

Pandemic at the hospital: Booklet for coping with stress

Andressa Melina B. da Silva^{1,2}, Murilo F. de Araujo³, Juanita H. Pinzón⁴, Jodi Dee H. F. do Amaral⁵, Letícia L. Dellazzana-Zanon³, Cristiane de A. Lins³, Maria Fernanda M. B. de Freitas⁶, Elisa T. Mendes⁶, Eliana Cristina C. Vicentini³, and Sônia Regina F. Enumo^{3,6}

¹ Psychology program, University of Sorocaba (Universidade de Sorocaba [Uniso])

² Physical Education program, Uniso

³ Post-graduate Program in Psychology, Pontifical Catholic University of Campinas (Pontifícia Universidade Católica de Campinas [PUC-Campinas])

⁴ Post-graduate Program in Psychology, Pontifical Catholic University of Rio Grande do Sul (Pontifícia Universidade Católica do Rio Grande do Sul [PUCRS])

⁵ Hospital Psychology, Hospital das Clínicas, Federal University of Uberlândia (Universidade Federal de Uberlândia [UFU])

⁶ Post-graduate Program in Health Sciences, PUC-Campinas


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Authors' notes


Andressa Melina B. da Silva  <http://orcid.org/0000-0001-5630-7843>


Murilo F. de Araujo  <http://orcid.org/0000-0003-1707-4973>


Juanita H. Pinzón  <http://orcid.org/0000-0002-8846-7953>


Jodi Dee H. F. do Amaral  <http://orcid.org/0000-0003-1534-129X>


Letícia L. Dellazzana-Zanon  <http://orcid.org/0000-0003-0649-1675>

Cristiane de A. Lins  <http://orcid.org/0000-0003-3216-0167>

Maria Fernanda M. B. de Freitas  <http://orcid.org/0000-0002-1578-2709>

Elisa T. Mendes  <http://orcid.org/0000-0003-4251-8185>

Eliana Cristina C. Vicentini  <http://orcid.org/0000-0001-9463-0801>

Sônia Regina F. Enumo  <http://orcid.org/0000-0001-9038-6151>

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Correspondence concerning this article should be addressed to Andressa Melina Becker da Silva, Avenida das Figueiras, 271, casa 21, Vossoroca, Votorantim, SP, Brazil. CEP 18119-375. E-mail: andressa_becker@hotmail.com

Abstract

Healthcare workers have been under intense stress in the coronavirus disease 2019 (Covid-19) pandemic when they faced situations that threatened or challenged their basic psychological needs for autonomy, competence, and relatedness, and they may present mental health problems. Seeking to help these professionals in the hospital context, this article presents the theoretical bases and procedures for the development of a psychoeducational booklet for coping with stress. An integrative literature review and an online survey with 141 healthcare workers from hospitals in Brazil, Colombia, Peru, and Argentina were carried out to identify the main stressors and coping strategies. This material was organized according to the motivational theory of coping into charts with recommendations on what to do and avoid and boards for alternative communication. The booklet was evaluated by 17 expert health judges, obtaining good correlation coefficients for relevance content (.98) and for clarity of language (.92). With a Spanish version, its application possibilities are expanded.

Keywords: psychological stress, psychological adaptation, Covid-19, health personnel, hospital

PANDEMIA NO HOSPITAL: CARTILHA PARA ENFRENTAMENTO DO ESTRESSE

Resumo

Profissionais de saúde estiveram sob estresse intenso na pandemia da *coronavirus disease 2019* (Covid-19) ao enfrentarem situações que ameaçaram ou desafiaram suas necessidades psicológicas básicas de autonomia, competência e relacionamento, podendo apresentar problemas de saúde mental. Procurando auxiliar esses profissionais no contexto hospitalar, este artigo apresenta as bases teóricas e o procedimento de elaboração de uma cartilha psicoeducacional para o enfrentamento do estresse. Realizou-se uma revisão integrativa da literatura e um levantamento *on-line* com 141 profissionais de saúde em hospitais do Brasil, da Colômbia, do Peru e da Argentina, para identificação dos principais estressores e estratégias de enfrentamento. Esse material foi organizado pela teoria motivacional do *coping* em quadros, com recomendações sobre o que fazer e evitar, e quadros para comunicação alternativa. A cartilha foi avaliada por 17 juízes especialistas em saúde, obtendo-se bons coeficientes de correlação para relevância do conteúdo (0,98) e clareza de linguagem (0,92). Com versão em espanhol, ampliam-se suas possibilidades de aplicação.

Palavras-chave: estresse psicológico, adaptação psicológica, Covid-19, pessoal de saúde, hospital

PANDEMIA EN EL HOSPITAL: CARTILLA PARA EL ENFRENTAMIENTO DEL ESTRÉS

Resumen

Los profesionales de la salud han estado bajo un estrés intenso en la pandemia del *coronavirus disease 2019* (Covid-19), cuando enfrentaron situaciones que amenazaban o desafiaban sus necesidades psicológicas básicas de autonomía, competencia y relaciones, y pueden presentar problemas de salud mental. Buscando ayudar a estos profesionales en el contexto hospitalario, este artículo presenta las bases teóricas y el procedimiento para la elaboración de una cartilla psicoeducativa para el afrontamiento del estrés. Se realizó una revisión integradora de la literatura y una encuesta *online* con 141 profesionales de la salud en los hospitales de Brasil, Colombia, Perú y Argentina, para identificar los principales estresores y estrategias de afrontamiento. Este material se organizó de acuerdo con la teoría motivacional del afrontamiento en tablas con recomendaciones sobre qué hacer y evitar, y tableros de comunicación alternativa. La cartilla fue evaluada por 17 expertos en salud, obteniendo buenos coeficientes de correlación para la relevancia del contenido (0,98) y la claridad del lenguaje (0,92). Con una versión en español, se amplían sus posibilidades de aplicación.

Palabras clave: estrés psicológico, adaptación psicológica, Covid-19, personal de salud, hospital

Coronavirus belongs to the Coronaviridae family, which is characterized by large, enveloped, single-stranded ribonucleic acid (RNA) viruses and is commonly found in some colds and diarrhea in humans. In December 2019, in Wuhan, a Chinese Hubei province, a novel betacoronavirus called severe acute respiratory syndrome coronavirus 2 (Sars-CoV-2) emerged as a cause of severe respiratory infections in humans (Zhou et al., 2020). On March 11, 2020, the World Health Organization (WHO) classified the outbreak of the coronavirus disease 2019 (Covid-19) as a global pandemic, which increased the workload of healthcare workers (HCWs) and, consequently, caused a possible greater amount of stress. Its dissemination was fast, with the numbers of cases increasing daily in several countries, until the revision date of this paper, August 2021.

The impacts on public health caused by a virus of such a rapid and intense spread among the population were noteworthy, and it generated a sudden change in the medical routine. The overcrowding of healthcare units and the lack of hospital beds and healthcare equipment, such as mechanical respirators, were hindrances to the work organization, which affected the mental health of care teams in a pandemic situation, especially the frontline HCWs (Sun et al., 2021). In addition to these issues, it is extremely important to draw attention to the failures in protecting HCWs, which has been happening in several countries. With the rise of the pandemic, access to personal protective equipment (PPE) for HCWs has become a concern, due to the scarcity in places with high demand (Gallasch et al., 2020), which is not the only factor, but one of the factors that exposes HCWs to risk (World Health Organization [WHO], 2020a, 2020b).

As the coronavirus spread in different regions of the world, including Brazil, public health policies emphasized the need for contamination prevention measures and social isolation, which can cause a delay and/or reduction in the speed of spread of the disease (Barros-Delben et al., 2020). However, social distancing recommendation did not apply to essential workers, such as healthcare workers. The presence of these workers in their workplaces was necessary to ensure care related to several health problems, such as Covid-19.

It is important to highlight that a crisis is not only characterized by negative aspects (social limitations, probable illness, and loss of autonomy). A crisis is also a phenomenon that escapes normality and what is expected, either by its intensity or indefinite time, and that transforms those who experience it. One way of interpreting a crisis is to see it as an opportunity for necessary changes. On several fronts, individuals and public and private organizations had to learn to carry out daily and labor activities in a different way, which will probably represent a historic milestone for social organization (Barros-Delben et al., 2020).

In this context, the pandemic is a stressor per se, adding up to several other stressors, especially for HCWs, which were especially affected by this stress load, mainly those with more work experience over ten years (Wang et al., 2021) and women, who were more at risk of developing several long-lasting psychological problems, as anxiety, depression, and insomnia, for example (Sun et al., 2021). These professionals demand attention, particularly women on the frontline because they are fundamental to carry out the work. Then, it is important to understand the relationship between stress and coping, as well as the development of

psychoeducational materials, aiming to assist HCWs to cope better. This study focuses on the methodological process used to develop a psychoeducational booklet, which enables self-assessment and guides HCWs on how to deal with stressors from the Covid-19 pandemic. It is believed that, with this methodological description, it is possible to inspire other professionals to carry out rigorous scientific procedures for the progress of other psychoeducational materials.

To further understand how HCWs are coping with this stressful environment, the motivational theory of coping (MTC) was used as the theoretical framework for the development of the booklet. According to MTC, universal stressful events are situations interpreted as a challenge or a threat to the basic psychological needs of autonomy, competence, and relatedness (Skinner & Zimmer-Gembeck, 2016). These needs are explained by the basic psychological needs theory (BPNT), which is part of the self-determination theory (SDT) (Deci, 1984; Ryan & Deci, 2017). The satisfaction of the basic psychological needs (BPN) throughout life span is essential for personal growth and subjective well-being (Deci & Ryan, 2000), and it happens through the transactions between the individual and the environment.

The autonomy BPN is related to the ability of the individual to act in accordance with their personal values and beliefs and choose the activities in which they will engage. It also refers to doing things they feel like doing and not because they feel pressured or obliged by someone, some circumstance, or for other reason that does not correspond to their real values. The competence BPN refers to the need to interact efficiently with the environment, promoting self-efficacy. Finally, the relatedness BPN is about having meaningful bonds with other people, belonging, and acceptance. It is a need to feel connected and cared for (Ryan & Deci, 2017).

According to MTC, coping can be defined as the struggle of the individual to “maintain, restore, replenish, and repair the fulfillment of basic psychological needs in the face of experienced assaults on those needs” (Skinner & Wellborn, 1994, p. 112). Ellen Skinner and collaborators structured MTC in a hierarchical process: the base of the system is composed of coping behaviors, which include action orientation and emotions. These behaviors are grouped according to their functionality into coping strategies. The strategies are grouped according to the adaptive process they refer to, into 12 coping families: six of them are more adaptive (when the stressor is perceived as a challenge to BPN), and six are maladaptive (when the stressor is perceived as a threat to BPN). Coping families are related to each BPN (Table 1).

Table 1*Coping families according to adaptive processes and basic psychological needs*

Stressor is perceived as a	To which BPN	Coping family	Definition/function in adaptive process	Adaptive process
Challenge Adaptive coping strategies	Relatedness	Self-reliance/ self-comforting	Protecting available social resources using emotional and behavioral regulation, emotional expression, and closeness.	Coordinate reliance and social resources available.
		Support seeking	Use of available social resources through proximity seeking, comfort-seeking, instrumental aid, spiritual support, emotional reassurance, and consolation.	
	Competence	Problem-solving	Figuring out what to do to, solving problems, adjusting actions to be effective, including planning and strategizing, and instrumental action.	Coordinate actions and contingencies in the environment.
		Information seeking	Finding additional contingencies by reading, observing, and asking others.	
	Autonomy	Accommodation	Flexibly adjusting preferences to available options through cognitive distraction or restructuring, minimization, and acceptance.	Coordinate reliance and social resources available.
		Negotiation	Finding new options using bargaining, persuasion, and priority-setting.	
Threat Maladaptive coping strategies	Relatedness	Delegation	Finding limits in the use of resources through complaints, self-pity, maladaptive help-seeking, dependency, and whining.	Coordinate preferences and available options.
		Isolation	Withdrawing from unsupportive social contexts through avoidance of others, dissimulation, "freezing"/paralyzing.	
	Competence	Helplessness	Finding limits to action through unclear thoughts, confusion, cognitive interference, cognitive exhaustion, panic, and random attempts to cope with the situation.	Coordinate reliance and social resources available.
		Escape	Escaping from non-contingent environments through mental distancing, denial, wishful thinking, and procrastination.	
	Autonomy	Submission	Giving up preferences through unresponsiveness, rumination, intrusive thoughts, and rigid perseverance.	Coordinate reliance and social resources available.
		Opposition	Removing constraints through aggression, blaming others, projection, challenging, anger, and revenge.	

Note. Based on Ramos et al. (2015), Skinner et al. (2003), Skinner and Zimmer-Gembeck (2007, 2009), Zimmer-Gembeck and Skinner (2008).

Considering the context and theoretical framework presented, the objective of this study is to describe the methodological process used for the development of a psychoeducational booklet, aimed at healthcare workers of hospitals, to help them cope with stressors related to the Covid-19 pandemic. It is expected that the booklet presents clear language and practical relevance to be used on a large scale.

Method

Development of the instrument and theoretical framework

The development of the booklet for HCWs was inspired by the *Booklet for coping with stress in times of pandemic* (Weide et al., 2020), developed by a group of Brazilian researchers who also created a task force (PsiCOVIDa) (Machado et al., 2020), with the mission of communicating scientific knowledge to enhance well-being during the pandemic. This booklet was distributed to all regions of Brazil, as well as to the United States, being translated into English, and to Colombia, being translated into Spanish. Both the booklets, the one mentioned and analyzed in this study, were based on the theoretical model of the MTC (Skinner & Wellborn, 1994; Skinner & Zimmer-Gembeck, 2016), which proposes coping with stress as a self-regulatory process. Besides maintaining the theoretical framework, the booklets are designed to have an adequate language for the target audience (Echer, 2005).

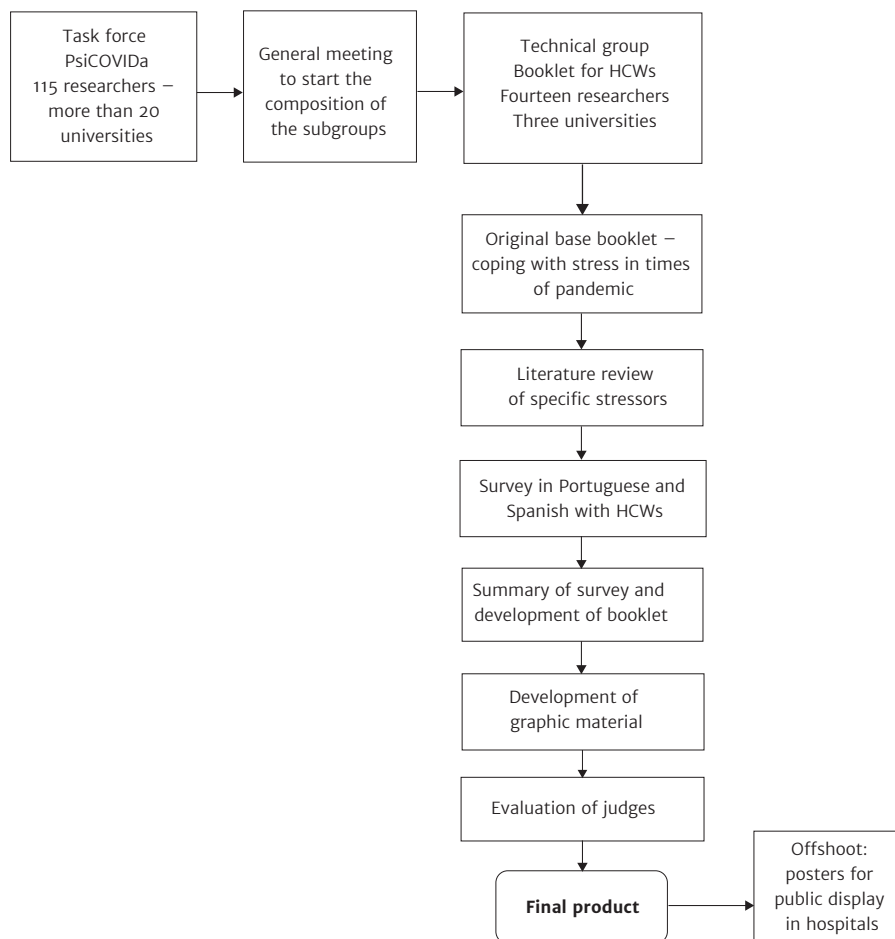
The development process of the contents started with an integrative literature review of recent publications about stress in HCWs, as well as articles on specific stressors related to the Covid-19 pandemic. As inclusion criteria the descriptors “coping”, “psychology”, and “stressor” were used, filtering those articles that were evaluated with healthcare workers. The search was conducted on the following databases: PubMed, Microsoft Academic, and the publication database of the WHO, without limiting the period of publication of the articles. A search was also carried out on the Web of Science, Scopus, and ScienceDirect databases, using the descriptors “Covid” or “coronavirus” and the filter “from the last five years” (2016–2020). The articles were then uploaded to the software Rayyan, an open and free resource developed worldwide by Allen Institute for AI, which provides resources to upload complete articles, in addition to allowing the use of eligibility criteria (Figure 1).

Thereafter, a brief online survey with HCWs was conducted to identify: 1. their perception of the current main stressors and 2. coping strategies that these professionals deemed more effective to deal with them. The survey also included two questions about sociodemographic data (profession and gender) and two additional questions: 1. What are the main difficulties or challenges you are facing in terms of emotions and actions when dealing with the Covid-19 pandemic? and 2. What strategies have you used to deal with these situations in your daily life? The survey form in Portuguese was sent digitally to individuals from all regions of Brazil. It was translated into Spanish and sent to professionals in Colombia, Peru, and Argentina. The relevant results of the literature review and online survey were synthesized, and the final booklet was

prepared (Figure 1). All participants agreed to participate in the research by signing the Informed Consent Form.

Figure 1

Development process flowchart for the booklet: Coping with stress of Covid-19 for healthcare workers



Judge evaluation of the booklet content

After the development of the booklet, 17 judges proceeded with an evaluation based on two criteria: language clearness and practical relevance. All judges agreed to participate in the research by signing the Informed Consent Form. After receiving the judges' response sheets, the evaluation of the theoretical dimension of the instrument was calculated through the intraclass

correlation coefficient (ICC) through the Statistical Package for the Social Sciences (SPSS) analysis software, version 23.0. This procedure was adopted considering the small number of judges. After these evaluations, the adjustments suggested by the judges were made. The booklet was then submitted for final analysis by the PsiCOVIDa task force scientific committee. Finally, a poster was prepared to be displayed in hospitals including the judges' best evaluated coping strategies.

Ethical Procedures

All ethical precautions were taken. The study is part of research evaluated and approved by the Ethics Committee of the Pontifical Catholic University of Campinas (PUC-Campinas) under No. 31042120.4.0000.5481. All participants agreed to participate in the study.

Results and discussion

The integrative review of literature

The database search resulted in 54,986 articles, but 13,566 of those were duplicated. After applying the exclusion criteria, 83 articles remained, with 21 articles specifically addressing HCWs, and, therefore, were read in full.

The articles presented as main stressors: exhaustion due to work overload, isolation (lack of contact with family), risk of being infected, lack of PPE, having to deal with the emotional reactions of patients, discrimination and stigmatization, dealing with a new disease, misleading definitions of each professional role in the hospital, and conflict between their professional duty and wanting to preserve one's own lives (Brooks et al., 2020; Kang et al., 2020; Lee et al., 2005; Maunder et al., 2003). Some reactions to this stress process are quite frequent, such as changes in sleep and eating patterns and memory problems (Brooks et al., 2020; Dehkordi & Travakol, 2011; Lee et al., 2005; Sheraton et al., 2020; Su et al., 2007; Wu et al., 2008).

The literature review identified some common maladaptive strategies used by HCWs to cope with stress, such as 1. self-blame – asking themselves what did they do wrong to go through this; 2. helplessness and self-doubt – feeling unable to do the work; 3. escape – thinking about giving up the profession for being unable to deal with the situation; or 4. increased consumption of alcohol and smoking or other drugs to deal with emotions (Brooks et al., 2020; Dehkordi & Tavakol, 2011; Wu et al., 2008). According to MTC, maladaptive responses lead to negative outcomes, such as physical and mental health problems and, therefore, should be avoided (Ramos et al., 2015; Skinner & Zimmer-Gembeck, 2016).

However, adaptive coping behaviors were also mentioned, such as 1. information seeking and problem-solving – developing skills to solve problems, seeking information from more experienced professionals or other countries, and following preventive measures (such as the use of PPE), limiting the amount of exposure to news about the pandemic (Barbore et al., 2020; Dehkordi & Tavakol, 2011; Kang et al., 2020; Lee et al., 2005); 2. support seeking – religious or spiritual support; 3. accommodation and self-reliance – enhancing personal care through

nutrition, physical exercises, psychotherapy, and relaxation techniques, such as deep breathing, yoga, and tai-chi; and 4. avoiding the lack of social contact through video calls. These strategies are considered adaptive as they lead to positive outcomes on physical and mental health and, therefore, should be encouraged (Ramos et al., 2015; Skinner & Zimmer-Gembeck, 2016).

Regarding working contexts – hospitals –, the literature suggests them to support the self-efficacy perception by providing more structure, such as clear guides for procedures and defining boundaries for each professional role, conducting regular training during the pandemic period and interdisciplinary meetings (Lee et al., 2005).

The online survey with HCWs obtained 141 responses: 96 responses to the Portuguese version and 45 to the Spanish one; 65% ($n = 92$) were female. The professions with the highest number of respondents were physicians ($n = 46$), nurses ($n = 18$), psychologists ($n = 16$), nursing technicians ($n = 8$), and nursing assistants ($n = 8$).

Considering the main stressors pointed out by the participants, 67% ($n = 95$) of the stressors were related to relatedness BPN, while 20% ($n = 28$) referred to the need for competence, and 13% ($n = 18$), to the need for autonomy. As for the coping strategies reported by the professionals, all of them mentioned adaptive coping strategies. The most prevalent response to stress was anxiety related to the risks of working (especially without adequate PPE or being part of a risk group) and being infected, in their routines (having to deal with family restructuring and/or the accumulation of tasks as caregivers of children or elderly people) and the difficulty filtering information.

The most used coping family was support seeking (34%, $n = 48$), which attempts to use available social resources to enhance relatedness. Participants also used information seeking (30%, $n = 42$), trying to find additional contingencies in the environment to be more effective in dealing with adversities. Another strategy reported by participants was self-reliance/self-comforting (20%, $n = 28$), trying to keep or recover the emotional and behavioral regulation. Problem-solving, attempting to adjust one's actions to be more effective, was also reported (12%, $n = 17$). Agreeing with these data, recent literature points to social support as strongly associated with positive impacts on levels of anxiety, self-efficacy, stress, and sleep quality in HCWs working in the pandemic (Xiao et al., 2020).

As strategies to deal with stress, professionals reported mainly contact with spirituality and meditation techniques, seeking social support with family members (via video calls) or colleagues, restricted time to read and watch the news, and the strict application of hygiene routines for family self-protection, which was also found in the study by Barbore et al. (2020). Spiritual coping, often mentioned in the survey, is a personal resource for coping with crisis situations and can become a protective factor for the individual's mental health by enabling the search for meaning, control, and comfort in the face of stressful situations related to disasters and catastrophes (Panzini & Bandeira, 2007; Polizzi et al., 2020). Some of the specific coping strategies reported by the respondents, especially those that appeared more frequently, such as

those referring to spirituality, information filtering, and living with family members, were adapted and implemented in the final version of the booklet.

The evaluation of the judges

The results demonstrate an excellent agreement between the evaluators, being .98 for relevance of the content and .92 for clarity of language. According to Fleiss et al. (2003), these values are considered excellent (when above .75). The section with greater clarity was the list of stress-related signs or symptoms; and, regarding relevance, there was 100% agreement on the introduction and the sections describing difficulties related to the satisfaction of the three BPN.

The suggestions given by the judges were mainly regarding the language usage, so that it should be simpler and more understandable for all HCWs, as well as adapted to the hospital context. The suggestions were accepted and implemented.

The booklet

The last version of this psychoeducational booklet was named *Covid-19's booklet to coping with stress for healthcare workers*, and it has 24 colorful pages with the results from the literature review, as well as from the online survey related to main stressors and how to deal with these situations (Araujo et al., 2020). It is organized into charts and checklists in which it is summarized how to recognize symptoms of stress and anxiety and cope with these symptoms and the difficulties feeling competent and exercising autonomy, besides problems in the relationships. This booklet also presents alternative communication boards for inpatients with no communication capacities. This content is linked to the MTC theoretical framework and summarized in Table 2.

Table 2

Summary of main stressors and related coping strategies according to Brazilian healthcare workers at the hospital

BPN	Stressors – environmental conditions of the hospital	Examples of coping strategies to deal with these situations
Relatedness	<ul style="list-style-type: none"> - Difficulties dealing with the work teams¹. - Emotional responses from users of healthcare services². - Discrimination against me and my family because I work at a hospital¹. 	<ul style="list-style-type: none"> • Nurturing positive emotions as a protective factor against physical and mental illnesses. • Trying to understand which feelings are associated with other people's actions. Thus, one will be able to express oneself and act more effectively and appropriately to the situation.
	<ul style="list-style-type: none"> - Lack of adequate and accessible emotional support². 	<ul style="list-style-type: none"> • Seeking support: looking for someone who can listen to them and listen to others, without judgment. • Counting on other people and supporting them.
	<ul style="list-style-type: none"> - Not being present in my family's daily routine^{1,2}. 	<ul style="list-style-type: none"> • Participating in your family's daily life as much as possible, setting up each week's routine with them.
	<ul style="list-style-type: none"> - Social distancing^{1,2}. 	<ul style="list-style-type: none"> • Avoiding isolation, enabling your support network.
Competence	<ul style="list-style-type: none"> - Increasing workload leaves me exhausted^{1,2}. 	<ul style="list-style-type: none"> • Planning: clearly defining tasks, establishing schedules and routines.
	<ul style="list-style-type: none"> - Frequent changes in health policies¹. 	<ul style="list-style-type: none"> • Seeking information: searching for reliable sources of information and seeking to know the source of the news you receive, using official websites, such as WHO, Ministry of Health, and universities¹.
	<ul style="list-style-type: none"> - Insecurities related to my work, such as struggles with attention and fear of forgetting procedures¹. 	<ul style="list-style-type: none"> • Avoiding helplessness and being too self-critical. • Rely on the skills you have developed thus far.
	<ul style="list-style-type: none"> - Overwhelming duties with family care, which limits my work^{1,2}. - Difficulty to recover my energy after a workday^{1,2}. 	<ul style="list-style-type: none"> • Avoiding excess alcohol, self-medication, and other substances to escape from problems.
	<ul style="list-style-type: none"> - Lack of freedom^{1,2}. - Unreasonable work schedules^{1,2}. - Conflicts between my duty and my safety^{1,2}. 	<ul style="list-style-type: none"> • Accepting one's limitations, we all have them. • Accepting and trying to like oneself. Self-compassion helps to reduce stress. • Negotiating priorities at work. • Avoiding arguments and fights or blaming others. This tends to increase stress and decrease everyone's collaboration • Feeling angry or having repetitive thoughts, with negative emotions, such as anger, fear, or sadness (e.g., remembering sorrow), is not an attitude that will help at this time. Identifying culprits can generate resentment and does not solve problems. • Proposing different and creative ways to solve old and new tasks.
	<ul style="list-style-type: none"> - Thoughts such as having long-term effects of the disease, if infected^{1,2}. - Difficulties keeping emotional control at work². 	<ul style="list-style-type: none"> • Trying to think positively. Negative thoughts and pessimism do not help currently.

According to Ornell et al. (2020), one effective measures in cases of pandemics to ensure people's mental health could be the development of psychoeducational materials that are easily accessible to the population, precisely what was attempted with the elaboration of this booklet. The feedback from the judges was that the booklet should be made available to HCWs as soon as possible. It is worth noting that the booklet was published before the article due to the urgency of access by the HCWs at hospitals, who could benefit from support on how to deal with the adverse situations emerging during the Covid-19 pandemic. The booklet is available in Spanish and Portuguese¹.

Final considerations

HCWs are more susceptible than the general population to the effects of the Covid-19 pandemic on their physical and mental health, due to their high exposure to the virus, overwhelming workload, and the need to cope with extreme adverse conditions. Thus, there must be special attention to their BPN. This study is a way to contribute to this with procedures for developing a self-assessment and through a health promotion booklet.

There is an urgent need for empirical research aiming to better understand and address the impacts on this population. It is necessary to work together – society, scientists, and institutions – on immediate measures and long-term strategic programs to address potential mental health-related issues. Therefore, mapping specific stressful situations related to work at hospitals during the pandemic and possible practical coping strategies to deal with them and enhance the satisfaction of BPN is a differential of this booklet.

In conclusion, the proposal of a booklet strongly anchored in scientific research shows the importance of providing applied scientific information to help understand the role of psychological variables on mental health problems. In addition, it is an asset to minimize the harmful impacts of the Covid-19 pandemic on HCWs during this period. We hope that this booklet can help support those who are taking care of everyone's health.

1 Cf. <https://linktr.ee/ftpsicovida>

References

- Araujo, M. F., Pinzón, J. H., Silva, A. M. B., Amaral, J. D. H. F., Lins, C. A., Enumo, A. M. F., Laloni, D. T., Laloni, I. T., Vicentini, E. C. C., Dellazzana-Zanon, L. L., Freitas, M. F. M. B., Mendes, E. D. T., Weide, J. N., Machado, W. L., & Enumo, S. R. F. (2020). *Cartilha de enfrentamento do estresse da COVID-19 para trabalhadores da saúde*. PUC-Campinas; PUCRS. https://www.puc-campinas.edu.br/wp-content/uploads/2020/06/PsiCOVIDa_enfrentamento-estresse-trabalhadores-saude.pdf
- Barbore, A., Lombardi, L., Viceconti, M. L., Pignataro, S., Marino, V., Crudele, M., Candelori, C., Bramanti, S. M., & Trumello, C. (2020). Psychological effects of the COVID-19 pandemic: Perceived stress and coping strategies among healthcare professionals. *Psychiatry Research*, 293, 113366. <https://doi.org/10.1016/j.psychres.2020.113366>
- Barros-Delben, P., Cruz, R. M., Trevisan, K. R. R., Gai, M. J. P., Carvalho, R. V. C. de, Carlotto, P. A. C., Alves, R. B., Silvestre, D., Renner, C. O., Silva, A. G. da, & Malloy-Diniz, L. F. (2020). Saúde mental em situação de emergência: Covid-19. *Debates em Psiquiatria*, 10(2), 18–28. <https://doi.org/10.25118/2236-918X-10-2-3>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 395(10227), 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Deci, E. L. (1984). *The psychology of self-determination*. Lexington Books.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Dehkordi, L. M., & Tavakol, K. (2011). Experiences of nursing students in caring of patients in source isolation. *Iranian Journal of Nursing and Midwifery Research*, 16(1), 13–19. <http://ijnmr.mui.ac.ir/index.php/ijnmr/article/view/276/246>
- Echer, I. C. (2005). Elaboração de manuais de orientação para o cuidado em saúde. *Revista Latino-Americana de Enfermagem*, 13(5), 754–757. <https://doi.org/10.1590/s0104-11692005000500022>
- Enumo, S. R. F., Weide, J. N., Vicentini, E. C. C., Araujo, M. F., & Machado, W. L. (2020). Enfrentando o estresse em tempos de pandemia: Proposição de uma cartilha. *Estudos de Psicologia (Campinas)*, 37, e200065. <https://doi.org/10.1590/1982-0275202037e200065>
- Fleiss, J. L., Levin, B., & Paik, M. (2003). *Statistical methods for rates and proportions* (3rd ed.). John Wiley & Sons.
- Gallasch, C. H., Cunha, M. L., Pereira, L. A. S., & Silva-Junior, J. S. (2020). Prevenção relacionada à exposição ocupacional do profissional de saúde no cenário de COVID-19. *Revista Enfermagem Uerj*, 28, 49596. <http://doi.org/10.12957/reuerj.2020.49596>
- Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B. X., Wang, Y., Hu, J., Lai, J., Ma, X., Chen, J., Guan, L., Wang, G., Ma, H., & Liu, Z. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *The Lancet Psychiatry*, 7(3), e14. [https://doi.org/10.1016/S2215-0366\(20\)30047-X](https://doi.org/10.1016/S2215-0366(20)30047-X)
- Lee, S., Chan, L. Y. Y., Chau, A. M. Y., Kwok, K. P. S., & Kleinman, A. (2005). The experience of SARS-related stigma at Amoy Gardens. *Social Science & Medicine*, 61(9), 2038–2046. <https://doi.org/10.1016/j.socscimed.2005.04.010>
- Machado, W. L., Vicentini, E. C. C., Broch, G., Weide, J. N., Araujo, M. F., Cardoso, N. O., & Enumo, S. R. F. (2020). Experiência da FT-PsiCOVIDa na pandemia. In A. C. S. Vazquez (Org.), *Protocolos em saúde mental na pandemia de Covid-19: Um guia com diretrizes práticas* (pp. 43–46). Editora da UFCSPA.
- Maunder, R., Hunter, J., Vincent, L., Bennett, J., Peladeau, N., Leszcz, M., Sadavoy, J., Verhaeghe, L. M., Steinberg, R., & Mazzulli, T. (2003). The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *Canadian Medical Association Journal*, 168(10), 1245–1251. <https://www.cmaj.ca/content/168/10/1245.short>
- Ornell, F., Schuch, J. B., Sordi, A. O., & Kessler, F. H. P. (2020). Pandemia de medo e COVID-19: Impacto na saúde mental e possíveis estratégias. *Debates em Psiquiatria*, 10(2), 12–16. <https://doi.org/10.25118/2236-918X-10-2-2>

- Panzini, R. G., & Bandeira, D. R. (2007). *Coping* (enfrentamento) religioso/espiritual. *Archives of Clinical Psychiatry (São Paulo)*, 34(suppl. 1), 126–135. <https://doi.org/10.1590/s0101-60832007000700016>
- Polizzi, C., Lynn, S. J., & Perry, A. (2020). Stress and coping in the time of COVID-19: Pathways to resilience and recovery. *Clinical Neuropsychiatry*, 17(2), 59–62. <https://dx.doi.org/10.36131/CN20200204>
- Ramos, F. P., Enumo, S. R. F., & Paula, K. M. P. (2015). Teoria Motivacional do Coping: Uma proposta desenvolvimentista de análise do enfrentamento do estresse. *Estudos de Psicologia (Campinas)*, 32(2), 269–279. <https://dx.doi.org/10.1590/0103-166X2015000200011>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press.
- Sheraton, M., Deo, N., Dutt, T., Surani, S., Hall-Flavin, D., & Kashyap, R. (2020). Psychological effects of the COVID-19 pandemic on healthcare workers globally: A systematic review. *Psychiatry Research*, 292, 113360. <https://doi.org/10.1016/j.psychres.2020.113360>
- Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, 129(2), 216–269.
- Skinner, E. A., & Wellborn, J. G. (1994). Coping during childhood and adolescence: A motivational perspective. In D. L. Featherman, R. M. Lerner, & M. Perlmutter (Eds.), *Life-span development and behavior* (Vol. 12, pp. 91–133). Lawrence Erlbaum Associates.
- Skinner, E. A., & Zimmer-Gembeck, M. J. (2016). *The development of coping: Stress, neurophysiology, social relationships, and resilience during childhood and adolescence*. Springer.
- Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psychology*, 58, 119–144. <http://dx.doi.org/10.1146/annurev.psych.58.110405.085705>
- Skinner, E. A., & Zimmer-Gembeck, M. J. (2009). Challenges to the developmental study of coping. In E. A. Skinner, & M. J. Zimmer-Gembeck (Eds.), *Coping and the development of regulation* (pp. 1–17). Jossey-Bass.
- Su, T.-P., Lien, T.-C., Yang, C.-Y., Su, Y. L., Wang, J.-H., Tsai, S.-L., & Yin, J.-C. (2007). Prevalence of psychiatric morbidity and psychological adaptation of the nurses in a structured SARS caring unit during outbreak: A prospective and periodic assessment study in Taiwan. *Journal of Psychiatric Research*, 41(1–2), 119–130. <https://doi.org/10.1016/j.jpsychires.2005.12.006>
- Sun, P., Wang, M., Song, T., Wu, Y., Luo, J., Chen, L., & Yan, L. (2021). The psychological impact of COVID-19 pandemic on health care workers: A systematic review and meta-analysis. *Frontiers in Psychology*, 12, 626547. <https://doi.org/10.3389/fpsyg.2021.626547>
- Wang, N., Li, Y., Wang, Q., Lei, C., Liu, Y., & Zu, S. (2021). Psychological impact of COVID-19 pandemic on healthcare workers in China Xi'an central hospital. *Brain and Behavior*, 11(3), e02028. <https://doi.org/10.1002/brb3.2028>
- Weide, J. N., Vicentini, E. C. C., Araujo, M. F., Machado, W. L., & Enumo, S. R. F. (2020). *Booklet for coping with stress in times of pandemic* (F. A. Silva, Trad.). PUCRS, PUC-Campinas. https://www.pucrs.br/wp-content/uploads/2020/04/Booklet_For_Coping_With_Stress_In_Times_Of_Pandemic.pdf
- World Health Organization (WHO). (2020a). *Health workers exposure risk assessment and management in the context of COVID-19 virus: Interim guidance*, 4 March 2020. <https://apps.who.int/iris/handle/10665/331340>
- World Health Organization (WHO). (2020b). *Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19): Interim guidance*, 19 March 2020. <https://apps.who.int/iris/handle/10665/331498>
- Wu, P., Liu, X., Fang, Y., Fan, B., Fuller, C. J., Guan, Z., Yao, Z., Kong, J., Lu, J., & Litvak, I. J. (2008). Alcohol abuse/dependence symptoms among hospital employees exposed to a SARS outbreak. *Alcohol and Alcoholism*, 43(6), 706–712. <https://doi.org/10.1093/alcalc/agn073>
- Xiao, H., Zhang, Y., Kong, D., Li, S., & Yang, N. (2020). Social capital and sleep quality in individuals who self-isolated for 14 days during the coronavirus disease 2019 (COVID-19) outbreak in January 2020 in China. *Medical Science Monitor*, 26, e923921. <https://doi.org/10.12659/msm.923921>
- Zhou, P., Yang, X.-L., Wang, X.-G., Hu, B., Zhang, L., Zhang, W., Si, H.-R., Zhu, Y., Li, B., Huang, C.-L., Chen, H.-D., Chen, J., Luo, Y., Guo, H., Jiang, R.-D., Liu, M.-Q., Chen, Y., Shen, X.-R., Wang, X., Zheng, X.-S.,

Zhao, K., Chen, Q.-J., Deng, F., Liu, L.-L., Yan, B., Zhan, F. X., Wang, Y.-Y., Xiao, G.-F., & Shi, Z.-L. (2020). A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature*, 579, 270–273. <https://doi.org/10.1038/s41586-020-2012-7>

Zimmer-Gembeck, M. J., & Skinner, E. A. (2008). Adolescents coping with stress: Development and diversity. *The Prevention Researcher*, 15(4), 3–7.

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