

Report of a Mental Health Intervention in the Covid-19 Pandemic through the Internet

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Abstract

This article aims to report the experience of conducting a mental health intervention against Covid-19 using the Internet to discuss issues about psychosocial factors arising from the pandemic. The intervention was directed to health professionals working in the Intensive Care Unit of a University Hospital. The proposal involved 113 employees, including coordinators, physicians, physiotherapists, nurses, nursing technicians, multiprofessional residents, technical level professionals and outsourced employees who perform administrative functions and in cleaning. Videos, posters, and texts were used to work on themes that go through the impacts of the new coronavirus pandemic. The intervention made it possible to access a different and empowering way to face the Covid-19 outbreak period.

Keywords: COVID-19; intensive care units; internet; mental health.

Resumo

Relato de uma intervenção em Saúde Mental na Pandemia de Covid-19: intervenção em Saúde Mental baseada na internet. Este artigo tem como objetivo relatar a experiência da condução de uma intervenção em saúde mental frente a Covid-19 utilizando a internet para discutir temáticas sobre os fatores psicossociais decorrentes da pandemia. A intervenção foi direcionada aos profissionais de saúde lotados na Unidade de Terapia Intensiva de um Hospital Universitário. Participaram da proposta 113 colaboradores, entre eles, coordenadores, médicos, fisioterapeutas, enfermeiros, técnicos de enfermagem, residentes multiprofissionais, profissionais de nível técnico e colaboradores terceirizados que exercem funções administrativas e na higienização. Foram utilizados vídeos, cartazes e textos para trabalhar temas que atravessam os impactos da pandemia do novo coronavírus. A realização da intervenção possibilitou o acesso a uma forma diferente e potencializadora de enfrentar o período de surto da Covid-19.

Palavras-chave: COVID-19; unidades de terapia intensiva; Internet; saúde mental.

Resumen

Informe sobre una Intervención de Salud Mental en la Pandemia de Covid-19 Basada en la Internet. Este artículo tiene como objetivo informar de las experiencias en la realización de una capacitación en salud mental ante el COVID-19 utilizando la internet para discutir temas sobre los factores psicossociales resultantes de la pandemia. La intervención fue dirigido a profesionales de la salud asignados a la Unidad de Cuidados Intensivos de un Hospital Universitario. Participaron en la propuesta 113 profesionales, incluidos coordinadores, médicos, fisioterapeutas, enfermeras, técnicos de enfermería, residentes multiprofesionales, profesionales de nivel técnico y empleados externos que ejercen la función administrativas y de higienización. Se utilizaron videos, carteles y textos para trabajar en temas que atraviesan los impactos de la pandemia de COVID-19. La realización de la propuesta permitió el acceso a una forma distinta y poderosa de enfrentar el período de brote del nuevo coronavirus.

Palabras clave: COVID-19; unidades de cuidados intensivos; internet; salud mental.

In the last half year, the world population has gradually been hit by the impacts of the new coronavirus. In March of this year, the World Health Organization (WHO) raised the pandemic contamination status of Covid-19 due to the rapid geographical spread of the disease (Wang et al., 2020).

Covid-19 is the current public health emergency of international importance; it is characterized as a respiratory disease and its clinical picture can range from asymptomatic, or mild, to death. Due to its rapid spread, government authorities have taken a number of measures to contain human infection and mitigate the emergence of severe cases and deaths caused by the new Coronavirus (SARS-CoV-2) (Organização Pan-Americana da Saúde, 2020).

In addition to the high transmissibility and the dizzying increase in deaths, the mental health status of the population has also been affected, which represents a challenge to mental health service systems, given the negative psychological reactions resulting from the outbreak (Zhang, Wu, Zhao, & Zhang, 2020). "It is estimated that between one-third and one-half of the population exposed to an epidemic may experience some psychopathological manifestation" (Melo, et al. 2020, p. 2).

The psychological implications may vary depending on people's sociodemographic data, physical symptoms in the past 14 days, history of contact with Covid-19, knowledge and concerns about the new coronavirus, and precautionary measures used against the disease (Wang et al., 2020). According to Qiu et al. (2020), women and individuals between the ages of 18 and 30, or older than 60, have a higher risk factor for experiencing psychological problems, given the higher scores on the scales that assess reactions to the pandemic. On the other hand, being under 18 years of age is considered a protective factor to the development of suffering, since the morbidity rate in this age group is relatively low (Qiu et al., 2020).

A study conducted in the early phase of the pandemic in China found that 35% of the population experienced psychological distress (Qiu et al., 2020). Another study conducted in the early phase of the disease identified that more than half of the respondents rated the psychological impact as moderate and severe. In addition, one-third reported moderate and severe anxiety (Wang et al., 2020).

Variables such as having higher education and working in the healthcare field is considered a higher risk factor to mental health impacts (Qiu et al., 2020). Those who are directly exposed to the risk of contamination, or who work in hospitals, are affected by

exhaustion, reduced empathy, anxiety, irritability, insomnia, and decline in cognitive functions and performance (Brooks, et al., 2020; Melo, et al., 2020).

A study conducted in China described that 70% of health care workers reported psychological distress, as well as symptoms of depression, anxiety, insomnia, and distress (Lai et al., 2020). Increased prevalence of Common Mental Disorders (CMD) is evident, especially fatigue and aggression, acute stress, panic episodes, which are (or may be) predictors of post-traumatic stress disorder (PTSD) (Chen et al., 2020).

Healthcare professionals are also victims of Covid-19 infection. An estimated 7,000 Brazilian health care workers were taken off work for respiratory symptoms, and of those tested, 1,400 tested positive for the disease and 18 died. Recent estimates reveal that up to 365,000 health care workers may be infected by the new coronavirus (Grabois, 2020).

In addition to the various stressful events experienced by health professionals on a daily basis in the hospital setting, other factors may negatively affect the psychological well-being of the staff, namely: a) worries about contracting the disease; b) concerns for their family's safety; c) isolation from family; d) witnessing the death of colleagues; e) isolation from colleagues; f) sense of loss of control; g) feeling underestimated; h) prolonged extension of the outbreak (Hall, Hall, & Chapman, 2008).

In this scenario, institutions that may be exposed to traumatic events should, to the extent possible, protect the mental health of their employees through measures that detect mental health problems at an early stage, as well as measures that promote psychological resilience and prepare staff for possible impact in the face of trauma exposure (United Kingdom Psychological Trauma Society, 2014).

It is important that hospitals launch evidence-based guidelines and strategies for planning surveillance policies and procedures, communication, education, personal training, as well as mental health support by implementing interventions to reduce adverse psychological impacts and symptoms of psychiatric illness during the pandemic; in addition to promoting the mental well-being of the professionals who are on the front line of Covid-19 patient care (Cowden, Crane, Lezotte, Glover, & Nyquist, 2010; Wang et al., 2020).

To this end, mental health professionals must actively participate in mental health support processes. After identifying the stress and emotions arising from this event, the psychological crisis interventions should

be flexible and adapted to the different stages of the pandemic: during and after the outbreak. During the outbreak, the intervention should focus on aspects such as fear of illness, and difficulties in adaptation. After the outbreak, psychosocial support should focus on people who are quarantined (Brooks, Dunn, Amlôt, Greemberg, & Rubin 2016; Melo et al., 2020; Zhang, et al., 2020).

It is suggested that interventions can happen via the Internet (Blake, Bermingham, Johnson, & Tabner, 2020; Wei, et al., 2020). Kang et al. (2020) proposes that a model of psychological counseling and guidance in print resources and media outreach can provide a level of protection for healthcare professionals, improving mental health and reducing the impacts of stress.

Among the factors that can reduce the psychological impacts, it is possible to mention the use of organizational approaches to increase resilience and reduce stress; as well as individual approaches to deal with and maintain resilience. In this aspect, the work described here aims to report the experience of conducting a mental health intervention against Covid-19 using the Internet to discuss themes about the psychosocial factors arising from the pandemic, namely: management of emotions and stress, coping mechanisms, media exposure, valuing support networks, among others.

Method

This is a descriptive study, experience report type, built from the experience of the authors as mental health professionals working in the Intensive Care Unit (ICU) of a University Hospital in northeastern Brazil, during the Covid-19 outbreak, from April 1 to 22 of this year, totaling a virtual learning package with 21 contents in different digital formats in order to discuss issues about psychosocial factors arising from the pandemic.

The intervention occurred early since there was still no record of admission of patients with suspected or confirmed cases of Covid-19. The first step was to train Psychology residents on the psychological impacts of disasters and pandemics by reading the evidence and recommendations already published, including from previous outbreaks of infectious and contagious diseases.

The data from the quick review of articles published in PubMed and Scopus databases that addressed mental health intervention recommendations were the guide for planning the virtual learning package and the themes and contents were programmed according to the expected reactions for each phase of an outbreak of infectious diseases (Zhang, et al., 2020).

Participated in the training 113 professionals working in the ICU, of both genders, who met the criteria of performing their professional activities in the ICU, acting as coordinators, physicians, physiotherapists, nurses, nursing technicians, multiprofessional residents, technical level professionals, and outsourced employees who perform administrative and cleaning functions.

The files of the servers were consulted in the administrative sector of the ICU to collect name, position, and telephone contact. It was defined that the means of communication and access of the professionals to the proposed virtual learning package would be the WhatsApp application. Thus, six distinct groups were created for content distribution, namely: (1) physicians, (2) physical therapists, (3) coordination and multiprofessional residents, (4) nurses, (5) technicians, and lastly, (6) technical level professionals and outsourced employees who perform administrative functions and in hygiene. Only the psychologist of the hospital institution was included in all the groups to manage the proposed contents.

All participants were included in the groups described and the invitation was made online via WhatsApp. Participation in the group was voluntary and viewing the material was a result of intention and private interest, and the server could opt out of the group at any time during the intervention.

Every day, content was posted that addressed issues relevant to the emotions experienced in the different stages of the pandemic with psychoeducational content, guidance and support, in order to strengthen personal resources to face the pandemic. The content was delivered to the participants in visual, auditory, audiovisual, and written formats through the WhatsApp application.

When the group was created, the objective of the action and the rules of coexistence were communicated, since the focus was exclusively to be a means of access to psychoeducation and support materials about the psychosocial factors resulting from the Covid-19 pandemic, avoiding as much as possible to make this space an environment that would cause information fatigue (Baseman et al., 2013).

Results

The intervention proposal was designed to meet the emerging emotional demands of health professionals working in an intensive care environment during the covid-19 pandemic period, mainly concerning fear of getting sick, stress, and anxiety. On the first day 113 participants were included in the activity. On the last day we recorded that

among the professionals included in the digital learning package, a total of 62 professionals remained in the group, which corresponds to 54.86% of the initial sample.

For the success of any group work, the planning stage is essential for the development of interventions. Thus, the whole process was directed to provide psychoeducation and support to health professionals working in the ICU, aiming to provide well-being and minimize psychological impacts.

As can be seen in Table 1, we considered that it was important to emphasize the need for health

professionals to ensure that basic needs were met, organizing time off for pleasurable activities and self-care. In the second moment, we observed that it was necessary to orient the staff about changes in mood, behavior, and the expected symptoms in pandemic situations, avoiding the onset of panic. Thus, we approached these issues by discussing the following topics: psychoeducation about emotions; self-awareness and management of emotions; intensity, frequency, and duration of emotions; and self-awareness of thoughts in the face of a pandemic.

Table 1. Description of themes and approaches taken

Theme	Approach
Project presentation and invitation	Explains that during the pandemic some people can organize coping strategies on their own and others will need help. Thus, informs that the psychology sector of the ICU is organizing educational material to distribute to the teams, and invites participation in the WhatsApp group to access the contents
Protect Your Mental Health: Time & Leisure Activity	Poster with the following message "Fill your time off for pleasurable activities. Seek quiet environments and divide the time for leisure and self-care.
Psychoeducation about emotions	Psychoeducation about the need to understand what emotions you are feeling in order to manage them.
Self-awareness and management of emotions	Psychoeducation about the acceptance and validation of feeling fear, seeking to understand which moments it arises, which tasks are not performed because of this emotion and which attitudes can be taken to reduce this fear
Emotion: Intensity, Frequency and Duration.	Explanation of what the criteria are: intensity, frequency and duration of emotions and when they indicate the need to seek professional help.
Unproductive concern x Productive concern	Explanation about the theme, orienting about its characteristics and the importance of focusing on the productive concern, since it enables actions, ending with the importance of taking care of oneself in order to take care of the other.
Self-awareness of thoughts in the face of a pandemic	Psychoeducation about what automatic thoughts are, how to validate them, and the result in changing emotions and behaviors.
Confrontation Mechanism	Clarifying what the coping mechanisms are and how they can help in the face of adversity and stress. Stimulating the search for the most effective resource for the development of resilience.
Avoid wrong ways of dealing with stress	It exposes behaviors and substances that increase stress levels and the importance of reinventing care and more adaptive and functional strategies for the pandemic period.
Time Organization	Guidance on how to organize, plan, and manage it in the various dimensions of life. Ending with the importance of each person respecting their own time.
Empathy and strengthening of support networks	We tried to explain what the practice of empathy is and how it can be done in the work context to strengthen the support networks of each member.
Coping with stress through breathing	Providing information on breathing and relaxation techniques that work to reduce stress.
Coping with stress through sleep regulation	Guidance on how to practice sleep hygiene.
Anxiety Handling	Psychoeducation about anxiety symptoms and exposure to ways to manage them in order to transform them into preventive and problem-solving behaviors.
Stress Handling	Psychoeducation about stress and providing tips on how to manage this stress.
Mental health and media exposure	Guidance on the negative mental health impacts of constantly searching for pandemic-related news and tips on how to search for information responsibly.
Meaning of Work	It emphasizes the value and responsibility of each member of the health care team.
Leadership and Team Motivation	Strengthening the importance of teamwork and the importance of the healthcare professional in the patient's life.
Skills in the face of chaos	Psychoeducation on the elements of resilience
Spirituality	It strengthens coping resources based on spirituality
Checklist for leaving duty	Reinforces the importance of social ties and support networks, of sharing experiences in the work environment
Psychological First Aid	It provides information about Psychological First Aid, how to perform it, clarifying the goals of this type of assistance and who can offer it.

We observed the importance of explaining the distinction between useful and useless concerns and transforming the concerns of health professionals into solutions; to understand which problems needed to be solved during the pandemic period and which were under the individual practitioner's governance, leading to concrete action for resolution. We also added content that aimed to increase insight into the dysfunctional thoughts of individuals associated with the pandemic moment. It was also important to expose which mechanisms could be useful to face the pandemic, stimulating the professionals to revisit and resume the resources used in other moments of crisis that contributed to a greater stability of the subjects.

It was useful to discuss the behaviors that increase the risk of adverse responses to the mental health of the health professional, so we focused on the need to avoid behaviors such as alcohol use, smoking, or other drugs to deal with the emotions arising from the pandemic moment.

Stimulating the organization of time and the maintenance of the social-affective network were also themes introduced in the contents, besides the orientation of exercises and actions that aimed to decrease the level of acute stress, such as meditation, reading, breathing exercises, and sleep hygiene practices.

Themes such as stress and anxiety were important, as well as the discussion of ways to manage them in daily life. Another issue that was highlighted and addressed in the content was the risks inherent to high exposure to media coverage and the need to reduce the time allotted to this activity, since frequent and repeated information can have negative effects on the worker's mental health.

It was also important to resume the meaning that work has in the life of each professional and the power of individual and collective action of the team, including motivational content for the health team. We also stimulated resilience, reinforced coping resources based on spirituality, and encouraged empathy, mutual support, and care among peers and, finally, we conducted orientations on psychological first aid as a way to provide mental health care to the professionals.

Discussion

Initial studies conducted with teams working on the Covid-19 pandemic have highlighted that healthcare professionals can develop mental health problems

(Greenberg, Docherty, Gnanapragasam, & Wessely, 2020; Khan et al., 2020; Lai et al., 2020) and the popularity of internet use has been enabling mental health professionals to provide services online (Liu, Yang, & Zhang, 2020).

A meta-analysis evaluating the effectiveness of Cognitive Behavioral Therapy offered over the internet found similar results to face-to-face treatments for symptoms of depression, social anxiety disorders, somatic disorders, and other disorders (Andersson, Cuijpers, Carlbring, Riper, & Hedman, 2014). Another study, conducted with patients with covid-19 identified that a web-based intervention focusing on relaxation, self-care, and increased feelings of safety, demonstrated good effects on mild to moderate depression and anxiety symptoms (Wei et al., 2020). Corroborating, the digital learning package described by Blake et al. (2020) was also a useful intervention for healthcare professionals and our intervention followed up on initiatives already undertaken.

Blake et al., (2020) developed in the first weeks after the Covid-19 outbreak, a digital learning package with guidance and support for all UK professionals. The content proposed by the authors was developed based on evidence related to psychological wellbeing and was found to be appropriate, meaningful and useful for the needs of UK healthcare professionals. The evaluation of the intervention conducted estimated the initial interest of the audience in the first 7 days after the launch of the package, determined the fidelity of the intervention by quantitatively assessing the practitioner experience, the relevance of the topics, in the usefulness and accessibility of the material. All the predefined success criteria in the UK were met within the first 7 days of launch.

Blake et al., (2020) observed that the content had 17,333 hits and over 50,000 exposures on social networks, demonstrating high engagement. As for implementation, 82% of participants said they had used the information at work or in other settings, and 100% said they would use it in the future. Many professionals reported changing their behavior and offering more support to colleagues and family members, as well as accessing applications and interactive parts included within the package offered in the UK. Our intervention followed the initiative proposed by Blake et al., (2020); however, we did not measure outcomes achieved and participant fidelity. We were only able to identify the percentage of permanence in the WhatsApp group, which was just over 50% of the initial population.

According to Maben and Bridges (2020), psychological well-being can be guaranteed with layered responses, that is, it is necessary to understand that each moment of a viral disease outbreak requires different strategies, given that the needs in the face of an unprecedented pandemic such as the one currently experienced will change over time. Corroborating this idea, Zhang et al., (2020) state that psychological interventions should be tailored to meet different stages of the epidemic. That is, during and after the outbreak, and that technology and internet platforms can be a facilitating medium in this pandemic context.

Therefore, the generating themes and sharing content for our intervention were defined according to the expected reactions for each phase of a pandemic, as attested by studies already conducted (Maben & Bridges, 2020; Zhang et al., 2020). According to Zhang et al. (2020), during the pandemic outbreak, interventions should target fear of the disease and difficulty adapting. It is understood that in the initial moments it is common to observe acute stress responses, which may present themselves in significant ways, but which are considered normal, not necessarily constituting a mental disorder and usually disappearing within a few weeks.

Moreover, psychological distress in health professionals is expected when they are experiencing crisis situations and great pressure when facing the demand of caring for a large number of potentially infectious patients (Kisely et al., 2020). Thus, psychological support can be used to assist with knowledge and the development of coping strategies (Brooks et al., 2016), emphasizing the importance of how these resources can assist in the face of adversity and stressors. It is necessary to use healthier ways of coping (Aiello et al., 2011), which includes avoiding maladaptive strategies such as the use of alcohol and tobacco or other drugs (Straub, 2014; WHO, 2020). In this regard, in our study, videos were released addressing this theme and another derived from it, such as: avoiding wrong ways of coping with stress.

Decreased psychological impacts are also influenced by good levels of social support as well as strengthened support networks (Aiello et al., 2011; Brooks et al., 2016). According to Straub (2014), social support is a protective factor that helps people cope with stressful situations more effectively. Added to this is the need to reduce reading or contact with news that can cause anxiety or stress (Aiello et al., 2011; Ho, Chee, & Ho, 2020); the need to maintain regular routines and tasks

by organizing time; as well as maintaining good sleep hygiene (Agudelo et al., 2020). Therefore, all of these themes figure as part of our intervention.

In addition, our interventions included organizational approaches to increase resilience and reduce stress. The themes were: meaning of work, motivation, leadership, and team, with the purpose of providing incentives and showing employees who were still working that their contributions and sacrifices are appreciated. The need to provide encouragement and recognition to the health care team was described in a previous study during the 1995 Ebola outbreak (Hall et al., 2008).

Coping with the pandemic requires a robust framework and flexible plan, and supporting the mental health of health care workers is a critical part of the public health response (Walton, Murray, & Christian, 2020). Corroborating, Banerjee (2020) points out that support can be provided through several practices: (a) educating about the adverse and common psychological consequences at this pandemic time; (b) encouraging health promotion behaviors; (c) integrating available mental health services; (d) encouraging perceived self-efficacy for problem solving; (e) empowering patients, families, and workers; and (f) sensitizing health workers to self-care.

Finally, Psychological First Aid (PFA) is another form of care that has been recommended as an alternative to psychological debriefing, usually performed after traumatic events. According to the Inter-Agency Committee (IASC), PFA should be offered to people affected by acute stress following exposure to a traumatic event. This is an intervention that involves practical assistance and help, based on three basic principles, among them: observing, listening and approaching. Training health professionals based on PFAs is an important initiative (PAHO, 2015) and our intervention included content with guidelines to help staff offer PFAs, encouraging professionals to self-care, care for co-workers and others in an adaptive manner to individual needs, as well as raising awareness of the importance of recognizing that in some specific situations, there is a need for specialized support.

Conclusion

This article aims to report the authors' experiences in conducting a mental health intervention against Covid-19, using the Internet to discuss issues about psychosocial factors arising from the pandemic. A digital

learning package with 21 contents was delivered in a virtual way, by WhatsApp application, to the professionals who performed their activities in an intensive care environment.

Initially, 113 professionals participated in the intervention, among them coordinators, physicians, physical therapists, nurses, nursing technicians, multi-professional residents, technical level professionals and outsourced employees who perform administrative and cleaning functions. At the end of the intervention, a total of 62 professionals remained in the activities, corresponding to 54.86% of the initial sample.

This intervention was a rapid response to Covid-19 to address the need to mitigate the mental health impacts of healthcare workers and followed recent recommendations that point to the benefit of web-based mental health intervention programs. The videos, texts, and posters produced provided access to a different and empowering way of coping with the outbreak period of the new coronavirus, and the description of the steps taken for the training can contribute to facilitate the work of mental health professionals who are interested in conducting similar interventions aimed at mitigating the psychological impacts of a pandemic on the mental health of professionals acting in pandemic situations, such as the one currently experienced.

Some limitations were identified. First, the intervention did not present the qualitative evaluation of the impacts on the mental health of the participants, as well as the comparison of the total number of participants at the beginning and end of the intervention was limited. In addition, it was not possible to monitor the amount of access to the content made available, making it impossible to detect the actual effects, so generalizations are not possible. We suggest that new mental health care initiatives be outlined and that qualitative and quantitative research be conducted in order to measure the impact that interventions using the internet and digital packages have at different times of the pandemic.

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