



Psychosocial Experiences of Nurse in Providing Care to COVID-19 Patients: A Qualitative Study

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Abstract. The COVID-19 pandemic not only jeopardizes the lives of infected individuals but also poses a substantial threat to healthcare professionals providing care. The inadequate availability of Personal Protective Equipment (PPE) has contributed to an escalating mortality rate among healthcare workers. This situation is anticipated to engender multifaceted challenges in the physical, psychological, social, and spiritual dimensions for nurses. The primary objective of this study is to elucidate the comprehensive response exhibited by nurses in the delivery of services to COVID-19 patients. Employing descriptive phenomenological design, interviews were conducted with 22 nurses actively engaged in treating COVID-19 patients across government hospitals, private hospitals, and community health centers in Surabaya. Convenience sampling was employed as the sampling technique, with data collection occurring from June 2 to June 14, 2020. A structured interview format using Google Forms served as the research instrument. Thematic analysis was employed for data analysis, involving stages such as keyword identification, categorization, determination of sub-themes, and overall themes. The study yielded four overarching themes: Theme 1 - Physical Response, comprising three sub-themes and three categories; Theme 2 - Psychological Response, encompassing two sub-themes and three categories; Theme 3 - Social Response, with two sub-themes and four categories; and Theme 4 - Spiritual Response, comprising two sub-themes and three categories. Nurses' experiences while attending to COVID-19 patients extend across the holistic spectrum of physical, psychological, social, and spiritual dimensions, encapsulating both negative and positive responses. The insights gained from nurses' responses can serve as a valuable reference and guideline for fellow healthcare professionals in delivering nursing services to COVID-19 patients.

Keywords: COVID-19, Physical, Psychological, Social, Spiritual, Nurses' Response

1 Introduction

In Indonesia, the first confirmed cases of COVID-19 were reported on March 2, 2020, and by April 23, 2020, the country had recorded 7,418 cases, making it the second-highest number of confirmed cases in the East-Southeast Asia region after China. Indonesia has also been designated as a country with community transmission, indicating

an emergency situation. Twenty-one regions in Indonesia have been identified as local transmission areas for Covid-19, including Sumatera Utara, Sumatera Barat, Riau, Kepulauan Riau, Sumatera Selatan, Banten, DKI Jakarta, Jawa Barat, Jawa Tengah, Jawa Timur, Bali, Kalimantan Barat, Kalimantan Tengah, Kalimantan Timur, Kalimantan Selatan, Kalimantan Utara, Nusa Tenggara Barat, Sulawesi Selatan, Sulawesi Tenggara, Sulawesi Utara, and Papua [1].

The global threat posed by Covid-19 has led to increased awareness among healthcare workers. The World Health Organization (WHO) has been collecting funds and implementing strategic preparedness to protect countries with weak healthcare systems. The objectives include limiting transmission, providing self-care, disseminating information, and minimizing social and economic impacts. Diagnostic development, vaccine improvement, and infection prevention are also key areas of focus for the WHO [2]. In response to the significant and rapid transmission of Covid-19 in Indonesia, the government has implemented large-scale social restrictions (PSBB) [3].

While social distancing measures have been implemented for the general population, healthcare workers, including nurses, doctors, and laboratory technicians, have continued to provide essential healthcare services. These frontline healthcare workers face increased workloads and the growing number of Covid-19 patients, which can lead to greater psychological and social burdens.

Nurses, in particular, are the largest group of healthcare professionals and have the most prolonged interactions with patients. Disturbingly, many nurses have lost their lives due to Covid-19 infection. In Indonesia, reports from the Indonesian National Nurses Association (PPNI) indicate that 77 nurses have died, with 29 of them from East Java, including 10 from Surabaya. Additionally, the number of nurses who have tested positive for Covid-19 in East Java has reached 1014. These distressing statistics undoubtedly impact nurses' responses and their ability to provide optimal nursing care.

The Covid-19 pandemic has caused global confusion, anxiety, fear, and the emergence of hatred and stigma towards those affected. Isolation and quarantine measures have also taken a toll on individuals, leading to increased anxiety, anger, confusion, and stress [4]. It is crucial to recognize that healthcare workers, including nurses, are not immune to these mental health challenges. The ongoing spread of the virus further exacerbates the burden on healthcare workers, particularly nurses, and is expected to contribute to increased mental health issues. Given these circumstances, it is essential to gain a comprehensive understanding of nurses' responses in caring for Covid-19 patients.

2 Methods

The research design used in this study is phenomenology, focusing on the psychosocial response experienced by nurses who care for Covid-19 patients. The population of interest consists of nurses who meet the inclusion and exclusion criteria. Inclusion criteria include nurses who have been assigned to care for Covid-19 patients during the period of March to June 2020, with educational levels ranging from D3 to S2, aged 20 years and above, and proficiency in the Indonesian language. Exclusion criteria encompass

nurses who are unwilling to participate in the research. A convenience sampling technique was employed to select the participants, resulting in a total of 22 nurses from various healthcare settings such as government hospitals, private hospitals, and community health centers. Data collection took place between June 2 and 14, 2020, utilizing structured interviews conducted over the telephone. The collected data were analyzed using content analysis, which involved three stages: data reduction, presentation or display (including categorization, determination of themes and sub-themes), and conclusion or verification in line with the research objectives.

3 Findings

3.1 Characteristics of Participants

The participants in this study were nurses who were assigned to care for confirmed Covid-19 patients in hospitals or community health centers where they worked. The total number of participants was 22, which reached data saturation. The characteristics of the participants are presented in Table 1.

Table 1. Characteristics of Participants

Code	Age (years)	Gender	Education Level	Workplace	Years of Experience
P1	31	M	D3	Private Hospital	10
P2	46	M	S1	Private Hospital	25
P3	36	M	S1	Private Hospital	15
P4	25	M	D3	Private Hospital	3
P5	34	M	S1	Private Hospital	11
P6	34	M	D3	Private Hospital	13
P7	45	M	S2	Community Health Center	20
P8	23	M	D3	Public Hospital	2
P9	28	F	D3	Public Hospital	7
P10	25	M	D3	Private Hospital	4
P11	38	M	D3	Community Health Center	14
P12	51	F	D3	Public Hospital	30
P13	33	M	S1	Community Health Center	10
P14	37	F	D3	Community Health Center	15
P15	28	M	D3	Public Hospital	7
P16	35	F	D3	Public Hospital	14
P17	25	F	D3	Public Hospital	3
P18	32	F	D3	Public Hospital	10
P19	30	F	S1	Public Hospital	8
P20	26	F	D3	Public Hospital	3
P21	45	F	S1	Private Hospital	21
P22	32	F	D3	Private Hospital	9

Based on the interviews conducted with 22 nurses from June 2 to June 14, 2020, the researchers analyzed the meaning of each respondent's statements and identified 4 themes, 9 sub-themes, and 13 categories as depicted in Table 2 below.

Table 2. Themes and sub-themes

Theme and Sub-theme	Category	Keywords	Participants (P)
1. Physical Response	Decreased Stamina	Easily Fatigued	P1, P11, P12, P13, P14, P17, P20
		Feeling Ill	P2, P7, P16, P17
		Frequent Dizziness	P10, P13
	Skin Issues	Acne	P2, P8, P14, P20
		Itchy Skin	P1, P8, P14, P20
Weight Changes	Weight Loss	P8, P12, P14, P17, P20	
	Weight Gain	P3, P9, P18, P22	
2. Psychological sponse	Re-Symptoms	Fear	P2, P14, P15, P16,
		Anxiety	
		Paranoia	P7, P11, P12, P13, P15
	Emotional Changes	Difficulty Sleeping	P3, P14, P16
		Negative Emotions	P1, P12, P16, P22
		Positive Emotions	P1, P12, P14, P17
		Humanity	P8, P11
3. Social Response	Attention to Family	Missing Family	P1, P8, P15, P18
		Missing Family	P1, P8, P15, 16, P18, P22
		Increased Concern for Family	P1, P14, P15, P16, P19, P20
	Pride for Family	Family's Pride	P3, P4, P5, P6, P7, P8, P15, P16
	Relationship with Society	Self-Isolation	P13, P14
4. Spiritual Response	Increased Spiritual Activities	Feeling Social Stigma	P1, P12, P17, P18, P19, P21
		Avoidance by Close Friends	P4, P5, P6, P7, P8, P15, P20
		Praying	P1, P3, P5, P9, P11, P18, P19, P21
	Increased Focus on Worship	Reciting Dhikr	P5, P7, P9, P14, P15, P16, P20, P22
		Striving to Get Closer to God	P13, P15

4 Discussion

Based on the table above, the keywords from the respondents' statements were analyzed into categories, sub-themes, and themes. Four themes were identified. Theme one is the physical or biological response, which includes three sub-themes: physical changes, skin health changes, and weight changes. Theme two is the psychological response, which includes two sub-themes: anxiety and emotional changes. Theme three is the social response, which includes two sub-themes: relationships with family and relationships with the community. Theme four is the spiritual response, consisting of two sub-themes: increased spiritual activities and improved spiritual quality. Each sub-theme is organized based on the categories built from the keywords expressed by the participants.

The physical response experienced by nurses while caring for COVID-19 patients is described with three sub-themes: 1) changes in body stamina, 2) changes in skin health, and 3) changes in weight. Changes in body stamina are described as a decrease in perceived stamina and the emergence of symptoms such as easy fatigue, feeling unwell, and frequent dizziness. These symptoms may arise due to the use of Personal Protective Equipment (PPE) by nurses. During the care of COVID-19 patients, nurses must use complete PPE, including aprons/gowns/coveralls, head covers (if not using coverall jumpsuits), surgical masks or N95 masks, thick gloves, goggles or glasses (when there is a risk of fluid splashes), and boots (Ministry of Health Regulation No. 52 of 2018). The availability of adequate PPE is crucial for healthcare workers to prevent the transmission and spread of COVID-19. The use of PPE has different levels depending on when and who uses it.

The use of PPE includes first-level healthcare workers who work in general practice settings where their activities do not pose a high risk and do not generate aerosols. They can use surgical masks, gowns, and examination gloves. Second-level healthcare workers include doctors, nurses, and laboratory technicians working in patient care areas where non-respiratory sampling or laboratory work is conducted. The required PPE includes head covers, protective goggles, surgical masks, gowns, and disposable gloves. Third-level healthcare workers face the highest risk of infection. They are involved in COVID-19 procedures such as surgery, nebulization, or dental procedures that may generate aerosols. These healthcare workers are required to use N95 masks consisting of 4 to 5 layers. The outer layer is made of polypropylene, followed by an electrostatic layer.

The tight use of Personal Protective Equipment (PPE) has caused physical problems for nurses, especially if they do not understand the principles of ergonomics in using PPE as regulated in Ministry of Health Regulation No. 52 of 2018, Article 7, Paragraph 5, including manual handling of loads, working posture, repetitive movements, shift work, work duration, and workspace layout. The use of PPE is one of the causes of skin problems experienced by nurses. H. Long et al. (2020) stated that organic components of PPE such as rubber, plastic, and other components can potentially cause skin allergies in individuals [5]. Meanwhile, Razvigor and Nikolai (2020) reported that common skin changes due to the use of PPE include erythema, papules, and maceration [6]. This

is consistent with the complaints of nurses who experienced itching and the appearance of acne after using PPE while caring for COVID-19 patients.

4.1 Theme 1: Physical Responses

The physical responses experienced by nurses while caring for Covid-19 patients are described through three sub-themes: 1) changes in body stamina, 2) changes in skin health, and 3) changes in body weight. The alteration in body stamina is depicted by a decrease in perceived stamina accompanied by symptoms such as fatigue, malaise, and frequent dizziness during the care of Covid-19 patients. These symptoms may arise due to the use of Personal Protective Equipment (PPE) by nurses. Complete PPE, including Apron/Gown/Coverall Jumpsuit, head cover (if not using a coverall jumpsuit), surgical mask or N95, thick gloves, goggles/glasses (when there is a risk of body fluid splashes), and boots (according to the regulation PMK RI no 52 of 2018), is essential for healthcare workers to prevent the transmission and spread of Covid-19. The use of PPE varies depending on the level of healthcare personnel.

The use of PPE is categorized into three levels: first, second, and third. The first level is for healthcare personnel working in general practice settings where activities pose low risks and do not generate aerosols; hence, they can use PPE such as surgical masks, gowns, and examination gloves. The second level is for doctors, nurses, and laboratory technicians working in patient care areas where non-respiratory sample collection occurs or in laboratories. Required PPE includes head covers, protective eyewear, surgical masks, gowns, and disposable gloves. The third level of PPE is the most infectious and high-risk, intended for healthcare workers involved in Covid-19 treatment procedures such as surgery, nebulization, or dentists whose procedures may generate aerosols, requiring the use of N95 masks consisting of 4 to 5 layers. The outer layer is made of polypropylene, followed by an electrostatic layer.

The stringent use of PPE poses physical problems for nurses, especially if they do not fully understand the ergonomic principles outlined in PMK no 52 of 2018, article 7, paragraph 5. This includes manual load handling, working posture, repetitive movements, shift work, work duration, and workspace layout. The use of PPE is a significant contributor to skin issues experienced by nurses. Components such as rubber, plastic, and other materials in PPE may lead to skin allergies, as indicated by [5]. Razvigor and Nikolai (2020) also reported common skin changes due to PPE use, including erythema, papules, and maceration, consistent with complaints from nurses experiencing itching and acne after using PPE during the care of Covid-19 patients [6].

On the other hand, issues related to immune system and body stamina experienced by nurses may result from the physical and mental burdens imposed by PPE use. Therefore, healthcare professionals, including nurses, are advised to enhance their immune system and stamina to remain healthy while caring for patients. Physical immunity improvement can be achieved through balanced nutrition (carbohydrates, protein, vegetables, fruits containing vitamins and minerals), additional vitamin supplements if necessary, adequate hydration (at least 2 liters per day for adults), a minimum of 30 minutes of daily exercise, and exposure to sunlight twice a week.

Efforts to boost immunity through increased food consumption may lead to weight gain for some nurses. However, there is also a fear among nurses of consuming more food and liquids due to difficulties in bowel movements and urination while wearing complete PPE during the care of Covid-19 patients.

4.2 Theme 2: Psychological Responses

There are at least two sub-themes and three categories of psychological responses experienced by participants while caring for Covid-19 patients. The two sub-themes are anxiety and emotional changes. The anxiety sub-theme is described by the emergence of various anxiety symptoms, including fear, difficulty sleeping, and paranoia related to any events associated with Covid-19 symptoms. These anxiety symptoms align with Huang and Zhao's (2020) findings, stating that the level of public anxiety symptoms increases with the rising number of Covid-19 cases [7]. This is consistent with the psychological issues observed during the SARS outbreak [8].

Research indicates that one in three participants displays symptoms of anxiety and emotional disorders, while one in five participants exhibits symptoms of depression and sleep problems, suggesting significant psychological pressure on the public due to the uncertainty of the Covid-19 pandemic [7]. Nurses' anxiety may also stem from the increasing number of colleagues succumbing to Covid-19, leading to psychological problems such as depression, anxiety, and panic during the pandemic [9]. Anxiety is described as a subjective feeling of mental tension and worry, a common reaction to the inability to cope with a problem or a lack of security, often resulting in unpleasant feelings accompanied by physiological, psychological, social, and spiritual changes.

In addition to anxiety, the second sub-theme involves emotional changes categorized into negative and positive emotions. Negative emotions include nurses easily becoming emotional, sensitive in responding to events, feeling easily offended by colleagues' expressions or conversations deemed inappropriate, and occasionally responding excessively to occurring issues. As explained in the *Journal of Clinical Nursing* editorial (2020), it is challenging for nurses not to have strong emotional reactions to the COVID-19 virus and its impact on their work (fear, anger, frustration, worry).

Alongside negative emotional responses, positive emotions are also experienced by nurses, such as increased concern for their families by frequently communicating with them. While working and not returning home, nurses show more care for their families by inquiring about their conditions and urging them to stay at home and follow government recommendations, such as wearing masks and maintaining social distancing. The nurses' concern for their families aligns with Xin Shen et al.'s (2020) recommendation that family issues can be psychological problems for nurses, and involving the family in the work environment, if possible, can help reduce psychological stress [10].

Other research findings support these observations. Niuniu Sun (2020) reported that the psychological experiences of nurses caring for COVID-19 patients can be summarized into four themes: negative emotions, coping styles (psychological and life adjustments, altruistic actions, team support, and rational cognition), growth under pressure (increased empathy and gratitude, professional responsibility development, and self-reflection), and the coexistence of positive and negative emotions [11].

4.3 Theme 3: Social Response

The sub-theme of social response is delineated into three categories: relationships with family, interactions within the social community, and self-protection towards others. Family relationships manifest heightened attention and care, even during temporary separations due to quarantine protocols while providing services to COVID-19 patients. Nurses express concern, particularly regarding the well-being of their families, emphasizing the importance of maintaining family health during their quarantine period. This aligns with findings by [12-13], emphasizing nurses' attention to preventing infection spread to vulnerable family members, such as parents, immunocompromised individuals, and children, viewing protection of family members as a priority. Some nurses opt for self-isolation as a protective strategy [13]. Conversely, participants address their yearning for family by daily communication through video calls or phone calls. Despite challenges, participants cope, contrasting with Huang and Rong Liu's (2020) study reporting nurses experiencing stress due to family separation, lack of sleep, and heavy workloads [14].

Family support serves as a vital element, with expressions of pride from family members regarding the nurses' efforts in aiding COVID-19 patients. Such affirmations contribute to strengthening emotional bonds within the family. This aligns with the Indonesian Ministry of Health guidelines (2020) emphasizing positive social relationships, including praising, fostering hope, reminding of positive practices, enhancing emotional bonds within families and groups, avoiding negative discussions, and staying in touch with colleagues, friends, or professionals to prevent mental and psychosocial health issues.

The second category involves feelings of isolation or avoidance in interactions with both the local community and the participants' friends. Participants actively engage in self-protection measures, such as staying at home and minimizing interactions with others, in line with the Indonesian government's recommendations for home-based activities to curb the spread of COVID-19 (Indonesian Ministry of Health, 2020). However, nurses face challenges, including rejection or eviction from rented accommodations due to fears of COVID-19 transmission or societal stigma towards COVID-19-related fatalities. These incidents act as psychological stressors for nurses.

4.4 Theme 4: Spiritual Response

Participants' spiritual responses are categorized into two components. The first involves an increase in spiritual activities, such as continuous prayer and remembrance of God (dhikr) while caring for COVID-19 patients. This practice aims to provide participants with a sense of calmness in their duties and protect them from COVID-19 transmission. The second category involves accepting the situation with sincerity as the will of the Almighty. Participants believe that the COVID-19 pandemic is a divine decree and destiny that cannot be avoided by human intervention.

These spiritual responses align with Debnam, Milam, Furr-Holden, & Bradshaw's (2016) research, highlighting religious activities as coping mechanisms by redirecting concerns towards faith [15]. The value of these religious activities serves as a driving

force from the current condition towards the desired state [16]. Additionally, spiritual activities impart qualities such as generosity, resilience, and composure in facing challenges. Other studies (Lam and Hung, 2013; Kim, 2018; Chiang et al., 2007) underline nurses' commitment to their professional roles, even in difficult and hazardous situations [13].

5 Conclusion

In conclusion, nurses' responses in providing care to COVID-19 patients are diverse, shaped by individual characteristics and personalities. However, this research suggests that the experience of caring for patients elicits holistic responses encompassing physical, psychological, social, and spiritual dimensions.

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