

## Nurses Self-Efficacy Caring for COVID-19 Patients: A Qualitative Study

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### ABSTRACT

The Covid-19 pandemic has caused nurses to experience various physical and mental pressures to deal with case escalation. The workload of nurses is increasing, and they are required to quickly adapt to various changes. High self-efficacy is needed for motivation and performance as well as controlling stress. This study aims to obtain an overview of the sources of nurse self-efficacy and explore other themes related to nurses' self-efficacy in the Covid-19 Isolation Room. This research is qualitative research conducting semi-structured in-depth interviews with 12 informants. The informants were selected by purposive sampling consisting of the shift nurse, the team leader, and the head nurse. Data analysis techniques with manual thematic analysis. The stress faced by nurses in the Covid-19 Isolation Room is related to workload, job risks, and relational relationships at work and in the community. Sources of informants' self-efficacy were obtained from mastery experiences through internships, vicarious experiences from role models, and social persuasion from friends and superiors. Three themes were found that affect self-efficacy, namely personal, organizational, and external variables with several sub-themes. Personal variables such as altruism, commitment, self-motivation, and spirituality are dominant and fundamental in shaping self-efficacy which is accelerated by organizational variables and supported by external variables. In order to increase nurses' self-efficacy, it is necessary to utilize self-efficacy sources, maximize personal variables and get support from family and organizations.

Keywords: self-efficacy; COVID-19 isolation room nurses; personal variables; organizational variables; external variable

## INTRODUCTION

The Covid-19 pandemic has posed various dangers or risks, both biological and psychological, for health workers as the front line in handling the Covid-19 outbreak (WHO, 2020). The state of emergency due to Covid-19 in Wuhan puts nursing services under intense pressure due to high demands but insufficient resources resulting in higher work stress. Symptoms of greater physical and psychological stress can affect the health and well-being of nurses (Yuanyuan et al, 2020). During this Covid-19 pandemic, managing stress from nursing staff is a challenge for nursing leaders in providing support for the welfare and mental resilience of nursing staff, one of which is by managing self-efficacy (Duncan, 2020).

Self-efficacy is a person's belief about their ability to produce the desired level of performance and the belief that a person can effectively face difficulties and achieve goals (Bandura, 1994, 1997). Self-efficacy plays a role in motivation and performance and in controlling stress and anxiety (Bandura & Locke, 2003). Self-e, making it excessive reactions and self-regulation of psychological and emotional states so that it becomes a sensitive factor for psychological stress, fatigue, and poor mental health (Fida et al., 2016). In carrying out their complex roles and functions, nurses can have basic and different coping self-efficacy, namely the belief in overcoming the workload and relational difficulties in the workplace (Pisanti et al., 2008).

Bandura states that self-efficacy can be changed, increased, or decreased through one or a combination of four sources, namely the experience of self-success (mastery experience), the experience of others or social models (vicarious experience), social persuasion, physiological and emotional state (Bandura, 1994). In addition, Bandura also stated individual characteristics such as age, gender, level of education and experience as factors that influence self-efficacy (Bandura, 1997).

Several previous studies have shown different findings about factors related to self-efficacy levels. A study showed that the level of education, work experience, willingness to work in the nursing unit and interest in the nursing field were significant factors related to nurses' self-efficacy in various types of treatment rooms (Soudagar et al., 2015). The study of nurses' self-efficacy in palliative care shows that the factors that significantly affect nurses' self-efficacy are work experience, nurses' interest in the nursing profession, and knowledge and perceptions of palliative care (Kurnia et al., 2019). Another study on nurse self-efficacy in Indonesia showed a significant relationship between gender and hospital status with self-efficacy, but age, education and length of work had no significant effect (Handiyani et al., 2019).

The escalation of the Covid-19 case made Sanglah Hospital change the function of several ordinary treatment rooms into the Covid-19 Isolation Room. To meet the needs of nurses, Sanglah Hospital recruited new nurses and mobilized old nurses from other rooms to the Covid-19 Isolation Room. Various stressors, such as the risk of contracting disease, high workload, difficulty dealing with uncooperative patients, and rejection reactions when the test results are positive, can affect nurses' physical and mental health.

Nurses' self-efficacy in the isolation room is closely related to their stressors. How self-efficacy is built in a pandemic is important and interesting to know. High self-efficacy is an important component in professional nursing practice (Manojlovich, 2005) and the highest contributor to forming nurse resilience (Gillespie et al., 2017; Mariani, 2017), especially facing the difficult situation of the current Covid-19 pandemic. By knowing the level of self-efficacy and the factors that influence it, the self-efficacy of nurses in the isolation room can be increased to maintain the physical and mental health of nurses (Liu et al., 2018). This is very important because nurses are the backbone of Covid-19 patient care and deal more directly with Covid-19 patients. In carrying out their duties and functions, they face various stressors related to workload and relationship difficulties.

This study aims to get an overview of the experience of nurses in the Covid-19 Isolation Room in increasing self-efficacy by utilizing existing sources and exploring the variables that affect the self-efficacy of nurses in the Covid-19 Isolation Room of Sanglah Hospital, Denpasar, Bali, Indonesia. Thus, it can provide input to nursing managers and further researchers in developing appropriate strategies to improve nurses' self-efficacy in outbreak situations.

## METHOD

This research is an exploratory qualitative research based on nurses' experience to get an in-depth picture of the sources of self-efficacy and find other themes related to nurses' self-efficacy in the Covid-19 Isolation Room. The study was conducted at the Inpatient Installation of Sanglah Hospital Denpasar, which consisted of four isolation rooms for Covid-19 patients, namely the *Nusa Indah* Room, *Mawar*, *Kamboja*, and *Lely*. Data collection was carried out from November to December 2020.

The qualitative research informants were selected by purposive sampling consisting of the shift nurse, the team leader (responsible for the shift), and the head nurse. The shift nurse and the team leader consisted of 3 groups of nurses who needed work experience at Sanglah Hospital, nurses who had work experience at Sanglah Hospital but not in isolation rooms, and nurses who had worked in isolation rooms. From each group, one respondent was taken with low, medium, and high self-efficacy, so there were nine informants from shift nurses and team leaders (self-efficacy level is taken from the results of previous quantitative research). Informants were also taken from 3 heads of rooms in the isolation room of Sanglah Hospital so that the total number of informants was 12 people (Table 1).

Table 1. Informants Research Identity

Nurse category	Informant Code	Initial	Room	Age (years)	Gender	Education	Length of work (years)	Position
Group 1*	I 1	DR	Mawar	22	Female	Bachelor	< 1	Nurse
	I 2	DS	Kamboja	23	Male	Bachelor	< 1	Nurse
	I 3	PC	Lely	22	Female	Diploma	< 1	Nurse
Group 2**	I 4	DAS	Lely	39	Female	Diploma	> 5	Team Leader
	I 5	RN	Kamboja	28	Male	Bachelor	1-5	Nurse
	I 6	RW	Mawar	31	Female	Bachelor	1-5	Team Leader
Group 3***	I 7	DAT	Nusa Indah	42	Female	Diploma	> 5	Nurse
	I 8	WS	Nusa Indah	29	Male	Diploma	> 5	Nurse
	I 9	MF	Nusa Indah	33	Female	Bachelor	> 5	Team leader
Head Nurse	I 10	KY	Kamboja	53	Male	Bachelor	>30	Head Nurse
	I 11	GS	Nusa Indah	54	Female	Diploma	>30	Head Nurse
	I 12	ER	Mawar	42	Female	Magister	>15	Head Nurse

\*Group 1 = nurses without work experience at Sanglah Central Hospital

\*\*Group 2 = nurses with work experience at Sanglah Central Hospital but not in the isolation room

\*\*\*Group 3 = nurses were already working in isolation rooms

Data was collected by means of in-depth interviews with semi-structured interview guidelines. The results of the interviews were recorded with a voice recorder and important things were written in a notebook. Qualitative data were analyzed by thematic analysis manually through the interview transcript stage, identifying the data, initializing the code, looking for themes, reviewing themes, defining themes, and naming themes (Clarke & Braun, 2017).

This research has received an Ethical Eligibility Letter from the Research Ethics Commission of the Faculty of Medicine, Udayana University, Number 2108/UN14.2.2.VII.14/LT/2020 dated October 26, 2020, as well as research permission from the Director of Human Resources and Education at Sanglah Hospital Denpasar, Number LB.02.01/XIV.2.2.1/39430/2020, 2 November 2020.

## RESULT

### Nurses' Stressors in Covid-19 Isolation Room

The stress experienced by nurses in the isolation room is physical and mostly psychological. Physical burdens related to the physical consequences of using PPE for a long time (fatigue, shortness of breath, thirst, heat, dizziness, wet clothes), not feeling well, and having colds due to washing and repeatedly washing during night service as well as walking activities taking care of patient administration to other units and other activities. other additions (pick up medicine, medical logistics, and patient goods deposit). Psychological burden in the form of fear of being infected or transmitting, problems with patients, patient's families, and other professions (doctors, mortuary staff), psychological consequences of using old PPE (bad mood, irritability, and lack of enthusiasm), fear of making incorrect data reports, sad to see the condition of critically ill or dead patients and the stigma from society. Nurses who have worked in isolation rooms from the start still feel high stressors even though they have handled outbreak cases before because the Covid-19 pandemic lasts longer and is more dangerous because it can be transmitted from human to human, also the number of patients is more severe conditions (heavy/critical). This is illustrated in the following interviews.

*"The first time, I was afraid because I got the positive one...until it was stressful. Because you know he's positive, it's only recently that the covid appears; suddenly it's positive and immediately handles it. The point is that, ma'am, I'm afraid of getting infected; even though I've used PPE, there's a fear of being infected."* (I 7, DAT, female, nurse)

*"More COVID-19 cases, longer duration, more critical patient conditions, more reports, more dangerous because of transmission from person to person, more tired, more mentally draining. For the stress... we treat all the covid patients, and all of them are in bad condition, we have been in the patient for so many hours, using hot PPE, breathing gasping for breath, and the patient can't be helped (died), that's where I was stressed, ma'am."* (I 8, WS, male)

*"The most stressful thing is dealing with the complaints and distrust of the family. It is considered that we have COVID-19 even though we have worked according to the procedure. Most patients complained because they did not accept entering the isolation room. The workload is heavier in my opinion, apart from being an administrator, the workload for patients is indeed heavier."* (I 4, RN, male, nurse)

*"... The patient was angry because he was isolated even though the doctor had explained it well, but he still didn't want to accept it and continued to be angry... When MERS-CoV was like this, ma'am, it felt like trauma, ma'am, why did the patient act like that even though it had been explained."* (I 6 MF, female, team leader)

*"Most of the time, the problem with the doctor is difficult to deal with... For example, it's a bit difficult for us to contact the doctor... we've waited a long time, ma'am, who has the patient. Who determines that COVID-19 is mild, moderate, or severe, ma'am, while we are required to quickly make reports. So, there is no determination, it will be hampered, examination of the patient is difficult. I feel sorry for the patient's stress."* (I 9, DAS, female, Team leader)

*"Complaints are sometimes with the mortuary staff, sometimes they claim to pick them up but don't pick them up. The nurse is outside the patient's room, no longer wearing a hazmat, just picked her up."* (I 12, ER, female, nurse)

*"Because I was called a nurse for a Covid patient, don't tell me to go home, don't tell me this, don't tell me that, don't tell me to go anywhere. Since covid, I have never come to events in the village...maybe because people have judged me, that's what makes me down, how come I work like this? I'm not excited about it, it hurts so much...can I cry, ma'am... oh my, how come I was so lazy to work at that time."* (I 7, DAT, female, nurse)

### Source of Nurses' Self-Efficacy

Several informants from groups 1 and 2 stated that their confidence in treating Covid-19 patients was obtained from self-study through videos and social media (YouTube), through virtual training held by the hospital, but almost all the informants agreed that the hands-on internship experience at the Nusa Indah Room was far away more useful. From the internship experience, informants can experience self-efficacy and observe seniors treating Covid-19 patients and overcoming problems. Informants from group 3 stated that their experience of treating isolated patients was a very valuable experience in dealing with this pandemic situation, even though the situation was more severe than before. Most respondents from all groups agree that social persuasion from friends and superiors (chairman, head of the room, management) can help solve problems and encourage calm, as in the following quote.

*"I received intensive training, for the ventilator training, I received training in the training for three days..how to put on and take off PPE and through videos, we also shared...I am more sure that the training will go directly to the patient. So, I prefer to go directly to the patient. Yes, it is more useful, we remember the methods better than zoomed in or given material and studied it ourselves."* (I 6, RW, female, team leader)

*"...on the first day of our internship, we observed, on the second day we observed, from observing that I came to know how the isolation work situation is, how infectious diseases and pandemics are..."* (I 4, RN, male, nurse)

*"The role of the superior is to make a decision on a problem, give the policy how the decision will be, for example, if there is a problem, we report to him, if we are from the team, we must be confused about what kind of decision, the boss will give us a solution."* (I 4, RN, male, nurse)

*"For now, we are comfortable supporting each other with friends, with superiors. Support from superiors can make us calmer. Yes, ma'am, for example, when the patient complained earlier, the head of the room came, helped explain to the patient, it made us calmer."* (I3, WS, male, nurse)

### Variables Related to Self-Efficacy

Exploration of variables related to self-efficacy was carried out through in-depth interviews. Found three themes related to nurses' self-efficacy in the Covid-19 Isolation Room, namely personal variables, organizational variables, and external variables (Table 2).

Table 2. Themes, Sub-themes, Codes and Quotations of Interview Results on Nurse Self-Efficacy Variables in the Covid-19 Isolation Room

Theme	Subtheme	Code	Quotation
Personal Variables	Altruism	Intention to help others	<i>"The passion for caring for patients, the motivation and desire to help patients cause us to hold on to..." (I8, RW)</i>
	Self Motivation	Intention to learn, gain knowledge and experience	<i>"...we really want to treat Covid patients, we can learn a lot and experience" (I8, RW)</i>
	Commitment	- Commitment as a nurse	<i>"because that's my job as a nurse, regardless of the patient's condition, we must continue to treat patients as much as possible" (I3, WS)</i>
		- Commitment to make correct data/reports	<i>"...there are many reports on Covid, incentive reports, patient reports, case reports must be accounted for, must be true too" (I12, ER)</i>
Spiritual	Pray, meditation	<i>"Pray ..to feel more secure and calm. I used to be really stressed... it was recommended to meditate just to feel a little calmer" (I4, RN)</i>	
Organizational Variables	Nursing management	- Team management (task and time management)	<i>"Crowded or not crowded, it's depending on us, depends on the team, can we work as a team ..." (I2, DR)</i>
		- Manpower (number of personnel and schedule arrangements)	<i>"If you have a long schedule, you will be more tired, a short schedule will motivate us to work" (I8, RW)</i>
		- Firmness of guidelines/SOPs	<i>"From the first treatment, acceptance, placement, and transfer must be appropriate and clear, especially what kind of patient who dies (I10, KY)</i>
		Training Method	Mentoring
Hospital Facilities		- Quality of PPE	<i>"2 hours of wearing PPE is not comfortable, it depends on the PPE, ma'am, there's the problem with PPE that heats up very quickly, N-95 masks are very small...it becomes tight, weak, mentally down" (I3, WS)</i>
		- Room facilities	
		- PCR swab for officers	
External Variables	External support	- Family support - Rewards	<i>"In the form of motivation and prayer, family support is very important because in any condition they are always there" (I1, DS)</i>

**DISCUSSION**

**Stress and Nurses' Self-Efficacy**

Stressors experienced by nurses in isolation rooms are related to work risks, workload, and relational relationships, both physical and psychological. Relationship problems in the workplace relate to patients, families, and other professions, while relational relationships in society are related to stigma. The stressors experienced are much heavier than before the Covid-19 pandemic. Nurses in the Covid-19 Isolation Room face various stressors in treating Covid-19 patients. Pisanti et al. (2008) stated that the main stressors faced by nurses were related to workload and relational relationships in the workplace. However, this study also found other stressors related to the pandemic situation, namely occupational risks (fear of contracting or transmitting) and relational relationships in society related to stigma. The perceived workload has also increased considerably compared to non-pandemic situations or when compared to previous outbreak situations, both in terms of the number of patients, the severity of the patient's condition, and the duration of the pandemic situation. The relational relationship in the workplace is not only with the patient, the patient's family, or with the doctor but also with the mortuary staff.

Various situations faced by nurses are closely related to self-efficacy because self-efficacy is a factor that is sensitive to psychological stress and fatigue and controls stress and anxiety (Bandura & Locke, 2003; Fida et al., 2016). This is in accordance with the results of studies from Elkazas & Berma (2017) and Molero et al. (2018) that an increase in nurse stress will reduce nurses' self-efficacy. Vice versa, the study of Sconfeld et al. (2016) states that the higher the self-efficacy, the lower the stress level. So, stress and self-efficacy have a reciprocal relationship, so managing the stress of Covid-19 Isolation Room nurses is very important to increase their self-efficacy.

### **The Significance of the Sources of Self-Efficacy**

Sources of self-efficacy play an important role in dealing with stress and increasing confidence in caring for Covid-19 patients. Verbal persuasion from superiors (head of room, installation management) in providing informational and emotional support when staff faces problems can reduce stress and give staff a feeling of calm. Likewise, verbal persuasion from the team leader (shift in charge) and other team members also has an important role because they are the ones who are invited to work together and face various problems. This will minimize doubts and prevent someone from focusing on their own shortcomings to deal with problems (Bandura, 1994). Verbal persuasion by people they respect, for example, by the head of the room, will also increase confidence in job success and increase confidence in overcoming problems (Bandura, 1994, Pisanti et al., 2008), especially if the persuasion is realistic, in accordance with the situation and conditions of the problem being faced.

The experience of self-success (mastery experience) in the past is the most influential thing on self-efficacy (Bandura, 1994, Pisanti et al., 2008). Nurses who are experienced in isolation rooms already have experience caring for infectious patients such as bird flu, MERS-CoV, and Pulmonary Tuberculosis with the same standard of PPE use and already have much experience in avoiding the dangers of contracting disease so they have higher self-confidence to treat Covid-19 patients and face the main stressor felt by nurses, namely the fear of contracting. However, the nurse informant in group 3 also said that the Covid-19 outbreak was much more physically and mentally draining because it occurred in much larger numbers and continuously for a long time. The stressors they face are also more severe and varied, so verbal persuasion from superiors is very important. Nurses in groups 1 and 2 who have had an internship opportunity in the Nusa Indah isolation room, and some who have received training also need feedback from their superiors to increase their confidence. Not all things learned will be put into practice because reinforcement motivation is needed so that mastery of the experience fosters self-efficacy (Zulkosky, 2009).

In an in-depth interview, the informant revealed that prior to opening a new room, the internship experience at the Nusa Indah Room through observing and directly caring for patients was very important in forming confidence in caring for Covid-19 patients. However, after the development of the case, the Mawar Room was designated as the adult Covid-19 intensive room and the Kamboja room as the children's Covid-19 intensive room. The intensive care of Covid-19 patients requires various special tools such as ventilators and HFNC. The experience of internships in the Nusa Indah Room and training in the intensive room outside the Covid room was felt to be not enough to make the informants believe in caring for intensive Covid-19 patients. The staff and head of the Mawar and Kamboja rooms stated that direct assistance by competent intensive nurses directly on Covid-19 patients made staff understand faster, have more confidence and be more courageous in caring for intensive Covid-19 patients. This is in accordance with Bandura's theory that the success of the social model in transferring knowledge, and effective strategy skills to manage environmental demands can only be obtained from a social model that is considered competent (Bandura, 1994).

In general, the experience of self-efficacy and physiological and emotional conditions are internal processes within nurses that are obtained from social learning through internships/training to gain confidence in caring for Covid-19 patients. Vicarious experiences and social persuasion are social learning through role models and verbal support from nurse leaders, which are internalized within nurses to increase their confidence in caring for Covid-19 patients. The sources of self-efficacy that can be interpreted maximally by nurses as well as the opportunities and support provided by the nurse leader together will form confidence.

### **Personal variables**

Altruism is the behavior of helping the welfare of other individuals. Nurses with altruism do not hesitate to help patients and are more sensitive, caring, positive, and cooperative in dealing with conflict (Dewi & Hidayati, 2015). A significant positive relationship exists between self-efficacy and altruism (Febriansyah, 2019).

The self-motivation expressed by the informant was the motivation to seek knowledge and experience caring for Covid-19 patients in a pandemic and learn from every problem, complaint, or new situation. Pratiwi et al. (2021) found that self-regulation learning can minimize stress. This is in accordance with the pandemic situation that nurses are facing for the first time, which requires them to study the clinical aspects and management of Covid-19 patients quickly. Self-motivation is important in guiding behavior to achieve goals (Hassankhani et al., 2015). Motivation and self-efficacy are two important variables in professional learning, self-efficacy is related to one's perception of achieving certain goals, motivation, creativity, and performance (Zulkosky, 2009). Self-efficacy determines motivation, reflected in how much effort and determination to face obstacles. Self-efficacy determines several important aspects of motivation, such as choice of activity, level of effort, consistency, and emotional reaction (Zimmerman, 2000). There is a significant correlation between learning motivation and self-efficacy (Hassankhani et al., 2015). The study of Deviantony et al. (2021) also found the same thing, namely that there was a significant correlation between motivation and self-esteem which became the basis for the formation of self-efficacy. The concepts of self-esteem and self-confidence are related to self-efficacy (Zulkosky, 2009).

Commitment is interpreted as a form of loyalty to the organization, with three related dimensions, namely the emotional connection to the organization, awareness as a member of the organization, and the result of feeling receiving benefits so that there is an obligation to be reciprocated (Abidin et al, 2016). In in-depth interviews, the informant stated that providing the best service to patients is a commitment because of the emotional connection and high awareness as a nurse. Informants are also committed to making patient reports, and incentive reports correctly and can be accounted for as a form of obligation after receiving rewards and incentives from hospitals and the government. Self-efficacy is positively related to the organization's commitment (Abidin et al., 2016).

A good level of spirituality is indicated by spiritual activities such as praying, and meditation as a form of closeness to God which is done repeatedly. Spiritual activities also affect the way a person deals with problems in a positive way by viewing them as learning. Studies show a positive relationship between spirituality and self-efficacy (Astuti, 2017). The researchers believe that the personal variable is the dominant and fundamental variable in shaping the nurse's self-efficacy. Altruism, self-motivation, commitment, and spiritual values have been formed since before the pandemic.

### **Organizational Variables**

Self-efficacy is a mediator between structural empowerment and professional nursing practice, which includes access to growth opportunities to increase knowledge and skills, resources (facilities, time), information (organizational decisions and policies), and support like feedback and guidance (Manojlovich, 2005). Nursing leadership at the unit and organizational levels play an important role in structural empowerment by controlling information, providing, or withdrawing much-needed support, allowing access to resources, and providing opportunities for advancement.

Nursing leadership and nursing management are inseparable because in practice a nursing manager such as a team head or room head must have leadership qualities in carrying out managerial functions. Nursing managers have informational roles (representing staff and organizations), interpersonal (networking, conflict resolution) and decisional roles such as staff allocation and evaluation (Whitehead et al, 2010). This is in line with the informant's statement that team management, timing and task management and the success of team members in implementing The task and dealing with problems in the task depend on the nurse leader in the team (team leader), the head of the room as well as the policy of the nursing leadership at the hospital level. The nursing leadership also contributes greatly to the policy of managing personnel and the appropriate pattern of service schedules to be applied in the Covid-19 Isolation Room.

The training method with assistance by competent nurses, especially in mastering certain skills such as patient care with a ventilator or High Flow Nasal Canule (HFNC) is indispensable in the Covid-19 outbreak situation. The principle of this training is similar to the mentoring method, namely the learning relationship by sharing the professional expertise of an intense partner, i.e., someone who is more skilled and experienced, to someone who is less experienced (Dermawan in Ariefyanto, 2013). The aim is to improve the ability of less experienced people to form character toughness and stimulate the achievement of natural science competence (Lowenstein & Bradshaw in Ariefyanto, 2013). The informant said this method makes it faster, progress faster, bolder, and more confident in handling patients compared to virtual method training or training out of the isolation room. With this method, nurses experience for themselves and discover the phenomenon of nursing practice where it is expected to build self-confidence, self-esteem, and self-awareness, which are fundamental in problem-solving (Nurachmach in Ariefyanto, 2013). Self-efficacy is formed from self-confidence and self-esteem (Zulkosky, 2009), so mentoring can increase nurses' self-efficacy.

The informant felt the quality of PPE, in terms of size, material comfort, and installation method affects physical and emotional conditions when treating Covid-19 patients. The quality of PPE affects the long endurance of wearing PPE, which affects the quality of service to patients. Poor quality of PPE makes you tired faster, shortness of breath quickly, gets hot and stuffy faster, and underwear gets wet quickly, so you want to open PPE quickly.

Other facilities that can increase confidence in treating Covid-19 patients are standardized treatment room facilities, namely negative pressure rooms, so that they can provide a feeling of security while on duty. PCR swabs carried out routinely for isolation room nurses are a form of health insurance that has been given as a form of attention by hospitals to increase nurses' self-efficacy. Researchers argue that organizational variables are very important in accelerating self-efficacy in situations full of change in the pandemic era.

### **External variables**

External variables consist of one sub-theme: external support (family support & rewards). Family support is the family's attitude, action, and acceptance toward the work and responsibilities of nurses and their readiness to provide help when needed (Fismasari & Edwina, 2013). Informants stated that family support was in the form of prayer, motivation, and family acceptance of the situations and conditions that occurred due to nurses working in the Isolation Room. Family support in the form of emotional support (expressions of empathy, concern, and concern) can reduce the burden of feelings/stress and cause feelings of happiness so that it does not dissolve in a sad atmosphere and fosters new enthusiasm (Fismasari & Edwina, 2013).

Rewards given can increase self-efficacy. Offering rewards will increase motivation and task performance and instill self-efficacy to work well (Schunk, 1984). Informants stated that the incentives received in the form of money were a form of government attention to the risks faced by the Covid-19 Isolation Room nurses so that they could increase their enthusiasm for duty. Informants also stated that rewards in verbal words, such as an appreciation for the results of the efforts made in treating patients, were very important. Researchers argue that external variables are supporting factors that make self-efficacy can be maintained at a high level.

### Research Implication

Self-efficacy has an essential role in epidemic situations such as Covid-19. With the discovery of other variables such as personal, organizational, and external, in addition to the four sources of self-efficacy, Bandura will provide input for hospitals to make strategies to improve nurse self-efficacy. This will greatly benefit nurses in maintaining physical and mental health and increase resilience, job satisfaction, work performance, and professional practice behavior. At the organizational level, this will form collective efficacy, and customer satisfaction, improve service quality, and improve the hospital's image.

## CONCLUSION

The conclusion of this research is the mastery experience as well as physiological and emotional conditions are internal processes within nurses that are obtained through internships/ training and responding to work environment conditions. Vicarious experiences and social persuasion are social learning through role models and verbal support from nurse leaders which are internalized within nurses to increase their self-efficacy in caring for Covid-19 patients. The sources of self-efficacy that can be interpreted maximally by nurses as well as the opportunities and support provided by the nurse leader together will form high self-efficacy in treating Covid-19 patients. Personal variables that have grown in nurses such as altruism, self-motivation, commitment, and spiritual are the dominant and fundamental factors affecting the self-efficacy of the informants. It's accelerated by organizational variables and supported by external variables are variables that shape the self-efficacy of nurses in the Covid-19 Isolation Room.

Based on these conclusions, in order to increase nurse efficacy, it is necessary to utilize self-efficacy sources and increase the meaning of personal variables as well as get support from families and organizations. Nurses are advised to increase self-motivation, commitment, and spirituality. Hospital leaders are advised to support and strengthen the roles of team leaders and room heads, organize personnel, facilitate mentoring, ensure the availability of good quality PPE, facilitate the preparation of operational standards, and provide rewards. Further researchers are advised to research on variables related to self-efficacy.

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