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Robles, Rebeca; Palacios, Marcela; Rangel, Nancy; Real, Tania; Becerra, Benjamín;  
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# A qualitative assessment of psycho-educational videos for frontline COVID-19 healthcare workers in Mexico

Rebeca Robles,<sup>1</sup> Marcela Palacios,<sup>2</sup> Nancy Rangel,<sup>3</sup> Tania Real,<sup>1</sup> Benjamín Becerra,<sup>4</sup> Ana Fresán,<sup>5</sup> Hamid Vega,<sup>1</sup> Evelyn Rodríguez,<sup>6</sup> Sol Durand,<sup>7</sup> Eduardo Madrigal<sup>7</sup>

<sup>1</sup> Centro de Investigación en Salud Mental Global, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, Ciudad de México, México.

<sup>2</sup> Unidad de Apoyo Psicosocial ante la Contingencia por COVID-19 (PSICOVID-19), Nuevo Hospital Civil de Guadalajara Dr. Juan I. Menchaca, Guadalajara, México.

<sup>3</sup> División de Cuidados Paliativos y Clínica del Dolor, Hospital General Dr. Manuel Gea González, Ciudad de México, México.

<sup>4</sup> Dirección, Nuevo Hospital Civil de Guadalajara Dr. Juan I. Menchaca, Guadalajara, México.

<sup>5</sup> Subdirección de Investigaciones Clínicas, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, Ciudad de México, México.

<sup>6</sup> Centro de Investigación en Enfermedades Infecciosas, Instituto Nacional de Enfermedades Respiratorias Ismael Cosío Villegas, Ciudad de México, México.

<sup>7</sup> Dirección General, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, Ciudad de México, México.

## Correspondence:

Rebeca Robles García  
Centro de Investigación en Salud Mental Global, Departamento de Innovación y Salud Global, Dirección de Investigaciones Epidemiológicas y Psicosociales, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, Calz. México-Xochimilco 101, San Lorenzo Huipulco, Tlalpan, 14370, Ciudad de México, México.  
Phone: 55 4160-5143  
Email: reberobles@imp.edu.mx; reberobles@hotmail.com

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## ABSTRACT

**Introduction.** Frontline COVID-19 healthcare workers (FLHCWs) are at a high-risk of suffering occupational stress- and trauma-related mental health problems, including burnout and compassion fatigue (B&CF). Given the time limitations (due to their heavy workloads) and need to minimize face-to-face interventions (in order to avoid contagions), psychological interventions for FHCWs should be as brief and remote as possible. **Objective.** To evaluate the usability and clarity of evidence-based psycho-educational videos to prevent B&CF, to deal with uncooperative, hostile, and anxious patients and relatives, and to use personal protective equipment (PPE), from the perspective of Mexican FLHCWs. **Method.** Based on a convenience sampling by intensity approach, videos were distributed requesting feedback based on specific questions through WhatsApp to FLHCWs. Field notes were used to triangulate the information. **Results.** Content analysis of feedback from a final sample of 24 participants –75% women, 42 ± 8.4 years old– yielded three general thematic categories and seven subthemes: 1. content evaluation, which included three subthemes: utility, pertinence, and practicality; 2. dissemination and other needs, with two subcategories: willingness to share and receive more videos (other needs); and 3. format aspects, also comprising two subthemes: attractiveness and duration. All participants found the videos content very beneficial, relevant, and applicable to the workplace and even in their everyday personal and family life, and were willing to share them and to receive more videos on other issues, including strategies to manage problems related to isolation. **Discussion and conclusion.** Escalation of this remote preventive intervention to other COVID-19 centers and future similar epidemics is recommended.

**Keywords:** Psychoeducation, telehealth, healthcare workers, COVID-19.

## RESUMEN

**Introducción.** Los trabajadores de la salud de primera línea (TSPL) ante el COVID-19 presentan alto riesgo de desgaste profesional y fatiga por compasión (DP&FC). Tomando en cuenta sus limitaciones de tiempo y la necesidad de minimizar las intervenciones cara a cara, las intervenciones psicológicas para los TSPL deben ser tan breves y remotas como sea posible. **Objetivo.** Evaluar la utilidad y claridad de videos psicoeducativos basados en evidencia para prevenir DP&FC, el manejo de pacientes y familiares no cooperativos, hostiles o ansiosos, y el uso de equipo de protección personal desde la perspectiva de los TSPL mexicanos. **Método.** Los videos se distribuyeron a los TSPL por medio de WhatsApp, solicitándoles su opinión con base en preguntas específicas. Se utilizaron notas de campo para triangular esta información. **Resultados.** El análisis de contenido de las retroalimentaciones recibidas por una muestra final de 24 participantes –75% mujeres, 42 ± 8.4 años– arrojó tres categorías temáticas y nueve subtemas: 1. evaluación de contenido, con tres subtemas: utilidad, pertinencia y practicidad, 2. difusión y otras necesidades, con dos subcategorías: disponibilidad tanto a compartir como a recibir más videos (otras necesidades), y 3. aspectos de forma, también con dos subtemas: atractivo y duración. La totalidad consideró los videos muy benéficos, relevantes y aplicables en el trabajo y su vida diaria personal y familiar; y reportó disposición a compartirlos y a recibir más material de este tipo. **Discusión y conclusión.** Se recomienda el escalamiento de esta medida preventiva y remota a otros centros COVID-19 y en futuras epidemias similares.

**Palabras clave:** Psicoeducación, telemedicina, personal de salud, COVID-19.

## INTRODUCTION

Frontline healthcare workers (FLHCW) coping with large-scale infectious diseases such as COVID-19 are under enormous physical and psychological pressure (Wu et al., 2009) and frequently manifest high stress levels, as well as emotional and trauma-related disorders (McAlonan et al., 2007; Liu et al., 2020; Li et al., 2020), especially those who work in emergency rooms, intensive care, and isolation wards (Naushad et al., 2019). This calls for the implementation of prevention strategies to safeguard their mental health and, therefore, the success of medical care (Low & Wilder-Smith, 2005), emergency control, and social recovery (Liu et al., 2013).

According to previous reports of FLHCW facing COVID-19 (Chen et al., 2020), additional efforts should at the very least include training in personal protective equipment (PPE)—which has proven effective in building confidence in infection control measures and an adaptive response to stress (Chua et al., 2004)—, as well as in techniques to deal with uncooperative, hostile, and anxious patients and relatives, frequently encountered given the psychological difficulties they experience in response to restrictions to visitors in highly stressful circumstances (Klompas, 2020).

Given that COVID-19 is a highly contagious disease that makes it necessary to minimize the number of health team members with face-to-face interactions (Ho, Chee, & Ho, 2020), and taking advantage of contemporary technological development, most mental health interventions for FLHCW coping with COVID-19 have been remote, through video-conferencing platforms or based on smartphone applications (for example, Ho et al., 2020; Liu et al., 2020).

In this sense, the pandemic constitutes an unforeseen event leading to a shift in mental health care provision towards e-health prevention, treatment, and care (Wind, Rijkeboer, Andersson, & Riper, 2020). Fortunately, e-learning strategies have proven to be effective for health promotion along lifespan (e.g., Elliot Lindemulder, Goldberg, Stadler, & Smith, 2013), including adults coping with stressful events (Atherton & Majeed, 2011), and allows for the availability and cost-effectiveness of interventions to people who cannot receive them face-to-face for several reasons (including the need for social distancing, but also the lack of time or the limited access to face-to-face services that many FLHCWs experiment now).

Health professionals facing the COVID-19 pandemic are diverse: general practitioners, medical specialists, nursing personnel, medical residents, and psychological staff, among others. In general, women have been found to be more sensitive than men to the emotional demands associated to their activities within the health system (Theorell, 2000), which makes them more willing to seek health-care (Liddon, Kingerlee, & Barry, 2018). Therefore, the design of e-health interventions must have the capacity to provide

clear, effective information for both men and women, regardless of their specific health profession.

The *Secretaría de Salud* (Mexican Ministry of Health) in Mexico has promoted the development and dissemination through smartphones' applications of two sets of brief psycho-educational videos covering FLHCWs' educational needs on the most widely-used evidence-based techniques for self-care promotion (psychoeducation on burnout and preventive measures based on healthy habits) (Pines & Aronson, 1988; Figley, 2002; Rothschild & Rand, 2006), personal stress management (mindfulness exercises and relaxation techniques) (Ho et al., 2020), strategies to handle uncooperative or aggressive patients (Casey, 2019), and acquisition of new skills (modeling) (Bandura, 1977).

The first set included six brief videos with the following contents: psychoeducation on burnout in FLHCWs (available at: <https://www.youtube.com/watch?v=rNnrBch7Lb8>); self-care ([https://www.youtube.com/watch?v=j\\_vvjHw0WG4](https://www.youtube.com/watch?v=j_vvjHw0WG4)); sleep hygiene measures (<https://www.youtube.com/watch?v=2K5nA4aIHws>); stress management techniques, including diaphragmatic deep breathing (<https://www.youtube.com/watch?v=Gq3PuDz6tBs>); mindfulness exercises (<https://www.youtube.com/watch?v=QHNJy-iMUgnQ>); and progressive muscular relaxation (<https://www.youtube.com/watch?v=IjIw0ZUvUcA>). These videos were developed and produced by mental health specialists at the Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz (INPRFM, Mexican National Institute of Psychiatry) and then approved by the *Secretaría de Salud*.

The second set of videos comprised two longer productions, one with strategies for handling anxious, uncooperative, and hostile patients and relatives (available at: <https://www.youtube.com/watch?v=Blgr4iWtxV8>), and another to offer training in the use of PPE (<https://www.youtube.com/watch?v=vkL-OsUH3P0>). These videos were developed and produced by specialized personnel at the Instituto Nacional de Enfermedades Respiratorias Ismael Cosío Villegas (INER, Mexican National Institute of Respiratory Diseases) and then approved also by the *Secretaría de Salud*.

All videos were delivered through the federal coronavirus microsite ([coronavirus.gob.mx](https://coronavirus.gob.mx)) and the INPRFM's website and social networks (e.g. Facebook) since April 2020, when Clusters of Cases transmission scenario for COVID-19 began in Mexico. Table 1 offers a description of the content and format of these videos.

This is the first report on the usefulness of such strategy from the perspective of FLHCWs coping with COVID-19 in five COVID-19 centers in Mexico, with the ultimate purpose gathering of having information on the relevance of the escalation of this preventive intervention to other COVID-19 health care settings. Thus, our research question was: A video-delivered mental health promotion strategy to cope with FLHCWs with COVID-19 is feasible in terms of their usability and clarity?

**Table 1**  
**Description of psycho-educative videos**

Title	Type of Content	Description	Visual	Voice	Time (min)
Healthcare professionals	Psychoeducation on burnout among healthcare professionals.	This video briefly explains how the burnout is among the healthcare professionals, especially in frontline health workers during a crisis or pandemic outbreak.	Yes	Yes	2:10
Self-care technics	Description of basic technics of self-care to improve mental health.	With some graphics and brief descriptions, the video explains how to improve mental health throughout the exercise, healthy food and sleep habits, and meditation.	Yes	No	1:15
Sleep hygiene technics	Description of basic sleep hygiene technics.	The video lists several technics to improve sleep hygiene, such as regular schedule for sleep, avoid caffeine or alcohol, doing exercise in the mornings, etc.	Yes	No	1:06
Breathing technics	Teaches the technic of how to do deep diaphragmatic breathing.	With this video, the viewer will learn how to do deep diaphragmatic breathing to reduce stress in a couple of minutes.	Yes	No	1:06
Mindfulness	Description of what is mindfulness.	This video provides a brief description of what and how the mindfulness technic works.	Yes	No	1:08
Muscular relaxation	Teaches the technic to do progressive muscular relaxation.	Throughout graphics and descriptions, the video teaches the viewer how to do and improve progressive muscular relaxation.	Yes	No	1:39
Management for handling anxious, uncooperative, angry, or hostile patients	Description of how health professionals could handle patients with anxiety, irritability, or hostility.	Expert psychiatrist in hostile patients explains in detail how the health workers could handle situations with hostile or defiant patients from the beginning to the end of the situation.	Yes	Yes	5:32
INER – COVID-19 PPE Video	Guideline of how to put and take-off the personal protection equipment (PPE).	Step by step, the video explains to healthcare workers in the frontline the correct use of the PPE in every area of COVID-19 zone inside the hospital.	Yes	Yes	20:37

## METHOD

### Design of the study

This is an exploratory descriptive qualitative study, which allows a preliminary inquiry on a variety of opinions about the units of analysis (videos), taking into account participant's diversity and the novelty of the phenomena under study.

### Participants

One of the participating centers is located in Guadalajara, Jalisco; two are in the *Estado de México*, and two in Mexico City. They were chosen for this study given that all are large public health institutions offering services to three of the most populated states in Mexico, so they were constituted among the very initial COVID-19 centers in the country, and have an important number of FLHCWs who can benefit from preventive measures. At the time of the study, none of the institutions or their health workers were overwhelmed by COVID-19 patients' care, so it was considered a good moment to activate preventive measures for burnout and other stress-related mental health problems.

Based on a convenience sampling by intensity approach (Fusch & Ness, 2015) of 75 FLHCWs of both sexes,

the final number of participants required for theoretical saturation (Suárez & Arenas, 2013) was 24, when the ability to obtain new information was achieved (Guest, Bunce, & Johnson, 2006). This number of participants was dictated because women agreed to participate first and twice the rate of men. Accordingly, the team decided to include additional participants to corroborate saturation when at least six men were included, which has been proposed as an adequate number to attain data saturation (Guest et al., 2006). This was done taking into account Bernard's (2012) recommendation to further enhance data saturation, including those that would not normally be considered.

In order to explore participants' perceptions about the utility of the content and format of the videos, the following first set of direct questions was asked: *Please tell us here if these videos have helped you, which one has helped you most and why?* Immediately after, a second set of direct questions explored their willingness to share and receive more videos: *Please tell us whether you will share them with your colleagues, and whether you want to continue receiving more videos like these and on what issues.*

Additionally, researchers (females with master in psychology) in charge of the field work (named site coordinators) registered their observations during conversations between them and the FLHCWs, including verbal and

non-verbal (i.e., body manifestations of tiredness or interest) expressions.

## Procedures

The site coordinator of each hospital setting organized meetings in different work shifts ( $n = 4$ ) and COVID-19 work areas (i.e., camillery, nursing, medicine, social work, psychology, administration, security, and quartermaster). She asked FLHCWs if they wanted to receive a series of psychoeducational videos that could be useful to cope with the stress generated by the care of people with COVID-19 by WhatsApp, through their personal cell phone. Given it is usual for health personnel to freely express whether or not they want to be included in new groups or WhatsApp, with the understanding that this has no repercussions on their relationship with the rest of the team, and that the site coordinator is a peer rather than a superior (in terms of work hierarchies), this procedure does not constitute a coercive practice to enroll them in the study.

Only those FLHCWs that accepted to receive the videos were asked only their basic demographic and professional information (sex, age, profession, and the cellphone number where they wanted to receive the formal invitation to the study and videos). We considered it necessary not to request too much personal information to avoid the perception that they could be easily identified even if they did not provide their name.

Then, the first set of videos was delivered through the WhatsApp application to the personal cellphones of FLHCWs between the 14th-25th of May, 2020. Before the videos, the following message was included and in order to obtain FLHCWs' consent to participate in the study: *"At the hospital we want to take care of you. We know you do not have much time, so we are sending you these brief resources, so that you can put them into practice at the first opportunity and thus relieve, even if only slight, the enormous tension your hard work of caring COVID-19 patients may produce. (If you do not wish to receive future messages in this regard, you only have to say so here and your cell phone will be removed from contacts for this purpose without no repercussions). Please review the following informed consent form to participate. If you feel discomfort related to the contents of the videos and what they make you remember, think or feel, you can tell the coordinator (who has contacted you through this means) or the principal investigator of the study, who are trained to help you resolve these kinds of temporary but uncomfortable reactions."*

After this message, a PDF version of the informed consent form appeared, including the contact information of the principal investigator of the study (RR), and then the first set of videos and a final message asking for FLHCWs' feedback based on both sets of questions described above (*Participants subsection*).

Fifteen days after, the second set of videos was delivered (between the 15th and 20th of June, 2020) using the following introduction message: *"Because the healthcare personnel facing COVID-19 asked for it, here are a couple of new videos with information that may be useful for the management of difficult patients and for your protection from infection. (We remind you that if you do not wish to receive future messages in this regard, you only have to indicate it here and your cell phone will be removed from contacts for this purpose and without any repercussion)." After the two corresponding videos, the final message asking for FLHCWs' feedback (based on the set of questions described above in *Participations subsection*) was delivered.*

Additionally, site coordinators completed field notes according to Taylor and Bogdan's (1987) suggestions about their direct, real life (vs. indirect or based in documentary sources), participant (or intern and active), and natural (or with researchers that are part of the group under study) observations during and after a formal group interaction with the participants at the beginning of the study, and after an informal individual interaction at the end of the study. All interactions took place at the health-care facility during working hours after the site coordinator notified and participants accepted that she would observe, ask, and register some useful information for ulterior analysis, including sociodemographic and professional characteristics as well as relevant evidence to understand the emotional environment (both verbal and non-verbal), opinions about the materials, and reasons of their did not answer of the direct sets questions described above, if applicable. Thus, according to Schatzman and Straus (1979), the classification of these notes is both methodological and descriptive.

## Statistical analysis

All answers were included in an Excel file, which was saved in the computer of each researcher in charge of the analysis using a personal password. The content analysis of participants' feedback was performed using the "meaning categorization" technique (Kvale, 1996) by means of three general thematic categories and seven subthemes: 1. content evaluation, which included three subthemes: utility, pertinence, and practicality; 2. dissemination and other needs, with two subcategories: willingness to share and to receive more videos (other needs); and 3. format aspects, also comprising two subthemes: attractiveness and duration.

During the last week of June 2020, three researchers (TR, AF, and RR) independently analyzed the textual answers provided by all participants by coding them into mutually exclusive categories. When ratings were not consistent between these researchers, they were discussed until a consensus was reached.

Additionally, the field notes were stored in a Word document and used as a source for the triangulation of the



information with such textual answers from FHCW. Finally, a triangulation was also made between the subthemes and general categories, and comparing results with expected outcomes according theoretical and empirical antecedents. In all cases, triangulation was carried out following [Cabrera \(2005\)](#) recommendations (identification of tendencies, coincidences, and divergences).

As can be seen, the research process was segmented in such a way that the design, implementation, and analysis were done by different researchers (MP and NR as site coordinators; and TR, AF, and RR in charge of the analysis).

## Ethical considerations

All materials and procedures were approved by the Ethics Committee of the Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, Mexico City, Mexico, CEI/C/010/2020.

## RESULTS

The videos were sent to a total of 75 potential participants, over 30% of whom ( $n = 24$ , 32%) provided feedback with answers that could be analyzed. The FLHCPs who decided not to participate in the study were 32 men (62.7%) with an average age of 37 ( $SD = 10.1$ , range = 20-60 years). Of these, 29.4% ( $n = 15$ ) were nursing personnel, 23.5% ( $n = 12$ ) stretcher-bearers, 9.8% ( $n = 5$ ) medical specialists, 7.8% ( $n = 4$ ) surveillance personnel, 7.8% ( $n = 4$ ) medical residents, 5.9% ( $n = 3$ ) general practitioners, 5.9% ( $n = 3$ ) custodial staff, 3.9% ( $n = 2$ ) psychology staff, and the remaining three participants were engaged in social work, administrative and public health, respectively (2% of the sample each).

Conversely, the participating FLHCWs ( $n = 24$ ) included 18 women (75%) with an average age of 42 ( $SD = 8.4$ , range = 24-60 years). Generally, they were specialist doctors (25%,  $n = 6$ ) and psychologists, followed by medical residents (12.5%,  $n = 3$ ), nurses (12.5%,  $n = 3$ ), social workers (12.5%,  $n = 3$ ), stretcher-bearers (8.3%,  $n = 2$ ), and a general practitioner (4.2%).

Most of them were working at the Hospital Civil Nuevo de Guadalajara (58.3%,  $n = 14$ ), followed by the Hospital General Dr. Manuel Gea González (29.2%,  $n = 7$ ), the Hospital de Alta Especialidad Ixtapaluca (4.2%,  $n = 1$ ), the Hospital General de Zona 32 IMSS (4.2%,  $n = 1$ ), and the Hospital Municipal Tepetlaxpa (4.2%,  $n = 1$ ).

According to site coordinators (field notes), the emotional climate among the staff in the participating centers was perceived with anxiety, uncertainty about the immediate future, fear of contagion, as well as physical and emotional exhaustion after several weeks of preparation for COVID-19. Although feedback on the videos was low, personnel were receptive to the initiative. An attempt was made to gather informally, through individual talks, the

reasons why they had not responded, to which the staff argued little time available as well as “shame” of not knowing how to express themselves adequately, although all verbally mentioned their interest in the material, its usefulness, and that they even shared it among their colleagues and close people outside the work environment.

Table 2 presents representative samples of qualitative responses to each theme and subthemes. As can be seen, the general of category “content evaluation” grouped together expressions of functionality or improvement after applying what had been learned in the videos (utility), comments on the relevance of the material in terms of its timeliness and appropriateness to FLHCWs’ circumstances (pertinence), as well as references to the clarity, specificity, and practicality of the contents. All participants consider the strategies provided in the videos as beneficial in the workplace, reflecting real situations, and viable to be extended to their everyday personal life and family environment. In this respect, they stand out, from the first block of videos, those dedicated to progressive relaxation and deep breathing, and from the second block, the video on how to handle with anxious, uncooperative and hostile patients and relatives, linking its utility to the increase in patients’ and relatives’ dissatisfaction with health services due to lack of resources. All participants also agreed over the need for information when time they received it, and highlighted its practicality, particularly in the video training on the use of PPE.

The general category labeled “dissemination and other needs” includes expressions of willingness both to share the videos and to receive more of them, as well as the need for further training. All participants reported that they will share the videos with someone else, the main suggested new recipients being their residents (in the case of doctors), and their relatives and friends (in the case of both doctors and other FLHCWs). Most participants also asked for more videos, particularly those with new contents: 1. strategies for children in isolation and relationship problems (due to lockdown), 2. mental health services for FLHCWs, and 3. research advances in COVID-19. Some doctors requested more information on how to manage difficult patients.

The third general category on “format aspects” included comments on the quality of the design, audio and image (attractiveness) as well as on the length of the videos. Although most participants’ opinions about the videos’ attractiveness and short length were favorable, there were some negative comments. Two participants, a psychologist and a social worker, did not like the illustrations or would have preferred human models in the first set of videos - while the rest of the sample liked them or found them *enjoyable*. Regarding the second set of videos, opinions were divided about the length of the material. One resident felt the videos were too long, while two participants (specialists) suggested including more detailed information or even organizing courses on these issues.

Table 2  
Content analysis: Themes, subthemes and sample of qualitative responses

Themes	Subthemes	Valence	Responses
Content evaluation	Utility	+	"I think they will be very useful in the hospital" (Woman, 43 years old, social worker).
		+	"I already used them with a family member" (Woman, 45 years old, gynecologist).
		+	"I use deep breathing more frequently" (Woman, 39 years old, psychologist).
		+	"I found the strategies very useful (in the video on how to handle difficult patients) since unfortunately it is increasingly common for people to be dissatisfied with the health service, often due to lack of resources... these strategies can not only be applied at work but also in everyday life" (Woman, 24 years old, medical specialty resident).
	Pertinence	+	"They are godsend because it is what we are beginning to see in hospital" (Woman, 35 years old, emergency doctor).
		+	"They touch the most important points of what is happening to us" (Woman, 52 years old, social worker).
		+	"The issues are real, it is what we face" (Woman, 40 years old, internist).
		+	"It's great that the videos have been dedicated to health personnel, we need them" (Woman, 55 years old, social worker).
	Practicality	+	"The videos are very practical, and (include) a personal resource for each specific situation" (Woman, 39 years old, psychologist).
		+	"There are many things I noticed that I do but some can be improved (about the video on the use of PPE) for example, I didn't know you should spray shoe soles with ethanol... the information tries to make us very organized" (Man, 51 years old, psychologist).
		+	"I've already shared them with my residents" (Woman, 45 years old, internist).
		+	"Of course I will share them with my family and friends, I hope they can also use these techniques that have been useful to me" (Woman, 39 years old, psychologist).
		+	"I would like to continue receiving information" (Woman, 46 years old, stretcher-bearer).
		+	"I would like to continue receiving this type of material, as I am constantly looking for it, it is more useful to me in this video format ..." (Woman, 39 years old, psychologist).
		+	"... topics like children and isolation, and relationship problems..." (Man, 39 years old, psychologist).
Dissemination and other needs	Willingness to share	+	"Support for health personnel and advances in the investigation of the disease" (Woman, 39 years old, psychologist).
		+	"I would like more topics about difficult patients" (Woman, 45 years old, gynecologist).
	Willingness to receive more videos (other needs)	+	"I really liked them, they are a good tool" (Woman, 45 years old, pediatrician).
		+	"They are enjoyable" (Woman, 39 years old, intensive therapist).
		+	"The music and the colors are very good" (Woman, 51 years old, psychologist).
		-	"The presentation seems very childish to me" (Woman, 51 years old, psychologist).
		+/-	"The themes are good, I would like models to represent them" (Woman, 43 years old, social worker).
		+	"It is good that they are short" (Woman, 39 years old, nurse).
		+	"It is good that the duration is not long and it does not get boring" (Woman, 51 years old, psychologist).
		+/-	"It is very visual and easy to understand (about the video on the use of PPE), however... it is very long, if were shorter it would be more practical. (Woman, 24 years old, medical specialty resident).
		-	"We need a little more information, it would be better if they were courses" (Woman, 42 years old, pediatrician).
Format aspects	Attractiveness	+	
		+	
		+	
		+	
	Duration	+	
		+	
		+	
		+	

## DISCUSSION AND CONCLUSION

The present study aimed to response if a specific video-delivered mental health promotion strategy for FLHWWs coping with COVID-19 is feasible in terms of their usability and clarity. According to our results, all participants found the videos content very beneficial, relevant, and applicable

in the workplace and even in their everyday personal and family lives; and were willing to share them and to receive more videos on other issues, including strategies for handling problems related to isolation.

The generalized opinion about the beneficial effects of the techniques (including psychoeducation and personal stress and others hostility management) and methods for

training in new skills such as the use of PPE (i.e., modeling) shows the importance of using evidence-based strategies (Bandura, 1977; Casey, 2019; Ho et al., 2020; Figley, 2002; Pines & Aronson, 1988; Rothschild & Rand, 2006), and add evidence about their feasibility to be applied through remote tools in adults coping with stressful events (Atherton & Majeed, 2011).

The relevance and applicability of the material seems related to the expected (McAlonan et al., 2007; Liu et al., 2020; Li et al., 2020; Wu et al., 2009) and confirmed (through participant observation and FHCW answers) psychological pressure and high stress levels among FHCW coping with COVID-19. Furthermore, FHCW's willing to share the videos with their colleagues and relatives, as well to receive more videos confirm such favorable opinions about the material's usability and clarity.

However, as is also the case with face-to-face mental health service seeking, only half as many men than women participated in this remote preventive intervention (Harris et al., 2016) and specific efforts should be made to reduce cultural and gender related beliefs and attitudes (Brenner et al., 2018) that also hinder men's mental health care in remote modalities and during sanitary emergencies such as COVID-19. Both men and women may benefit from these interventions; we consider that the lack of feedback among men can be explained by their reluctance to emotional disclosure (Liddon et al., 2018), although this should be analyzed in greater detail in future studies.

According to the frequency of participation by profession (which was higher among medical doctors and psychologists), it seems that health professionals, due to their professional activities which include continuous face-to-face contact with patients, could be more aware of the need of preventive interventions focused on mental health issues. Themes such as burnout and self-care promotion could be considered relevant according to their field of study and action (Ferrer & Vaño, 1990). We hypothesize that other health-care workers, such as nurses and stretcher-bearers lack of sufficient information to consider mental health issues as relevant to their work activities in the hospitals where they reside. However, any firm conclusion can be drawn from this result; these differences should be considered in order to assure that mental health and self-care issues are an integral part of the working activities that health professionals carry out, as well as of their importance for their self-care.

The interventions could be complemented with a third set of psycho-educational videos covering evidence-based information and strategies to manage isolation due to lockdown, in both children and couples. In line with a previous study on Chinese FLHCWs (Chua et al., 2004), topics related to psychological and behavioral issues with one's own children and partner constitute central interests among our sample. Moreover, among those who agree to receive infor-

mation this way, it could be useful to deliver some important news about research progress on the field as they might not have the time to search for recent scientific studies that could give them useful clinical guidelines.

Additionally, as we expected given previous literature on the field (Klompas, 2020), more detailed information about how to deal with difficult patients and relatives would be welcomed by some FLHCWs, specially doctors, who usually lack the extensive training in strategies to cope with negative emotions and attitudes other professionals (such as psychologists) receive.

It seems FLHCWs are not only worried about how to manage COVID-19 infection but also the numerous negative consequences it has for personal, loved ones' and patients' mental health. The present material could be improved according some participants' suggestions and preferences, but could be used as a basic structure to deliver useful, pertinent and practical information in a brief, inexpensive, and feasible (remote) way. Although all efforts pale in comparison with what FLCWs deserve, cost-effective preventive strategies are necessary in contexts such as Mexico, characterized by scarce human and financial mental health resources. As Wind et al. (2020) suggest, e-mental health promotion strategies seems promising to do so given their capacity to be easily disseminated to a wide range of FHCW working in geographical distant centers without face-to-face mental health services and in the need for social distancing. Moreover, present study reports for the first time on COVID-19 FLHCWs' perception of the utility, relevance, and practicality of psycho-educational videos under study. Thus, the escalation of this preventive intervention to other COVID-19 centers and future similar epidemics is highly recommended.

## Limitations and suggestions

Generalization of our results should be done with caution given the non-probabilistic sampling involved in this type of qualitative studies. In contrast with large-scale randomized epidemiological research, this is an exploratory study to evaluate the acceptability and feasibility of a remote psycho-educational intervention under evaluation in a particular group of FLHCWs. Moreover, it constitutes a preliminary assessment of its utility that should only be taken as a first step towards developing a longitudinal evaluation to demonstrate its impact on the reduction of burnout and compassion fatigue through the development of skills to manage stress, handle with difficult patients, and use PPE.

It is worth mentioning that a significant number of clinicians, even agreeing to receive the videos at the beginning, ended up not providing comments about them (so they were not included in the study sample). This should be taken into account when planning this type of study, at least in Mexican population.



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## Conflict of interest

The authors declare they have no conflicts of interest.

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