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*The Work Place Initiative: Health, Safety and Wellbeing
Regarding COVID-19*

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Hotline : +62711580068
Fax : +62711580089

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*The Work Place Initiative: Health, Safety and Wellbeing
Regarding COVID-19*

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EDITOR:

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This proceeding is published by:

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Kampus FKM Unsri Indralaya, Jl. Raya Palembang-

Prabumulih km.32 Indralaya, Ogan Ilir, Sumatera Selatan, 30662

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Fax : +62711580089

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PREVENTION AND CONTROL OF INFECTIONS IN HEALTH PERSONNEL IN FACING THE COVID-19 PANDEMIC IN HEALTH SERVICE FACILITIES OF MUSI RAWAS DISTRICT

Catherine Dwi Augusthi Putri

Pascasarjana Ilmu Kesehatan Masyarakat Universitas Sriwijaya
Jalan Palembang-Prabumulih KM. 32 Indralaya, Ogan Ilir 30662, Sumatera Selatan, Indonesia
Corresponding email: catherineaugusthi2@gmail.com

ABSTRACT

The fight against the Covid-19 epidemic is being led by health personnel. The total number of health personnels that died as a result of Covid-19 in Indonesia was 1,459 as of July 21, 2021. Infection transmission that frequently occurs in the health-care setting demonstrates that health-care professionals are extremely prone to infection and can become a vector of Covid-19 spread. Efforts are needed to prevent and control Covid-19 infection in health services so that health personnel may continue to offer care while also protecting their own safety. The goal of this study was to learn how to prevent and control infection in health care workers during the Covid-19 pandemic. The study employs qualitative research approaches. The selection of informants is done using a purposive sample strategy based on the concepts of appropriateness and sufficiency. Thematic analysis was used to examine the data. Limited resources, Inadequate COVID-19 Screening, hand hygiene, use of personal protective equipment (PPE), environmental hygiene, education, and training all affect infection prevention and control of health professionals during the Covid-19 pandemic, according to research. Discussion: Allocation of additional human resources, especially in the Covid-19 room or utilizing human resources from non-Covid rooms to avoid high workloads, availability of running water, screening of health workers and visitors, hand hygiene and use of personal protective equipment are expected to be in accordance with the action, hospitals surface treatment are carried out routinely, not only if there are confirmed cases, education and training are improved to suppress the spread of Covid-19 among health workers. Implications: Non-Covid-19 health workers and front-line health workers who handle Covid-19 patients should be included. The Muara Beliti Hospital in Musi Rawas Regency was the first to perform this study. The findings of research can be used to inspire many stakeholders to develop intervention initiatives.

Keywords: Health Workers, Infection Prevention and Control, Covid-19

ABSTRAK

Tenaga kesehatan adalah garda terdepan dalam penanganan pandemi Covid-19. Di Indonesia hingga 21 Juli 2021, total tenaga kesehatan yang meninggal dunia akibat Covid-19 mencapai 1.459 jiwa. Penularan infeksi yang sering terjadi di lingkungan pelayanan kesehatan, menunjukkan tenaga kesehatan sangat rentan terhadap risiko infeksi dan dapat menjadi vektor penularan Covid-19. Agar para tenaga kesehatan dapat terus memberikan pelayanan kesehatan dan terlindungi keselamatannya, perlu upaya untuk pencegahan dan pengendalian infeksi Covid-19 di pelayanan kesehatan. Tujuan: Mengetahui pencegahan dan pengendalian infeksi terhadap tenaga kesehatan pada masa pandemi Covid-19 di fasilitas pelayanan kesehatan. Metode: Penelitian ini menggunakan metode penelitian kualitatif. Penentuan informan dilakukan dengan metode purposive sampling dengan prinsip appropriateness dan adequacy. Data dianalisis menggunakan analisa tematik. Hasil: Penelitian menunjukkan bahwa sumber daya yang terbatas, Screening Covid-19 yang Tidak Maksimal, kebersihan tangan, penggunaan APD, Kebersihan lingkungan, pengetahuan dan pelatihan mempengaruhi pencegahan dan pengendalian infeksi terhadap tenaga kesehatan di masa pandemi Covid-19. Pembahasan: Alokasi penambahan SDM khususnya di ruangan Covid-19/ memanfaatkan SDM dari ruangan non-Covid agar menghindari beban kerja yang tinggi, selalu ada air mengalir, screening terhadap tenaga kesehatan dan pengunjung, kebersihan tangan dan penggunaan alat pelindung diri diharapkan sesuai dengan

tindakan, perawatan permukaan rumah sakit dilakukan secara rutin tidak hanya dilakukan apabila ada yang terkonfirmasi, pendidikan dan pelatihan ditingkatkan demi menekan penyebaran Covid-19 antar tenaga kesehatan. Implikasi: melibatkan tenaga kesehatan Non Covid-19 dan tenaga kesehatan garda terdepan yang menangani pasien Covid-19 Penelitian ini pertama kali dilakukan di rumah sakit muara beliti kabupaten musi rawas. Temuan penelitian dapat mendorong berbagai pemangku kepentingan untuk merancang strategi intervensi.

Introduction

Coronavirus Disease 19 (Covid-19) is a respiratory tract infection caused by a new type of corona virus (SARS-CoV-2) and is confirmed to be transmitted from person to person. The first case of Covid-19 in Indonesia was confirmed on March 2, 2020 until April 10, 2020, the Covid-19 virus has spread widely to all 34 provinces of Indonesia(1). One of the most vulnerable places for Covid-19 transmission is on the hospital because it is the place where Covid-19 patients are treated. Hospitals can be a source of infection for health workers, patients and visitors, especially health workers who are on the front line dealing with Covid-19 patients around the world.

Since the identification of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) in December 2019, there have been many reports of infections in health care workers and hospitalized patients in the UK and other countries around the world(2). Several studies have shown that many health workers have been infected with SARSCoV-2 in many hospitals around the world(3). In China, health workers accounted for 3.8% (1,716 cases) of the 44,672 cases of COVID-19 (PCR confirmed) diagnosed up to February 11, 2020(4). A study in Turkey reported that the positive rate of SARS-CoV-2 among doctors, nurses, janitors, and other occupations were 6.3%, 8.0%, 9.1%, and 2.6%, respectively and in Washington, cases were high, about 29.9%(5). Meanwhile in Indonesia, the number of health workers infected and dying from Covid-19 continues to grow. Until July 21, 2021, the total number of health workers who died due to Covid-19 reached 1,459 people, dominated by doctors, nurses and midwives(6).

As an effort to prevent transmission in public places, especially hospitals and to save the economy, the government carried out an initiative known as the adaptation period for new habits/*Adaptasi Kebiasaan Baru* (AKB). At this time, people live side by side with Covid-19, namely people carry out activities as usual but still carry out health protocols to prevent the spread of the virus. Preparations for AKB in the community will also have implications for the potential for transmission which can increase so that health workers, patients and visitors are at high risk of being exposed in the health care environment. In order for medical personnel to continue providing health services and

remain protected and guaranteed for their safety, it is necessary to take measures for the Prevention and Control of Infection (PPI) Covid-19 in health services, especially health workers in hospitals.

Muara Beliti Hospital is a health facility located in Musi Rawas Regency, South Sumatra. Muara Beliti first received Covid-19 patients from May 2020 Hospital and continue to receive Covid-19 patients until today. Hospitals must begin to take steps to continue to treat Covid-19 patients and provide services to general patients at the same time by minimizing the risk of transmission and prioritizing the safety of patients and health workers. Hospitals need to prepare security procedures and stricter policies by following the PPI protocol according to standards to avoid infection to patients, health workers and hospital visitors. Therefore, strict policies and implementation from the hospital are needed in efforts to prevent and control Covid-19 in hospitals. The purpose of this article is to examine the Implementation of Prevention and Control of Covid-19 Infections for health workers in the face of the Covid-19 pandemic at the Musi Rawas District Hospital.

Method

This research was conducted by the researcher herself. The researcher is a postgraduate student from Sriwijaya University and graduated with a Public Health degree from the Faculty of Public Health, Sriwijaya University. The researcher is a female. The researcher can communicate fluently in Indonesian. The Determination of informants in this study was carried out using purposive sampling method. Research respondents are health workers who work at the Muara Beliti Hospital. The researcher developed a close relationship with the respondents during the study. Respondents knew the intention of the study which is to use this data for publication and they agreed to this according to the consent form. During the relationship building process, researchers identify reasons for being interested in this topic and express their assumptions that relevant.

This study uses qualitative research methods and the research design used is a case study. Determination of respondents in this study was conducted using purposive sampling method with the principles of appropriateness and adequacy. Datas obtained in this project were through in-depth interviews. About 35-45 minutes. The number of respondents in the study was 10 people. All respondents accepted and did not reject or withdraw from being a respondent until the end of the study. Datas were collected at the hospital. Only respondents were present during the data collection phase. An important characteristic of the sample is that respondents must have an understanding of the

implementation of hospital policies and have their main duties and obligations that affect to the implementation of hospital policies in efforts to prevent and control Covid-19 infections.

The interview guideline used in the interview has been triangulated with data that aims to avoid subjectivity and could obtained objective interpretation. The re-interview was not carried out, but if something is unclear, it can be asked again via WhatsApp application. Digital audio recorders are used to record all datas or field notes that are also done. The researcher obtained verbal or written consent for inclusion in the study, including consent for publication of this material. The saturation of the datas in this study, namely the samples are achieved when all types of characteristics of the informants have been represented and if the completeness of the entire construct of the research model has been fully represented by the data obtained. Transcripts were not returned to respondents and this was made clear during the initial relationship building exercise.

The narratives of the interviews were transcribed verbatim. Field notes were recorded in Indonesian. Interpretation of the respondent's voice and coding was done manually. Datas obtained from in-depth interviews were analyzed using thematic analysis by collecting all interview recordings, making transcripts, classifying keywords, selecting data by grouping data by category and grouping categories into subthemes and formulating themes. Researcher choose respondents who are expected to be able to provide the information needed to achieve research objectives as research feedback. Excerpts resulting from interviewing respondents were identified in the study. There is consistency between the data presented and the findings. The main themes are clearly presented in the findings and there is no discussion of minor themes.

Results

Sources of research information regarding the analysis of the Implementation of Prevention and Control of Covid-19 Infections at the Musi Rawas District Hospital were obtained from 10 informants. The characteristics of research informants can be seen in the following table:

Table 1. Characteristics of research Informants

No.	Informan Kunci	Job	Gender	Level of Education
1.	Respondent 1 (R1)	Doctor that handle Covid-19 patient	Female	Medical profession
2.	Respondent 2 (R2)	Nurse that handle Covid-19 patient	Female	Associate's degree of Nursing
3.	Respondent 3 (R3)	non Covid-19 Doctor	Female	Magister of MEP FEB
4.	Respondent 4 (R4)	non Covid-19 Nurse	Male	Associate's degree of Nursing
5.	Respondent 5 (R5)	Infection Prevention and Control Committee	Female	Bachelor degree of Dentistry.
6.	Respondent 6 (R6)	Nutritionist	Female	Associate's degree of Nutrition
7.	Respondent 7 (R7)	Laboratory staff	Female	Associate's degree of Health Analyst
8.	Respondent 8 (R8)	Environmental health officer	Female	Associate's degree of environmental health
9.	Respondent 9 (R9)	Laundry attendant	Female	Bachelor degree of Public Health
10.	Respondent 10 (R10)	Cashier	Female	Associate's degree of Nursing

The table above shows that the respondents consisted of 9 (90%) females and 1 (10%) male. With an education level of 1 (10%) informant of the medical profession, 1 informant (10%) magister of MEP FEB, 3 informants (30%) associate's degree of Nursing, 1 (10%) informant bachelor degree of Dentistry, 1 (10%) informant Associate's degree of Nutrition, 1 (10%) informant Associate's degree of Health Analyst, 1 (10%) informant Associate's degree of environmental health and 1 (10%) informant Bachelor degree of Public Health.

Ten health workers were interviewed; 9 (90%) females and 1 (10%) male. Other sociodemographic characteristics of the health workers interviewed indicate the themes identified from the in-depth interviews, namely:

Limited Resources

Based on the results of in-depth interviews with informants, it was found that there was a limited hospital budget and the impact on the workload increased. This is because of the shortage of human resources causes human resources to work concurrently so that the increase in workload causes HR to work longer and not in accordance with the shift scheduled. This can put health workers at a higher risk of being exposed to Covid-19 infection. This is illustrated by the respondents's statement as follows:

'If there are many concurrently, if you are concurrently working like that..' (R5)

'Going home is not in accordance with the hours anymore because there are too many tasks..'
(R2)

Based on the results of interviews related to the availability of soap, tissue and garbage boxes at the hospital, they have been provided. But for facilities, the availability of water supply is irregular and even often shuts down. In fact, irregular water supply also endanger the protection of health workers against COVID-19 infection. This is illustrated by the respondents' statements as follows:

'Hand washing facilities are at the front door and things like hand soap, a tissue box, and a trash box are available there..' (R10)

'We use PDAM... the problem is on holidays and Sundays,it often shuts down...' (R2)

So from the result of the interview, the informant stated that many health workers were working concurrently and went home not according to working hours that was scheduled. And the supporting facilities for hand hygiene are good enough, but the water supply sometimes powerless.

Inadequate COVID-19 Screening

The screening process that is not optimal can be a factor that causing the increase in the number of health workers who have tested positive for Covid-19. When a poor index of suspicion occurs in health workers, so that a patient risk assessment cannot be carried out properly, if screening is not carried out and it turns out that the patient is positive for Covid-19, everyone who is in contact is at high risk of being exposed. Based on the results of interviews conducted, at the hospital there was a patient who came without being screened and when the results of the SWAb antigen came out the patient was confirmed. This can put health workers at high risk of being exposed to Covid-19 infection. This is in accordance with interviews conducted by researchers on respondents as follows:

'It should have been screening from the beginning, right. We know that fever, cough, cold of all kinds, actually there is a checklist... but it doesn't work. The problem is that our security guards sometimes don't stand by, so the patient is referred already in the non-Covid room, then the antigen swab turns out to be positive and then transferred to the isolation room.' (R1)

In addition to screening hospital visitors and incoming patients, screening is also needed for health workers. This is done to prevent transmission in the hospital. However, based on the results of interviews conducted, screening of health workers in hospitals is rarely/even not done.

'for the screening of health workers, it is rarely done..' (R4)

'Now there's no more screening for all health workers..' (R9).

So the result of the interviews stated that in hospital, screening wasn't effective enough for both health workers and visitors. One of the reason that caused this happen is because the security guard does not always stand by in his position.

Mitigation Efforts Done

Mitigation efforts that have been carried out by the hospital are hand hygiene, Using Personal Protective Equipment (PPE) according to the risk of exposure and transmission, Environmental Hygiene and Knowledge Improvement and Training:

Hand hygiene

Based on interviews conducted, health workers carry out hand hygiene in an effort to prevent and control Covid-19 infections. Hand hygiene is the best way to prevent the spread of germs in health and community services. Hand hygiene is also required when using and especially when removing PPE. Hand hygiene has been carried out by all health workers in health facilities. Respondents know and comply with hand hygiene practices. Respondents performed hand hygiene in running water and used soap and applied five moment hand hygiene. However, in the reality, although some adhere to and implement hand hygiene practices, there are still many of hospital staffs who forget to clean their hands so that they can increase the risk of transmitting Covid-19. This is evidenced by the statement responden as follows:

'If we go to nurse doctors, inshaAllah, we already know the health protocol... Actually, there are 5-6 stages like that. So before that there were 2, after that there were 3. For non health workers, we are often reminded of all kinds of things.. For example, after screening, patients continue to wash their hands, we remind them..' (R1).

'we clean our hands before we go to the kitchen. Before going to the kitchen, we wash our hands with soap and running water. When we come from the kitchen, we wash our hands again and then we leave.. or if we go to the room early in the morning, before entering the room, we go to the inpatient room.. we must wash our hands first. After all activities, we always wash our hands..' (R6)

So the result of the interviews stated that in the hospital the respondents have had knowledge about hand hygiene practices carried out by five stages of hand washing. Hand hygiene time is carried out according to the action to be carried out.

Using Personal Protective Equipment (PPE) according to the risk of exposure and transmission

Based on the results of interviews conducted, all respondents and human resources at the hospital used masks and additional PPE in accordance with the actions taken. In addition, leaflets were affixed to the changing room walls so that the proper use and removal of PPE was carried out according to the SOP. This is evidenced by the statement responden as follows:

'If they wear all masks, handscones and others depend on what actions they take..' (R3)

'In the room, there is already a way for the standard operating procedures that placed on the wall so that we don't forget quickly about it..' (R2)

'If the patient is in isolation level 3, it has been confirmed, but for example, my ER is level 2. It depends on the level..' (R7)

So the result of the interviews stated that respondents used PPE according to the action and have provided a way of using and removing PPE in the locker room.

Environmental Hygiene

From the results of the interview, the hospital carried out environmental hygiene by cleaning and disinfecting the hospital environment. This is evidenced by the statement responden as follows:

'So, if we treat the room or surface we use chlorine, for the floor we use a chlorine mop and if we wipe it at the door we use spray chlorine and then we wipe it...' (R4)

'We usually wipe the bed with a chlorine solution, we usually take care of it every day with a mop. For spraying, we don't have a schedule, of course, that's only if for example something is confirmed or tested positive..' (R5)

'The use of disinfection depends on the need. For example, after the patient leaves, or when the patient enters. It's depending on the need... like that, it was risky, so we accompanied them when they came out, we sprayed them. it's not routine.. usually we only sprayed it when needed..' (R8)

So the results of the interview stated that the hospital carried out environmental hygiene by cleaning and disinfecting the hospital environment by wiping all surfaces of the room environment and

mopping the floor of the room using chlorine. However, there is no routine schedule for spraying disinfectants in non-isolation rooms and is carried out if there is confirmation.

Knowledge Improvement and Training

Research respondents stated that the hospital increased knowledge through socialization of the Covid-19 Prevention and Control policy at the hospital to all hospital staff. This is in accordance with the informant's statement as follows:

'When the socialization does not involve all the staff, usually the heads of the room will attend, then they will convey it to their members in their respective rooms or usually through WA..' (R3)

'Social media, as said before, has often read it from the Ministry of Health's website, apart from word of mouth, social media is what we usually get information from there. The first one was from WA, Instagram, then the media website..' (R1)

'We were trained, we were gathered and socialized directly in the room.. in one room we were collected for names that had been assigned a decree that this would be placed in an isolation room.. so we were gathered to be trained directly in demonstration practice.. we were trained twice a week..' (R2).

So the results of the interview stated that the hospital increased knowledge through socialization of the Covid-19 Prevention and Control policy at the hospital to all hospital staff which was conveyed directly to the head of the room. In addition, the delivery of information can be via Whatsapp (WA). In addition to increasing knowledge through socialization of the Covid-19 Prevention and Control policy, health workers also add and seek knowledge through social media. Then training was also carried out for hospital human resources, especially those directly handling Covid-19 patients.

Discussion

Limited Resources

In implementing the policy, it must be supported by resources, both human and material resources. The results of the study stated that the limited amount of Hospital budget has an impact on the increase of human resources workload. Then HR has concurrent work so that there is an increase in workload so that HR works longer and does not match the shift schedule. According to Munandar, the workload is the tasks given to the workforce or employees to be completed at a certain time by using the

skills and potential of the workforce itself(7). With the increase in the workload of health workers, support must be given to health workers so that they can carry out their duties properly, such as enforcing appropriate working hours and ensuring health workers get adequate rest time, providing physical security and psychosocial support, monitoring illness, stress and exhaustion of health workers so that health workers are always in perfect condition both physically, mentally and socially, not only free from disease or weakness/disability so that they can carry out their work professionally.

A study conducted in China in which doctors and nurses were interviewed, linked long working hours during the Covid-19 pandemic as a risk factor for infection among healthcare workers (8). This may be due to lack of rest, long-term exposure of health workers to Covid-19 cases and working under pressure so that the increased workload is the cause of the increase in Covid-19 infections among health workers.

In addition, the availability of supporting facilities for hand hygiene such as the availability of soap, tissue and garbage boxes at the hospital has been provided. In addition, the findings in this study indicate that the availability of supporting facilities for hand hygiene such as the availability of soap, tissue and garbage boxes at the hospital has been provided. So that health workers can wash their hands frequently with soap and running water. Prevention of transmission of Covid-19 infection by cleaning hands with water and soap, the level of efficacy of removing bacteria on hands can be different, in this case if only washed with water, only a few bacteria will come out, while soap can remove a lot of bacteria because soap contains special ingredients. which can control bacteria on the hands, in this case there are several active ingredients contained in hand washing soap, namely alcohol, emollient, triclocarban, triclosan, triclocarban, and others(9).

However, irregular water supplies and even frequent shutdowns of water supplies can endanger the protection of health workers against Covid-19 infection. This is because health workers, especially those dealing with Covid-19 patients, must maintain personal hygiene after having direct contact with Covid-19 patients. In addition to washing hands, health workers need water to wash their hands which aims to decontaminate the bodies of health workers from exposure to scattered dirt, bacteria and viruses. So in this study, it shows that if hospital water does not flow consistently, it will cause health workers at the Muara Beliti hospital to have a high chance of being exposed to Covid-19.

Inadequate COVID-19 Screening

Screening is the initial action taken by health workers on patients who come to the hospital. This action determines the next step, whether the patient must be immediately referred to a special Covid-19 referral hospital, needs to undergo initial tests or can be examined in general according to complaints. This procedure is important for the safety of the patient himself and others around them, including the treating medical staff. Dishonesty in giving information will be fatal because it has the potential to spread the corona virus to people who interact with patients, especially doctors and nurses. The screening process that is not optimal can be a factor causing the increase in the number of health workers who have tested positive for Covid-19. When a poor index of suspicion occurs in health workers, patient risk assessment cannot be carried out properly. Generally, Covid-19 screening is carried out on all patients with Covid-19 symptoms who come to health facilities from health centers to hospitals. Because, if there is no screening that is carried out and it turns out that the patient is positive for Covid-19, everyone who is in contact will also be exposed. Screening is carried out on all people who visit the hospital (patients, hospital staff or other hospital visitors)(10).

The results of this study stated that there was no screening of health workers before working in the hospital. This can increase the chances of health workers being exposed to the Covid-19 virus. Protection of HCWs and their families from the acquisition of COVID-19 in hospitals is paramount, and underscored by rising numbers of HCW deaths nationally and internationally(11). Screening allows earlier return to work when individuals or their family members test negative (12). Another major consideration is the protection of vulnerable patients from a potentially infectious workforce, particularly as social distancing is not possible whilst caring for patients. Early identification and isolation of infectious HCWs may help prevent onward transmission to patients and colleagues, and targeted infection prevention and control measures may reduce the risk of healthcare-associated outbreaks. Preliminary data suggests that mass screening and isolation of asymptomatic individuals can be an effective method for halting transmission in community-based settings (13).

Research conducted in Nigeria shows that the unavailability of adequate triage equipment and poor triaging processes are factors causing the increasing number of health workers who have tested positive for Covid-19. The study identified poor point of care risk assessment as a contributing factor to the spread of Covid-19 among healthcare workers. Research shows that a poor index of suspicion, failure to classify all patients as suspected cases and inadequate knowledge of patient triage contribute to

healthcare worker exposure. Undisclosed exposure histories and delays in establishing a diagnosis further complicate the exposure of health workers to Covid-19(14).

Mitigation Efforts Done

Mitigation efforts that have been carried out by the hospital are hand hygiene, Using Personal Protective Equipment (PPE) according to the risk of exposure and transmission, Environmental Hygiene and Knowledge Improvement and Training:

Hand hygiene

Hand hygiene is the state of cleaning hands with soap and water (handwash) or alcohol-based handrub which aims to reduce or prevent the development of microorganisms on hands. WHO introduced the concept of five moment hand hygiene where the best time to do hand hygiene is before touching the patient, before performing aseptic procedures, after contact or exposure to body fluids, after touching the patient and after touching the patient's environment. How to wash hands with soap and water, namely 1) Wet hands with clean running water. 2) Pour 3-5 cc of liquid soap, to lather the entire surface of the hand up to the wrist. 3) Rub both palms evenly. 4) rub the back and between the fingers of the left hand with the right hand and vice versa. 5) Rub the palms together and between the fingers. 6) Inner fingers of both hands interlock. 7) rub the left thumb rotating in the grip of the right hand and vice versa. 8) rub hands by turning the fingertips of the right hand in the palm of the left hand and vice versa. 9) rinse both hands under running water. The length of time it takes is about 40-60 seconds (15). The study was conducted in the Amhara region where more than half of the health workers have good hand washing practices. Respondents who have good hand washing habits are 56 times less likely to contract Covid-19 compared to respondents who have poor hand washing habits (16).

Hand hygiene is the best way to prevent the spread of germs in health and community services. Hand hygiene is also required when using and especially when removing PPE. Hand hygiene has been carried out by all health workers in health facilities. Respondents know and comply with hand hygiene practices. However, in the field, even though some adhere to and implement hand hygiene practices, there are still hospital staff who forget to clean their hands so that they can increase the risk of transmitting Covid-19 even though proper hand washing is a very important step to prevent the transmission and spread of COVID-19 infection. . Hands should be washed with soap and water for about 40-60 seconds; if soap and water are not available, a 62%-71% alcohol-based cleaner is recommended (17).

Using Personal Protective Equipment (PPE) according to the risk of exposure and transmission

Personal Protective Equipment or PPE is any tool that serves to protect the workforce either partially or completely isolate the body from potential hazards in the workplace (18). During the Covid-19 pandemic, PPE is mandatory and very much needed in the prevention and control of Covid-19 to protect staff and patients from exposure to blood, body fluids, secretions and excretions. PPE are consist of gloves, surgical masks or N95 masks, gowns, aprons, eye protection. (goggles), face shield (face shield), protective headgear and foot protection (19).

Based on the findings, all hospital human resources use PPE in accordance with the actions to be taken. This can reduce the chances of health workers being exposed to the Covid-19 virus, in line with a study conducted showing the use of PPE especially the use of N95 masks, could prevent more than 73 clinical respiratory infections per 1000 health workers (20). Previous studies suggested taking appropriate Personal Protective Equipment (PPE) measures during direct contact with patients and performing aerosol-generated procedures until healthcare workers reassure the patient is free of COVID-19 infection, especially in the current pandemic conditions. According to the WHO recommendation, the use of N95 masks shows a protective factor against Covid-19 infection among health workers who perform aerosol procedures. The use of appropriate goggles and face shields significantly protects health workers from infection with COVID-19 (21). This shows that global frontline health workers can contract Covid-19 when carrying out their duties due to a lack of proper use of PPE. From these various studies, researchers concluded that the use of PPE in the implementation of infection prevention and control of health workers during the Covid-19 pandemic is very important, not only using it but also requiring compliance with the use and removal of PPE in order to minimize the occurrence of infection to health workers.

Environmental Hygiene

During the current pandemic, it is recommended to keep the environment clean in order to prevent and control the Covid-19 infection. Environmental cleaning and disinfecting procedures must be followed correctly and consistently. Cleaners need to be educated and protected from COVID-19 infection and cleaners must ensure that environmental surfaces are regularly cleaned and carried out routinely around the hospital environment. Starting with cleaning and disinfecting frequently touched surfaces such as tables, bed frames, and other bedroom furniture, then cleaning and disinfecting bathroom and toilet surfaces at least once a day. Cleaning the environment by wiping the entire surface

of the room environment and mopping the floor of the room using a liquid detergent then cleaning with clean water then using 0.05% chlorine. Viruses can be effectively inactivated by lipid solvents such as ether, 75% ethanol, ethanol, disinfectants containing chlorine, peroxyacetic acid, and chloroform (except chlorhexidine) (21). A previous study revealed that decontamination of the hospital environment plays an important role in reducing infection rates among healthcare workers. Scarcity of environmental decontamination controls and inadequate infection control and precautions can be associated with infection(22).

Based on the findings of the study, it was stated that the hospital carried out environmental hygiene by cleaning and disinfecting the hospital environment by wiping all surfaces of the room environment and mopping the floor of the room using chlorine. However, spraying disinfectants in non-isolation rooms does not have a routine schedule and is carried out only if there is a patient that confirmed to be infected by COVID-19. This can increase the risk of health workers being exposed to Covid-19. Like a previous study revealed that decontamination of the hospital environment plays an important role in reducing infection rates among healthcare workers. Scarcity of environmental decontamination controls and inadequate infection control and precautions can be associated with infection (23).

Knowledge Improvement and Training

Knowledge is the result of knowing and occurs after someone has sensed. Most human knowledge is obtained through the eyes and ears. Many factors affect respondents' knowledge about preventing Covid-19. According to Notoatmodjo, a person's education about health will affect health behavior, this is because education will gain knowledge and will have an impact on efforts to prevent a disease (24). However, according to Sumartini, education does not affect the knowledge, because respondents with good knowledge can obtain information from experience or other people as well as the mass media (25).

The result of the study showed that the hospital increased knowledge through socialization of the Covid-19 Prevention and Control policy in the hospital to all hospital staffs which was conveyed directly by the head of the room. In addition to increasing knowledge through socialization of the Covid-19 Prevention and Control policy, health workers also expand their knowledge through social media. This research is in line with research conducted in the Gamo Zone that good knowledge about Covid-19 has shown a significant relationship to preventive measures taken by health workers during the Covid-19 pandemic where as many as 84.1% of health workers have good knowledge about Covid-19. health

workers know about using hand sanitizers/washing hands continuously with soap and water, covering nose and mouth with a tissue when sneezing or coughing and using masks in crowds. Then respondents also indicated that 59.8% of health workers heard information about Covid-19 from radio and television and 48.4% from social media such as Facebook, Telegram and Instagram (26). This research is similar to the research that the researcher did where respondents increased their knowledge through dissemination from hospital and sought additional information on the main sources of information about Covid-19 through social media such as WhatsApp, Instagram and the website. This study is in line with research conducted in the capital city of Turkey where this study found a positive correlation between knowledge scores and prevention behavior (27). In general, the positive attitude of health workers is the basis for seeking information about the pandemic from various sources. It is a fact that health workers who have knowledge of the pandemic and a positive attitude towards preventive measures are more likely to be put into practice. In general, the positive attitude of health workers is the basis for seeking information about the pandemic from various sources and about agencies to build knowledge and produce behavior change and put it into practice.

In addition, HR received training from the Hospital, especially HR who were in the environment of confirmed Covid-19 patients in an effort to prevent and control Covid-19 infection. One of the most important aspects of an outbreak is the identification of patients who have symptoms and are at high risk of developing the disease. Essentially, such an understanding allows healthcare professionals to identify cases at an early stage to establish appropriate management and minimize the spread of SARS-CoV-2 infection. Therefore, healthcare professionals should be provided with up-to-date training in all aspects of COVID-19, including prevention modalities, modes of transmission, diagnostic strategies, prevention strategies, case management, what to do after exposure, and the chain of command for reporting unusual events to overcoming the pandemic (28). A study in China determined that health workers who were trained on standard precautions were more likely to always adhere to IPCs than health workers who were not trained (29).

The implication of this research is to involve non-Covid-19 health workers and front-line health workers who treat Covid-19 patients and various interventions to improve service quality and stabilize health services. Currently millions of people are infected and died caused of this virus. Therefore, it is necessary to analyze the implementation of the prevention and control of Covid-19 infection in hospitals. This research was first conducted at the Muara Beliti hospital. The findings of this study can encourage various stakeholders and communities to design intervention strategies. The limitation of this

study is that it only conducted interviews at the Muara Beliti hospital. So, the results cannot be generalized. It should also be borne in mind that the outcome of the study depends on the honesty of the participants.

Conclusion

This Research shows that limited resources, inadequate Covid-19 screening, hand hygiene, use of PPE, environmental hygiene, knowledge and training affect infection prevention and control of health workers during the Covid-19 pandemic. Allocation of additional human resources, especially in the Covid-19 room or utilizing human resources from non-Covid rooms to avoid high workloads, availability of running water, screening of health workers and visitors, hand hygiene and use of personal protective equipment are expected to be in accordance with the action, hospitals surface treatment are carried out routinely, not only if there are confirmed cases, education and training are improved to suppress the spread of Covid-19 among health workers.

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