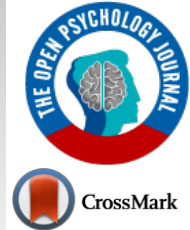







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RESEARCH ARTICLE

The Needs of Medical Professionals in Performing their Duties during the COVID-19 Pandemic: A Qualitative Research Study

Kanjane Phanphairoj¹ , Kasorn Muijeen^{1,*}  and Sutthisan Chumwichan² 

¹Faculty of Nursing, Thammasat University, Prathum Thani, Thailand

²Independent Researcher, Bangkok, Thailand

Abstract:

Introduction:

The COVID-19 pandemic situation is a huge global medical and public health issue that has affected people's physical health and mental well-being. Under the current circumstances, medical professionals are at risk of stress, anxiety, and subsequent mental health problems.

Methods:

The present study aimed to explore the needs of medical professionals in terms of promoting their mental health while performing their duties during the COVID-19 pandemic. The purposive sampling method was used to select 43 medical professionals in the following five groups: physicians, dentists, pharmacists, nurses, and medical technicians, who were frontline health workers or had the risk of contracting infection from infected patients in Thai hospitals during the COVID-19 pandemic. The data were collected using a semi-structured online interview. The informants were asked to talk about the need for mental health promotion of medical professionals while performing their duties during the COVID-19 pandemic for approximately 60 minutes. Content analysis and a reliability test were conducted according to the qualitative research process.

Results:

The research results consisted of three main themes: 1) physical safety welfare, composed of COVID-19 prevention and COVID-19 treatment; 2) sources of mental support, comprising emotional support and electronic or media support; and 3) support from central professional agencies, including rewards and recognition and occupational protection.

Conclusion:

The medical professionals in this study suggested that the mental health promotion during the COVID-19 pandemic should cover the physical, mental, and social dimensions. Thus, a mental healthcare approach for medical professionals should be developed by focusing on social support.

Keywords: Medical professionals, Needs, COVID-19, Qualitative research, Social support, Emotional support.

Article History

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1. INTRODUCTION

The outbreak of emerging infectious diseases is an important medical and public health problem for people worldwide, as it can lead to various health, economic, and social impacts. In December 2019, several cases of unknown viral pneumonia were reported in Wuhan City, Hubei Province, in the People's Republic of China. The virus, termed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) [1, 2], was later analyzed and identified as the cause of the corona-

virus disease 2019 (COVID-19). SARS-CoV-2 belongs to the family of coronaviruses that cause severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). The World Health Organization (WHO) declared the outbreak of COVID-19 as a global public health emergency on January 30th, 2020, and subsequently declared it a pandemic on March 11th, 2020 [3].

Medical professionals often have close contact with suspected and confirmed COVID-19 patients. Therefore, they have a higher risk of catching COVID-19 and tend to experience physical and mental stress as a result [4 - 7]. A study in China found that the severity of fear of COVID-19

* Address correspondence to this author at the Faculty of Nursing, Thammasat University, Prathum Thani, Thailand; E-mail: fon_kasorn@hotmail.com

among medical professionals was at a high level (26.7%), a moderate level (43.9%), and at a low level (29.4%). Further, the severity of anxiety was at a high level (2.9%), a moderate-to-low level (22.6%), and at a non-anxiety level (74.5%). Additionally, the severity of depression was at a high level (0.3%), a moderate-to-low level (11.8%), and a non-depression level (87.9%). Moreover, 61.4% of the medical professionals were worried about the lack of protective equipment [8]. The results of a general public survey conducted in China, the country most affected by the first outbreak of COVID-19, showed that frontline nurses had the highest level of anxiety due to the COVID-19 pandemic [9, 10].

This finding is in line with the results of the stress assessment of health workers and general citizens in Thailand, which was carried out from March 30th to April 5th, 2020. The assessment results indicated that health workers were highly stressed (9.4%), and the stress of general citizens was also at a high level (8.1%) [11]. The number of infected people continues to increase in Thailand, and the situation reported in October, 2021, revealed 1,626,604 infected cases, 11,375 new cases, 16,937 deaths, 87 new deaths, and 1,496,273 as recovered. On October 2nd, 2022, the number of infected people was ranked 28th in the world and 6th in Asia [12]. This is consistent with the findings of previous studies [13, 14], which indicated that more than half of health workers experienced stress during the COVID-19 pandemic and had a problem with self-stress management. In addition, Yao *et al.* [15] found that nurses reported more mental health problems than other groups of people at a statistically significant level. This is probably because nurses are frontline health workers who have close contact with patients, so they are likely to have more mental problems than other occupational groups.

Some studies conducted during the COVID-19 pandemic have presented psychological resilience, coping behaviors, and social support safeguarding mental health and well-being among healthcare workers that are on the frontline of the fight against this fatal virus [5, 7]. Adequate managerial and supervisory support and support extended by colleagues, peers, friends, and family are associated with reduced levels of traumatic stress [5, 7] and emotional distress [10]. Social support provides physical and mental gain for those faced with physically and mentally stressful events. Additionally, social support is considered a factor that can reduce psychological distress when one is faced with stressful events [16]. Social support includes four categories: (a) emotions, (b) tools, (c) information, and (d) assessment [16 - 18]. Additionally, increasing social support may provide greater emotional stability among healthcare professionals. This reduces the anxiety about being able to function effectively during the pandemic [15, 16]. In Thailand, the research results of a research study [16] indicated that about a quarter of health workers reported psychological problems during the COVID-19 pandemic. However, no relationship was found between their psychological status and their coping strategies or between their psychological status and their knowledge of COVID-19. Therefore, the promotion of physical and mental health for medical professionals is needed in order to help them survive the pandemic and to continue to perform their tasks under challenging circumstances. The qualitative research

approach will help enhance the understanding of the needs of healthcare and promote medical professionals' mental health while performing their duties during the COVID-19 pandemic. The results of this research can be used to develop new guidelines for the social support management of medical professionals based on the priority and urgency of related factors in order to prepare for the outbreak of emerging infectious diseases and another wave of COVID-19 that may occur in the future.

2. MATERIALS AND METHODS

A descriptive qualitative study design was adopted to study the needs of medical professionals while performing their duties during the COVID-19 pandemic. The in-depth interview technique was used to obtain the opinions of medical professionals concerning the social support factor needed for fulfilling their tasks during the pandemic situation.

2.1. Key Informants, Sample Size, and Location of Data Collection

The purposive sampling method was used to select key informants according to the inclusion criteria. The inclusion criteria were: (1) volunteering to participate in the study and providing written informed consent; (2) involvement in front-line rescue work for more than one week or having the risk of contracting infection from infected patients in Thai hospitals during the COVID-19 pandemic; (3) having normal cognitive ability and language skills so that the participants can fully express their true emotional experiences; (4) being a medical professional. A total of 43 medical professionals in the following five groups, including physicians, dentists, pharmacists, nurses, and medical technicians, were selected to participate in the study. Data saturation and sufficiency were also taken into account [19].

2.2. Research Instruments

The research instruments were composed of the following: 1) researchers with qualitative research experience who underwent a qualitative research workshop organized by the Research Promotion Association, Thailand; and 2) a semi-structured interview guideline, which was divided into two parts: a) general questions for building a good relationship between the researchers and key informants; and b) questions about the needs of medical professionals for the promotion of their mental health during the COVID-19 pandemic. For example, how do you feel as you work? When you are stressed while on duty, what do you do about it? What do you think will relieve you of this stressful situation?

2.3. Instrument Reliability and Validity

The semi-structured interview guideline was examined by three experts (two nurse teachers specialized in mental health research and one physician with expertise in qualitative research and experience in treating mental health and psychiatric patients). The obtained comments on content validity, congruence between the research objectives and methods, and the suitability of each question were used to modify the instrument. Then, the modified instrument was

rechecked by the research team. After obtaining approval from the Human Research Ethics Committee of Thammasat University, the developed semi-structured interview guideline was tried out on five medical professionals in order to ensure the appropriateness of language before being used in the main study.

2.4. Protection of the Rights of Human Subjects

The researchers placed importance on protecting the rights of the informants. The data were collected after receiving permission from the Human Research Ethics Committee of Thammasat University in the science field, Thailand (project code: COA No. 062/2564). The part of collecting data started after each hospital's permission.

2.5. Data Collection

The researchers made a self-introduction and explained the details of the research project to the target medical professionals according to the participant information sheet. Those willing to participate in the project were asked to sign an informed consent form before data collection. The semi-structured interviews were conducted using the Zoom program. Each interview took approximately 45 to 60 minutes. During the interviews, the key informants were allowed to talk about their needs and what should be provided in order to promote the mental health of medical professionals. The interview data were recorded using the Zoom program and by taking notes. After the interviews, the recorded data were transcribed verbatim. The completeness of the interview data was also examined based on the research objectives.

2.6. Data Analysis

The data were analyzed using the content analysis method [20], which consisted of seven steps as follows. 1) Read the data obtained from the interviews in order to comprehend the overall information. 2) Encode and summarize the interpretation of the interview data obtained from each key informant. 3) Analyze the data or messages gleaned from the interviews with the key informants. 4) Clearly interpret the data, recheck the data obtained from the interview, and discuss unclear points with the research team in order to make clear interpretations. 5) Conduct a data comparison in order to identify major themes that reflect common meanings and shared practices. 6) Create a link between the major themes concerning the need for the mental health promotion of medical professionals. 7) Draft a table of major themes and quote examples from the interview data in order for the research team to jointly draw conclusions and make recommendations.

2.7. Trustworthiness

The evaluative criteria of Guba and Lincoln [20, 21] were adopted to assess the trustworthiness of this research according to four aspects: creditability, dependability, confirmability, and transferability. The creditability of this research was established through data triangulation. In this study, the data obtained from different medical professionals working in Bangkok and five other regions were compared and examined

by the research team using the triangulation method. The opinions of each research team member were compared and discussed in order to avoid bias in the qualitative data analysis. The member check method was also performed by returning the interview results to the key informants in order to ensure the accuracy of the data. Regarding the dependability of the research findings, the researchers followed the same research procedures throughout the study, used the same interview approach, and strictly complied with the determined plan. The confirmability of this research was also established through the triangulation technique. The research team adopted the reflexivity approach and wrote a reflexive journal about the personal background, knowledge, prejudice, and attitudes related to the need for mental health promotion in order to avoid research bias and prejudice. In terms of transferability, the results of this research are applicable to the development of mental health promotion practices for medical professionals during the outbreak of other emerging diseases.

3. RESULTS

The research results concerning the needs of medical professionals regarding their mental health were obtained through the online interviews with 43 key informants (6 physicians, 13 dentists, 6 pharmacists, 12 nurses, and 6 medical technicians) who were frontline health workers working in the hospitals located in Bangkok and the northern, southern, central, eastern, and northeastern regions of Thailand during the COVID-19 pandemic. After the data analysis, three major themes were identified: 1) physical safety welfare; 2) sources of mental support; and 3) support from central professional agencies. The themes presented can be described as follows.

Theme 1: Physical Safety Welfare

In this study, physical safety welfare refers to all the things that the agency or organization should provide to medical professionals in order to secure their physical safety throughout the duration of work during the COVID-19 pandemic, such as personal protective equipment, vaccines, accommodations, life insurance, and COVID-19 treatment plans, based on the opinions of the key informants. The key informants thought that their sufficient welfare had a direct impact on their mental health. Physical safety welfare can be divided into COVID-19 prevention and treatment.

3.1. COVID-19 prevention

COVID-19 can spread easily and can cause great harm to infected patients. Medical professionals who work amidst the pandemic are well aware that they are at high risk of infection because they often have direct contact with infected patients. Although they have knowledge of self-care, a lack of welfare support from affiliated organizations may make them concerned about COVID-19 infection at work. All of the key informants agreed that medical professionals should be provided with sufficient protective equipment at the personal level, comprising PPE suits, N95 masks, surgical masks, gloves, and face shields. In terms of workplaces, a negative pressure air conditioning system or air purifier should be installed in order to create a safe work environment for medical professionals. Moreover, effective vaccines should be provided

to medical professionals and people in general. This is because effective vaccines can prevent serious illness in COVID-19 patients, which will finally help to reduce medical and hospital overload, in addition to preventing medical professionals and general public from COVID-19 infection [22, 23]. In fact, there is still a small percentage of fully vaccinated people in Thailand [12]. Based on the interviews, all of the key informants from the five medical professions agreed that COVID-19 prevention was their priority need. This can be explained by the psychological principle that if a person feels physically safe, he/she is likely to have no mental health problem. Examples of the information obtained from the interviews are as follows.

3.1.1. Equipment and Workplaces

“I think it is important to have enough equipment to reduce anxiety. We need more patient care equipment, such as high-flow cannulas, although people keep donating them. PAPR suits are needed to provide comfort to staff who need to wear PPE suits for a long time. At my hospital, there are limited PAPR suits. They are only used in the ICU anesthetic room, where our staff has to be in contact with COVID patients for a long time.” (KI17).

3.1.2. Vaccines

“The issue of vaccines is important for both doctors and patients. I want the government to support a good vaccine for doctors and the general public so that we will not worry about infection. If we receive a good vaccine, the situation will improve faster, and there will be less anxiety.” (KI2).

3.2. COVID-19 Care and Treatment

Having a clear plan in place to take care of infected medical professionals and communicating it to all of them will make all of them feel safe and relieved that their organization recognizes their importance. Based on the interview data, the key informants talked about their needs and what they received from their organization, which can be divided into two parts: life insurance and a COVID-19 treatment plan.

3.2.1. Life Insurance

Some organizations have placed importance on the welfare of medical professionals during the COVID-19 pandemic and have provided life insurance for all of them. During the interviews, the key informants who received life insurance from the organization talked about it with a smile because they were proud that their organization valued health workers. Some of them said that it made them feel good even though they were tired from work. However, there were some medical professionals who were not provided with life insurance. All of them were aware that their occupation was at high risk of infection, so having life insurance would give them peace of mind, which was associated with their mental health. Some of the information obtained from the interviews is as follows:

“During the first wave, the hospital tried to provide insurance for all staff. But I am not sure if the insurance has been extended or not. Unlike the previous time, I still have not received any insurance cards. I understand that several

insurance firms deny COVID coverage for health workers due to their having a high risk of infection, which is really stressful.” (KI13).

3.2.2. A COVID-19 Treatment Plan

Organizations that have a plan in place for medical professionals who are infected with COVID-19 can build trust among their employees. It helps to boost medical professionals' morale and reduce tiredness and fatigue from work. The information gleaned from the interviews is as follows.

“I am not sure if there are any benefits for COVID-19 infected staff, like free treatment. I hope there are because at least it would make us confident that we will receive treatment and care if we are infected.” (KI7)

Theme 2: Sources of Mental Support

As the COVID-19 outbreak has spread rapidly, public health authorities have an ever-increasing workload to deal with. This situation has an impact on the mental health of medical professionals who are at a higher risk of infection while performing their tasks compared to other groups of people. The medical professionals were found to feel stressed, anxious, and tired while working, and they need advice in order to deal with their stress, anxiety, sadness, and burnout. Based on the interview data, their sources of mental support consisted of emotional support and electronic or media support.

3.3. Emotional Support

Talking to colleagues, close friends, and family members can help medical professionals overcome feelings of stress, fear, anxiety, boredom, and tiredness while performing their duties during the COVID-19 pandemic [22]. This is because talking to someone helps people with mental health problems or mental disorders as they express their feelings. Having someone listen to their problems makes them relaxed and relieved from their stress and tension, even if their listeners are not experts in counseling [17]. If there is a way for people with mental health problems to have direct access to experts in counseling, that would be very beneficial because they would be able to release their stress and receive advice from the experts regarding emotional and mental health management at the same time [17, 18]. The in-depth information gained from the interviews in this connection is presented below:

“I release my stress by talking to friends who understand the bureaucracy. Sometimes I cry and then return to work. Crying for a short time is enough to let out my stress. I feel better after sharing my feelings with someone. We must be aware of our duty. In order to solve a problem, we can stop for a bit and review possible solutions. When stressed, I consult with friends from various professions, such as doctors and pharmacists. If I have technical problems, I will discuss them with colleagues in the same profession. Sometimes I talk to close friends who are not in the medical field.” (KI13).

3.4. Electronic or Media Support

Electronic or media support is a tool for reducing stress,

anxiety, and tiredness from work, and it provides entertainment to medical professionals [17,18]. Moreover, electronic and social media alleviates suffering and helps individuals escape from their stress [22]. About 80% of the key informants (33 medical workers) similarly released their stress through social media because it is easily accessible and has a wide variety of content. Each of them could select the media and content according to their preferences and lifestyles. It helped to distract them from stress during break time [22]. The insightful information obtained from the interviews is as follows.

“Personally, I watch comedic content on YouTube and TikTok and follow funny Instagram accounts. It would be nice to have an application that collects all of the funny content on social media. Aside from seeking knowledge, I want to watch something funny. For me, I read articles that analyze current situations and imply possible solutions because they make me feel that there is still a way out. Articles or videos about infected but recovered people, self-care tips, vaccination experiences, vaccine reactions, and basic information on how to care for yourself if you have COVID-19 shared by infected people make me see the big picture and not feel too depressed. They also help to reduce anxiety and are useful for other people.” (KI2).

Theme 3: Support from Central Professional Agencies

The present study collected data from the key informants in five medical professions: physicians, dentists, nurses, medical technicians, and pharmacists. The opinions of the key informants were mostly consistent on two issues, comprising rewards and recognition and occupational protection. These two issues consisted of five sub-issues as follows: 1) the physicians’ opinions about the COVID-19 patient referral system; 2) the dentists’ opinions about the welfare management of private organizations or the welfare of dentists working outside the hospital system; 3) the nurses’ opinions about nursing care and risk allowance; 4) the medical technicians’ opinions about the classification of frontline health workers; and 5) the pharmacists’ opinions about the drug disbursement system. Support from central professional agencies has an effect on the mental health of medical professionals because positive social support can promote their mental health, encourage their work, reduce tiredness, and minimize resignation problems.

3.5. Rewards and Recognition

Rewards and recognition as well as risk allowance are forms of social support that help to motivate and promote the mental health of medical professionals and make them feel that they are important and recognized by related government agencies and outsiders [18, 22]. The interview data indicated the medical professionals’ need for support from related organizations that could motivate their work and reduce their tiredness from work. The details are as follows:

“I want effective vaccines that can prevent the disease and serious illness as well as appropriate manpower and work allocation so that the staff will not have to overwork. Besides, reasonable compensation should be given. Public hospital staff has a heavy workload but receives low pay compared to those

working in private hospitals.” (KI7).

3.6. Occupational Protection

“I think that working here requires mutual assistance. Each profession is important. The patient referral system should be improved to be more effective and easier to use for everyone.” (KI16) “I want overtime pay because during the outbreak, the hospital provides compensatory vacation time instead of monetary payment for overtime. As of now, I still have not received any compensatory vacation. It is necessary to provide special benefits for the staff in contact with high-risk patients or to separate them from other staff members in order to reduce concerns about infection among colleagues. Now, two staff members are assigned to work at the ARI clinic. Our supervisor oversees several departments, so there are problems with inadequate management and work process control. If there is a department head, the work process and related problems will be handled in a better way. The supervisor rarely has time for the staff in this department.” (KI7).

4. DISCUSSION

4.1. Physical Safety Welfare

The need for physical safety welfare reflects the fact that good mental health is associated with physical safety. When a person feels that he or she is in a safe place, it creates a feeling of relaxation and relief from pressure, fear, worry, and stress. In accordance with the rising coronavirus situation and the low vaccination of the Thai population during that time, this issue was raised by all of the key informants [11, 12]. As the most severe health impact of the COVID-19 pandemic is death, medical professionals are aware of the need for effective prevention of COVID-19 infection at work. This is in line with the study conducted earlier [24], which stated that prior to the pandemic, nurse practitioners believed that their work made them exposed to viruses and bacteria, which made them feel a little worried. However, during the pandemic, it was found that most of them were more afraid of infection than usual and reported the fear of quarantine. If there were effective infection prevention measures in place, it would help to boost their confidence and reduce their fear and stress during work. The studies by Yao *et al.* and Sun *et al.* [15, 25] similarly suggested that human resources and personal protective equipment should be appropriately managed in order to create a safe and supportive work environment in dealing with the pandemic. Moreover, Labrague and Vindrola-Padros *et al.* [22, 26] also indicated that a supportive work environment could be a motivation for health workers under pressure and a valuable learning opportunity, especially in relation to the process of treatment improvement during the pandemic situation.

4.2. Sources of Mental Support

The research results showed that the medical professionals in this study needed mental support in the form of emotional support and electronic or media support, which is a part of social support.

Social support is one of the factors that can support human well-being in many disciplines, including psychology,

communications, medicine, sociology, nursing, public health, education, rehabilitation, and social work [17]. This is consistent with a previous research study, suggesting that nurses working during the COVID-19 outbreak must be provided with psychosocial support and resource management in the physical and mental aspects [27]. A lack of psychosocial support may lead to psychological risks during all types of disasters [28]. Further, psychological support and compassionate care can enhance the mental health of medical professionals, which has a positive effect on their enthusiasm and physical ability to work [29 - 31]. Mental health services and empathetic support, including counseling hotline services from the government or hospital, food and daily care, and convenient rest areas, are essential to reduce the mental pressure and trauma of COVID-19 frontline nurses [32, 33].

4.3. Support from Central Professional Agencies

Medical professionals work for their organization and are under the care and protection of a health profession council. Thus, mental support from central agencies and health professional councils is important to make medical professionals continuously perform their tasks during the pandemic. The study by Liang *et al.* [34] suggested that government support for health workers working to prevent COVID-19 infection or care for potentially infected patients in the form of rewards and compensation can build morale, promote mental health, and motivate them to continue performing their duties in critical situations. This is in line with the study by Chew *et al.* [35], which indicated that the COVID-19 outbreak suddenly occurred and affected most of the population. Therefore, increased psychosocial and resource demands are common. Supporting the mental health of medical professionals and public health officers is the main duty of each responsible professional agency, which should be seriously taken into account and implemented because the COVID-19 pandemic is an unprecedented challenge for society [22, 36].

CONCLUSION

The COVID-19 pandemic is unprecedented and has had a huge impact on people's experiences. In some contexts, it causes widespread and intense pressure, which negatively affects the mental status of medical professionals. The results of this study present the idea that social support among healthcare workers may protect them from the negative effects on their mental health from the coronavirus pandemic. As such, hospital administrators should foster mental resilience and positive coping strategies among healthcare workers through the use of theoretically tested interventions or programs. Therefore, it is necessary to promote the mental health of this group. An effective approach to enhancing their mental health is to develop a guideline for mental health promotion based on their direct experiences and actual needs, covering physical, mental, and social dimensions.

LIMITATIONS

In this study, the data were collected during the COVID-19 pandemic from July 1st, 2021, to September 9th, 2021. The key informants were medical professionals who worked in

hospitals throughout Thailand. The qualitative research was carried out using online interviews. Due to the COVID-19 outbreak situation, some research contexts or locations were not completely observed. Therefore, the results of this research are based on the key informants' verbal information solely.

RECOMMENDATIONS

The results of this study should be further studied in order to develop mental health promotion practices for medical professionals to deal with the next wave of COVID-19 or to prepare for the outbreaks of other diseases. A separate qualitative study should be conducted on the experienced and perceived needs for mental health promotion in each profession in order to gain more specific and in-depth information.

ETHICAL STATEMENT

The data collection in this study was conducted following the approval of the IRB of Thammasat University, Thailand (The Human Research Ethics Committee of Thammasat University in the science field, Thailand) (Approval Number 062/2564), regarding the research settings.

CONSENT FOR PUBLICATION

Informed consent was conducted from the participants.

AVAILABILITY OF DATA AND MATERIALS

The data that support the findings of this study are available on request from the corresponding author [K.M].

FUNDING

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest, financial or otherwise.

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