic on healthcare professionals (39,52,53), higher than its impact on the general population, making them a vulnerable group (60).**

Through the participants' interviews, it is possible to understand the variability of negative emotions and feelings that they experienced and also the intensity with which they experienced them. Concerning emotions, it is possible to identify that healthcare professionals felt frightened by the situation that the world was experiencing, appearing several times in their reports "very scary, it's very scary". (P14); "it was really a very scary time" (P3); "it was such a new situation, so scary, so overwhelming" (P1). **Moreover, several other emotions emerged, including frustration** "some frustration" (P5); "because of some frustration" (P2), **powerlessness** "it made us a little more powerless or at least I felt a little more powerless" (P23), **terror** "we were all terrified. It was kind of bad like that" (P8), **the panic** "I was panicking." (P8); "first word panic" (P7) **and anguish** "it was anguishing to see the patients so bad" (P19); "the anguish of the day to day, which were many." (P14). **Still within the scope of emotions, anxiety is highlighted as something that the pandemic increased, comparing it to the pre-pandemic work experience** "More anxiety at that time, yes, without a doubt. I am already an anxious person. At that time it was not easy." (P15); "this context of increased pressure and increased stress" (P4); "in general I think anxiety" (P12). **Symptoms of anxiety, distress and depression in healthcare professionals during a pandemic are also reported in the literature (39,52,53). According to some studies, one of the factors that accentuate anxiety during pandemics is the uncertainty experienced (56,61).**

Regarding the relationship between resilience and anxiety, it is known that there is a negative correlation between the two variables, so the higher the anxiety, the lower the resilience (51,62). Higher levels of resilience are also associated with fewer symptoms of depression (51,62) and post-traumatic stress (51).

It is possible to identify feelings of despair in the participants' statements *"seeing all the professionals, all around me, desperate without knowing what to do without it, yes, that was complicated"* (P16); *"this made us a little bit at an early stage desperate"* (P7), **besides exhaustion** *"I was exhausted ah in terms of work fatigue and emotional fatigue."* (P7); *"the fatigue was so much that sometimes I couldn't even remember how I had made my way home from the hospital."* (P19) **and loneliness** *"a feeling of being very lonely"* (P22).

It is importante to point that dealing with death and serious illness was a big challenge that impacted significantly the emotional health of healthcare professionals, and the participants reported several times situations related to these issues describing them as difficult, frightening, horrible and disturbing *"seeing the patients, especially seeing the patients dying [...] I remember I saw a boy who was 23 years old and I remember him perfectly, because he was my son's age and this is hard, it's a bit hard"* (P16); *"seeing the patients short of breath and, and seeing the amount of coffins that came out every day, ah, it was terrifying."* (P6); *"every day when I would go out, I would come across several hearses [...] that hearse ride. That I think was what disturbed me the most"* (P8).

These feelings and emotions were reflected in some emotional and cognitive responses such as crying *"I often cried under the visor"* (P6), **the occurrence of nightmares** *"I had some nightmares, I had, I couldn't free myself in those, in those first months, I couldn't free myself from that image, from seeing people, well, afflicted"* (P16) **and the intolerance to silence** *"silence started to bother me a bit, a lot of silence ah I reported some sounds of people with shortness of breath"* (P6).

In the case of one of the participants, the emotional answer resulted in a situation of burnout *"I had a situation of burnout for a month, I dealt with it very badly [...] I really know that this affected me emotionally and professionally"* (P7). **The literature identified some factors that can lead to burnout during a pandemic, namely fear of getting infected and/or infecting others, contact with high mortality rates, grief for the loss of patients and colleagues, separation from families, changes in work practices and procedures, and the physical stress of prolonged use of personal protective equipment (63).**

Since burnout is described as a persistent, work-related negative mental state characterized by exhaustion, distress, feelings of reduced efficacy, decreased motivation, and the development of dysfunctional attitudes and behaviors at work, and resilience is briefly described as the ability to overcome adversity (1,64), several studies contrast burnout with resilience. Although resilience

cannot be affirmed only by the absence of burnout, this relationship is established in the literature (64).

3.3.3. Subtheme – Participation in activities that promote general well-being

To mitigate the impact of the pandemic, participants mentioned that they engaged in wellness-promoting activities during this phase. These data are supported by the findings of other studies that show that healthcare professionals reformulated their routine to incorporate healthy and optimistic behaviors (14,65), including household activities (e.g., cooking), passive recreational activities (e.g., watching TV and reading), artistic activities (e.g., painting), reflective activities (e.g., meditation), physical activities (e.g., walking), social activities (e.g., phone calls), and other leisure activities (55,64–66).

The general wellness promotion activities highlighted by the participants correspond to the activities defined in the literature and included:

A) Household activities (cooking) – *"for example, food I like to cook" (P24).*

B) Passive recreation activities (reading, watching TV, watching series)– *"take the time to do things, namely catch up on reading" (P25); "try to read a little bit" (P19); "continued to read the books I could read" (P24); "read books things that distance you a little bit" (P10); "as soon as the cinemas opened, I went to the movies" (P11); "try to watch some series." (P3); "I had to watch a series assiduously I wouldn't go to bed without watching an episode of a series to forget that the world was the way it was." (P6); "things that, that gave me some kind of pleasure at home watching movies, watching series" (P10).*

C) Artistic activities (music, painting, dancing)– *"listen to a little bit of music" (P19); "I would put on a happy song and I would." (P6); "enhance the taste for music and the taste for, for practicing music in my free time. [...] It was a strategy that helped me to deal with it very well." (P2); "I would also paint a little bit draw which is something that I like" (P9).*

D) Physical activities– *"at the end of the day I would come home and try to do a little walking" (P19), "try to do some physical exercise though indoors" (P15); "It was the walks we did around [...] more by nature" (P13), "I tried to do at least thirty minutes of walking in the open air" (P23); "as soon as the streets opened up and you could take hygienic walks you could do sports, you could go running or surfing" (P11).*

E) Social activities- "I think I have increased the frequency of phone calls to my friends and family" (P6).

F) Games- "we also played video games with each other, even trivial games to entertain ourselves" (P8).

Also mentioned in this topic is the involvement in the occupation rest and sleep "there were days that what I really wanted was to lie down and sleep" (P19); "it was relaxation that I already do normally, relaxation with meditation ah I started to force myself, right?" (P23); "try to rest" (P24).

Engaging in these activities plays an important role in resilience, as higher levels of physical activity and participation in leisure time activities are associated with higher levels of resilience (64).

3.3.4. Subtheme – Adoption of protective measures

The adoption of individual infection protection measures, in addition to those already mentioned in the organizational sector, helped participants to feel safer during this phase "I felt safer, right?" (P20). **Within these measures, the reinforcement of PPE use and hand disinfection are highlighted** "I had to sanitize my hands much more throughout the day" (P18); "I never washed my hands so much." (P8); "I personally acquired eye protection to be able to perform my duties" (P5), **the creation of circuits at home** "you come home, you shower and you go in through the basement, you leave your clothes in the basement, you go up the stairs in your underwear [...] A whole ritual that, that he had." (P17); "at home I always entered through the garage, I took off all my clothes in the garage, ah and automatically went upstairs to take a bath" (P6); "the creation of these circuits was, it was all very mathematical at the beginning" (P1), **care with daily clothes** "clothes would stay seven or eight days to accumulate to see if the virus would" (P6), **the optional confinement and social distancing** "Avoid as much as possible being in, in exposure to contexts that could be conducive to the spread of the virus" (P25); "avoiding having many external contacts, right?" (P20); "we reduced the number of times that we went shopping [...] we avoided transport" (P6) **and vaccination** "I was one of the first people to get the vaccine" (P6).

These protective measures are also identified in the literature as mechanisms adopted by healthcare professionals to deal more adequately with CoVID-19, namely reducing the risk of infection (65).

3.3.5. Subtheme – Previous experiences

When inquired about experiences prior to the pandemic that may have contributed to better cope with this phase, the participants mostly identified the following topics: **(A) the maturity acquired throughout the career** "the professional experience, the years of experience that I have [...] gave maturity in terms of calm to understand some things that others would react differently" (P16); "it has to do with maturity" (P24), **(B) the technical knowledge regarding interventions and protective measures of other diseases** "our basic training is generalist, so we are able to treat any type of patient and a respiratory infection is a common disease." (P15); "I was already used to using protective equipment, I had already worked in infectiology, so I was already more protected than other people" (P14); "I think that being a health professional, we know what are the basic measures that we have in front of certain patients." (P18), **(C) the extensive professional experience in different contexts** "work in various settings before that may have helped me to manage priorities and also manage stress" (P3); "I have been in some work settings [...] So I think that in terms of practical experience and knowledge I would be comfortable" (P5), **(D) professional experience in urgent and emerging patients** "the fact that I work in the context of crisis and emergency ah, was undoubtedly the most determining factor to better" (P21); "The fact that I have directed my entire academic and professional life towards the urgent and emergent critical patient" (P2); "We do emergencies and, and we know that there are serious diseases and we deal with people who are fine, who the next day have cancer and die quickly" (P11), **(E) the professional experience in risk management** "I think what helped me a lot, was that I was a risk manager and I always thought about the risk that the patients were running and the risk that my colleagues were running." (P8) and **(F) the experience in caring for sick people** "we as healthcare professionals what we are asked is mainly to know how to take care of people. Hm, and I think that effectively our capacity to care [...] was a good boarding for what came." (P10); "the acquired experience of dealing with the patient this was important." (P7).

These data are confirmed by the literature which argues that previous experience in health emergencies is protective against poor mental health outcomes, and conversely professionals with no experience are more likely to have low levels of resilience (39).

However, some participants report that, due to the surprise, unfamiliarity and unpredictability of CoVID-19, previous experiences did not prove useful in dealing with the pandemic "I think it was

so surprising that there was nothing, and so new, that there was nothing that I could have resorted to in the pre-pandemic to put into practice during the pandemic." (P25); "I don't know to what extent if I had ten years of experience or two years of experience if, if it had had a big impact " (P6); "I don't think it had great added value because I had never worked in a hospital before the pandemic." (P3).

3.4. Theme 4 – Strategic guidelines for improving health services

Based on the participants' testimonies about their experience of the CoVID-19 pandemic and in connection with the organizational, personal, and external factors that influenced their experience, theme 4 is focused on some strategic guidelines for health care organizations to improve their services.

3.4.1. Subtheme – Training of professionals

The first strategic guideline is the training of professionals, since the participants considered that the more information and tools they have, the better the care provided will be "because I think that the more informed we are, the better we'll be" (P18) and the better a crisis will be experienced in the future, such as a new pandemic "training people to be able to deal better, to be able to face it is an important strategy for overcoming a general crisis, right?" (P21).

Accordingly, the literature suggests the implementation of resilience-oriented interventions through education and training to strengthen health workers' defenses against various mental and psychological consequences of the pandemic (14,15).

Thus, within training the topic of education emerges, with the healthcare professionals interviewed considering it important that health services provide more formative training "I think there had to be more training or during our professional life." (P15). The areas of training highlighted by the participants are shown in the table 3:

Table 3- Training subjects

Training Subject	Quotes
Stress Management	<p>"having trainings and doing trainings to know how to manage stress, to know how to manage when things go less well, ah, I think essentially it's very much that way." (P13)</p> <p>"trainings on having weapons ah to deal with these stressful situations was important" (P15)</p>

	<p>"People could also have from time to time, some, some workshops, some things like that to deal with stressful situations" (P17)</p> <p>"stress management trainings. I think it's fundamental that there are stress management trainings." (P18)</p> <p>"How to deal with stress situations, in stress management I think it would also be important." (P9)</p> <p>"it would be training of everything that is related to stress and management, right?" (P4)</p>
Crisis and disaster	<p>"trainings for dealing with disasters and those things [...] I think it was important not just the public health doctors to do that." (P15)</p> <p>"training like this for everyone [crisis and catastrophe] [...] it teaches us precisely how to act in the face of something that no one is expecting." (P23)</p> <p>"effectively we have to have a lot of information in the area of catastrophe and exceptional situations" (P2)</p>
Urgency and emergency	<p>"some training in advanced or basic support so that we are more prepared and don't forget these more basic things." (P15)</p> <p>"specific training in urgency and emergency [...] I think that having a specialization and an area of official specialization in urgency and emergency medicine would be advantageous for everyone" (P2)</p>
Teamwork/ Teambuilding	<p>"develop teamwork skills" (P15)</p> <p>"So it is important that training is also done in leadership in the organization" (P24)</p> <p>"team dynamics, [...] to enhance communication between all" (P12)</p> <p>"team spirit, perhaps there should be training in that sense [...] and have activities" (P8)</p> <p>"Training is working in a team. Learning to work as a team." (P14)</p> <p>"the management of teams and of, of interactions in interpersonal relationships, many skills also of, of interpersonal relationships that are important in everyday life but that in situations of crisis and ah, and demand became more relevant" (P21)</p>
Conflict Management	<p>"conflict management in a normal context I think is one thing, conflict management in a pandemic situation is a result of another aspect, the basis is not the same. [...] Ah, the teaching of strategies to regulate ourselves, ah, I think it is, it is very important" (P6)</p>
Resilience	<p>"ah working tools such as resilience that yes, without a doubt" (P16)</p> <p>"it is important to promote to make people more resilient" (P21)</p> <p>"Maybe training our resilience, our resistance, that would be necessary in hospitals and health centers and other organizations." (P8)</p>
Emotional Intelligence	<p>"an emotional management, I'm not sure how it's done, but at least I think that everyone who belonged to the teams should have the chance to talk about what happened." (P14)</p> <p>"strategies of adaptation and emotional intelligence strategy" (P5)</p>
Burnout	<p>"burnout training that I think is extremely important in pandemic situations, because I think these situations are inevitable, right?" (P7)</p>
Personal Protection	<p>"The trainings could be at the level of, of control, of infection, infection protection, infection control." (P17)</p> <p>"at the level of ah equipment, of PPE, I think it is also very important ah to understand ah, or have information on how to use them" (P7)</p>
Information Management	<p>"we need to know how to manage that information, so ah an important training that targets these skills" (P21)</p> <p>"the workshop on the information itself to professionals about what is pandemic. Ah, that is, we have access to a lot of information, but maybe filter a little bit what is important." (P7)</p>
Routine management	<p>"to have training either from psychologists or occupational therapists because of the routines, the importance of routines. [...] importance of our, of the structuring of our routines and the importance that we, that we give to the activities." (P10)</p>

Regarding stress management, it is a very important theme for training. The literature points to some non-pharmacological techniques that can be used to help manage anxious symptoms, such as yoga, music therapy, aromatherapy (53), biofeedback, cognitive strategies and relax (24). In addition, providing information through videos and pamphlets has also been shown to be an effective strategy in managing stress in healthcare professionals (24). In the literature it is described the training of healthcare professionals on this topic also using digital health using various strategies such as mindfulness, promotion of self-care, psychological counseling, information from the digital platform and organizational support services (67).

With regard to crisis and disaster preparedness training for health crises, the literature is sparse and inconclusive as a systematic review of disaster preparedness interventions for healthcare professionals indicates that there is a lack of rigorously tested interventions of this type and that existing interventions do not address the core competencies of preparedness (68). Thus, there is not enough scientific data to guide training on this topic, but since it was identified in the participants' reports, we believe that it would be an advantage in combating crises in the health care context.

As for training in urgency and emergency, the Basic Emergency Care (BEC) course, a program designed for long-term strengthening of emergency health systems, has shown significant evidence during the CoVID-19 pandemic, and has even served as the basis for the establishment of resources by the World Health Organization. This course increased participants' knowledge and confidence in emergency and critical care skills, and the results lasted for at least half a year after it ended (69). Based on this knowledge, we direct health services to provide training in this area, using validated strategies, for all professional areas.

As for teambuilding, the literature recommends improving the atmosphere in health services by creating a sense of unity and positivity (15). In fact, team cohesion is highlighted in the literature as a protective factor against stress in the work environment, since studies show that positive team attitudes and intergroup relations decrease the perception of stress during a pandemic. Thus, this becomes a very important topic for training healthcare professionals (38). Based on the literature and participants' reports, the guidelines for teamwork/teambuilding training focus on a few parameters: communication, leadership support and teamwork. These topics can be taught by providing information and through role-plays and (de)briefings (70,71).

Conflict management is also of significant relevance, particularly during crises. Conflicts are problems that occur between teams due to negative emotional reactions when a disagreement occurs (72,73). Several factors can cause conflict, however the most highlighted in the literature are the stressful work environment, tension, lack of communication and disruptive behavior among healthcare professionals, (73,74) namely with harsh language (threats, shouting and swear words) (74). Mismanaged conflicts can affect the quality of care, (73,74) so it is imperative that one of the focuses of training professionals on this topic to facilitate interpersonal relationships, increase organizational commitment, (73) and protect the health professional from mental health problems and decrease absenteeism (72). This training should be based on psychotherapy and should include problem-solving techniques, roleplays, expression and emotional regulation (72).

The topic of resilience is extremely important in the training of healthcare professionals since it has been associated in the literature with positive health outcomes during pandemics, such as a decrease in burnout and depression (13). Under the topic of resilience, the literature highlights some education and training guidelines for healthcare professionals to better cope with the challenges inherent to their occupational context, namely related to health crises. These include arming healthcare professionals with information about the psychosocial risks of working in outbreak situations and being trained on how to cope with isolation, stigmatization, fatigue, stress, and feelings of depression (15). This training can be accomplished through approaches such as cognitive-behavioral therapy, group problem-solving activities, reflection, relaxation, or mindfulness-based therapy with the aim of reducing stress and improving coping skills (14,58). Thus, since interventions directed toward the development of resilience have shown positive results, the researchers' guidance in this study is to implement these as early as possible in health care settings.

Another of the subjects mentioned was emotional intelligence. Effectively, this is an interesting and useful topic to include in the training of healthcare professionals since higher levels of Emotional Intelligence in healthcare professionals are associated with a greater ability to recognize and deal with emotional reactions related to the pandemic, resulting in better performance at work (75). Emotional intelligence has a positive relationship with resilience as proven by several studies (75–77). This relation is explained by the ability to recognize, understand, and control emotions and the influence on overcoming difficulties effectively during

care delivery, allowing more clarity in thoughts and more correct judgments, as well as increased empathy (76). Thus, this theme gains enormous relevance in our guidelines, highlighting that the promotion of emotional intelligence protects against poor mental health outcomes in healthcare professionals, since both emotional intelligence and resilience have been showing inverse relationships with depression and anxiety (77).

Although only one participant mentioned burnout, according to other studies, burnout among healthcare professionals during the pandemic was a reality (61) especially among those who were in the front line (78). For this reason, the researchers of this study emphasize the importance of this issue for the training of professionals. This importance is related to the consequences of burnout that include predisposition to depression and anxiety, substance abuse, increased clinical errors and poor clinical decision making, thus impairing the quality of services and the mental health of the professionals (79). In this way, intervention to support professionals to manage the emotional impact of stressful events in the workplace becomes crucial (61) and the trainings should address work-life balance, the importance of social support, the promotion of self-care (63), self-awareness through reflective practice and small group discussions (78).

Regarding the topic of personal protection, the importance of PPE training, especially during health crises, has already been mentioned earlier in this paper, supported by the literature, and the guidelines are related to the impact of PPE use on the mental and physical health of healthcare professionals (15,27).

The topic of information management is also relevant since scientific data point to reduced psychological distress and increased safety associated with access to reliable information. On the other hand, misinformation is associated with noncompliance with preventive behaviors, reduced quality of care, and increased fear, anxiety, and stress (40). However, no relevant scientific data were found on which the researchers of the current study could rely to guide this training, despite highlighting the importance of the topic.

The theme of routine management is intrinsically linked to occupational balance. Thus, the promotion of occupational balance becomes a key point, since, as mentioned earlier in this paper, the occupational balance of healthcare professionals during the pandemic was significantly affected (54,55,80). It is important that professionals re-engage in meaningful activities and balance the areas of occupation in which they participate in order to increase their well-being

(54). This orientation arises because of evidence of an inverse relationship between occupational balance and psychological distress, that is, occupational unbalance can lead to decreased well-being, increased stress and boredom and can cause illness and unhappiness (81). By the nature of the topic, this training should be guided by qualified professionals in the occupation, namely occupational therapists. It is known that occupational therapists, based on the premises of occupational science, advocate that involvement in meaningful occupations is a natural health promoting mechanism (82,83). Thus, they have the knowledge and tools necessary to promote this type of training (83).

It is important to note that one participant highlighted the need to combine the practical application of knowledge with the theory provided to have a real integration of this knowledge *"training these skills, right? [...] training with simulations and some roleplay in practice, right? Because this is all very nice in theory. Do it like this, but then in practice hum may be more complicated and I think that simulated practice that was important with different contexts isn't it?" (P20).*

Additionally, other topics related to capacity building but that do not necessarily constitute training actions arise in the participants' reports, such as cross-mentoring *"anything that we could talk about and exchange ideas with each other" (P13); "to have some meetings from time to time to help healthcare professionals, let's say, to deal with many situations in everyday life." (P17). Several studies encourage communication between professionals in the work environment and the creation of opportunities for non-binding discussion of positive and negative aspects of the situation based on natural coping strategies in contrast to psychological interventions such as therapy (15).*

The promotion of self-knowledge was also mentioned *"to know themselves, to know how to deal with their own limits" (P13); "start investing in increasing knowledge [...] because there were things that we did not know about ourselves or the ability that we had to deal with certain situations, and I think it is very important" (P3).*

Also, multidisciplinary knowledge of each health area was identified as something that should be done *"about what each of us does and there should be a multidisciplinary sharing of job performance [...] if I already know what that person does, then he's going to be important for this. If I don't know what he does, he's not going to be important for anything." (P7).*

3.4.2. Subtheme - Support and well-being measures

Under the circumstances of a pandemic, appropriate measures should be established to ensure the well-being of healthcare professionals in the work environment (84). Also the participants of this study considered that health services benefited from having professionals more satisfied with working conditions and more professionally and personally fulfilled. Thus the participants, based on the support they felt was lacking during the pandemic, identified some support and well-being measures that they considered could be useful for professionals and consequently would influence care delivery "if the professionals [...] are given the best conditions to work, at the bottom of the chain, in the pyramid, in the hierarchy everybody wins." (P13); "the more time we give people to do what makes us happy, the more productive people are going to be" (P18)

This strategic orientation arises in this purpose, so the measures identified by the participants will be highlighted in this topic.

The participants consider that health institutions should help healthcare professionals to have time to perform meaningful activities within the work environment in order to increase their well-being "organize themselves somehow for us to have some time when we could do something, some kind of activity where we could relax, even if it was just for fifteen minutes." (P19). Apart from time, the literature also recommends the provision of physical spaces to perform these meaningful activities or health-promoting activities such as sleeping/resting or physical activity (14,15).

Outside of the work environment, but related to the demands of that same environment, the participant should also be able to enjoy more time for these meaningful activities, "if he then has no time to, to be with his family, to be with himself, to do absolutely nothing." (P18). These reports are in line with the importance of promoting balanced and positive routines for healthcare professionals indicated in the literature, such as days off so that healthcare professionals can engage in self-care activities and have healthy lifestyles such as maintaining proper nutrition, a good sleep routine, exercising, and establishing social connection (84).

Moreover, they also consider that there is a gap in the psychological support provided to healthcare professionals, either by the absence or by the inability to respond to all the needs that should be addressed, since they consider that it would bring many benefits for the mental health of professionals "we have an office, but I mean, it's not enough for the whole hospital, one person for a whole hospital is impossible, right?" (P15); "And also psychological support. [...] the psychological

support for the employee" (P17). These data are corroborated by other studies that also point to the strengthening of psychological care services for teams of healthcare professionals as an important measure, since this population needs more mental support from superiors and services (38). In this line, we also recommend strengthening the psychological support provided and, based on the literature described, the use of long-distance psychological interventions such as video and phone calls, which have shown to be effective in managing anxiety of healthcare professionals (24).

Besides increasing responses, one aspect highlighted by a participant is the need to foresee and anticipate possible needs since professionals sometimes have difficulty to admit that need "People are very embarrassed to say that they are having a difficulty, a handicap at that moment. I think it was, it was fundamental." (P6). This issue is validity by the literature that admits that there is in healthcare professionals the fear of stigmatization and of demonstrating vulnerability, which consequently leads to a reduced use of psychological support services (26).

One participant identified that he missed the gratuities that were taken away from the health service where he works, expressing that it influenced his well-being at work "Even the snacks that we used to have who made evenings, when the group came to run the hospital even that ended, to save money. We don't even have water to drink anymore." (P17). Then, providing gratifications so that professionals feel more comfortable in the workplace, namely in terms of food, also emerges as one of these well-being measures recommended by the researchers of this study, corroborating the guidelines described in the literature that recommends providing professionals, particularly those on the front line, with sufficient and easily accessible high-nutrition food and beverages during each shift (14,15).

Another measure suggested is the development of solutions so that couples who are both healthcare professionals can better manage their family and professional lives, such as the creation of day-care centers within the institution itself "If two professionals are there, if two parents are professionals, if they go in at 8:00 a.m., who gets the child? Maybe, there you go, creating answers. The hospital itself, create a nursery school" (P18); "in our family we are 2 healthcare professionals, we both work in this pandemic. So, what could have been useful. It could have been useful to have a support, help" (P14).

Finally, one participant identified as a useful measure the possibility of flexible working hours according to the health professional's productivity, considering that this would improve the professional's performance and increase his/her well-being "Asking the employee what he likes, how he feels, what is his, his best time of the day is in the morning, afternoon to evening and from there on, creating schedules, creating teams" (P18).

Combining the last two aspects mentioned, and considering the data described in the literature, flexible working hours, among other factors, have the potential to help healthcare professionals balance personal and professional life, reducing the tension between occupational roles and thus improving the well-being of this population (80).

3.4.3. Subtheme – Telehealth

Studies suggest that the use of telehealth proved to be a useful strategy during the pandemic to screen, assess, and intervene with users in various clinical areas such as dermatology, internal medicine, and psychology, while preventing the spread of the virus (44,45,85).

The participants in this study, in a general way, consider that this practice should be maintained in the future "I think that telemedicine has helped a lot." (P18); "healthcare professionals [...] realizing that there are certain things they can do remotely. And that it also works." (P9), "the implementation of teletherapy I think was fundamental" (P7); "teleconsultations was a very interesting solution for some specific situations" (P1). **This belief emerges from the identification of benefits associated with this practice, such as the reduction of unnecessary travel** "an appointment just to review medication that sometimes was not even justifiable and they went there" (P9), **the profitability of the time of users and professionals and cost reduction** "in patients with financial insufficiency[...] to have some treatment in a consultation process" (P6); "make my time and the patient's time profitable in terms of travel ah, so I think I started to see that this was useful" (P7).

The benefits of telehealth pointed out by participants are supported by the literature which suggests that the use of telehealth, particularly by video call, is useful in non-emergency/routine areas and in services that do not require patient-doctor interaction in person (86), , including people with chronic illnesses for medication verification and screening (45), for monitoring patients after surgery (85) and for examining areas that are easy to observe (eyes and skin for example) (87). In addition, this method improves access to health care, particularly in areas

where access is difficult, such as rural areas, and reduces hospital admissions for acute conditions. It also saves time and reduces the costs associated with traveling to health care facilities (44).

In fact, telehealth is an interesting and promising approach for health services that want to modernize clinical practice while simultaneously facilitating access to care, maintaining the quality and safety of care, and involving patients, healthcare professionals and health service users in the clinical process (44,86).

However, in the area of psychology not all participants agree with the use of technologies to provide services "I don't think it works as well with us as it does with other valences with other, other areas." (P23). This disagreement can be justified by the difficulty in establishing emotional connection with patients, avoiding distractions, preserving confidentiality, and establishing professional boundaries mentioned in the literature (43).

While the benefits of telehealth are clear, there are still barriers or challenges to implementation described in the literature as with any new emerging innovative field. These challenges include the patient's need to see their healthcare provider in person, the low digital literacy of users, difficulty in accessing technologies (44), as well as the difficulty in accepting and adhering to technologies by both users and clinicians (87). These challenges were also mentioned in the reports of the participants of this study, namely the unequal access "not everyone has access to technologies" (P18) and the low adherence by some populations "older people don't adhere." (P25).

Additionally, participants indicated as a barrier to implementation, the lack of coding of services provided at a distance since it does not allow documenting the services provided "Create codes to allow the registration of treatments that are done at a distance, that don't exist." (P1); "teletherapy is not done at the hospital level because there is no coding to do it, right?" (P7).

Other issues should also be monitored, such as the assurance that the patient is following the appointment/therapy "in terms of perception, we can't tell if the patient understands what we are saying or not." (P18) and the use of audio only (through the telephone) that does not allow a clear perception of the patient's situation "but the telephone we don't visualize the patient. The voice is sometimes different" (P18).

Finally, the overuse of this form of accompaniment also comes up as a concern "without falling into the opposite that everything can be done through a video call, because sometimes there are certain situations that are also masked" (P9); "Teletherapy is an option, not of replacement to the physical component of rehabilitation [...] but it was a complement." (P6). **The literature also points to telehealth as a valuable but complementary approach to face-to-face interventions (47).**

Reviewing the advantages and disadvantages described both in the literature and in participants' reports, our recommendation is to promote the use of telehealth in a prudent manner. Effectively, the experience of the CoVID-19 pandemic may help to develop guidelines and coordinated strategies to promote the implementation of telehealth, and health services should follow this focus to be able to reap the full benefits of this practice (86,87).

3.4.4. Subtheme – Reorganization of services

This orientation arises because the participants consider that there is a need for an adjustment in the organization of health services in order to improve working conditions for professionals "we don't have the working conditions. It's far short of what is needed, what was needed, what would be needed." (P17). **From this the following restructurings arise:**

- a) **In terms of work methodologies** "I think it is important in Portugal to have formalization of work methodologies." (P7); "if we have things protocoled it is much easier to reorganize, because we know what we are supposed to do" (P1); "I think that there has to be a model, at the level of the national health system, that with the professionals, a way of acting, how to take in these pandemic situations." (P2).
- b) **Regarding physical spaces** "having availability of places for example for group interventions" (P22); "I think that it only occurred to me the issue of beds and the number of vacancies that are needed" (P12).
- c) **Regarding schedules** "make a restructuring of schedules [...] working shifts is not beneficial, although there is this need it ends up not, not, not being beneficial." (P18); "I think that the ideal should not be this difference between public and private, there should be, yes, healthcare professionals that have to work 30 hours and that is enough" (P18). **Effectively, some of these reports are consistent with the guidelines described in Rieckert's et. al (2021) study which advocates that shifts should be limited to a maximum of 12 hours with light tasks or 8 to 10 hours for shifts within intense tasks and for hourly shifts a maximum of 8 hours (15).**

- d) **In terms of organizational hierarchy** "There should be organizational charts of priorities at the level of healthcare professionals" (P7); "the decisionmaking positions within hospitals [...] are not appointed positions and are effectively positions either by public competition or appointment by peers" (P2); "the leaderships are very closed and there is a lot of separation between what is a nurse, what is a manager, what is administration" (P3).
- e) **Regarding investment in health** "should be much more investment in health [...] aspects in terms of physical conditions, human resources, salaries, in all aspects, none of them is good. Ah, so if we want to maintain the quality of, of services, you have to, there's a lot that should change in my opinion." (P11). **According to Organization for Economic Cooperation and Development (OECD) data, health investment in Portugal is lower than the EU average, however, recent reforms aimed to increase financial coverage, namely due to the impact of the pandemic on the health system (36).**
- f) **In terms of strengthening the National Health System** "I think it is I have a strong health system is the big priority and, and the lesson that we should all have, have learned." (P11); "to be in primary services [psychology], being in the health center, but not as we are currently that we are very few and we create consultations in fifteen or twenty minutes. (P23); "I would like to see hospitals with fewer people in the emergency room" (P24). **According to the OECD data mentioned above, one of the measures implemented was the creation of the Recovery and Resilience Plan which has as its main objectives to strengthen the response of the NHS, strengthen the role of primary health care within the NHS, improve long-term mental health care and increase efficiency (36).**
- g) **Regarding the storage of information** "The same thing with the computerization of the systems that also did not exist [...] that facilitates a lot afterwards our assistential and organizational work" (P1).

3.4.5. Subtheme – Professional acknowledgment

Healthcare professionals play a primary role in society and are constantly exposed to risks and situations of pressure and stress. These issues during the CoVID-19 pandemic were even more evident, however, the participants consider that neither during this phase nor before had **sufficient recognition and appreciation of their work** "I don't think these people are ever going to be valued enough" (P14); "not to have any kind of retribution in the, to compensate whatever" (P2). **Thus, the last strategic recommendation focuses on the need for professional recognition felt by**

healthcare professionals "I think that valuing our work more was perhaps the most appropriate measure" (P10), "this valorization and this, this recognition of our need to continue working at the moment when everything was closed has to be compensated in some way." (P2). **This orientation is very important since, as pointed out in the literature, healthcare professionals currently feel that recognition of their work is neglected, leading to job dissatisfaction and burnout (38).**

According to the participants this acknowledgment can be done in several ways and one of them is monetary rewards "taken advantage of this opportunity to receive was an effectively remunerative support ok?" (P2); " salary issues so as not to force us to leave here having to work somewhere else until late at night to have a more economic stability." (P10). **Studies report the need to provide economic incentives to professionals during health crises, ensuring their motivation (15,38). Rieckert et al. in his study also advises health services to provide monetary compensation, especially to those who have been on the front line, considering the extraordinary tasks, responsibilities, and risks they have been subjected to during a health crisis (15).**

Other way of acknowledgment identified by the participants was the recognition of the importance of the professional areas " I was sad that only because it was at this time ah at such a critical time that there was the recognition of the general population about our profession" (P12); "be recognized for the value that we all have " (P3); " I think it would be very much that way, to have more people, to have more intervention, to have distinct intervention in different areas, [...] To have more OTs. Basically it is to have more OTs and their intervention" (P19).

Participants indicate that comforting expressions and gestures of appreciation are always gratifying to be received "Of course everyone likes 'Look, nice work' is very good, this was a great " (P16), **however they are not enough for professionals to feel valued** "It always feels good to hear a thank you from a manager, doesn't it? Ah and really one gets a little happier at that moment when one knows that one's work is recognized, but one also gets frustrated because it's just words, isn't it?" (P3). **In a study, participants revealed that they felt a lack of recognition and appreciation, referring not only to monetary rewards but also to immaterial ones such as gratitude (23). Additionally, participants in another study mentioned the vital impact of expression of gratitude by health care managers and, on the contrary, indicated frustration and disappointment for not receiving recognition and appreciation from the system, after exposing their health to risk for the benefit of patients and colleagues (25).**

Thus, according to the literature and the reports of the participants in this study, the guidelines are to increase the focus on valuing professionals as it is a key element in promoting the mental health of this population and increasing their resilience, especially in difficult and extraordinary circumstances (23–25,27).

4. Conclusion

This study aimed to understand the perspectives of Portuguese healthcare professionals regarding the factors that reinforce their individual resilience based on their experiences of the CoVID-19 pandemic.

It was possible to understand that healthcare professionals are a vulnerable population when it comes to mental health risks due to several factors of their work context. This risk increased during the pandemic which was characterized as a difficult time of much unknown, uncertainty, and occupational deprivation.

Based on the analysis of the reports of the healthcare professionals who participated in this study, some factors were identified that seem to have mitigated the impact of the pandemic on their health and facilitated overcoming the adversity of that period. These factors include social support from family and friends, organizational support from both leaders and colleagues, involvement in wellbeing-promoting activities, personal skills, ability to learn from experience, implementation of measures to increase their safety, and their professional experiences prior to the pandemic.

Considering the identified demands for the development of measures to protect the mental health of healthcare professionals and to enhance the resilience of this population to adverse situations associated with healthcare, the authors developed a set of recommendations and guidelines that considers resilience to be a multifaceted concept that combines several aspects, such as personal, social, and organizational characteristics. These guidelines mainly involve increasing the empowerment of healthcare professionals, namely through training on various subjects, improving working conditions, increasing organizational support, implementing telehealth and professional valorization.

Healthcare organizations would benefit from the implementation of these recommendations on several levels, such as increased productivity of professionals, decreased absenteeism, and increased satisfaction of professionals towards their job and institution. In addition, they would possibly increase the quality of the services provided due to having healthier and happier

professionals doing their jobs. These findings about resilience promoters are of high importance and relevance to occupational therapy, particularly in mental health since that participation in meaningful occupations that result in positive emotions enhance the development of resilience and increase mental well-being.

Thus, occupational therapists should play an active role in this issue, once they are experts in occupation, helping organizations to implement these recommendations, namely through lifestyle redesign programs for healthcare professionals, by fostering this involvement in meaningful occupations and the acquisition of occupational balance. Therefore, we would have healthcare professionals who are healthier and more functional in their daily lives.

It should be noted that this study has limitations. The occurrence of recall bias is a possibility, since the questions in the interview script focused on the experience during the pandemic, particularly the most critical phase that occurred between 2020 and 2021. In addition, social desirability bias due to the sensitiveness of some topics covered in the interview cannot be dismissed either. The sample size could also be a limitation, although data saturation could be stated. However, there is not yet enough data to decide that the topic in question has been discussed enough to be considered closed.

5. Implications for research and practice

Our findings add to a better understanding of the role of resilience in healthcare professionals, identifying some factors that can influence individual resilience and how that can protect these professionals from suffering and help them to be more efficient and productive in their jobs. Thus, this study can serve as a link between individual and organizational resilience, as, healthcare professionals who are better prepared to deal with adversity allow healthcare organizations to adapt more easily to abrupt changes due to events such as pandemics. On the other hand, institutions capable of anticipating, preparing for, and responding to adverse events encourage the development of resilience in the professionals that work in those institutions. However further research is needed to gather more knowledge and better understand this phenomenon.

Given these findings, it is important that interventions for developing resilience focus on the multidimensional nature of resilience. It is of extreme importance that future research establishes effective ways to develop resilience that can be incorporated into health professional training and practice. Therefore, future efforts may focus on the development of tools, which, considering the

factors described in this study, contribute to the development of resilience in healthcare professionals.

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Supplementary Material

Appendix 1 – Interview script

Interview Guide

Individual Resilience

Thank you for finding the time and helping our study with this interview today. For about 45 minutes, I would now like to understand what challenges you personally faced during the CoVID-19 pandemic in your professional role and what helped you to cope with them. I will now start the recording of this interview if this is ok for you. Is there anything that is not clear to you or that you would like to ask beforehand?

1. General Questions about function and responsibilities

- What is your function and what are your responsibilities in your organization?
- Since when are you in this position?

2. Question experiences start phase of CoVid19

- Please remember back to the start of the pandemic CoVid19 crisis in 2020. Can you please give me a brief description of how you experienced the pandemic personally at your workplace.

3. Questions regarding working routines and challenges of CoVid19 in 2020 / 2021

- With which challenges you were confronted at the start phase of CoVid19?
- Which ones were the most challenging ones you were faced during this time and how did you deal with them?
- How did your daily work routine changed due to the CoVid19 regulations and how did you to adjust your daily working routines during the period 2020/2021 of the pandemic? What worked well and what worked not so well?
- Are you aware of any good practice in that context? What would have been most helpful from your point of view?

4. Questions regarding patient care during CoVid19 in 2020 / 2021

- What were the most serious concerns of your patients between 2020 and 2021 of the pandemic?
- What were your biggest concerns whilst dealing with patients?

5. Questions related to organizational support.

- In your opinion, how has your organization coped with the pandemic so far?

- Which kind of support did you get from your organization during the start phase of CoVid19? Could you please specify? Was the support by your organization helpful to you and in which way?
- Which kind of further support would you have wished for by your organization?
- Which kind of support did you get from your directly assigned supervisor / leader during the start phase of CoVid19? Could you please specify? Was the support by her/him helpful to you and in which way?
- Which kind of further support would you have wished for by your supervisor / leader?

6. Questions related to individual skills and stress.

- To what extent and how were your experiences before the pandemic useful to cope with the challenges brought by the pandemic?
- According to you, what are the most important skills for persons in your professional role in general to cope with challenging situations due to a pandemic?
- Which one of those skills did you make use of to cope with the challenges you described earlier?
- What were your biggest sources of stress for you during the pandemic?
- Which kind of measures did you take to reduce the stress?
- Which skills do you think you would be needed in getting trained to deal with this type of situations in the future?

7. Questions regarding individual learning

- Which lessons did you learn from this CoVid19 experience as a person in your professional role?
- Which ones would be useful to implement in healthcare services? How could they be implemented?
- Have you had any training of how to deal with crisis similar to the CoVid19 pandemic? If yes, how useful was the training?
- Which kind of training could be useful for individuals and organizations to deal with a pandemic in an adequate way?

8. Final Questions

- In conclusion, is there anything else you would like to add?
- Is there anything else important you have not been mentioned yet?

Thank you very much for the interview!

Appendix 2- Theme tree

