Analysis of factors health and safety health officer with teeth and mouth disease prevention in hospital infection Tasikmalaya City

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Abstract. Hospitals are a source of *pathogenic* microbes that cause infection and can spread throughout the environment in hospitals through contact between visitors, patients, staff and medical equipment and surgical wounds. The dentist and dental nurse as dental and oral health care workers are at high risk for contact with microorganisms during dental treatment. The Source of potential infection in practice dentist can be through hands, saliva, blood, nasal secretions, clothes, hair, tools and supplies other practices, therefore it must be kept sterile to reduce the risk of infection. Take precautions to prevent the occurrence of dangerous infection, it can even prevent death. Factors that affect the health and occupational safety of oral health personnel consists of factors of knowledge, attitudes and working lives. This study aimed to analyze the factors of health and occupational safety officer oral health by prevention of infectious diseases at the Hospital of the town of Tasikmalaya. This research is non-experimental research with *cross sectional* design. The study population is dental and oral health care workers in a hospital as the city of Tasikmalaya numbered 40 respondent. Sampling was done by total sampling technique. The results of this study indicate that the attitude factor (*p-value* 0,037 <a 0.05) there is a significant correlation with infection prevention, while the knowledge factor (*p-value* 0.538> a 0,05) and factors work period (*p-value* 0.407> a 0, 05) there is no significant correlation with infection prevention.

Keywords: Health and Occupational Safety, Dental and Oral Health Officer, Infectious Disease Prevention.

INTRODUCTION

The hospital is a source of potentially pathogenic microbes that cause infection and can spread throughout the environment in hospitals through contact between visitors, patients, staff and medical equipment and surgical wounds. Infectious diseases are one health problem in the world, including in Indonesia. Based on the origin or gets an infection, it can come from the community or are from the hospital environment. The infection is known as hospital-acquired infection is now better known *Healthcare – Associated Infections (HAIs)* (Pusdiklatnakes, 2015).

Infection prevention and control of transmission of pathogens is to adopt standard precautions, one of the most effective methods in preventing transmission of pathogens is to hand hygiene. Selection and use of personal protective equipment, and sharps waste handling, equipment maintenance patients (decontamination and sterilization), cough etiquette, injection safety and health of employees. Prevention and control is better than cure, it is easier, cheaper and not hazardous to people and the environment (Pusdiklatnakes, 2015).

The dentist, his staff (dental nurse) and also a patient at high risk of contact with pathogenic microorganisms such as bacteria, viruses and fungi during dental treatment. Asepsis action must always be taken, including preventive measures such as sterilization and disinfection. The dentist must consider the patient is a carrier of Hepatitis B, Acquired Immuno Deficiency Syndrome (AIDS) or tuberculosis (TB) and must always follow the procedure precautions. Preventive action can prevent the infection of a dangerous infection, it can even prevent death. Potential sources of infection in the dentist's office can be through hands, saliva, blood, nasal secretions, clothing, hair and tools - tools/ instruments and supplies other practices that must be maintained sterility to reduce the risk of infection (Kesehatan, 2008).

Every worker is entitled to protection on work safety in doing the job. Labor and others who are in the workplace needs to be guaranteed safety, every production sources used are also used safely and efficiently (UU Keselamatan Kerja, 1970).

Several studies have shown that medical field jobs at risk of workplace accidents. Laboratory workers ranks fourth greatest risk of infection with hepatitis B virus after blood transfusion agency workers group DKI, group hospital janitors and hospital care group (Imam, 1990). Results of research Anwar and Perwitasari about the level of risk the use of personal protective equipment and hygiene laboratory worker Clinic RSUPN Ciptomangunkusumo Jakarta, found that based on the use of PPE, from 4 laboratories that there were more than 40% of the officers in the three laboratories (IGD, Hematology and children) are at high risk infected with dangerous diseases such as Human Immuno Virus / AIDS (Anwar dan Perwitasari, 2006).

Transmission of infectious diseases AIDS has hit everyone included in the service of dentistry because in practice it is always in contact with saliva and blood. The mode of transmission can be cross-infection between patient to patient via a tool - a tool polluted. In the field of dentistry, maintenance actions are at risk of infection

which includes tooth extraction, tartar cleaning, dental attestation particularly the cervical region, incisional and other actions that can cause injury, although the possibility of a small, but has a definite risk. USA reported that there were 2 patients infected with HIV in dentist and obtained evidence that they contracted the place of the dentists who do not take precautions ideally (Pintauli, 2010).

The results of the study in Florida of transmission of hepatitis B in 434 dentists, showed that the number of attacks to a general dentist is 5%, while the oral surgeon that figure rose to 21%. Overall the result is that the oral surgeon to have a greater risk of about two to three times higher than the general dentist (Shulman, dkk, 1994). Results of research conducted in New York in Panti shelter people - homeless people shows that the possibility of getting active tuberculosis infection increased significantly according to age. The highest incidence of Tuberculosis usually affects young adults. Indonesia is estimated 75% of lung TB patient is the productive age group of 15-50 years (Mahasiswa Kedokteran Gigi, 2015).

AIDS sufferers around the world as many as 33.3 million people. Indonesia, the second quarterly report of the Ministry of Health put the number at 22,726 AIDS patients in 32 provinces which cover 300 districts/ cities in Indonesia, while those already detected HIV as much as 44 292. Data of infectious diseases in the city of Tasikmalaya showed that the number of AIDS by 2016 is 317 people, Hepatitis B 32 while Tuberculosis disease amounted to 1181 people (Laporan DinKes Kota Tasikmalaya, 2016).

MATERIALS AND METHODS

This research is non-experimental research with cross sectional design (Notoatmodjo, 2002). The study population is dental and oral health care workers in the hospital as the city of Tasikmalaya were 40 respondents. Sampling was done by total sampling technique (Arikunto, 2002).

RESULTS AND DISCUSSION

The number of respondents surveys respondents only 30 respondents, while 10 respondents again not be a respondent because the respondent does not exist (Leaves). Based on the results of the univariate analysis, especially the frequency distribution of primary data collected from respondents as many as 30 respondents then obtained the characteristics of respondents by sex as follows:

Table 1. Frequency Distribution Characteristics Respondents by Gender

No	Gender	Frequency	Persentase (%)
1	Male	9	30
2	Female	21	70
Total		30	100

Characteristics of respondents by sex in Table 1 shows that the largest percentage of respondents are female amounted to 21 respondents (70%). Furthermore, the characteristics of respondents by education can be seen in the following table:

Table 2. Frequency Distribution Characteristics Respondents by Education

No	Education	Frequency	Persentase (%)
1	Dentist	15	50
2	Dental Nuse	15	50
Total		30	100

Characteristics of respondents by education in Table 2 shows that the percentage of respondents in this study is balanced. Dentists are 15 respondents (50%) and dental nurses are 15 respondents (50%). Further characteristics of respondents based on years of work can be seen in the table as follows:

Table 3. Frequency Distribution Characteristics Respondents by Work Period

No	Work Period	Frequency	Persentase (%)
1	0-6 Year (New)	10	33.3
2	>6 Year (Long)	20	66.7
Total		30	100

Characteristics of respondents by tenure in Table 3 shows that most respondents have a period working lives are a total of 20 respondents (66.7%). Furthermore, knowledge of oral health personnel can be seen in the following table:

Table 4. Frequency Distribution Characteristics of Respondents by Knowledge Variable Dental and Oral Health Officers on Personal Protective Equipment

No	Knowledge	Frequency	Persentase (%)
1	Good	25	83.3
2	Less	5	16.7
Total		30	100

Characteristics of respondents based on the variable knowledge of oral health personnel on personal protective equipment in Table 4 shows that most respondents had a good knowledge of the criteria that is numbered 25 respondents (83.3%). Furthermore, the attitude of dental and oral health care workers can be seen in the following table:

Table 5. Frequency Distribution Characteristics of Respondents Based on the Variable Attitude Dental and Oral Health Officers on Personal Protective Equipment

No	Attitude	Frequency	Persentase (%)
1	Good	16	53.3
2	Less	14	46.7
Total		30	100

Characteristics of respondents by attitude variables of oral health personnel on personal protective equipment in Table 5 shows that most respondents have a good attitude with the criteria that are 16 respondents (53.3%). Furthermore, the number of respondents who do the prevention of infectious diseases at the time of dental and oral health care can be seen in the following table:

Table 6. Frequency Distribution Characteristics of Respondents Based Variable Infectious Disease Prevention

No	Prevention of Infectious Diseases	Frequency	Persentase (%)
1	Good	26	86.7
2	Less	4	13.3
Total		30	100

Characteristics of respondents based on variables prevention of infectious diseases in Table 6 shows that most respondents do the prevention of infectious diseases with good criteria is numbered 26 respondents (86.7%). Subsequently bivariate analysis was conducted to determine the relationship between independent variables and the dependent variable. Relationships between variables will be described as follows:

The relationship between knowledge with Infectious Disease Prevention

The results of chi-square test between knowledge and prevention of infectious diseases are obtained p = 0538, because of Asymp. Sign a greater than 0.05 then Ho is accepted that there is no significant relationship between knowledge and prevention of infectious diseases.

The relationship between attitude and Prevention of Infectious Diseases

The results of chi-square test between attitudes to the prevention of infectious diseases are obtained p = 0.037, for Asymp. Sign a less than 0.05 then Ho is rejected so that there is a significant relationship between attitudes to the prevention of infectious diseases.

The relationship between Work Period with Infectious Disease Prevention

Chi-square test results between years of service to the prevention of infectious diseases are obtained p = 0407, because Asymp. Sign a greater than 0.05 then Ho is accepted that there is no significant relationship between tenure with the prevention of infectious diseases.

This study was conducted on dental and oral health care workers in hospitals Tasikmalaya city. This research was conducted in order to analyze the factors occupational health and safety officer oral health by prevention of infectious diseases at the Hospital Tasikmalaya city. Relationships between variables will be described as follows:

Based on the results of the chi-square test between knowledge and prevention of infectious diseases is obtained p = 0538, because of Asymp. Sign a greater than 0.05 then Ho is accepted that there is no significant relationship between knowledge and prevention of infectious diseases. This is because in general the respondents consider the prevention of infectious diseases by using personal protective equipment only the procedures that must be obeyed. In addition, an improvement in back knowledge through refresher information in the form of education or training. In line with Dewi (2011) which states that there is no relation between knowledge and prevention of infectious diseases.

Based on the results of the chi-square test between attitudes to the prevention of infectious diseases is obtained p = 0.037, for Asymp. Sign a less than 0.05 then Ho is rejected so that there is a significant relationship between attitudes to the prevention of infectious diseases. This is because respondents feel comfortable and most of the respondents have an attitude with the criteria as well as the respondents have been aware of the importance of preventing cross-infection that is applied in the form of a response or attitude. In line with the Dewi (2011) which states that there is the relationship between attitudes to the prevention of infectious diseases.

Based on the results of the chi-square test between tenure with the prevention of infectious diseases is obtained p = 0407, because of Asymp. Sign a greater than 0.05 then Ho is accepted that there is no significant relationship between tenure with the prevention of infectious diseases. This is due to a long working life can lead to lazy to do the prevention of infectious diseases by using personal protective equipment and if during the work never suffered from health problems then someone will ignore the use of personal protective equipment. In line with the Dewi (2011) which states that there is no relationship between tenure with the prevention of infectious diseases.

CONCLUSION

Based on the results of research and discussion in the previous chapter, it was concluded as follows:

- Prevention of infectious diseases is an act of oral health personnel in order to improve the knowledge, attitudes and skills to minimize potential transmission of infectious disease or transmission of nosocomial infections due to oral and dental health care workers have a high risk factor of transmitting.
- There is no significant relationship between knowledge and prevention of infectious diseases. This is because in general the respondents consider the prevention of infectious diseases by using personal protective equipment only the procedures that must be obeyed. In addition, an improvement in back knowledge through refresher information in the form of education or training.
- There is a significant relationship between attitudes to the prevention of infectious diseases. This is because respondents feel comfortable and most of the respondents have an attitude with the criteria as well as the respondents have been aware of the importance of preventing cross-infection that is applied in the form of a response or attitude.
- There is no significant relationship between tenure with the prevention of infectious diseases. This is due to a long working life can lead to lazy to do the prevention of infectious diseases by using personal protective equipment and if if during the work never suffered from health problems then someone will ignore the use of personal protective equipment.
- The most influential factor in the prevention of infectious diseases in hospitals Tasikmalaya city is an attitude. This is evidenced by the results of the chi-square test between attitudes to the prevention of infectious diseases is obtained p = 0.037. In addition due to the respondent was aware of the importance of preventing cross-infection that is applied in the form of a response or attitude.

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