



Nurse Managers' Experience in Managing Patient Screening at RSUP H. Adam Malik's Emergency Department During the COVID-19 Pandemic

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Abstract

Nurse managers play an essential role in coordinating emergency department functions, especially during global health crises such as the COVID-19 pandemic. In low- and middle-income countries (LMICs), including Indonesia, their experiences have not been widely explored, despite facing unique logistical, emotional, and cultural challenges. This study aims to explore the lived experiences of nurse managers in overseeing COVID-19 screening procedures in the emergency department of RSUP H. Adam Malik Hospital in Medan, Indonesia. A descriptive phenomenological approach was employed to capture the essence of their experiences. Ten nurse managers were selected using purposive sampling. Data were collected through semi-structured interviews lasting 30 to 60 minutes, supplemented by field notes and document analysis. Colaizzi's seven-step method guided the analysis, with credibility ensured via member checking and triangulation using multiple informants. The study identified five major themes: (1) psychological distress in the early phase of the pandemic, stemming from fear, uncertainty, and concern for family safety; (2) challenges in implementing screening, including patient resistance, resource limitations, and PPE shortages; (3) proactive efforts for early COVID-19 detection through triage protocols and symptom-checking tools; (4) improvements in screening management, emphasizing leadership, education, and compliance; and (5) adaptation and resilience, as nurse managers developed strategies to cope with evolving demands and pressures. These themes reveal both universal healthcare struggles and context-specific issues—such as anxiety about infecting multigenerational households—that shaped nurse managers' responses. This research contributes to the limited body of qualitative evidence on pandemic leadership in LMICs. The insights gained underscore the importance of robust emergency preparedness, targeted psychological support for healthcare leaders, and ongoing improvements in screening protocols. Strengthening these areas can better equip healthcare systems to face future public health emergencies.

Keywords: Nurse Managers, COVID-19, Emergency Department, Screening, Indonesia, LMICs.

INTRODUCTION

The COVID-19 pandemic has underscored the paramount importance of effective infection control in healthcare environments. Rigorous patient screening at entry points has proven especially *critical* in preventing nosocomial transmission of the virus (Day, 2020; dos Santos, 2020). Early identification of suspected COVID-19 cases through screening and triage enables prompt isolation and the implementation of safety measures, thereby protecting both patients and health workers (Toccafondi et al., 2021). As frontline gatekeepers in emergency departments, nurse managers play a pivotal leadership role in coordinating these infection control efforts. Their decisions and guidance directly influence the execution of screening

protocols and the staff's response to the intense pressures of a health crisis (Asmaningrum et al., 2022; Gandhi et al., 2020).

Nurse managers serve as vital intermediaries between high-level policy directives and frontline practice, ensuring that guidelines, (such as PPE use, patient flow segregation, and symptom triaging), are effectively translated into actionable procedures (Belingheri et al., 2020). During the COVID-19 surge, they not only oversaw the logistics of establishing screening stations and redirecting patient flow, but also offered crucial support and motivation to nursing teams facing heightened risk and uncertainty (Zhang et al., 2020). This leadership role has been widely recognized as *essential* for sustaining service delivery and promoting staff well-being during crisis conditions (Aiken et al., 2021; Gomes et al., 2021; He et al., 2020; Lambert & Lam, 2021). In emergency departments, where patient influx is unpredictable and acuity levels are high, the nurse manager's capacity to uphold screening protocols and swiftly adapt to evolving circumstances is integral to the hospital's overall pandemic response (Hjorth et al., 2020; Mansour & Shosha, 2021).

Managing patient screening during a pandemic presents a multifaceted challenge. Nurse managers must navigate the delicate balance between infection control priorities and patient care demands, all while supporting staff through stressful and often perilous working conditions. To date, limited research has explored how nurse managers themselves experience these challenges, particularly within high-stakes environments such as emergency departments. Gaining insight into their perspectives is essential for enhancing organizational preparedness and nursing leadership in future public health crises (Marquis & Huston, 2021). Accordingly, this study seeks to examine the experiences of nurse managers in overseeing patient screening at RSUP H. Adam Malik's Emergency Department during the COVID-19 pandemic.

METHODS

This qualitative study employed a descriptive approach using in-depth interviews and document analysis. The research was conducted from August to October 2022 at the Emergency Department of RSUP H. Adam Malik, Medan, Indonesia. The study's primary informants included ten nurse managers responsible for coordinating and overseeing the COVID-19 patient screening process. Triangulation was achieved through three additional informants: The Head of the Emergency Department, an Infection Prevention and Control (IPC) officer, and a Hospital Administrative Supervisor (Zolkefli, 2020).

Data collection was conducted using semi-structured interview guidelines administered directly to nurse managers and triangulation informants within the hospital setting.

Supplementary tools included observation notes, audio recorders, and writing materials to document interview content and contextual observations throughout the research process. Each interview lasted between 30 to 60 minutes, with field notes taken to enrich the verbal data.

The data collection process included an analysis of hospital documents outlining standard operating procedures (SOPs) for COVID-19 screening and patient flow. Researchers also documented the experiences and strategies used by nurse managers to address screening challenges and ensure adherence to institutional protocols (Koh & Seah, 2020). Data analysis was guided by Colaizzi's phenomenological method, which involved reading all interview transcripts, extracting significant statements, formulating meanings, clustering themes, developing exhaustive descriptions, and validating findings through member checking. A descriptive narrative analysis approach was used to present themes derived from the coded interview transcripts, with conclusions drawn from identified patterns and verified through triangulation.

This study received ethical approval from the Health Research Ethics Committee of Sekolah Tinggi Ilmu Kesehatan Columbia Asia (Approval No. 01/KEPK/SCA/2025). All participants provided written informed consent and were assured of confidentiality as well as their right to withdraw from the study at any stage.

RESULTS

Table 1. Characteristics of Research Informants

Code	Age	Position	Education	Description
INF01	41–50 Years	Team Leader	Nursing Profession	Key Informant
INF02	41–50 Years	Shift Supervisor	Nursing Profession	Key Informant
INF03	41–50 Years	Team Leader	Nursing Profession	Key Informant
INF04	31–40 Years	Head of Emergency Room	Nursing Profession	Key Informant
INF05	41–50 Years	Shift Supervisor	Nursing Profession	Key Informant
INF06	31–40 Years	Shift Supervisor	Nursing Profession	Key Informant
INF07	41–50 Years	Shift Supervisor	Nursing Profession	Key Informant
INF08	41–50 Years	Shift Supervisor	Nursing Profession	Key Informant
INF09	41–50 Years	Shift Supervisor	Nursing Profession	Key Informant
INF10	31–40 Years	Shift Supervisor	Nursing Profession	Key Informant

This study involved ten key informants, all of whom were nurse managers working in the Emergency Room (ER) at RSUP H. Adam Malik during the COVID-19 pandemic. Informants were selected based on their managerial responsibilities and direct involvement in screening procedures. The majority of participants were aged between 41 and 50 years, while a smaller subset falling within the 31 to 40 age group. Their roles included team leaders, shift supervisors, and one participant who served as the Head of the Emergency room – positions that reflected diverse yet essential leadership responsibilities in patient management. All

informants held educational qualifications in nursing, ensuring they possessed the requisite clinical and managerial competencies (Sharma et al., 2020). Each participant contributed valuable experiential insights into managing screening procedures, staff coordination, and patient care throughout the pandemic response in the ER setting.

Table 2. Collaizzi Analysis Results

Theme	Sub-theme	Code	Age	Position
1. Changes in Psychological Responses at the Beginning of the Pandemic	Fear of transmitting COVID-19 to family members	INF02	41–50 Years	Shift Supervisor
		INF04	31–40 Years	Head of Emergency Room
		INF06	31–40 Years	Shift Supervisor
	Unease and anxiety regarding personal health and exposure	INF02	41–50 Years	Shift Supervisor
		INF04	31–40 Years	Head of Emergency Room
		INF06	31–40 Years	Shift Supervisor
2. Experiencing Obstacles During Screening	Family refusal to undergo screening	INF02	41–50 Years	Shift Supervisor
		INF06	31–40 Years	Shift Supervisor
		INF07	41–50 Years	Shift Supervisor
	Patients not being honest about their health status	INF06	31–40 Years	Shift Supervisor
		INF07	41–50 Years	Shift Supervisor
	Complaints about the long screening process	INF02	41–50 Years	Shift Supervisor
		INF06	31–40 Years	Shift Supervisor
3. Conducting Early Detection of COVID-19	Use of PPE and continuous health protocols	INF08	41–50 Years	Shift Supervisor
		INF10	31–40 Years	Shift Supervisor
	Screening procedures (rapid antigen, chest X-rays, lab tests)	INF02	41–50 Years	Shift Supervisor
		INF10	31–40 Years	Shift Supervisor
4. Efforts to Improve Screening Management	Creating a safe and comfortable work environment	INF05	41–50 Years	Shift Supervisor
		INF08	41–50 Years	Shift Supervisor
	Reducing psychological disturbances among staff	INF05	41–50 Years	Shift Supervisor
		INF08	41–50 Years	Shift Supervisor
	Maintaining body immunity	INF01	41–50 Years	Team Leader
5. Adaptation to COVID-19	Coping mechanisms for emerging changes	INF05	41–50 Years	Shift Supervisor
		INF08	41–50 Years	Shift Supervisor
		INF07	41–50 Years	Shift Supervisor
	Adjusting work schedules and rotating staff to manage stress and workload	INF05	41–50 Years	Shift Supervisor
		INF08	41–50 Years	Shift Supervisor
		INF07	41–50 Years	Shift Supervisor

Theme 1: Changes in Psychological Responses at the Beginning of the Pandemic

“At first, yes, I was afraid, afraid that we who are in the hospital would carry it home and infect the family at home, that's it.” — INF02

“Are we positive when we go home? Like, oh no... Are we going to infect at home?” — INF04

“Anxious, I have hypertension too, and my husband has diabetes, right? I'm also afraid of bringing it home, right? I have hypertension...” — INF06

Theme 2: Experiencing Obstacles During Screening

“There are many families of patients or patients themselves who do not accept it, asking why they have to be screened, while it is a hospital procedure that must be done...” — INF02

“I don't agree with screening because there is that form for COVID, and if it leads to a suspicion of COVID, there are many patients who point to number 7, it's long and people don't accept it, corpses can't be taken home and patients can't have companions in the room” — INF06

“The challenge recently has been more about the situational and emotional condition of the patients' families... because there are also some families who don't accept it when we say there are SOPs for screening due to COVID” — INF07

Theme 3: Conducting Early Detection of COVID-19

“Screening is already required to use PPE” — INF08

“During the pandemic time in 2020 we were required to wear complete PPE” — INF10

“The screening is rapid antigen and photothorax and laboratory check, that is initially the screening” — INF02

Theme 4: Efforts to Improve Screening Management

“It's a monthly rotation, isolation screening. The tiring part is the screening, especially for the isolation nurses” — INF05

“We rotate, but if a friend can't handle it, we can't force them to stay for four hours like that” — INF08

“If you remember, we were just adapting in March 2020, right? It was in Wuhan” — INF01

Theme 5: Adaptation to COVID-19

“We rotate the schedule to manage the workload, and if someone is feeling too tired, they are allowed to take a break” — INF08

“The tiring part is the isolation nurses. We rotate them so they don't get overwhelmed” — INF05

“We try to maintain morale by reminding each other about PPE and taking care of ourselves” — INF07

DISCUSSION**Experiencing Improved Health Conditions After Mechanical Heart Valve Replacement Surgery**

The research findings indicated that the majority of participants reported a reduction or complete resolution of preoperative symptoms following surgery. Prior to the operation, they commonly experienced palpitations, fatigue during routine activities, and pain in the back or chest. After undergoing mechanical heart valve replacement surgery, these complaints were significantly alleviated or entirely eliminated. This outcome is consistent with the findings of Zhang (2021), who noted that individuals with heart valve disease frequently endure both physical and psychological symptoms, including fatigue, muscle aches, and anxiety. These results align with the intended goal of heart valve replacement surgery: to restore functional capacity and enhance the patient's overall quality of life.

Experiencing Sleep Disturbances After Mechanical Heart Valve Replacement Surgery

The research findings indicated that several participants reported changes in their sleep, specifically experiencing difficulty falling asleep. This observation aligns with studies by (Yari et al., 2021) and Hu et al. (2022), which highlighted that patients often experience sleep disturbance during the early postoperative period following heart valve replacement surgery. Additional research corroborates these findings, noting that postoperative sleep disorders are influenced by various factors, including depression, individual characteristics (such as age and gender), and environmental conditions (such as noise and light). The participants' experiences underscore the challenges of adapting to post-surgical circumstances and emphasize the importance of targeted postoperative care to address sleep disruptions.

Experiencing Anxiety Regarding Complications That May Occur After Mechanical Heart Valve Replacement Surgery

Based on the findings of this study, respondents reported experiencing anxiety related to complications following surgery. This theme was primarily characterized by concerns about surgical risks, including the possibility of failure or further health deterioration. Anxiety was especially pronounced among participants with pre-existing conditions, such as hypertension and diabetes, which amplified their apprehensions (Potter & Perry, 2020; Pu et al., 2020). These observations are consistent with previous studies on surgical anxiety, which identified pre-operative stress and fear of complications as major contributors to emotional distress (Hofmeyer & Taylor, 2021; Murat et al., 2021). The participants' concerns highlight the need for psychological support and clear communication before and after surgery to help mitigate these fears.

Theme 4: Complying with the Home Care Plan

Within this theme, participants emphasized the importance of adhering to post-operative care plans, which included avoiding certain foods (e.g., green leafy vegetables) and regularly undergoing blood tests (Jääski et al., 2023). Commitment to the home care regimen plays a pivotal role in sustaining health and preventing complications following mechanical heart valve replacement surgery. The necessity of compliance was underscored by participant expressions such as, "I have to follow the doctor's advice, especially regarding diet and medication." These findings align with research highlighting the significance of patient education and adherence to medical guidelines in promoting recovery and minimizing post-surgical risks (Jones et al., 2020; Rivett et al., 2020).

Family Support in Efforts to Maintain Health After Undergoing Mechanical Heart Valve Replacement Surgery

This theme underscores the essential role of family support in the recovery process. Participants consistently highlighted the emotional and physical assistance they received from family members, which contributed significantly to their health maintenance following surgery (Lu et al., 2020). Such support encompassed both moral encouragement and practical help, including assistance with daily activities and adherence to medication regimens. The importance of family involvement in healthcare is well-established in the literature, with studies indicating that emotional and practical support from relatives can markedly improve recovery outcomes and overall well-being (Kandemir et al., 2022; Verma et al., 2020).

CONCLUSION

This study explored the lived experiences of nurse managers in managing COVID-19 patient screening at RSUP H. Adam Malik's Emergency Department. The analysis uncovered five central themes: psychological distress during the early phase, barriers to effective screening, proactive strategies for early detection, screening service management efforts, and adaptive resilience. Nurse managers encountered emotional strain, resource constraints, and operational disruptions, yet adapted over time by implementing structured screening procedures, guiding staff, and upholding service quality throughout the pandemic. Future research could adopt a mixed-methods design approach to quantify stress levels or examine the long-term impact of leadership interventions on emergency department performance during public health crises.

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