

The Preparedness of Class III Port Health Office workers in Facing Ebola Virus in the Work Area of Ulee Lheue Sea Port, Banda Aceh

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Abstract. Health workers are a group at high risk of transmission of Ebola virus outbreak. Health workers are often infected with Ebola virus during the diagnosis, isolation or service process on the patients suspected of Ebola virus. On December 6th, 2018, Banda Aceh's class III port health office in the Working Area of Ulee Lheue Port carried out an evacuation plan against the Maersk Mutotsu crews with Panama-flagged sailing from Mozambique to Singapore. From the results of the port doctor's examination, the patients were suspected of the Ebola virus. However, due to the lack of personal protective equipment and officers' preparedness, the crews were not evacuated to land. This incident shows that the preparedness of the Banda Aceh's Class III Port Health Office in dealing with Ebola virus disease is still very low. Descriptive analysis of the research data is an analysis of data obtained from the results of a Focus Group Discussion (FGD) with 10 people. The design of this study was a qualitative approach. The populations in this study were Class III Port Health Office workers in the Work Area of Ulee Lheue Port and government institutions as disaster management agencies (cross-sectoral). Based on the results of the research on the preparedness of Banda Aceh's class III port health office in the Working Area of Ulee Lheue Port in dealing with Ebola virus disease, it can be concluded that the Banda Aceh's class III port health office in the Working Area of Ulee Lheue Port has not yet had trained human resources for the preparedness to deal with Ebola virus disease. The Class III of Banda Aceh's port health office has not yet had a Quick Response Team (TGC), they were not trained to handle Ebola cases and has never stimulated the Ebola case.

Keywords: *Tsunami, Evacuation Route, and Building Tree Method*

1 Introduction

Ebola virus is one of the diseases with clinical symptoms of fever accompanied by a lot of bleeding, resulting in deaths of humans and primates (such as monkeys, gorillas, and chimpanzees) with The Fatality Rate Case (CFR) reaching 90% [1]. symptoms of Ebola can be headaches, joint and muscle pain, weakness, diarrhea, vomiting, abdominal pain, lack of appetite, and unusual bleeding [2].

Health workers are a group at high risk of transmission of the Ebola virus outbreak In March 2014, several health workers in West Africa were contracted the Ebola virus [3]. Health workers are often infected with the Ebola virus during the diagnosis, isolation or service process on

patients suspected of Ebola virus. The preparedness in acting and giving a correct response can control the spread of the Ebola virus threat to health workers [4].

On April 9th, 2015, the Class III of Banda Aceh's Health Office in the Working Area of Ulee Lheue Port carried out an evacuation plan against the Maersk Mutotsu crews with Panama-flagged sailing from Mozambique to Singapore. From the results of the port doctor's examination, the patients were suspected of the Ebola virus. However, due to the lack of personal protective equipment and the preparedness of officers, the crews were not evacuated to land. This incident shows that the preparedness of the Banda Aceh's Class III Port Health Office in dealing with Ebola virus disease is still very low[5].

The health sector forms an important part of the preparedness and response to disasters. Regulatory mechanisms and responses require very careful planning, and the vulnerability of a particular country or region, health policies, and regulations regarding disasters, and administrative and technical organizations from health sector institutions must be taken into account. The consideration must also include coordination, mechanisms, development of plans and technical programs, training and research, logistical and financial support. Although health institutions can develop plans and preparedness in facing disasters, each country is expected to have a clear policy regarding disaster prevention and management. Legislation must require health institutions to develop preparedness plans and responses, to ratify the plan as part of the institution's normal activities, to use simulations to test the plan and to determine the source of funds for the development and maintenance of the plan [6].

2 Literature Review

The design of this study was a qualitative approach. The populations in this study were Class III Port Health Office workers in the Work Area of Ulee Lheue Port and government institutions as disaster management agencies (cross-sectoral). The key informants in this study were 4 people representing the Banda Aceh's Class III Port Health Office and each person represent a government institution (cross-sector), namely RSUD dr. Zainoel Abidin, Aceh Provincial Health Office, Immigration Office, Customs Office, BPBA Office, and Syahbandar Office.

This study used primary data and secondary data. Primary data were obtained directly through focus group discussions (FGD) to get an overall picture of preparedness against the Ebola virus at Banda Aceh's Class III Port Health Office and Related Agencies in Working Area of Ulee Lheue Port from the beginning to the end. Secondary data were supporting data obtained from Banda Aceh's Class III Port Health Office in Working Area of Ulee Lheue Port. Data presentation can be done in brief descriptions, charts, relationships between categories, flowcharts and the like. The most frequently used data to present in qualitative research were narrative texts.

3 Result and Discussion

3.1 Preparedness Analysis in Facing Ebola Virus

Descriptive analysis of the research data is an analysis of data obtained from the results of a Focus Group Discussion (FGD) with 10 people. Overall, the informants in this study were people who were authorized or had the information needed in this study. The informants of this study were the head office of the Port Health Office which had full authority in the work program, the Head of PRL in charge of health across sectors, the coordinator of the working

area who had the authority over the coordination unit of work, especially the working area of Ulee Lheue and the port doctor as the executor if there is a case in the field.

Human resources are human groups consisting of humans who have the ability to provide services. The ability in this study is to have sufficient knowledge that is appropriate from the training obtained, field practice through case stimulation and eventually there will be a special team formed namely the Quick Reaction Team (TGC). The Class III Port Health Office employees in Banda Aceh were divided into 2 functional position groups which are 48 Functional Functions (JFU) and 13 Functional Functions (JFT).

To handling Ebola cases, particularly in terms of the efforts to prevent the spread of the virus, it is necessary to check thoroughly, not just limited to the evacuation of patients (who are suspected of Ebola). The educational background that takes an important role in dealing with virus-based cases, especially the Ebola virus, is a medical scholar as an expert in the effort to evacuate patients, nurses as doctor's companion and environmental health as responsible staff in the efforts to prevent transmission of the virus. The level of education of Banda Aceh's Class III Port Health Office employees is shown in Table 1.

Table 1. Distribution Table of Class III Port Health Office employees in Banda Aceh Based on Education

No.	Education	total	Percentage
1.	S2 Public Health	4	6.6
2.	General Medicine	5	8.2
3.	S1 Public Health	24	39.3
4.	S1 Pharmacy	1	1.6
5.	D3 Environmental Health	8	13,1
6.	D3 Nurse	8	13,1
7.	D3 Pharmacy	2	3.3
8.	D3 Health Analyst	1	1.6
9.	D3 Midwifery	1	1.6
10.	D3 Information Management	1	1.6
11.	D3 in Accounting Economics	1	1.6
12.	Health Nursing School (SPK)	1	1.6
13.	Pharmacy Middle School (SMF)	1	1.6
14.	High School (SMA)	3	4.9
	Total	61	100

Table 1 shows that the number of Class III Port Health Office employees in Banda Aceh is mostly undergraduate education in Public Health with 24 people (39.3%), while the number of employees is at least derived from S1 Pharmacy education, D3 Health Analyst, D3 Midwifery, D3 Information Management, D3 Economic Accounting, SPK and SMF respectively of 1 person (1.6%). The number of D3 for Environmental Health and D3 Nursing is 8 people (13.1%), General Physicians as many as 5 people (8.2%), S2 Public Health are 4 people (6.6%), SMA as many as 3 people (4.9%) and 2 people with D3 Pharmacy Education background (3.3%).

Table 2. FGD results About Quick Reaction Team in Dealing with Ebola Virus Disease reviewed from the Formation of the Quick Reaction Team in the Work Area of Ulee Lheue Sea Port in Banda Aceh.

KKP	Statement
Informant 1	"So far, there has been no special team for Ebola disease. However, the Port Health Office has told all its staffs about the vigilance of infectious diseases, and for that reason, training has been carried out on infectious diseases in 2015. "
Informant 2	" Not yet, there has never been a quick reaction team that has been specialized in dealing with virus diseases such as Ebola.
Informant 3	" There has not been a quick reaction team as asked.
Informant 4	" No sir, so far there has been no team formation like you said before"

Based on Table 2, it can be shown that for now, Class III Port Health Office at Ulee Lheue Port does not yet have a special quick reaction team to deal with the Ebola case.

The next question is to examine the extent to which human resources in the Port Health Office at Ulee Lheue Port are prepared to deal with cases of Ebola virus. The results of Focus Group Discussion (FGD) about training on Ebola, can be seen in Table 3 below.

Table 3. Results of FGD on Human Resources in Dealing with Ebola Cases Related to Facing Ebola Virus in Review of Special Training on the Spread of the Ebola Virus in the Working Area of Ulee Lheue Sea Port, Banda Aceh

KKP	Statement
Informant 1	"We did training on infectious diseases in 2015, but it was still general. There has never been a special training in Ebola "
Informant 2	" Not yet, there is no special training in Ebola, it has never existed. But we have participated in training on infectious diseases, but it's been a long time and it's also not specific to how we have to make patient outs from the ship.
Informant 3	" There has never been any special training in Ebola, as far as I remember there was training on infectious diseases but in general.
Informant 4	" I have never received training in Ebola, once there was an infectious disease ...but at that time I was unable to join"

The next question is to examine the efforts to improve the abilities and competencies of health workers in facing Ebola case as outlined in the form of stimulation. The results of Focus Group Discussion (FGD) about the stimulation of the Ebola virus, can be seen in table 4.

Based on Table 4, it can be seen that to the presents, there is stimulation of the handling of Ebola virus cases performed or carried out by Class III Port Health Office employees in the working area of Ulee Lheue Port, Banda Aceh.

Table 4. Results of FGD on Human Resources in Dealing with Ebola Cases Associated with Facing Ebola Virus in Stimulation at the Working Area of Ulee Lheue Sea Port, Banda Aceh.

KKP	Statement
Informant 1	"Until now the Class III KKP Banda Aceh has never carried out Ebola disaster crisis response simulation activities. Stimulation is planned to be carried out in 2018
Informant 2	" There has not been any stimulation this year, indeed I have heard that there will be disaster stimulation this year, but until today there is no one. I also don't know whether the stimulation will be carried out about the Ebola virus ".
Informant 3	" There has never been stimulation about the Ebola virus ".
Informant 4	" To my knowledge, there has never been stimulation about Ebola. This year there has not been any stimulation either.

Based on Table 2-4, it can be concluded that the human resources possessed by Class III Port Health Office employees in the working area of Ulee Lheue Port, Banda Aceh do not yet have resources that are trained to deal with of Ebola cases, as it is seen in the lack of specialized training acquired Ebola, no quick reaction team and lack of stimulation in an effort to increase the capability and competence of health workers, in a case of Ebola.

The effort that can be done to improve employees' performance is through training. Training is an effort to improve the employee's performance on the job. The training aims to help employees master skills in their jobs. The main purpose of the training is to achieve the improvement in knowledge, skills, and attitudes of employees [7]. According to research conducted by Busro [8], training aims to improve human resources(HR) through renewing individual skills, helping to solve operational problems quickly and precisely, providing higher ability to carry out tasks in work so that the results achieved will be maximized and improve the professionalism of employees in doing their jobs.

According to the direction of Ministry of Health through the Directorate Simkarkesma, DG P2PL continues to compose strategy and action plan for the control of alertness and preparedness of potential transmission of infectious disease outbreaks or outbreaks of infectious diseases that are emerging infection diseases (EIDs) such as: H5N1, H7N9, Ebola , Ebola Virus and others. One of the efforts made was to increase the capacity of the Quick Reaction Team (TGC). At the moment, 34 provinces in Indonesia have had TGC consists of officers from surveillance, health service, livestock service, referral hospital officers, laboratory clerks, KKP and BTKL [9].

The results of this study are in accordance with the theory proposed by [10], who said that human security is an issue of health security that has a level of urgency which is as important as the issue of defense and security used as the concept of national defense. The security approach in the health sector emphasizes that health is a public need that can be accessed evenly consisting of 2 fundamental components, namely Empowerment and Protection. Empowerment aims more at the ability of human resources to increase the capacity of both individuals and communities in responding to health. Protection places more emphasis on the pillars of society including preventing, checking and anticipating threats to health. The results of research conducted by Agnew and Snyder [11], discovered that Indonesia already has readiness for the opportunity of entry into Ebola, which can be seen with the support of health facilities,

especially tourist areas. Where the results of Agita's research are not in line with the results of this study.

From the results explanation above, the researchers saw that Class III Port Health Office employees in the working area of Ulee Lheue Port did not yet have human resources who were ready to deal with the situation related to the Ebola virus. This is illustrated from not having the implementation of the formation of a quick reaction team (TGC), which is very important in disease prevention especially Ebola disease. Furthermore, the Port Health Office has not conducted training about facing the Ebola virus, as well as implementing a simulation of the Ebola virus TGC and stimulation have a very important role to play in increasing the capacity, capability, and management of human resources (HR) in the Banda Aceh's Port Health Office in facing Ebola disease . With an increase in the ability of human resources, it is expected that the Port Health Office of Banda Aceh can improve the preparedness of reducing the impact of Ebola epidemics infection risk to the public.

3.2 Facilities and infrastructure

The available four wheels vehicle in Ulee Lheue's area is the 1-unit car. This is still not yet sufficient to face Ebola case considering that ambulance is the main transportation in evacuating patient, and it should isolate or prevent the spread of the virus. The health equipment owned is shown in table 5 below.

Table 5. List of Medical Devices at the Class III Ulee Lheue Port Health Office Banda Aceh

No	Name of Medical Device	Condition		Total
		Good	Broken	
1.	Infra Red Thermometer	3	1	4 units
2.	Tabung O2 (Medium)	4	1	5 tubes
3.	Tabung O2 (Small)	6	1	7 tubes
4.	Wheelchair	5	-	5 units
5.	Stethoscope	6	2	8 units
6.	Minor Set	7	-	7 sets
7.	Tensimeter	6	3	9 units
8.	Trolley Alkes	4	1	5 units
9.	Handsocon	3	-	3 boxes
10.	N95 Mask	10	-	10 boxes
11.	Google Glasses	20	-	20 pieces
12.	Boat shoes	15	-	15 pairs
13.	Wear Pack shirts /APD	20	-	20 pieces

Related to the facilities and infrastructure completeness, researchers prepared 3 things that were submitted on group discussion, first: whether the Class III Ulee Lheue Port Health Office Banda Aceh has room isolation. Results Focus Group Discussion (FGD) could be seen in table 6, as follow.

Table 6. Results of FGD on the availability of Ebola Isolation room in addressing the Ebola Virus Disease at Seaport Work Area in Ulee Lheue, Banda Aceh

KKP	Statement
Informant 1	"The KKP does not yet have a special isolation room to treat patients with infectious diseases, especially Ebola. The room that we have is only a simple medical treatment room. "
Informant 2	" We don't have a special isolation room for infectious diseases such as the Ebola virus "
Informant 3	"It is not yet, there is a medical service room to handle ordinary cases as if there were patients who fainted. There is no completed one yet "
Informant 4	"There is no isolation space with international standards. I think this is also related to this KKP class, meaning that we are still a class III port, so the facilities are not international standard. "

From the results of Focus Group Discussion (FGD), it could be concluded that facilities and infrastructure owned by the Port Health Office are still very minimal and this is very unfortunate, remembering Ebola virus could happen anytime.

Precautions which are necessary to be prepared for anticipating Ebola disease's entry through the port is by preparing health service facilities covering the availability of special room insulation that can be modified fast to help patients with temporary ill (before being referenced to the referral hospital province/appointed). The detection of passages from the contracted country who experienced fever through the use of a thermal scanner at the arrival terminal examination was done directly to the health of the passengers and the crew of the ship by a team of Port Health Office officers [2].

From the results Focus Group Discussion (FGD) above, researchers drawn conclusion that facilities and infrastructure owned by the Port Health Office are still very minim. Lack of means and infrastructure owned by the Port Health Office will make the virus carried by foreigners spread easily particularly Ulee Lheue's Port Health Office. If this happens, then it could have an impact on health, economy, tourism, politics and social culture.

3.3 Coordination

Based on the results of FGD conducted, the Port Health Office has already had good coordination with cross-sector parties, but it is still general while coordination regarding Ebola cases has not been established. This can be seen from 6 institutions, only RSUDZA has had coordination about Ebola plague. The FGD results are shown in Table 7.

The results of Focus Group Discussion (FGD) activities above note that the Port Health Office party has good coordination with a related party. However, coordination about Ebola case has not yet intertwined in a maximum manner. Coordination regarding Ebola virus is only on schedule with RSUDZA parties and Aceh Health Office. Nonetheless, other parties (Immigration, Customs, and Excise) and BPBA) informed that they are ready to help if it is needed.

Table 7. FGD Results About Cross-Sector Coordination in Dealing with Ebola Cases Related to Facing Ebola Virus in the Working Area of Ulee Lheue Sea Port, Banda Aceh

Agency	Statement
KKP	" We have never done Special Coordination regarding Ebola. However, for infectious diseases, we have coordinated with the RSUZA and health office in Aceh."
RSUDZA	" Coordination in the field has already been intertwined a long time between RSUZA party with the KKP. This can be seen from KKP parties that always include us in every time activities, not only in Ebola problem "
Aceh Health Office	" Coordination between service and KKP ha already been established, for example, KKP surveillant visit to the health officials. I think this describes coordination between both sides."
BPBA	"We always coordinate circumstances with the parties concerned. There is none for Ebola problem but for other activities, we coordinate well. "
Immigration	" Immigration always have good coordination, not only to the KKP party but also with another party. We hope in the future we can form special team about certain circumstances such as Ebola. "
customs	" The coordination in the field is always established. But for Ebola problem, it is not available yet. "
Syahbandar	"Coordination about the virus has been done... we made banner and pamphlet for delivering the information around Ulee Lheue. "

3.4 Funding

Class III Port Health Office in Banda Aceh received DIPA budget in 2014 of Rp. 14,191,113,000. The allocation and realization of the budget room and capital expenditures in the DIPA intended for shopping employee, shopping goods and capital expenditure. While the disaster fund budget in especially contagious disease case is not budgeted in big amount. But for the transportation budget and small cases incidents could be realized although it is not yet sufficient for all needs to disaster problem, as for details of DIPA budget can be seen on attachment [12].

As which is known that in every implemented activity need fund allocation, at plague case and virus-like Ebola need adequate funding. For that reason, it is important to further review the funding.

The budget owned by the KKP party is only enough for normal routine operational activities, whereas activities in big scale or special funds are not yet available. Government role is very important especially the Ministry of Health for giving emergency funds supports if this case happens.

The results of Focus Group Discussion (FGD) above reveal that funding is the main point in the implementation of prevention effort especially the prevention of Ebola virus. To have skilled resources (especially in Ebola virus transmission), facilities and infrastructure which are appropriate with international standard (logistics, medical equipment, transportation, fees care, medicine, lodging while the crew of the ship is suspected and others) as well as important stimulation to residents around port need big funds and Port Health Office should have its own budget.

4 Conclusion

Based on the results of the research on the preparedness of Banda Aceh's class III port health office in the Working Area of Ulee Lheue Port in dealing with Ebola virus disease, it can be concluded that the Banda Aceh's class III port health office in the Working Area of Ulee Lheue Port has not yet had trained human resources for the preparedness to deal with Ebola virus disease. The Class III of Banda Aceh's port health office has not yet had a Quick Response Team (TGC), they were not trained to handle Ebola cases and has never stimulated the Ebola case. The Port health office does not yet have adequate facilities and infrastructure to cope with Ebola cases such as special isolation rooms for caring for passengers /crew suffering from infectious diseases, thermal scanner body temperature devices are broken, and there is no ambulance. The Port health office has established good coordination with relevant parties (stakeholders), but the coordination has not yet been established regarding the handling of Ebola cases, especially in the Immigration, Customs, and BPBA agencies. The Port health office still lacks funding for operational anticipation of Ebola disease, the Zainoel Abidin Hospital, and the Aceh Health Office have had unexpected funds.

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