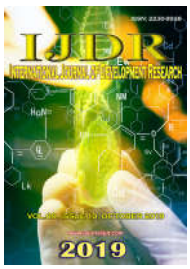
ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 09, Issue, 10, pp. 30646-30651, October, 2019



RESEARCH ARTICLE OPEN ACCESS

ANALYSIS OF FACTORS THAT INFLUENCE MANAGEMENT MEDICAL AND NON-MEDICAL SOLID WASTE IN HOSPITAL DEREFERENCIA DE SUAI, MALIANA AND MAUBISSE, TIMOR LESTE

***Bernardino Armando da Silva**

Universidade da Paz, Timor-Leste

ARTICLE INFO

Article History:
Received 14th July, 2019
Received in revised form
26th August, 2019
Accepted 20th September, 2019
Published online 23rd October, 2019

Key Words:

Management,
Solid Waste.

****Corresponding author:***
Bernardino Armando da Silva

ABSTRACT

Waste is something that is not useful, not used, not liked or something that is discarded that comes from human activities and does not happen by itself. Medical waste is any type of waste that contains infectious material or potentially infectious material (WHO 2004). This definition includes waste generated by health facilities such as doctor's offices, hospitals, dental practices, laboratories, medical research facilities, and veterinary clinics (WHO 2015). Hospital solid waste is all hospital waste in the form of solid as a result of hospital activities consisting of medical solid waste and non-medical solid waste. (MOH Republic of Indonesia Number 1204 / Men Kes / SK / X / 2004. Management of medical and non-medical solid waste in hospitals is needed as an effort to break the chain of the spread of infectious diseases including nosocomial infections. The researchers' observations show that there are still many shortcomings in efforts to manage solid waste in health care facilities, especially hospital dereferencing, starting from the landfill until the eradication process. The purpose of this study was to determine the knowledge and attitudes of cleaning service personnel, availability of facilities and infrastructure, company commitment and policy and regulatory factors towards efforts to manage solid waste at the Hospital de Referencia in Timor Leste by selecting three representatives of the Hospital *Referencia Suai, Maliana and Maubisse*. This type of research is observational analytic quantitative with a cross-sectional study design of 107 samples. The samples were selected by purposive sampling from company employees who manage solid waste in the hospital *reference Suai, Maliana and Maubisse*. Data collection by interview using a questionnaire. Data were analyzed variable from five independent variables to one dependent variable, where data were tested using a prevalence ratio approach with a confidence interval (95% CI). Based on the results of data analysis with a prevalence ratio test at a 95% confidence interval (CI), the results are obtained; knowledge factor value of Prevalence Ratio (PR) = 0.025, attitude value of PR = 0.071, availability of infrastructure with a value of PR = 1.195, company commitment with a value of = 0.653 as well as policy and regulatory factors with a value of Prevalence Ratio = 7.260. The conclusions of the study show that the availability of infrastructure and regulations have a significant influence on the management of solid waste in Suai, Maliana and Maubisse Hospital because of the prevalence ratio value> 1 among the 95% CI confidence interval values.

Citation: ***Bernardino Armando da Silva.*** **2019.** "Analysis of factors that influence management medical and non medical solid waste in hospital dereferencia de suai, maliana and maubisse, timor leste", *International Journal of Development Research*, 09, (10), 30646-30651.

INTRODUCTION

Waste is something that is not useful, not used, not liked or something that is excluded from human activities and does not happen by itself according to (WHO 2004). Classification, gas waste and sound waste. Medical waste is any type of waste that contains infectious material (or material that supports infectious). This definition includes waste generated by health facilities such as doctor's offices, hospitals, dental practices, laboratories, medical research facilities, and veterinary clinics (WHO 2015).

Meanwhile according to the Republic of Indonesia Minister of Health number: 1204 / MENKES / SK / X / 2004 Regarding Hospital Environmental Health Requirements namely; all waste generated from hospitals in liquid, solid and gas forms. High-income countries produce an average of up to 0.5 kg of hazardous waste per hospital bed per day; while low-income countries produce an average of 0.2 kg. However, health service waste often does not become hazardous or non-hazardous waste in low-income countries so the amount of hazardous waste is much higher (WHO, 2018). The results of a WHO assessment conducted in 22 developing countries

showed that the proportion of health facilities using inappropriate expenditure methods from 18% to 64%. The average production of health service waste per bed is 1.8 kilograms per day (minimum: 0.24 kilograms per day and a maximum of 4.29 kilograms per day (WHO, 2004: 1). An initial search of researchers at 3 de Referensia Hospitals found 40 units out of 60 units (66%) of landfill sites that did not comply with the provisions contained in the Republic of Indonesia Minister of Health Decree No. 1204 of 2004. Also sought 18 units out of 45 units (40%) collection points garbage does not require plastic at all. There are 38 units out of 60 units (63%) where infectious waste landfills do not meet the requirements, and 15 units of 30 units (50%) supporting/ transporting rubbish / infectious waste is not covered and leaked. Found 20 units of 30 units (66%) of waste / non-infectious collection points in damaged and ineligible conditions. Medical incinerators from three referral hospitals, two of which do not work or around 70% do not work. Destruction of non-medical waste 80% is not in accordance with the procedures set forth in the Ministry of Health of the Republic of Indonesia Number 1204 / Menkes / SK / X / 2004. The average volume of waste generated from three Referral Hospitals, each between 1.8 to 2 kg per beds per day the overall volume of waste generated per hospital per 50% to 80 kg. The eradication system (Incinerator) is still mixed with medical and non-medical waste, the volume of waste per room per day is not clearly clear, there is also the Hospital de Referensia which began from 2009 until now has a Temporary Garbage Collection Site (TPS). Employees managing waste do not have adequate clothing or personal protective equipment, limited waste management equipment, companies that manage solid waste in Suai Hospital, Maliana and Maubisse have no educational background in the field of Environmental Health. The company's reduced commitment to hospital solid waste management, this has happened to companies that are related to managers or owners of companies that conduct regular supervision. Based on the results of research J.O Babatola. In 2008 in Nigeria in the study of waste making and management practices in Akure, the results of this study indicate that hospital waste management in Nigeria still involves the same as general waste. Only 35% of hospital waste that has been approved according to the procedures set aside also has not been approved and regulated by the government regarding hospital waste management.

RESEARCH METHODS

This type of research used in this research is quantitative analytic observational research because this research is aimed at examining hypotheses and making deeper interpretations about the influence between independent/independent and dependent/dependent variables (Nazir, 2005). The research design used is cross-sectional where observation or data collection is done at one time (point time approach). The population in this study were all employees of solid waste management companies in the three Saint Houses or Hospital de Referencing. The total number was 107 people. Given that the amount is limited so that all are taken into research samples. The instruments used in this study were in the form of questionnaires and observation sheets or checklists by interview or interview and field observations. Data were analyzed quantitatively, which is a measurement used in a study that can be calculated using the Prevalence Ratio RP = a / a + b: c / c + d, with 95% CI based on the lowest and highest values in the 2x2 table with SPSS 23 program, the results are expressed in numbers, this analysis includes data processing, organizing data and finding results.

RESULTS AND DISCUSSION

After conducting research by researchers from 107 samples in three Hospital de referensia namely Suai, Maliana and Maubisse Hospital referents were found by researchers with the results listed on the table as follows: Based on table 4.1 above, it is evident that the company employees of the hospital solid waste management studied, respondents who average age 15-24 years as many as 8 people, who answered Yes = 1 person (12.5%) and who answered No = 7 people (85.5%), aged 25-34 years as many as 33 people answered Yes = 8 people (24.2%) and those answered No = 25 people (75.8%), 35-44 years old as many as 35 people who answered Yes = 16 people (45.7%) and those who answered No = 19 people (54.3%), aged 45-54 years as many as 25 people answered Yes = 9 people (36.0%) and those who answered No = 16 people (64.0%), aged 55-64 years as many as 6 people answered Yes = 4 people (66.7%) and those who answered No = 2 people (33.3%), of all age groups above Age the most prominent is 35-44 by 32.7%.

It is proven that the company employees of the hospital solid waste management understudy, respondents who were male as many as 43 people who answered Yes = 19 people (44.2%) and those who answered No = 24 people (55.8%), and respondents who were female were 64 people who answered Yes = 19 people (29.7%) and those who answered No = 45 people (70.3%) concluded that from all respondents the most were female gender 59.8%. On the characteristics of Education it is evident that the company employees managing solid waste in the hospital studied, respondents who did not attend school (TS) were 17 people, who answered Yes = 8 people (47.1%) and those who answered No = 9 people (52.9%), respondents with an elementary education level of 14 people, who answered Yes = 8 people (57.1%) and who answered No = 6 people (42.9%), respondents with junior high school education were 20 people, who answered Yes = 5 people (25.0%) and those who answered No = 15 people (75.0%), respondents with high school education level were 56 people, who answered Yes = 17 people (30.4%) and those who answered No = 39 people (69.6%). Based on the data above, the highest level of education contributed by respondents was SMA 52.3%. In total, the number of hospital waste management company employees in the three referential Hospital locations that were 107 respondents were classified as staff or cleaning services, 103 answered yes = 38 (36.9%) and those answered no = 65 (63), 1%), Supervisors as many as 3 people, who answered yes = (0%) and those who answered no = 3 people (100%). Assistant Supervisor as many as 1 person, who answered yes = 0 (0%) and those who answered no = 1 person (100%). Classification according to the type of work most prominent was staff cleaning services 96.3%. Based on table 4.1 above shows that the characteristics of respondents according to the length of work as a janitor at the three reference hospitals divided into two groups namely employees who work between 1-10 years = 97 people and those who work 11-20 years = 10 people. So that the average employee working in the company is mostly 1-10 years or 90.7%. Based on the bivariate analysis table above the respondents' knowledge of hospital solid waste management or Hospital de Referensia Suai Maliana and Maubisse obtained the Prevalence Ratio value = 0.025 with Confidence Interval (CI)

Frequency Distribution of Respondent Characteristics on Solid Waste Management in Referencia Suai, Maliana and Maubisse Hospital

Characteristic	Hospital Solid Waste Management		Value of
	Yes n (%)	No n (%)	P
Age			
· 15-24	1 (12,5%)	7 (85,5%)	
· 25-34	8 (24,2%)	25 (75,8%)	
· 35-44	16 (45,7%)	19 (54,3%)	0,099
· 45-54	9 (36,0%)	16 (64,0%)	
· 55-64	4 (66,7%)	2 (33,3%)	
Gender			
· Male	19 (44,2%)	24 (55,8%)	0,124
· Female	19 (29,7%)	45 (70,3%)	
Education			
· Not School	8 (47,1%)	9 (52,9%)	
· Primary School	8 (57,1%)	6 (42,9%)	0,141
· Junior High School	5 (25,0%)	15 (75,0%)	
· Senior High School	17 (30,4%)	39 (69,6%)	
Occupation			
· Cleaning Services	38 (36,9%)	65 (63,1%)	
· Supervisor	0 (0,0%)	3 (100%)	0,318
· Assistant Supervisor	0 (0,0%)	1 (100%)	
Length of working			
· 10 Year	32 (33%)	65 (67%)	0,090
· 11-20 Year	6 (60%)	4 (40%)	

Distribution of factor that influence hospital Management

Variable	Hospital Solid waste Management		Prevalence Ratio	CI 95%	
	Correct	Incorrect			
	n (%)	n (%)		Lower	Upper
Knowledge					
· Correct	1(1,8%)	54 (98,2%)	0,025	0,001	0,059
· Incorrect	37(71,2%)	15(28,8%)			
Behaviour					
· Yes	1 (3,4%)	28 (96,6%)	0,071	0,005	0,305
· No	37(47,4%)	41 (52,6%)			
Infrastructure					
· Yes	18 (39,1%)	28 (60,9%)	1195	0,593	2926
· No	20 (32,8%)	41 (67,2%)			
Company Commitment					
· Yes					
· No	18(29,0%)	44(71,0%)	0,653	0,229	1143
	20(44,4%)	25(55,6%)			
Policy and Regulation					
· Yes					
· No	35 (53,0%)	31(47,0%)	7260	4120	50971
	3(7,3%)	38 (92,7%)			

is 95% where the Lowest value = 0.001 and the Highest value = 0.059 thus in this study knowledge is not a risk factor for influencing the process of solid waste management at Suai, Maliana and Maubisse Hospital. The results of the study Variable attitudes of respondents to the management of solid waste at the Hospital de Referensia Suai Maliana and Maubisse obtained the value of Prevalence Ratio = 0.071 with a Confidence Interval (CI) of 95% where the Lowest value = 0.005 and the Highest value = 0.305. See Prevalence Ratio <1 and range interval trust does not include number 1, the factor under study is a protective factor, not a risk factor. This means that the attitude of the company's employees is not a factor in influencing the management of solid waste at the Hospital de Referensia Suai, Maliana and Maubisse. In the Means and Infrastructure variable for the management of hospital solid waste or Hospital de Referensia Suai Maliana and Maubisse obtained a Prevalence Ratio value = 1.195 with a Confidence Interval (CI) of 95% where the Lowest value = 0.593 and the Highest value = 2.926 if the value of prevalence ratio> 1 and the range of confidence intervals even though it does not include the number 1, this variable is a risk factor meaning that the means and infrastructure variables affect the management of hospital solid waste. Variable of Company Commitment to Hospital de Referensia Suai, Maliana and Maubisse waste management obtained Prevalence Ratio value = 0.653 with Confidence Interval (CI) is 95% where the Lowest value = 0.229 and Highest value = 1.143 Prevalence Ratio <1 and the range of confidence intervals do not include numbers 1, the factor under study is a protective factor, not a risk factor, meaning that the company's commitment is not a factor influencing the management of hospital solid waste. In the Regulatory variable on hospital solid waste management or Hospital de Referensia Suai Maliana and Maubisse obtained the value of Prevalence Ratio = 7.260 with Confidence Interval (CI) is 95% where the lowest value = 4.120 and the highest value = 50.971 means the policy and regulation factors have an influence towards times the management of solid waste in hospitals.

Effect of Knowledge on Solid Waste Management: Based on the results of the Bivariate analysis of 107 respondents showed that the knowledge of hospital solid waste

management staff is not a risk factor for the process of solid waste management in hospitals Suai, Maliana and Maubisse. This is evidenced by the Prevalence Ratio value of 0.025, with a 95% Confidence Interval (CI) of the lowest 0.001, the highest 0.059 stated not to be a risk factor for the management of solid waste in Hospital Suai, Maliana and Maubisse, but there are other factors that pose a risk to the management of solid waste at homesick. Basically, there are many factors that determine the level of human knowledge about a thing. According to Suriasumantri (2000), factors that influence a person's knowledge are: 1) socioeconomic, 2) culture (culture and religion), 3) education, and 4) experience. In line with that (2007) states that human knowledge is influenced by two main factors, namely internal factors, and external factors. Internal factors are factors that originate from within humans themselves, namely age and intelligence. Meanwhile, external factors are factors originating from outside of human beings which include education, environment, experience, information, and people considered important. If we look at the respondents in this study, good knowledge about solid waste management is greatly influenced by their age and level of education. Data on the characteristics of respondents stated that around 52.3% of all respondents were high school educated. This condition is also supported by their age and length of service as cleaning service officers. The average age of respondents is above 25 years. Their working period is also mostly above 10 years, this allows cleaning service staff to have a lot of time to gain knowledge from the world of their work in hospitals, especially solid waste management. So that age and years of service can affect the level of knowledge or insight of respondents. The more mature a person's level of maturity and strength, he will be more mature in thinking and working. In terms of public trust, an adult is more trusted than an adult. This is seen from the side of the experience and maturity of the soul (Wawan, 2010).

In line with Roger's opinion, as quoted by Notoatmodjo (2003) which states that actions or behaviors that are based on good knowledge are generally long-lasting. Even in negative formulations, the results of Sharma's (2013) study reveal relatively the same thing. In their study of health workers in Jaipur, India, it was found that the level of knowledge and awareness of health workers there about the management of medical waste is still very minimal. This has caused problems around medical waste to continue to be an acute problem there. The results of this study contradict the above study, where based on the statistical results the Prevalence Ratio is 0.025 <1 which means it does not significantly influence the management of solid waste in the Referencia Suai Hospital, Maliana, and Maubisse. Although contrary to some research on the same topic, but this research can be accounted for because it has been tested and analyzed scientifically. The results of this study are not in line with the research results of Yunita Wongo (2013), which states that there is no significant relationship between knowledge and medical waste management measures. Also reinforced by the opinion of Walgito (2004) which says that the knowledge possessed is not always the basis of action.

Effect of Attitude on Solid Waste Management: The results showed from 107 respondents that the attitude prevalence ratio of 0.071 <1 with 95% CI was as low as 0.005, the highest was 0.305 which means that the attitude of the employees of waste management was not a risk factor for solid waste management in Suai, Maliana and Maubisse hospitals. This is seen from the results of the study respondents chose a positive attitude in managing solid waste both medical and non-medical. Basically, attitude is understood as readiness or willingness to act and is not the implementation of certain motives (Notoadmodjo, 2014). In other words, the attitude function is not an action (open reaction) or activity, but it is a predisposing behavior or action (closed reaction). Gibson in Yuliastuti (2007) suggested that attitude is a determinant of behavior because attitude is related to perception, personality, and motivation. Attitude is defined as mental preparedness, which is learned and organized through experience and has a certain influence on how a person responds to other people, objects and situations related to it. The attitude of company employees who manage solid waste at the Referencia Suai Hospital, Maliana and Maubisse cannot be separated from their age, years of service and education level. Because the attitude itself as knowledge is constructed through learning processes that can be in the world of education or through concrete work experience. With an average age of employees above 25 years, which is supported by a relatively long work period (above 5 years), as well as a good level of education which is the average senior high school. Then a positive attitude towards the management of solid waste that is good and right relative automatically is formed in every employee of the Company.

The view that employee attitudes linearly and positively influence the management of solid waste in hospitals has been confirmed in several other previous studies. One of them is the result of Sudiharti's (2012) research in Indonesia which concluded that there is a strong and positive relationship between attitude and nurses' behavior in the disposal of medical waste. The same finding was also revealed in Andarnita's research (2012) which states that the stages of good medical waste management in RSUD dr. Zainal Abedin Banda Ace Indonesia is made possible by a good attitude in the hospital employees. Similar conclusions were also found in research conducted by Merdekawati (2012). With a somewhat contrasting formula, both stated that the waste management in Wangaya Denpasar Indonesia Hospital which was not running optimally was caused by the lack of knowledge and a positive attitude in hospital employees. As well as the knowledge variables of the results of the analysis of the data of this study also make interesting conclusions but contrast with the research mentioned above. Based on statistical tests on attitude variables, the result of the prevalence ratio is 0.071 from 95% CI where RP results are located between the lowest value of 0.005 and the highest value of 0.305. It can be concluded that the attitude of company employees has no significant effect on solid waste management in the Referencia Suai, Maliana and Maubbisse hospitals. Because it is based on scientific analysis, this finding is an accountable result. The findings of this study are in line with the results of Yunita Wongo's research (2013), that there is no significant relationship between attitudes and actions for managing medical waste in Kebumen Indonesia District Hospital. Supported by the opinions of experts. One of them is Notoadmodjo (2003) who said that logically attitudes will be manifested in the form of actions, but that does not mean that attitudes and actions have always linear and systematic relationships. An attitude is not necessarily manifested in an action (overt behavior) Notoadmodjo, (in Widiartha, 2012). The results of the analysis of this research data are in line with the findings of Siswanto (2004). In his research, incorrect or insignificant, the effect of attitude on actions can be caused by respondents responding to questions

that tend to answer things that are just fine. This is also conditioned by the fact that the statement of attitudes is that respondents are still closed and do not appear to be in real circumstances. If the staff's normative beliefs about something are positive, the behavior will occur. Conversely, if they have a negative normative belief, subjective beliefs about it will be different. As a result, a good attitude is not manifested in good behavior such as his attitude towards an object. So for the realization of attitude into action required supporting factors or a condition that allows, namely facilities and supporting factors from various parties. Because the action is the movement of the body after getting stimulation or adaptation from inside the body, or from outside the body or the environment. Attitudes influence actions or behaviors through the decision-making process that is researched and reasoned.

Influence of Availability of Infrastructure Facilities on Solid Waste Management: Based on the analysis of the Prevalence Ratios in Table 4.2 above shows the results of RP = 1.195 from 107 research respondents, which means the availability of facilities and infrastructure for solid waste management at the Referencia Suai, Maliana and Maubisse hospitals has a significant influence. Where the facilities or facilities and infrastructure are the most important part in the management of hospital solid waste management, this is important because if the knowledge factor is good, good attitude but if it is not supported by the facilities then of course there will be a risk or negative impact on the effort to manage the solid waste of the house pain itself is not particularly suitable for the stages of solid waste management. From the perspective of Edwar III's policy theory (in Nugroho, 2008), facilities and infrastructure become one of the resources (resources), in addition to human resources and budget resources that determine the effectiveness of implementing a policy, program or activity. In the modern era which emphasizes speed, accuracy and job security, the availability of facilities and infrastructure is a necessity. It is impossible to expect a job, program or policy to work well if it is not supported by the availability of adequate facilities and infrastructure. The lack of solid waste management facilities and infrastructure at the Referencia Suai, Maliana and Maubisse Hospitals is a major drawback. It is almost certain that the management of solid waste in this Hospital is not running optimally. Therefore this issue should be an urgent concern of the Company and the authorities or the government, in this case, the Ministry of Health of Timor Leste. As the third Hospital Referensia, this Hospital is an illustration to measure the extent of solid waste management in all Referencia Hospitals in Timor Leste.

Effect of Company Commitments on Solid Waste Management: The results showed that the Prevalence Ratio of 0.653 CI 95% as low as 0.229 the highest 1.143 hospital solid waste management personnel gave their perceptions or responses to company owners about the company's commitment to managing all of its resources but were not a risk factor for the solid waste management process at Suai, Maliana and Maubisse. In the perspective of Edward III's policy theory (in Nugroho, 2008), management commitment in implementing policy, program or activity is also a constitutive aspect that determines the effectiveness of policy implementation. In this theory management's commitment is in the context of discussions about aspects of the disposition and structural aspects of the implementation of the policy or program. While the aspect of the structure is related to the relevance of the organizational structure that becomes the organizer of policy implementation. In other words, disposition always involves goodwill (goodwill) to implement and succeed in a program. While the structure is related to the work system and structural devices that carry out these activities in the field. Attention and support from managerial elements in solid waste management can take many forms. One form of attention is to formulate relevant policies or regulations to regulate this solid waste management process. Besides the ability of the management of the company to make a clear division and description of tasks, which is supported by an understanding of work procedures, as well as strict supervision in its implementation are also constitutive aspects of what is called management commitment (Supriayadi, 2003). Although the majority of respondents in this study stated that the commitment of solid waste management companies in the referral hospitals in Suai, Maliana, and Maubisse was good, it turns out the results of statistical analysis showed the value of the Prevalence Ratio = 0.653 <1 which means that there is no strong and significant influence of the company's commitment to waste management in the Reference hospital in Suai, Maliana and Maubisse. This is in line with Green's idea as quoted by Notoadmodjo (2003), that a person's behavior in doing something is determined by three main factors that influence each other, namely: predisposing factors, predisposing factors, and enabling factors.

Effect of Regulation on Solid Waste Management: In the Policy and Regulations variable for hospital solid waste management or Hospital de Referensia Suai Maliana and Maubisse, the value of Prevalence Ratio = 7.260 with Confidence Interval (CI) is 95% where the Lowest value = 4.120 and the Highest value = 50.971 means the Regulatory factor has an influence towards times the management of solid waste in hospitals. The main problem facing the Timor Leste health ministry at this time, especially in managing hospital solid waste is the absence of regulations or laws governing hospital sanitation. This is reinforced by the results of the study that the aim of the fold is the risk of solid waste management, especially in the three hospitals referencia Suai, Maliana and Maubisse and all hospitals in Timor Leste in general. According to WHO notes in some developing countries do not have clear regulations about it (Rudrashwamy). Regulations are important to provide a reference and technical framework for implementing hospital waste management. On one hand, without the presence of clear regulations, hospital employees or janitors lose technical guidelines in carrying out their duties. As a result, the process of managing solid waste can be carried out carelessly so as to increase vulnerability to risk factors. This research is in line with Misgiyono's 2014 study which said that the implementation of solid waste management processes should also use SOP. The SOP is a legal effort in managing solid waste management so that solid waste management becomes more focused providing certainty and can be accounted for.

Conclusion

Based on the results of an analysis of factors affecting the Management of Solid Waste in Hospital Referencia Suai, Maliana and Maubisse it can be concluded that: a). Employee Knowledge and Attitude factors and Company Commitment have no significant effect on Solid Waste Management in Referencia Suai Hospital, Maliana, and Maubisse. From the analysis of RP knowledge; 0.025 (95% CI: 0.001 - 0.059),

Attitude: 0.071 (95% CI: 0.005 - 0.305) Commitment: 0.653 (95% CI: 0.229 - 1.143), b). Facilities and Infrastructure factors are risk factors or which have a significant effect on solid waste management in the Referencia Suai Hospital, Maliana and Maubisse, with the analysis result of RP = 1.195 (95% CI: 0.593 - 2.926). Where the process of solid waste management has not been in accordance with the Republic of Indonesia Minister of Health Decree number 1204 of 2004, c). regulation is very influential on solid waste management with the analysis result of RP = 7.260 (95% CI: 4.120 - 50.971). because almost all hospitals do not have hospital solid waste management regulations.

REFERENCES

.....2014. *Metodologi Penilitian Kesehatan*.Jakarta: Rineka Cipta

Alok Sharma et, al. 2013. *Awareness of biomedical waste management among health care personnel in Jaipur India*(international journal of environment research and public health)

Andarnita, Aulia 2012. Jurnal *Faktor – faktor yang mempengaruhi pengelolaan sampah padat di Badan Layanan Umum Daerah RSUD Dr. Zainoel Abidin Banda Aceh* tahun 2012 Aceh

Aulia Andarnita. 2012. *Faktor-faktor yang mempengaruhi pengelolaan sampah medis di badan layanan umum daerah RSUD Dr. Zainoel Abidin Banda Aceh*(jurnal kesehatan masyarakat).

Azwar S. 2003. *Sikap Manusia Teori dan Pengukuran*. Yogyakarta: Pustaka Pelajar Offset.

Babatola, J.O. 2008. *A study of waste generation and management practice in akure*(an international multidisciplinary journal Nigeria)

Babatola, J.O. 2013. *A Study of waste Generation and Management Practice in Acure*. Dalam an International Multidiciplinary Journal Nigeria

Departemen Kesehatan RI. 2004. *Keputusan Menteri Kesehatan RI tentang Persyaratan Kesehatan Lingkungan Rumah Sakit* No.1204/MENKES/ SK/X/2004. Jakarta.

Keman S. 2004. *Pengaruh Lingkungan Terhadap Kesehatan*. Jurnal Kesehatan Lingkungan

Keputusan Menteri Kesehatan RI No. 1204/ MENKES/ SK/2004 *tentang Persyaratan Kesehatan Lingkungan Rumah Sakit,* Jakarta: Depkes RI

Misgiyono, 2014. *Jurnal Evaluasi Managemen Limbah Padat dan Cair di RSUD Mimika* Vol.13 No 1/April 2014 Semarang

Nazir, 2005. *Metode Penelitian*.Jakarta; Ghalia Indonesia.

Notoatmodjo, S 2003.*Pendidikan dan Prilaku Kesehatan*.Jakarta:Rineka Cipta

Sharma, A. 2013. *Awareness of Biomedical Waste Management Among Health Care Personnel in Jaipur India*. Dalam International Journal of Environmental Research and Public Health.

Sudiharti, 2011. *Hubungan pengetahuan dan sikap dengan perilaku perawat dalam pembuangan sampah medis di rumah sakit PKU Muhammadiyah Yokyakarta*(jurnal kesehatan masyarakat)

Sudiharti, 2012. *Hubungan Pengetahuan dan Sikap dengan Perilaku Perawat dalam Pembuangan Sampah Medis di Rumah Sakit PKU Muhammadyah Yogyakarta.* Jurnal Kesehatan Masyarakat Universitas Ahmad Dahlan Vol. 6 No. 1, Januari : 1-74

Supriyanto, S. Dan Damayanti NA. 2003. *Perencanaan dan Evaluasi*. Surabaya Fakultas Kesehatan Masyarakat Unair

Wawan, A. Dan Dewi M. 2010. *Teori dan Pengukuran Pengetahuan Sikap dan Perilaku Manusia.* Yogyakarta: Nuha Medika.

WHO 2015. *Air, sanitasi dan kebersihan di fasilitas perawatan kesehatan*. Jenewa

WHO 2018. *The definition of medical waste*. Searo

WHO, 2004.1*Rata-rata produksi limbah layanan kesehatan per tempat tidur per kilogram per hari.*

Widiartha. Y. K. 2012. *Analisis Sistem Pengelolaan Limbah Medis Puskesmas di Kabupaten Jember*. Skripsi Jember : Fakultas Kesehatan Masyarakat Universitas Jember.

Wiku Adisasmito, 2009: 7*Sistem Managemen Lingkungan Rumah Sakit.*

Wungo, Y. 2013. *Hubungan antara Pengetahuan dan Sikap Petugas Sanitasi dengan Praktik Pengelolaan Sampah Medis di RSUD Kabupaten Kebumen. Skripsi* Semarang: Fakultas Kesehatan Masyarakat Universitas Dian Nuswantoro.

****