BKM Public Health & Community Medicine
(Berita Kedokteran Masyarakat)

Volume 38 **Number** 8, 2022
Pages 279-290
DOI: 10.22146/bkm.v38i8.4996

Medical personnels' well-being and policy adaptations in hospitals during COVID-19 pandemic

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Submitted:
July 5th, 2022
Accepted:
August 15th, 2022
Published:
August 27th, 2022

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Abstract

Purpose: To explore many forms of adaptations and alterations that occur in the COVID-19 referral hospitals in Jakarta through the course of the COVID-19 pandemic as a preparation to deal with another pandemic in the future. **Method:** A qualitative study through focus group discussions (FGD) of seven hospitals in Jakarta, including five public and two private hospitals, with participation of each structural and medical personnel separately. The discussion identified four main topics that cover the aim of the study: (a) Medical personnel workload; (b) Occupational health and comfort; (c) Relationships; (d) Hospital policy during the COVID-19 pandemic. **Results:** This study was participated by 40 informants from the medical personnel group and 37 responders from the structural group from various positions in the hospital. Researchers estimated several factors to contribute to medical personnel's well-being in providing health services during the pandemic of COVID-19. Rising workloads, an increased number of patients and types of procedures, and the unavailability and discomforts from suitable PPE with a lack of IPC socialization influence a decline in their well-being and increase the risk of counterproductive work behavior. Moreover, conflicts among personnel and poor communication also deteriorate well-being. Nevertheless, several hospital policy adaptations, namely incentives provision, regular mental-health check-ups, no salary reduction for COVID-19-positive workers, and supportive attitudes towards each other in the workplace, may enhance their well-being. **Conclusion:** Increased workloads, problems in PPE availability, and conflict among personnel are the main contributing factors that need to be addressed to increase medical personnel's well-being during the pandemic, while several hospital policy adaptations have been known to support their well-being.

Keywords: COVID-19; pandemic; health workers; policy adaptation

INTRODUCTION

The COVID-19 pandemic was a difficult challenge for the world, including Indonesia. Since the first positive case in March 2020, the number of positive COVID-19 patients has kept increasing [1]. This burdens the country not only in managing and attempting to contain the transmission, but also health workers as the first-line responders of COVID-19. This event led to an additional burden for health workers in terms of physical and psychological workload, such as increased workload, risk of transmission, and the anxiety of spreading the disease to relatives.

To suppress COVID-19 transmission, health protocols were applied not only to society but also to health workers who directly interact with patients. One of the health protocols was using complete PPE during patient interaction [2]. However, long-term use of PPE might lead to discomfort due to excessive sweating, skin damage, and wounds on the face [3,4]. These conditions may affect the well-being of health workers.

According to the World Health Organization (WHO), well-being refers to physical, psychological, and optimum social conditions that are affected by biological, psychological, and individual social factors [5]. The COVID-19 pandemic might decrease health workers' physical and mental well-being due to stress, anxiety, fatigue, discrimination, and stigma by their environment and society [2,6,7]. Studies have shown that prosperous individuals were more productive than those less prosperous [8]. Therefore, governments should prioritize the well-being of health workers to ensure optimum productivity.

The government has taken several policies to support and increase the well-being of health workers. These policies include incentives, transportation, and housing for health workers interacting with positive COVID-19 patients and attempting to meet the required number of PPE [2]. Each hospital has also adapted procedures and policies to protect health workers. This study explores these adaptations and procedural changes in referral hospitals in Jakarta during COVID-19 pandemic.

METHODS

This study was a cross-sectional qualitative study with a phenomenology method in five public hospitals and two private hospitals in Jakarta, which were COVID-19 referral hospitals. The study participants in each hospital consisted of two groups, health workers and hospital structural groups, selected by purposive sampling. This grouping in each hospital was aimed to avoid bias in answers.

Data collection was conducted from December 3rd – 18th, 2020, with Focus Group Discussion (FGD) via Zoom application for 60-90 minutes in each group. Questions include workload, compensation, communication at the workplace, and occupational health and safety.

All interview processes were recorded by voice and screen with informed consent and verbal agreement from the participant before the interview. This study has been approved by the ethical committee of the Faculty of Medicine and Public Health of UNIKA Atma Jaya of 21/11/KEP-FKIKUAJ/2020.

Data analysis was conducted using the interview record, transcribed verbatim manually by the authors. These processes include repeated transcript reading to understand the meaning conveyed, identification, and paraphrasing in a common language. Formulation and validation were conducted via a discussion of authors, identification and theme organization into clusters and categories, and the formulation of the final theme.

RESULTS

Table 1 shows the characteristics of health workers and structural units involved in this study.

Table 1. Characteristics of the health workers group (n=40) and structural groups (n=37)

Health workers groups (n=40)		**%**
Gender	Male	32.5
	Female	67.5
Position/ Profession	Functional doctor	25.0
	Nurse	27.5
	Laboratory assistant	7.5
	Nutritionist	7.5
	Cleaning service	5.0
	Midwife	12.5
	Pharmacist	10.0
	Radiographer	5.0
Unit	ER	7.5
	ICU/ICCU/NICU	7.5
	Inpatient	42.5
	Outpatient	7.5
	Others	35.0
Structural group (n=37)		**%**
Gender	Male	43.2
	Female	56.8
Position	Head of division	24.3
	Head of unit	48.7
	Directors representatives	27.0
Unit	HR	18.9
	Support services	32.5
	Medical services	13.5
	Nursing field	24.3
	Installation	10.8

Based on the characteristics, healthcare worker FGD participants were primarily women (67.5%) and focused on two professions, functional doctor and nurse. Based on the work unit, inpatient wards, and others, consisting of radiology, nutrition, and cleaning service units, were the predominant work unit of the healthcare FGD group. On the other hand, the structural group was dominated by head unit positions, and more than half of the participants worked in the service sector.

THEMES

This study identified interview results in four main themes: 1) healthcare workers' workload, 2) occupational health and safety, 3) relations between health workers, and 4) hospital policies during the pandemic.

Workload

The workload of health workers increased during the COVID-19 pandemic. This was due to the surge of patients, adaptation to the new health protocols such as layered PPE, and reduced number of health workers due to work transfers or confirmed positives for COVID-19.

> *"Well, recently, we had quite a lot of patients, and even more patients in our condition that were lacking manpower during the surge. . The workload and surge of patients led us to be slightly stressful.." (Health worker, Public Hospital).*

The new procedural actions that must be conducted during the pandemic added more work burden directly, leading to a reduced workforce.

> *"There is more workload compared to before the pandemic, since we had to perform a portable x-ray to the isolation ward, ER, and others, with minimum workers." (Health worker, General Hospital).*

The lack of workers was one of the factors of increased workload during the COVID-19 pandemic in hospitals. Although there were hospitals with volunteer health workers, the lack of competence of volunteers and the strict mentor system led to an increased burden for the senior health workers.

> *". Well, unfortunately, the level of competence we expected was not achieved since we received 'fresh graduates', who do not have any experience; therefore, their contract duration was also short to around three months. In almost one month, we guided and educated them, we educated them to have experiences as the new employee with zero work experience to become experienced; automatically, our strict 'mentorship' method in the first month led to fatigue for our workers." (Managerial, Public Hospital).*

Several hospitals also had policies not to increase the number of workers.

> *"We are hit by the policy from the center which did not allow for additional 'headcount', not allowed for additional workers." (Health worker, Public Hospital).*

Although several hospitals have attempted not to increase work hours to allow health workers proper rest, it could not always be done.

> *"Indeed, some workers had to have increased 'shifts' but should also take care of themselves to avoid fatigue. The challenging issue here is that if we have someone who becomes positive, another one has to be a 'backup', and this 'backup' should be taken care of in order to avoid fatigue and 'prone' to be transmitted. So in these difficult times, there were conditions in which someone's work hours had to be increased, which ideally should not be increased. However, it couldn't be denied, so we have to accept it." (Managerial, medical service, private hospital).*

Increased workload also caused health workers to miss meals, fatigue, and overtime.

> *"However, these workloads and surge of patients led us to be slightly more stressful, we missed our meals, and we could not get home in time." (Health worker, Public Hospital).*

However, there were health workers who stated that they had the same work hours, and the only difference was in the entry schedule and shower queue, which affected the duration of being present in the hospital environment.

> *"We had the same work hours, but increased patients and taking turns led to increased work hours." (Health worker, Public Hospital).*

> *"The work hour is the same, but we had to queue for showers." (Health worker, Public Hospital)*

One participant from the nutrition unit in one hospital stated that their work had become unclear since they had to take over other divisions' tasks outside of their main tasks.

> *"Second, 'jobdesc' (responsibility) tasks became unclear, a nutritionist should be providing nutritional*

care for patients, but we had to 'backup' tasks…" (Health worker, Public Hospital).

These factors might lead to increased stress for the workers and potentially decrease well-being.

Workplace Health and Safety

Infection prevention and control training

Nearly all participants stated that they had socialization and training for wearing PPE, both online and offline.

"As for the program from PPI for socialization, we had a 'Zoom meeting'" (Managerial, Public Hospital).

"We usually have direct socialization, PPI usually has 3 IPCNs. SO, we usually had a direct 'person to person'. " (Managerial, Public Hospital).

In addition, several hospitals have also provided training videos which health workers could access. However, this information had not yet been adequately socialized in the hospital.

"As far as I know, there are several videos of training, but it is maybe difficult for socialization since there are so many health workers in C Public hospital." (Health worker, Public Hospital).

In several hospitals, each head of the unit also participated in emphasizing and reminding workers of health protocols.

"Our head of unit also kept on reminding us to keep physical distance, washing hands.". (Health worker, Public Hospital).

Socialization regarding the use of PPE has also been provided by the hospital staff in units that require PPE.

"For PPE, usually there are pamphlets in units that require PPE." (Health worker, Public Hospital).

Nevertheless, there was one healthcare worker who did not receive PPE training; thus, the worker had to self-taught from the internet.

"Before the pandemic, they did not provide PPE training for us. So, we had to learn by ourselves, we looked up on the internet how to apply PPE. As for training from occupational health & safety, we did not have it." (Health workers, Nurses Private hospital).

Equipment and facilities

Several hospitals were considered quite comfortable, safe, and hygienic based on the available equipment and facilities. However, equipment and facilities in several other hospitals were considered insufficient.

"As for comfort and safety, insyaAllah, it is comfortable and safe, safety was even more strict during this pandemic." (Health worker, Nurse, Public Hospital).

"As for safety, I think it is lacking because the disinfectant spraying schedule in those wards is not well-scheduled. So, we had to call them first. On several occasions, they had no schedule every week. So, if we forgot to call them, then they wouldn't spray our ward. Occasionally after calling, they still did not come." (Health worker, Public Hospital).

The safety system in the hospital has been improved. However, there were still cases of missed positive COVID-19 patients from the surveillance due to delayed swab test results.

"In Non-COVID, we often missed patients who are, in fact, positive for COVID-19. Therefore, after our shift, take, for example, we intubated a patient, the swab result on the next day turned out to be positive." (Health worker, Public Hospital).

The availability of PPE was varied. In several hospitals, PPEs were sufficient, while some hospitals were lacking. Therefore, some workers wore previously used PPEs.

"Our work equipment, PPEs, are in the doctor's room. Alhamdulillah, the PPEs are all complete and proper." (Health worker, Public Hospital).

"Due to the on-site limitation, as for our N95 masks, we could 'reuse' our mask up to 5 times." (Health worker, Private hospital).

The quality of the provided PPEs was vary. One participant stated that the quality kept worsening.

"The PPE masks from the APBD were initially quite nice; however, recently, masks have become slightly uncomfortable, they became thinner. the usual N95 masks which are usually tight are now slightly loose." (Health worker, Public Hospital).

"As of now, PPEs have been provided. There was one time, well although provided, there were standardized and non-standardized PPEs." (Health worker, Public Hospital).

Healthworkers sometimes had to bring their own PPEs and disinfectants since there were none provided or non-standardized.

"moreover, disinfectants, we had to bring our own, and we had to bring a lot." (Health worker, Public Hospital).

On the other hand, the ER in one of the hospitals ws considered unprepared to accommodate changes due to the pandemic; therefore, many health protocols have not yet been implemented properly.

"As for our ER room structure, we think it wasn't prepared for COVID. Therefore, it's like, everything is an 'emergency'. Since it's all an emergency, it is what it is. The place to use and remove hazmat suits is also just as is." (Health worker, Public Hospital).

In addition, several rooms have not yet adjusted the optimal temperature for health workers wearing PPEs.

"The rooms were too rushed to become COVID rooms. For example, when we have already put on PPEs, it really feels hot." (Health worker, Public Hospital).

However, one health worker stated that the temperature adjustment of inpatient wards and ICU have been implemented according to the standard.

"Several inpatient wards have been renovated to become negative-pressure. They were implemented according to the standard, according to the BPI zone, and the negative pressure is also according to the standard. Even for the ICU, before it was on the 3rd floor since there was no negative pressure on the 3rd floor, we moved it to the 11th floor, which already had a negative pressure.". (Health worker, Public Hospital).

The integration between units in one hospital was also considered inefficient, thus delaying the work process.

"The elevator problem, other colleagues should also see that there are 3 but only 1 button, so 1 button is integrated into 3, while the 3 zones are different; one for the patient, one for special PPE in level 2 and above or for employees without PPEs (complete) sometimes we wanted to get it at this time when we wanted to go up to the employee without PPEs (complete). Thus, the integration will then open to level 2, and colleagues from the nutrition and cleaning units will transfer equipment or foods leading to delayed foods." (Health worker, Cleaning Service, Public Hospital).

Comfort at work

Long-term use of PPE causes discomfort for health workers, especially for on-field workers with direct sunlight exposure or with active mobility, causing heat and shortness of breath during activity while wearing PPE. However, using PPE in rooms with air conditioning (AC) is still quite comfortable if there are not many movements. These opinions were stated by the managerial staff of Hospital A.

"Our on-field team, especially when working in an 'open air' area, felt hot, shortness of breath." (Managerial, Medical service, Private Hospital).

"In areas that are not directly exposed to sunlight and areas that maybe the AC is cold and tasks that are not really demanding, it is still comfortable to wear those." (Managerial, Medical service, Private Hospital).

Long-term PPE also causes shortness of breath, headaches, wounds, and dehydration. These factors were exacerbated by the requirement to provide optimal service, which increases stress for health workers.

"It is really uncomfortable. If we wear N95 masks, we could feel light-headed when we go home, so sometimes I open them a bit. Wearing PPEs may cause shortness of breath, wounds, discomfort, and light-headedness. Therefore, it is a bit tiring and more tiring, and the stress level is also increased since wearing PPEs makes us be dehydrated, we can't eat or drink, or urinate, so the first thing is stressful; the second thing is we have to remain in optimal condition in caring for the patients." (Health workers, ER, Public Hospital).

Relationship

Relation between health workers

Based on the result, most participants stated the relationship between health workers during the COVID-19 pandemic, and they helped each other. Several participants also denied seniority and provided support morally or by giving vitamins and injections.

"We supported each other in the ward, we kept each other in high spirits between radiographers, with 'housekeeping', administration, security, well we kept each other in high spirits and helped each other in performing our tasks. We just helped each other." (Health worker, Public Hospital).

"Everything is good with our colleagues, well very good indeed. There is no seniority." (Health worker, Public Hospital).

"Furthermore, several specialist doctors provided vitamin C, injections." (Health worker, Public Hospital).

"There is no seniority here, we work based on our own 'tupoksi', with each of our positions and work as we are meant to be. No one feels superior or senior, or no one feels like they come first, permanent employees or contract, PNS (civil servant) or not, we are all the same level here." (Health worker, Public Hospital).

However, one healthcare worker in one hospital stated that seniority still existed between the old and new employees, especially regarding tasks to help in empty wards.

"It is actually nice here, but seniority still exists here, so especially for new employees, since they are backups, they were usually asked to be backup for empty wards. The new employees are usually asked to back up, while the seniors do not want to back up other floors. We also felt that." (Health worker, Public Hospital).

In addition, one healthcare worker also felt that several seniors were acting like their supervisors, and they liked to command them.

"As for seniors, some are acting like a boss." (Health worker, Public Hospital).

Moreover, social jealousy regarding uneven COVID-19 incentives in one hospital has been reported by health workers during the initial COVID-19 pandemic.

"Initially, there was indeed jealousy ." (Managerial, Public Hospital).

Relationship with supervisors

All participants stated that their relationship with supervisors was quite good, which makes them feel comfortable. Supervisors might play a role in helping and discussing, providing motivation and support, guiding, and making their subordinates feel protected.

"We feel very comfortable with the leadership way, patterns, and points in the HD room. Our supervisor protects us, protects their children." (Health worker, Public Hospital).

"My supervisors and specialist doctors also provided motivational support." (Health worker, Public Hospital).

Our supervisors were also active in providing support and facilitating procedures for health workers exposed to COVID-19. There was no seniority felt by subordinates.

"Our supervisors always reminded us to practice physical distance and wash hands. Special approaches from our supervisors, especially our supervisors, provided prayers and support. When we are exposed, it is really affecting our psychology, and we receive motivation from our supervisors." (Health worker, Public Hospital).

Conflicts and differences in opinion with supervisors might increase stress; however, in general, our supervisors were quite open to discussion and try to solve problems together.

"On-field issues are usually brought to supervisors, oh.. to our head of the unit, supervisor, manager, directors, and we could always find a way." (Managerial, Private Hospital).

"From our staff at the low level, executors, if they find problems, they will report to the head unit. The head unit will report to the SP head or head of the installation. From SP or head of the installation, the problems will be delivered in a forum called 'morning report'." (Health worker, Public Hospital).

Nevertheless, communication via online media was expected to be prone to miscommunication.

"For communication, it is actually quite good. But our communication is even less because, during the pandemic, we more often communicate online. So we should be very clear since there could be mis-communication between supervisors and subordinates when communicating online." (Health worker, Public Hospital).

Our supervisors also have good capabilities in solving problems between workers, for example, regarding jealousy about COVID-19 incentives.

"Initially there is jealousy. But we explained to them regarding the regulations, how we socialize the regulations from the Ministry of Health that we could only give to those who are pure COVID, and they eventually quite understood, and there is no further jealousy." (Managerial, Public Hospital).

However, there was still a supervisor in one hospital who was very slow in responding to problems.

"We had difficulties in 'follow up', because if we report our complaints, the response is often slow." (Health worker, Public Hospital).

Although supervisors were expected to have heard complaints, several subordinates still felt that concrete action in follow-up was still lacking. On the other hand, subordinates felt reluctant to ask for further development of the reported complaint.

> *"Our supervisors always listened to us. but the 'action' only occurs occasionally, we do not know the 'progress'. Because after we tell our complaints, they also sometimes just stay silent. And then suddenly, the news will come out. Therefore, for a 'follow up', we're a bit afraid. We could only wait." (Health worker, Private Hospital).*

In addition, some still felt that their supervisors could not take criticism and input. One healthcare worker stated that he/she expected the supervisor not to vent his/her emotion to his/her subordinates.

> *"it is sometimes unwise, they don't accept input, and they don't sincerely accept criticism. Furthermore, when faced with criticism or input, they are not very sincere as a leader" (Health worker, Public Hospital)*

> *"The vice-head or head of the unit actually had a problem from their home, and they brought it to the hospital. Sometimes they bring their problems, and they become angry during their shift; when they get home, they still get angry in the WA group ." (Health worker, Private Hospital)*

Relation with managerial staff

Several conflicts between health workers and managerial staff include the lack of moral support, managerial decisions that were not in line with the requirements, the lack of follow-up from complaints, and the difference between managerial staff and the chief executive, which confuses procedures.

> *"From the hospital itself, well no, we don't feel moral support or as such." (Health worker, Public Hospital).*

> *"Because when we tell our stories, they are sometimes silent." (Health worker, Private Hospital).*

> *"The vice-head ordered us to stand by inside the patient's ward. While the head of the unit ordered us to avoid long-term contact with patients." (Health worker, Nurse, Private Hospital).*

> *"Sometimes it is in the way of delivering the SOP, sometimes those in the top seats, for example, the management. That's what I need, there should be one word from the management and executives. So, when we are in the field, we can clearly explain the family" (Health worker, Public Hospital).*

Supportive factors that might improve the relationship between managerial staff and health workers included giving attention, motivation, support of morale and material; in addition, an attempt to find out and find a solution to a problem and a quick response to issues encountered by workers.

> *"But alhamdulillah, we have reported to the management to ask for help and we finally get our help from the volunteer team." (Health worker, Public Hospital).*

> *"Sometimes our nurses are burnt out, so the SPV and manager come to him/her and ask about the problem. If necessary, they will give a day off, for example, for a few days. But we asked them what their problems were. Sometimes people are always the way it is until their conditions drop, and there is fear. Then we approached them. We called the healthcare worker in and asked what the problem was. That's what we've been doing." (Managerial, Private Hospital).*

> *"Providing input, strength, motivation. And then providing essential things such as PPEs, vitamins." (Managerial, Private Hospital).*

> *"Additional things as a way of caring for our employees such as vitamins. We got it, and then we no longer got it, and we then got it again." (Managerial, Private Hospital).*

> *"For occupational health and safety to be faster in following up complaints from employees." (Managerial, Private Hospital).*

Hospital Policies During the Pandemic

Incentives and wages

Incentives and additional wages were of interesting things for health workers during the COVID-19 pandemic. Most incentives were obtained from the Indonesian Republic Ministry of Health (KEMENKES RI), provided for health workers in one hospital. The hospital also provided additional wages in the form of additional incentives for work shifts.

> *"We only got it from Kemenkes, and we divided it among 80 people. We have not yet gotten incentives from the hospital, only additional shift incentives."*

Incentives provided by the KEMENKES RI were aimed at all hospital health workers in the COVID-19 or non-COVID-19 units. However, this policy resulted in a

feeling of injustice among workers, especially those working in the COVID-19 unit.

> *"Yes, we got incentives. As for us, the incentives were almost the same. So if someone didn't get it, we tried to collect from those who did, so they got the same one.*
>
> *Incentives are evenly distributed with the total team in the laboratory, not only those who work in the COVID room. However, I think it is not comparable since we directly work, but the incentive is evenly distributed to those who do not handle COVID-19."*

Furthermore, one participant in the healthcare worker group in one hospital complained that the incentives wee not on time, and have not yet been evenly distributed among all health workers.

> *"We have only received incentives for 2 months, and only some people got it.*
>
> *In the delivery ward, midwives have not yet gotten any incentives. We even don't know whether we will get it or not. We are also exposed since we work in the PONEK IGD (ER) and are at risk of being exposed to COVID."*

Program

The Hospital actively socialized and educated the prevention of COVID-19 virus transmission.

> *"since the PPI has educated us that the transmission is from a droplet, we must not touch our eyes, nose, and mouth when our hands are not truly cleaned, or even when dirty we have to wash our hands first; that's what we were always socializing and educating about.". (Managerial, Public Hospital).*

During the pandemic, the hospital adjusted work duration, schedule, and workplace setting. These adjustments were conducted to prevent fatigue and reduce the risk of transmission in employees with comorbid and more day-offs.

> *"The work shift from the Hospital has been adjusted, it is now less shift and prolonged shift so we have more day-offs."*
>
> *"Especially for nurses and doctors. The maximum time of wearing PPE is 6 hours, and adjusting to fatigue, we usually have a maximum time of 4 hours inside the room. Those who already wore PPE would then stand by. For example, if the worker is pregnant or has a comorbid, we then roll her/him to the transitional patients. Therefore, he/she is handling transitioning patients, thus, fewer risks."*

In addition, the hospital also provided training and seminars regarding psychosocial issues such as motivation and stress management for health workers. Nevertheless, several workers felt the training was a burden since it was carried out in the same work or rest schedule.

> *"For the stress coping training, we had a refreshing or rehabilitation during the pandemic program, but it was always clashing with work hours so we sometimes could not attend." (Health worker, ER, Public Hospital).*
>
> *"For the last several months, the hospital conducted motivational seminars, emotional support. But most seminars clashed with our work and rest schedule. Therefore, these supportive things become a burden. Apart from doctors, there were other health workers who participated." (Health worker, ER, Public Hospital).*

On the other hand, health workers also complained that the hospital did not provide psychosocial support, rather, only words of encouragement.

> *"We did not get encouragement from the hospital. As for moral support, we have not yet received moral support… only words of encouragement.*
>
> *Moral support is probably in the form of words of encouragement, as in keep fighting, that's all." (Health worker, Public Hospital).*

However, some hospitals provided additional appreciation, such as a thank you card.

> *"There are some for therapists. There was also moral support from the management, which was a letter from the foundation for us, like a thank you card, which stated thank you for keep working." (Health worker, Private Hospital).*
>
> *"The foundation gave us that, they gave us a thank you card for keep working during the pandemic."*

Facilities

Besides incentives and policy changes, hospitals also tried to provide other material support such as meals and vitamins, pick-up facilities, and routine swab tests.

> *"Yes we received them, vitamins and milk were always provided every day." (Health worker, ER, Public Hospital).*

"We actually got a hotel. So for example, it was mainly for those from outside of Jakarta." (Health worker, ER, Public Hospital).

"Sometimes we periodically had routine swabs from the hospital for those in the red zone." (Health worker, ER, Public Hospital).

However, there were also health workers who stated that the hospital did not provide meals as it was meant to.

"For our night shift, we should have received milk and bread, but we received nothing."

For health workers infected with COVID-19, hospitals have a clear follow-up procedure, such as reporting to occupational health and safety, contact tracking, and confirmation from swab tests.

"If someone is infected, then he/she should report to occupational health and safety. There will be a follow-up, tracing for contacts, and then swab test. The mechanism is clear." (Managerial, Unit Head, Public Hospital).

These facilities were not only for workers but also to cover their families.

"The SOP is clear, should there be a doctor who tested positive, the hospital already has facilities for the family. The hospital has facilities for isolation and surveillance. The mechanism is clear. For the family, there is tracing service from the hospital, especially those who were in close contact with the positive patient.". (Managerial, Head of division, Public Hospital).

Furthermore, the hospital also provided additional facilities such as being active in giving attention by conducting surveillance via *WhatsApp* group, a specialist doctor for a consultation service, medicines, contact tracing, and no cuts for absences due to COVID-19.

"For those who tested positive for the self-isolation, from the HR department, we put a note saying that he/she is in surveillance, so there is no absence cut for their TKD or incentives during their self-isolation. As long as they are not yet tested negative, there is no pay cut. We have a WA group for colleagues who are in isolation; therefore, every morning or every day, we monitor what we have stated before, about general conditions; we monitor our colleagues while also providing vitamins, so we have routine monitoring or routine screening." (Managerial, Unit Head Public Hospital).

"We have a psychiatrist. So they directly consulted that WA group since the specialist doctor is already in the group, so aspects of anxiety can be directly asked, and they are also given medicine sometimes." (Managerial, Unit Head, Public Hospital).

The HR Division of Psychiatry in one Public Hospital was also known to routinely collect information regarding the work environment and the stress of employees once every three months.

"The Psychiatry HR provided questionnaires which could be downloaded from mobile phones, and employees could fill in the questions to determine their stress level during work. We conduct this every three months" (Managerial, Unit Head, Public Hospital).

DISCUSSIONS

Workload

Based on the result, we found an increased workload due to the surge of patients, health protocol adaptation, and new procedural activities. However, these things were not adjusted with a sufficient number of workers. This study was in line with other studies, which stated that there was a shortage of health workers during the pandemic compared to the supply [9]. The insufficient number of health workers might be one of the problems in providing optimal services because of the large number of patients [10]. The lack of health workers has also caused workers to help each other's tasks in other divisions; therefore, their work kept increasing, which drained their energy and mind. This increased workload might affect the work satisfaction of health workers [11]. A study conducted in 2020 found that most depression cases in health workers were caused by a busy work pattern, high risk, and draining energy. This risk was even higher in health workers working on the front line of COVID-19 [12]. Excessive workload might also potentially decrease the quality of workers. Health workers who felt that their workload was light tended to perform better than those who felt their workload was heavy [13].

Work safety and convenience

This study found that there was still uneven information regarding the socialization and training of PPE; therefore, several health workers had to look for information. Studies have found that socialization and training in PPE increased the compliance of health workers in wearing PPE. Meanwhile, uneven training affected compliance in wearing PPE properly [14-16].

In addition, our result also showed that the availability and quality of PPEs varied amongst institutes. This was important for the management to pay attention to since the availability of proper PPEs will increase health workers' compliance with wearing PPEs [17]. The availability of proper PPEs, in terms of the amount and quality, and the proper application might help protect and provide safety for health workers from potentially being infected with COVID-19 [18]. The lack of proper PPEs will increase the risk of viral exposure and transmission to close relatives. This can further increase the psychological burden and reduce the quality of life for health workers [19,20].

Discomfort while wearing PPEs was also in line with a mixed-method study conducted in 2020. The study showed discomfort due to heat and shortness of breath while wearing PPEs. In addition, the more expensive PPEs were known to have hotter materials than the more affordable PPEs [10].

Relation

Our result showed that the relationship between health workers and their supervisors was quite good, although there were some conflicts with their supervisors. Maintaining a good relationship between partners and supervisors was essential in an organization. A study found that interactions between colleagues and supervisors could be a protective factor but also a risk factor for increased well-being. Support and proper cooperation among colleagues were supportive factors toward the well-being of health workers. In contrast, conflicts and tension among health workers worsen their condition [21]. Conflicts between relations in the workplace had a high potential of causing stress and counterproductive performance [22-25]. Other studies have also shown that conflicts between health workers decrease the quality of service and, in the long term, may reduce performance and worsen the organization's image [26]. Conflicts in relation, among colleagues or supervisors are also a cause of burnout in health workers [27-29]. This study also showed various characteristics of supervisors in their capability of mediating or creating conflicts. Supervisors who could mediate conflicts between employees might reduce the stress felt by their employees [30]. In contrast, supervisors who vented their anger to their subordinates with verbal abuse might reduce their subordinates' work satisfaction, performance, and mental health [31,32].

Furthermore, the relationship between health workers and the managerial staff varied. There were workers who felt supported in terms of moral, material, attention, or solutions for their problems. However, there were also workers who did not feel this support and complained that the decisions taken by managerial staff were inappropriate and inapplicable. This was important and should be fixed by managerial staff because trust between employees and managerial staff could reduce the possibility of counterproductive performance. In contrast, employees who could not trust their managerial staff were more likely to engage in counterproductive work behavior [33].

Hospital policies during the pandemic

Our result showed that health workers who were directly involved with COVID-19 patients received additional incentives for their risks. Several other studies also stated that incentives could positively affect health workers' performance and attitude, especially as a stimulus that could motivate them for their increased workload during the pandemic [34]. Another study, in support of our findings, argued that health workers should receive additional incentives for their risks in handling COVID-19 patients. This was based on the pandemic condition, with risks far higher than the normal service condition [35]. In addition, there was also the delayed incentive, as stated by participants. This was inappropriate since the lack of incentives could increase the burden on health workers and increase anxiety due to financial conditions [20].

One of the policies from hospitals in this pandemic situation was no pay cut for health workers who had to undergo treatment should they test positive for COVID-19. This policy increased the well-being of health workers by decreasing their concern regarding their income if they were infected with COVID-19 because of providing health services to patients. Other studies also showed that one of the concerns in this COVID-19 pandemic was the uncertainty of the future regarding the financial aspect, for example, the possibility of pay cuts [20]. Therefore, this policy was expected to provide safety for health workers financially and would not increase personal psychological burdens.

We also found stress-level monitoring for health workers in one hospital. The stress level information could provide an illustration for managerial staff regarding follow-up steps, either to find the cause and reduce stress or to plan a preventive method that may be applied in the future. This was important because untreated and prolonged work-related stress may cause burnout [36]. The performance of health workers with severe work-related stress tends to be worse than those with mild work-related stress [13]. Other studies also showed that severe work-related stress could cause counterproductive work behavior [37].

CONCLUSIONS

In this study, we elaborated four main themes regarding the change and adaptation of health services during the COVID-19 pandemic: workload, work safety, convenience, relation, and hospital policy, which could affect health workers' well-being in the workplace. Our result showed that an increased number of patients, procedures, and the need for adaptation to new routines in health workers might contribute to increased workload, while the lack of socialization and the lack of high-quality PPE may affect work safety and comfort. These things could also reduce well-being and lead to increased counterproductive work behavior. However, moral, emotional, and material support might improve the well-being of health workers by providing incentives, canceling pay cuts for workers who tested positive for COVID-19, and routine stress level monitoring by professionals in the hospital.

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