

Evaluation of the Compliance with Health Protocols among the Production Section Workers at a Manufacturing Industry in Surabaya

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ABSTRACT

Introduction: The growth of COVID-19 cases in Indonesia has continued to increase which might have the effect of reducing the productivity levels in the industrial sector. The Ministry of Manpower has called on every company to establish health protocols related to preventing the transmission of COVID-19 in the workplace. The purpose of this study was to describe the compliance with the existing health protocols at PT Albea Rigid Packaging Surabaya. **Methods:** The population in this study was the workers in the production section and the sample was selected using the simple random sampling technique. The variables in this study were physical distancing, hand-washing-with-soap behavior, temperature checking, sunbathing, and the usage of surgical masks, hand sanitizer, gloves, and face shields. The data collection was carried out using an observation form checklist. **Result:** PT Albea Rigid Packaging Surabaya has referenced the letter circulated by the Office of Manpower and Transmigration of East Java Province and Regulation of the Mayor of Surabaya No. 28 of 2020 concerning the Guidelines for the New Normal Order of COVID-19. The health protocols implemented at PT Albea Rigid Packaging Surabaya included the implementation of physical distancing, hand-washing-with-soap behavior, temperature checking, sunbathing, and the usage of surgical masks, hand sanitizer, gloves, and face shields. Health protocol temperature checking already has a 100% compliance rate in all departments but for the sunbathing protocol, the compliance is still at 0% in all departments. **Conclusion:** The compliance of workers in the production section of PT Albea Rigid Packaging Surabaya with the health protocol is still not running optimally.

Keywords: evaluation, health protocol, industry, manufacture

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INTRODUCTION

In early 2020, the World Health Organization (WHO) stated that there was an outbreak of a novel coronavirus disease in Hubei Province, China. On March 11, 2020 (International Labor Organization, 2020), the WHO stated that the novel coronavirus outbreak was now a pandemic of Coronavirus Disease 2019 (COVID-19). It is a new type of disease that has never been previously identified in humans, and the cause of this virus is SARS CoV-2. The coronavirus is a zoonotic disease, which means that it is transmitted between animals and humans. The animal that is the source of the initial transmission of the COVID-19 disease is still unknown (World Health Organization, 2020).

Human-to-human transmission of COVID-19 occurs through nasal and mouth splash when a person infected with COVID-19 is coughing, sneezing, talking, in close contact, or through droplets. The droplets can stick to objects like a table, doorway, and other objects. If someone deliberately or accidentally touches these objects and then touches their eyes, nose or mouth, they can become infected with COVID-19 (Minister of Health, 2020).

Based on data from the Task Force for Handling COVID-19, on August 6, 2020, there were 116,871 confirmed cases and 5,452 cases that ended in death. These cases are dominated by the male sex and those of productive age between 31 - 45 years old. Meanwhile, the distribution of COVID-19 cases in East Java was foremost in the country, with 23,829 confirmed cases and 1,799 deaths.

Quoted from CNN Indonesia on May 10, 2020, the transmission of the coronavirus in East Java experienced a surge in May originating from

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industrial and factory transmission clusters. A total of 75 new cases originated in Surabaya, which were additional cases from the PT HM Sampoerna Tbk and Rungkut Surabaya clusters, as well as the market clusters and church community. If the growth of COVID-19 cases continues to increase, it can reduce productivity. This is because there are still many manufacturing industries that rely on labor in their production processes.

The Minister of Manpower has issued Circular Letter No M/3/HK.04/III/2020 which is addressed to all governors asking the local governments to prevent the disease spread and to promote the better handling of cases related to COVID-19 in the work environment. The East Java Provincial Manpower Office also issued a Circular from the East Java Manpower and Transmigration Office Number 560/97/106.4.2020 concerning Alerting the Spread of the Corona Virus Disease (COVID-19) Pandemic in Companies or the Work Environment.

Based on the circular above, company leaders are encouraged to guide their workers to carry out preventive measures. Among other things, this includes educating their workers about COVID-19 related to the causes, symptoms, transmission, and prevention. In addition to maintaining the cleanliness of the work environment, this includes providing access to handwashing facilities in terms of running water and liquid soap or hand sanitizer in the public work area.

PT Albea Rigid Packaging Surabaya manufactures plastic packaging for cosmetics, stock items, and custom orders for packaging lipsticks, bottles, and jars. In May, the company conducted a rapid COVID-19 test for all of its employees, and it was found that more than 5 workers were declared reactive. Based on the preliminary observation in this study, most workers do not comply with the health protocol. Therefore the company paid special attention to cases of COVID-19, especially in the work environment. The purpose of this study was to analyze the workforce compliance with the health protocols related to COVID-19 at PT Albea Rigid Packaging Surabaya.

METHODS

Based on the type of research and the method of the data collection, this research was an observational research study. This study used a cross-sectional design since the observations were only made at a certain time or period.

This research was conducted at PT Albea Rigid Packaging Surabaya from August to September 2020. The population in this study were the workers in the production section at PT Albea Rigid Packaging Surabaya, totaling 266. The sampling technique used was simple random sampling proportionally according to the size of the department. The determination of the sample size was calculated using the Lemeshow formula with the result of 163 respondents. This research received an ethical certificate from the Universitas Airlangga Faculty of Dental Medicine, and Health Research Ethical Clearance Commission and the number of the ethics certificate is 071/HERCC.FODM/II/2021.

In this study, there were eight compliance variables, namely physical distancing, hand-washing-with-soap behavior, temperature checking, sunbathing, and the usage of surgical masks, hand sanitizer, gloves, and face shields. The variable measuring tool used was an observation form checklist and interviewing the respondents. The respondents were categorized as compliant if they had carried out the health protocol correctly. If the respondent had carried out the health protocol but incorrectly, they were classified as non-compliant. The data analysis was carried out descriptively to determine the level of labor compliance.

RESULTS

Organizational Structure for the Control of COVID-19

PT Albea Rigid Packaging Surabaya has a COVID-19 control organizational structure consisting of a leader, namely the plant manager, the head of the COVID-19 control team, namely the EHS Leader, and the COVID-19 area control team, namely the PIC production area (IMM, EBM, MPC, AD, moldshop, warehouse, and maintenance). This is as well as the office area PIC (PMC, HRGA, sales, quality, NPD, EHS, finance & accounting, CI, and IT). Each control organizational structure has a different task, as follows:

Leader

The task of the leader in the organizational structure for the control of COVID-19 is receiving reports from the Chairman of the COVID-19 Control Team on the development of the current condition, establishing strategic steps so then the

factory operations can continue without any cases of disease transmission, acting as a coordinator with the existing COVID-19 control team, and helping to coordinate with outside parties.

Head of the COVID-19 Control Team

The Head of the COVID-19 control team has the task of relaying any events/developments that occur to the leader, giving tasks to the COVID-19 Control Team for the control program so then there is no transmission in the company area, taking steps to prevent transmission in the workforce, carrying out the strategic steps set by the leader, and providing a decision when in direct control in the field.

COVID-19 Area Control Team

The task of the Covid-19 area control team is ensuring that the program that has been made runs accordingly, including providing information to the workforce about the COVID-19 disease, informing the Head of the Controlling Team if there is a deviation from the predetermined program, and providing constructive advice for the control of COVID-19 in company areas.

Health Emergency Preparedness of COVID-19

PT Albea Rigid Packaging Surabaya classifies the COVID-19 emergency into 4 levels, as follows:

Green Zone

PT Albea Rigid Packaging Surabaya determines health emergencies when the company area is outside of the Green Zone (low risk). The workforce conducts screening before entering the company area. Workers who have a temperature above 38°C are required to fill out a form from Albea Rigid Packaging Surabaya. If the answers to all questions are YES, the workforce will be sent home and recommended for treatment at the hospital. If the results are not suspect, the workforce can come to work wearing an N95 mask. However, if the worker is suspected, the worker is not allowed to work until healed.

Yellow Zone

PT Albea Rigid Packaging Surabaya determines the level of health emergency when the company area is in the Yellow Zone (low risk). The workforce conducts screening before entering the company area. For workers who have a temperature above

38°C, they are required to fill out a form from Albea Rigid Packaging Surabaya. If the answers to all forms are YES, the workforce will be sent home and recommended for treatment at the hospital. If the results are not the suspect, the workforce can come to work wearing an N95 mask. However, if the worker is suspected, the workforce is not allowed to work until healed.

Orange Zone

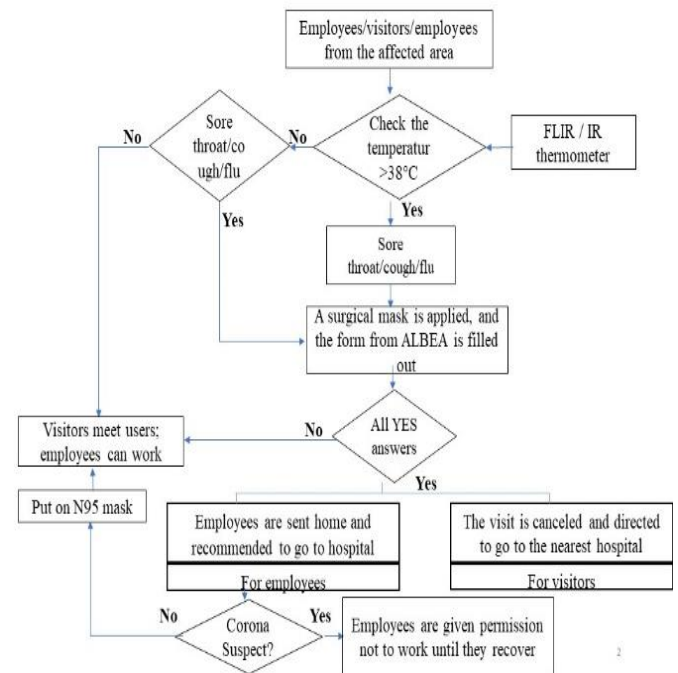


Figure 1. Health Emergency Preparedness of COVID-19 in the Green Zone

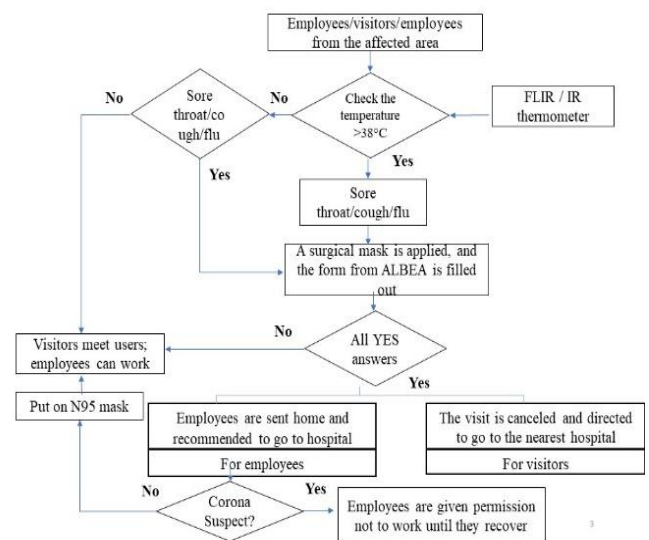


Figure 2. Health Emergency Preparedness of COVID-19 in the Yellow Zone

PT Albea Rigid Packaging Surabaya determines the seriousness of health emergencies when the company area is in the Orange Zone (moderate risk). The workforce conducts screening before entering the company area. For workers who have a temperature above 38°C, the workers are recommended to seek treatment and rest. They get a doctor's note and there is a monitoring of the labor conditions accordingly for at least 3 days or according to the doctor's letter. If the labor condition improves based on the doctor's direction, the labor force enters with the obligation of wearing N95 masks.

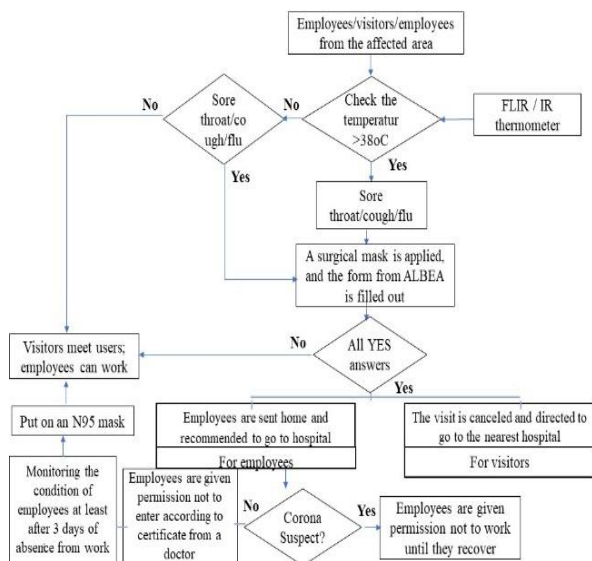


Figure 3. Health Emergency Preparedness of COVID-19 in the Orange Zone

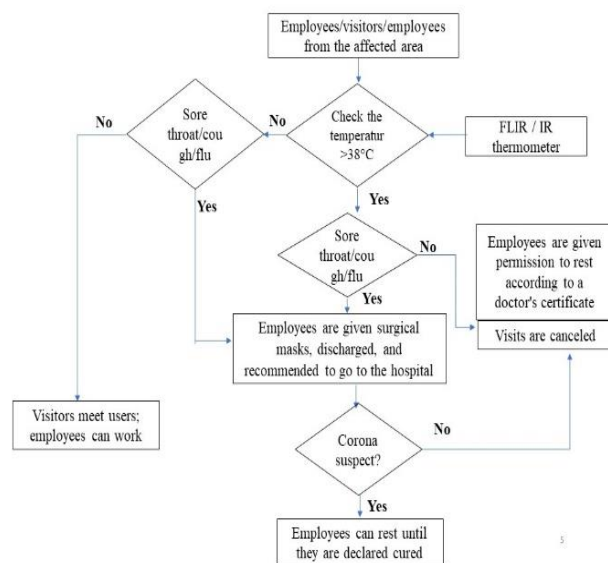


Figure 4. Health Emergency Preparedness of COVID-19 in the Red Zone

Red Zone

PT Albea Rigid Packaging Surabaya is able to determine a health emergency when the company area is in the Red Zone (high risk). The workforce conducts screening before entering the company area. For workers who have a temperature above 38°C, they are required to fill out a form from Albea Rigid Packaging Surabaya. If the worker is infected with strep throat/cough/flu, the worker is referred to the hospital but if the worker does not suffer from strep throat/cough/flu, the worker must rest according to a doctor's letter. If the results of the hospital examination show that the results are suspect COVID, the workforce must rest until it is declared cured.

Health Protocol

The health protocol at PT Albea Rigid Packaging Surabaya was made based on references from the East Java Provincial Manpower and Transmigration Office Circulated Letter and Surabaya Mayor Regulation Number 28 of 2020 for the New COVID-19 Normal Order. The following is the health protocol implemented at PT Albea Rigid Packaging Surabaya:

Reduction in the Number of Workers

For the production process to occur, the minimum workforce required is 50-75% for each department. This depends on the assignment of direct superiors. Meanwhile, other workers will work from home or on temporary leave while still getting the company's full salary.

Internal Control if there is a Workforce with the Status of Patients Under Supervision

The company will trace whoever has been in contact with the workers during the last 7 days after the initial symptoms appeared. Workers who have been in contact are advised to undergo medical tests and self-isolation for 14 days. The factory will shut down for 14 days and spraying disinfectant in all production areas and on all working equipment.

Physical Distancing within the Company Area

The company enforces keeping a distance between workers of a minimum of 1 meter. This is done to prevent transmission. Areas where the distance must be kept are the office area, locker area, prayer room area, meeting rooms, production area,

smoking area, pedestrian area, the waiting area for workers, and lobby area.

Usage of PPE (mask)

The company has made it compulsory for workers to wear masks at work and at prayer times in the mosque. The minimum used mask is a cloth mask. If there are other masks available, it is allowed so long as it does not eliminate its function of preventing viruses/bacteria. However, starting on June 5, 2020, the company requires all workers to wear surgical masks. The EHSF Department will distribute surgical masks every 2 weeks through each department. Each worker has an allowance of 12 masks over 2 weeks.

Usage of Disinfectant

Personal disinfectant

Before entering the company premises, every worker and guest must wash their hands with soap that has been provided near the company entrance. If it is not possible to wash their hands, they must use hand sanitizer.

Disinfectant in the common areas

The implementation of public area disinfectants is to sterilize the areas frequently touched (contact points) by many people where transmission is likely to occur. The implementation of disinfectants in public areas is as follows: disinfecting is carried out at least every shift by cleaning services in the production area. In the office area, spraying is carried out by the workers themselves before each shift. For the floors, mopping is done with a disinfectant. Disinfectants are also used to clean the work tools/areas that can be easily touched by hands, such as handrails, door handles, and light switches.

Implementation of Screening

Screening is mandatory for every worker/guest who enters the company with temperature measurements and anamnesis with a form undertaken. If the screening process results do not pass, the workforce will be rested for 5 days to find out whether the early symptoms occur or not. Guests are not allowed to enter the company area.

Sunbathing in the Morning

Workers on shift 1 (06.00-14.00) are required to sunbathe for 5 - 10 minutes at 10.00 am to kill any viruses/bacteria on the body.

Giving Supplements/Vitamins

Supplements/vitamins are given if necessary due to the increasing incidence of pandemics overall.

Respondent Characteristics

The characteristics of the respondents can be seen from Table 1 showing the frequency distribution of the respondent characteristics as follows. Based on Table 1, most of the respondents are 30 - 50 years old (55.2%), female (78.5%), and come from a high school / vocational education background (79.8%).

Health Protocol Compliance

Department of Material Preparation and Coloring (MPC)

The level of compliance of the respondents who work in the MPC Department regarding the health protocols can be seen in Table 2. Based on observations, it was known that there were still many workers who did not comply with the health protocols at PT Albea Rigid Packaging Surabaya. The physical distancing in the MPC Department was still not going well. Many workers did their work side by side. For example, when coloring, the position of the scales was too close and less than 1 meter apart. In addition, while resting, many of them were still sitting next to each other.

The MPC Department workers also did not engage in sunbathing. They assumed that doing work such as delivering materials to other departments was the same as sunbathing. The use of a face shield

Table 1. Frequency Distribution of Respondent Characteristics at PT Albea Rigid Packaging Surabaya in August 2020

Respondent Characteristic	n	%
Age (years old)		
< 30	59	36.2
30 - 50	90	55.2
>50	14	8.6
Sex		
Male	35	21.5
Female	128	78.5
Educational Background		
Elementary School	1	0.6
Junior High School	22	13.5
Senior/Vocational High School	130	79.8
Diploma III/Bachelor	10	6.10

in the MPC Department was also not been carried out. This was because the workers felt that their vision was unclear and disturbed when using a face shield. As for the use of masks, the workers in the MPC Department used carbon masks but some also still used cloth masks with the excuse that their masks were being washed.

Department of Blow Molding (BM)

The level of compliance of the respondents who work in the BM Department regarding the health protocols can be seen in Table 3. Based on the observations, there are still many workers not complying with the health protocols at PT Albea Rigid Packaging Surabaya. The physical distancing of workers in the BM Department was still not going well. Many workers did their work side by side, for example, when sorting.

Table 2. Frequency Distribution of the Health Protocol Compliance in the Material Preparation and Coloring (MPC) Department

Health Protocol	Compliant		Non-Compliant	
	n	%	n	%
Physical distancing	0	0	12	100
Surgical mask usage	7	58.33	5	41.67
Hand washing	7	58.33	5	41.67
Temperature Checking	12	100	0	0
Sunbathing	0	0	12	100
Hand sanitizer usage	3	25	9	75
Glove usage	1	8.33	11	91.67
Face shield usage	0	0	12	100

Table 3. Frequency Distribution of the Health Protocol Compliance in the Blow Molding (BM) Department

Health Protocol	Compliant		Non-Compliant	
	n	%	n	%
Physical distancing	13	46.42	15	53.58
Surgical mask usage	21	75	7	25
Hand washing	15	53.58	13	46.42
Temperature Checking	28	100	0	0
Sunbathing	0	0	28	100
Hand sanitizer usage	24	85.72	4	14.28
Glove usage	17	60.71	11	39.29
Face shield usage	5	17.86	23	82.14

The BM Department workers also did not engage in sunbathing. Some of the workers complained about the accumulation of suspended tasks when they should engage in sunbathing unless the foreman or another superior ordered them not to. The use of face shields in the BM Department had not been maximized. Some of the workers used a face shield but incorrectly. The face shield they use was only attached to their forehead. This was because the workers felt that they had an unclear range of sight and they found it difficult to focus when using a face shield. Apart from the use of a face shield, the use of gloves for workers in the BM Department was still not optimal. Most workers used gloves on only one of their hands, not both.

Department of Injection Molding (IM)

The level of compliance of the respondents who work in the IM Department regarding health protocols can be seen in Table 4. Most of the IM Department workers complied with physical distancing, surgical masks usage, hand washing, temperature checking, and hand sanitizer usage. However, there were still many who did not comply with the protocol for using gloves and a face shield. Workers who did not comply when using masks did so due to the unsuitable way of using them. The masks that were used were only worn to cover their mouth and not up to their nose due to the stifling heat and shortness of breath. Meanwhile, for the hand washing protocol and physical distancing, most of the workers already understood and complied.

The IM Department workers also did not engage in sunbathing. Some of the workers complained about the accumulation of suspended tasks when they had to engage in sunbathing unless their

Table 4. Frequency Distribution of Health Protocol Compliance in the Injection Molding (IM) Department

Health Protocol	Compliant		Non-Compliant	
	n	%	n	%
Physical distancing	37	77.08	11	22.92
Surgical mask usage	37	77.08	11	22.92
Hand washing	35	72.92	13	27.08
Temperature Checking	48	100	0	0
Sunbathing	0	0	48	100
Hand sanitizer usage	41	85.42	7	14.58
Glove usage	1	2.08	47	97.92
Face shield usage	2	4.17	46	95.83

foreman or superior ordered them to. In addition, some of the workers also said that they usually engaged in sunbathing when they worked on shifts II and III, so then their sunbathing could be done at home.

The use of face shields and gloves in the IM Department was still not being carried out optimally. The workers complained that when using a face shield, their view became blurry and out of focus which distracted them while working. As for the use of gloves, there were some workers who used gloves correctly but also a few who used gloves only on one hand.

Department of Assembling and Decoration 1 (AD-1)

The level of compliance of the respondents who work in the AD-1 Department regarding the health protocols can be seen in Table 5. The results of the observations of the AD-1 Department workers show

Table 5. Frequency Distribution of Health Protocol Compliance in the Assembling and Decoration 1 (AD-1) Department

Health Protocol	Compliant		Non-Compliant	
	n	%	n	%
Physical distancing	26	63.42	15	36.58
Surgical mask usage	29	70.73	12	29.27
Hand washing	19	46.34	22	53.66
Temperature Checking	41	100	0	0
Sunbathing	0	0	41	100
Hand sanitizer usage	21	51.22	20	48.78
Glove usage	10	24.39	31	75.61
Face shield usage	5	12.20	36	87.80

Table 6. Frequency Distribution of the Health Protocol Compliance in the Assembling and Decoration 2 (AD-2) Department

Health Protocol	Compliant		Non-Compliant	
	n	%	n	%
Physical distancing	13	59.10	9	40.90
Surgical mask usage	16	72.72	6	27.28
Hand washing	15	68.18	7	31.82
Temperature Checking	22	100	0	0
Sunbathing	0	0	22	100
Hand sanitizer usage	17	77.72	5	22.73
Glove usage	9	40.90	13	59.10
Face shield usage	9	40.90	13	59.10

that most of the workers had not implemented the hand washing protocol. The workers assumed that so long as their hands had been exposed to soap, it was enough. Compliance with the face shield protocol was still low. This was because, when using a face shield, the view of the workers was blurred. In addition, the use of gloves by the workers in AD-1 was also not at its maximum yet. There were still many workers who used gloves only on one hand and some didn't even wear a single glove. The AD-1 Department workers also did not engage in sunbathing unless the foreman or superior ordered them to do so.

Department Of Assembling and Decoration 2 (AD-2)

The level of compliance of the respondents who work in the AD-2 Department regarding the health protocols can be seen in Table 6. Based on observations, it was known that there were still many workers who did not comply with the health protocols at PT Albea Rigid Packaging Surabaya. The use of face shields in the AD-2 Department was still not going well and many of the workers did not use face shields. Many workers used face shield incorrectly and the face shield that they used was only attached to the forehead. This was because the workers feel that it gives them unclear vision and they find it difficult to focus when using a face shield. In addition, the use of gloves in the AD-2 Department was still not optimal. Most of the workers use a glove only on one hand.

The department of AD-2 workers also do not sunbathe but if there is an order from their supervisor to engage in sunbathing, the workforce will do so. In addition, some of the workers also said that they usually sunbathe when they work on shifts II and III, so then the sunbathing can be done at home.

DISCUSSION

Organizational Structure for the control of COVID-19

PT Albea Rigid Packaging Surabaya possesses a COVID-19 control organization consisting of a leader, the head of the COVID-19 control team, and the COVID-19 control team in the area. The formation of this organization was based on the regulations of the Albea Group Head Quarters in France. In addition, the Decree of Health Minister of Indonesia Decree of Health Minister of Republic

of Indonesia Number HK.01.07/MENKES/328/2020 and the Decree Mayor of Mayor of Surabaya Number 188.45/94/436.1.2/2020 state that efforts are needed to increase the preparedness to face and prevent the spread of the COVID-19 virus.

The establishment of a COVID-19 control organization was used to carry out various tasks, including conducting socialization related to prevention, coordinating with agencies related to prevention and control, and increasing the readiness and ability to prevent, detect, and respond to disease. In addition, the organization is also tasked with increasing the synergy when making operational policies and reporting on the results. The duties of the COVID-19 controlling organization are in accordance with the Circular Letter of the Home Affairs Minister Number 440/5184/SJ concerning the Establishment of the Task Force for Handling Corona Virus Disease 2019 (COVID-19).

The formation and tasks of this organization at PT Albea Rigid Packaging Surabaya were found to be in accordance with the applicable regulations but the socialization related to the existence of this organization was still lacking. It was suggested that an organizational structure for controlling COVID-19 should be installed in several places at PT Albea Rigid Packaging Surabaya.

Health Emergency Preparedness - COVID-19

An emergency is a situation other than normal that has a tendency to grow worse and endanger human safety, property and the environment. The COVID-19 emergency status at PT Albea Rigid Packaging Surabaya was divided into four levels, namely the green zone, yellow zone, orange zone, and red zone. The determination of the emergency was determined by the company while referring to the Health Emergency Preparedness COVID-19 scheme.

Based on the Health Emergency Preparedness COVID-19 scheme, the determination of an emergency at PT Albea Rigid Packaging Surabaya was seen from the results of screening in the company entrance area and the forms filled in. The filling in of the form must be done by everyone who comes to the company, both employees and visitors. This is in accordance with the Decree of Health Minister of Indonesia Decree of Health Minister of Republic of Indonesia Number HK.01.07/MENKES/328/202 concerning Guidelines for the Prevention and Control of Corona Virus Disease 2019 (COVID-19) in Office and Industrial

Workplaces in Supporting Business Continuity in Pandemic Situations. The regulation explains that at the entrance to the workplace, temperature measurements and the self-assessment of COVID-19 risk are carried out to ensure that all personnel who intend to work are not infected with COVID-19.

Respondent Characteristics

PT. Albea Rigid Packaging Surabaya workers were mainly in the age range of 30 - 50 years old. This age is a mature age with the consideration that someone at that age has a good grasping pattern and thinking power, therefore their knowledge can also increase (Maulana, 2007). The results of the research by Riyadi and Larasaty (2021) showed that the age of the respondent can affect their compliance with the application of the health protocols. The higher the age of the respondent, the higher the level of compliance. This is because respondents who have a high level of vulnerability to COVID-19 will always obey and comply with the application of health protocols so as not to be exposed to COVID-19.

The gender of the workers at PT Albea Rigid Packaging Surabaya were female in the majority. Women tend to be more obedient of health protocols than men (Pratiwi *et al.*, 2020). Li (2020) in China revealed that male respondents had a 1.37 times higher risk of engaging in bad behavior related to health protocols compared to female respondents.

The education level of Senior/Vocational High School is the education level of most workers at PT Albea Rigid Packaging Surabaya. Respondents with a higher education level will have a tendency to obey and comply with the implementation of health protocols. This is because the knowledge related to the dangers of COVID-19 and information about its control is better understood (Pratiwi *et al.*, 2020).

Compliance with the Health Protocols by the Material Preparation and Coloring (MPC) Department

Most of the workers in the MPC Department still do not carry out physical distancing. According to the Minister of Health Decree No. HK 01.07/MENKES 328/2020, the physical distancing protocol must be implemented in all work activities. Setting the distance between workers at 1 meter minimum for each work activity includes setting the worktable/workstation up in a particular way, setting the chairs up in the canteen according to the 1 meter spacing, etc. In addition, the main spread of the coronavirus is through respiratory droplets, especially from

infected people coughing and sneezing, therefore it is advisable to maintain physical distance (Hafandi and Ariyanti, 2020). The high rate of non-compliance with the physical distancing protocol is the same as the research conducted by the National Institute of Health Research and Development (2020). It consists of 19,654 respondents; 36.68% admitted that they found it difficult to implement the physical distancing protocol and only 9.31% found it easy to comply with the protocol.

Mayor Regulation No. 28/2020 concerning the New Normal Order Guidelines explains that in the implementation of the new normal order in the COVID-19 pandemic, all workers and visitors are required to wash their hands with soap with running water or hand sanitizer. Compliance with the hand washing by the workers in the MPC Department was still not optimal. Some of the workers still had the perception that so long as their hands were exposed to soap, it was enough. The use of soap when washing hands can make the coronavirus fat membrane dissolve, meaning that the coronavirus becomes inactive (Nakoe, S Lalu and Mohamad, 2020). The worker's compliance with the use of hand sanitizers was still very low whereas the use of hand sanitizer was an effort to prevent the spread of the novel coronavirus (Arman and Morika, 2020).

The use of gloves and face shields in the MPC Department is still not optimal. Workers felt uncomfortable when using a face shields and gloves. There were still some workers who used gloves only on one hand. This increases the possibility of transmitting COVID-19. Technical and administrative control is considered to be more effective at minimizing exposure to SARS CoV-2, for example, through the use of PPE such as gloves and face shields (World Health Organization, 2020). The use of gloves in connection with COVID-19 prevention serves as PPE to avoid exposure to the droplets/viruses on the objects that are touched by ungloved hands. This is as well as avoiding the transmission of the virus from hands to objects touched that can infect other people (Theopilus *et al.*, 2020). In fact, the use of a face shield can withstand exposure to the virus by 68-96% at a distance of 46 cm depending on the droplet diameter (3.4 - 8.5 μm) (Roberge, 2016).

Compliance with the Health Protocols by the Blow Molding (BM) Department

According to the National Center for Immunization and Respiratory Diseases (2021), COVID can spread more easily between people

within a distance of 6 feet, so keeping the distance (physical distancing) between workers over 6 feet or approximately 1.8 meters is highly recommended. The implementation of physical distancing in the BM Department of PT Albea Rigid Packaging Surabaya was still not optimal. There were several workers who had not implemented physical distancing, especially workers in the sorting section. In addition, the workers were conversing while working and this increased the risk of transmitting COVID-19 through droplets. The low level of compliance with the use of a face shield among the BM Department workers increased the risk of spreading the virus. The workers felt uncomfortable when using face shields. The use of a face shield has been proven to be effective at keeping droplets away from the facial area of others. The visor plays an important role in holding back droplets. A good visor has a thickness of at least 0.5 mm and covers the face both vertically (forehead to chin) and horizontally (right ear to left ear) (Theopilus *et al.*, 2020).

Sunbathing can increase the body's immune system. Sunlight as a natural source of vitamin D helps to increase the production of vitamin D in the body. Vitamin D has an immunomodulatory effect that can increase the production of vitamin D in the body, which is used to fight viruses and bacteria. Therefore, it is advisable to sunbathe for 10 - 15 minutes a day (Ika, 2020). However, the implementation of sunbathing had not yet been carried out by workers in the BM Department with the excuse that they were avoiding to stopping their work as it would increase their accumulated workload.

The use of hand sanitizers by the workers in the BM Department was quite good, and most of the workers brought their own hand sanitizer. This was in accordance with the Guidance Returning to Work Centers for Disease Control and Prevention that workers must frequently clean their hands using soap or with a 60% alcohol-based hand sanitizer (National Center for Immunization and Respiratory Diseases, 2021). In addition, the research by Leslie, Zhou and Macinga (2020) suggests the use of alcohol-based hand sanitizers as a preventive measure against COVID-19. The use of 70% alcohol-based hand sanitizer can reduce the transmission of COVID-19 by $> 3 \log 10$.

Compliance with the Health Protocols by the Injection Molding (IM) Department

Most of the IM Department workers had complied with the physical distancing health

protocols as well as those dictating surgical mask usage, hand-washing-with-soap-behavior, temperature checking, and hand sanitizer usage. This is because most of the workers in the IM Department had received training on the implementation of health protocols in the workplace. This is in accordance with the Regulation of the Mayor of Surabaya No. 28 of 2020 concerning the New Normal Order in the Conditions of the Corona Virus Disease 2019 (COVID-19) Pandemic in the City of Surabaya. The regulation explains that the person in charge / employer must obligate the workers to wear a mask, to apply hand washing, to use hand sanitizer, to maintain a minimum 1 meter distance in the workplace, and to do regular temperature checks. The compliance in the IM Department is expected to sustain and be maintained or even increase so as to minimize the risk of COVID-19 transmission in the company.

The use of masks is one of the non-pharmaceutical intervention actions that can be implemented effectively with a minimal costs and without disrupting social practices (T. Li *et al.*, 2020). The results of the work of Leung *et al.*, (2020) explained that out of 10 subjects without masks who were tested, 4 subjects had coronavirus particles on their breath. Meanwhile, the other 10 subjects who wore masks reported that none of them had coronavirus on their breath. Compliance with the use of surgical masks in the IM Department was high enough but some workers were still confused on how to use them properly. The results of Sari, Sholihah and Atiqoh's (2020) research showed that the high number of workers who use masks can be an indicator of the workers' knowledge of COVID-19 prevention efforts.

According to the Decree of the Minister of Health No. HK.01.07 / MENKES / 328/2020, workers are advised to adopt a Clean and Healthy Lifestyle (PHBS) at work by exercising and doing sports together before work and encouraging sunbathing during breaks. However, this was not implemented by the workers in the IM Department because there were no orders from the foreman or their superiors. The adoption of a healthy lifestyle taking into account nutrition, exercise, sleeping hours, smoking habits, and alcohol intake can help to prevent the transmission of COVID-19 (Lange and Nakamura, 2020). In addition, based on the research by Boone *et al* (2020), he recommends increasing the consumption of vitamin C and D, increasing the consumption of healthy foods, exercising regularly,

maintaining sleep patterns, and avoiding stress as some of the ways to prevent COVID-19.

Gul, Htun and Inayat's research (2021), showed that a high body temperature or fever is the most common symptom among COVID-19 patients but the absence of fever does not exclude COVID-19. Therefore, it is important to check body temperature. The highest level of compliance of the workers in the IM Department was the compliance with checking their body temperature. This is because all workers were required to check their temperature when they entered the workplace. This is in accordance with the Regulation of the Mayor of Surabaya No. 28 of 2020 concerning the New Normal Order in the Conditions of the Corona Virus Disease 2019 (COVID-19) Pandemic in the City of Surabaya. Furthermore, in the United States, Europe, and most of the countries that are gradually establishing restrictions to face the COVID-19 pandemic, temperature controls are becoming a daily ritual as a prerequisite for accessing controlled areas and facilities (e.g., commercial malls, airports and train stations, public transport, gyms, churches, hospitals etc.) (Paules, Marston and Fauci, 2020).

Compliance with the Health Protocols by the Assembling and Decoration 1 (AD-1) Department

The implementation of physical distancing in the AD-1 Department was quite good but there were still some workers who had not implemented physical distancing. Several workers chose not to do physical distancing while they talked to other workers. This was still not in accordance with the COVID-19 Guidance for the Manufacturing Industry Workforce (OSHA, 2020a). The OSHA guidelines specify that the minimum distance between workers should be 6 feet (1.8 meters). In addition to physical distancing, the guide also explains the obligations of hand washing, and the use of hand sanitizer. The implementation of the hand washing protocol in the Department of AD-1 was still low. This was due to the misperception of the workers about using soap while washing their hands. This is also not in accordance with the COVID-19 Guidance for the Manufacturing Industry Workforce (OSHA, 2020a).

Based on the research by Li *et al.*, (2020), it was stated that the use of masks can significantly reduce the risk of COVID-19 infection (OR = 0.38). For workers in the health sector, the use of masks can reduce the risk of infection by nearly 70%.

The use of masks in the AD-1 Department was also quite good but there were still workers who did not comply through the improper use of cloth and surgical masks.

The use of a face shield can reduce contamination by 97% within 1 to 30 minutes after coughing where the aerosol has spread throughout the room and larger particles have settled. Here, the use of a face shield can reduce aerosol inhalation by 23% (Lindsey *et al.*, 2014). The use of face shields in the AD-1 Department was still not optimal. The workers felt uncomfortable when using a face shield and gloves. In addition, there were still some workers who used only one glove or who only used a face shield on their forehead. According to WHO (2020), the use of a face shield is considered to be able to minimize exposure to COVID-19.

The greatest compliance of the workers in the Department of AD-1 was to do with temperature checking. This was because all workers were required to check their temperature when entering the workplace. The workers who did not comply with checking their body temperature were not allowed to proceed. The maximum body temperature allowed was 37.5°C. If their temperature was found to be more, that particular worker was required to fill out a health check form and follow the PT Albea Rigid Packaging Surabaya Health Emergency Preparedness procedure. This is in accordance with the Safe Return to Work: Guide for Employers on COVID-19 Prevention (International Labor Organization, 2020) indicating that workers with a temperature of $\geq 37.5^{\circ}\text{C}$ must undergo an investigation and medical examination. If the worker did not meet the OT, ODP, or PDP criteria, they may have to continue working.

Compliance with the Health Protocols in the Assembling and Decoration 2 (AD-2) Department

According to the Minister of Health No. HK 01.07 MENKES 328/2020, the physical distancing protocol must be implemented in all work activities. This included setting the distance between workers at 1 meter minimum for each work activity including setting up the worktable / workstation, setting the chairs up in the canteen, etc. Most of the workforce in the AD-2 Department carried out physical distancing. This was in accordance with the mentioned regulations.

The use of masks in the AD-2 Department was still not in accordance with the health protocols as

the workers had not used the surgical masks in the proper way. Some of the workers still used surgical masks only to cover their mouths due to the use of the mask making the workers feel uncomfortable. According to the Guidance on Preparing Workplace for COVID-19 (OSHA, 2020), the use of surgical masks can reduce the spread of COVID-19 due to the lessening of respiratory secretions. However, if the use of surgical masks is improper, it can reduce its effectiveness. A non-compliant attitude might develop into a habit of always neglecting their health and safety at work (Adrian and Kurwiyah, 2019).

Mayor Regulation No. 28/2020 concerning the New Normal Order Guidelines explains that in the implementation of the new normal order in the COVID-19 pandemic, everyone is required to wash their hands with soap with running water or hand sanitizer. The compliance with hand washing among the workers in the Department of AD-2 was quite good but there were some workers who still had not complied yet. The compliance with the use of hand sanitizer was quite good. The use of gloves and face shield in the AD-2 Department was still not optimal. The workers felt uncomfortable when using face shields and gloves. In fact, there were still some workers who used gloves only on one hand. Face shields can be reused indefinitely as they are easily cleaned with soap and water, or common household disinfectants. They are comfortable to wear, protect the points of viral entry, and reduce the potential for autoinoculation by preventing the wearer from touching their face (Perencevich, Diekema and Edmond, 2020). This could reduce the risk of transmitting COVID-19. Technical and administrative control is considered to be more effective at minimizing the exposure to SARS CoV-2, for example, the use of PPE such as gloves and face shields (World Health Organization, 2020).

The compliance with temperature checking in the Department of AD-2 had been going well. Workers with a $\geq 37.5^{\circ}\text{C}$ body temperature were required to fill out a health check form and to follow the PT Albea Rigid Packaging Surabaya Health Emergency Preparedness procedure. This is in accordance with the Safe Return to Work: Guide for Employers on COVID-19 Prevention (International Labor Organization, 2020) where workers with a temperature of $\geq 37.5^{\circ}\text{C}$ must undergo an investigation and medical examination. If the worker does not meet either the OT, ODP, or PDP criteria, they may continue working.

There is no reward and punishment for compliance with the health protocols at PT Albea Rigid Packaging Surabaya because the regulations from the government do not allow for punishment in relation to implementing health protocols in the workplace. This means that the workers who do not comply with the health protocols will only be given a warning.

CONCLUSION

The compliance of the workers in the production section of PT Albea Rigid Packaging Surabaya with the health protocols is still not optimal. The workers complied with the temperature checking protocol but other health protocols such as physical distancing, the use of surgical masks, hand washing, sunbathing, the use of hand sanitizers, gloves, and face shields still had a low level of compliance.

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