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Overview of Nurses Factors about Safety Behavior of Infusing in the Emergency Room (ER) of Lumajang Regional Hospital

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ABSTRACT

Introduction: Hospitals are unique and complex workplaces, with hospital workers who undergo more occupational health and safety problems than other civilian workers. Accident and Emergency Room (ER) is the main window in hospital services which is always related with the patient's soul. The accident and emergency room also has a higher risk because it provides first aid to patients whose medical history is unknown. The study aimed to describe the nurses factors of safety behavior in infusion in the emergency room of Lumajang regional hospital.

Method: This study used a qualitative method based on a descriptive survey. This study used a total sampling, with a total of 20 nurses as respondents. The data collection technique used a questionnaire in interviews and observation using a checklist sheet.

Result: Indicated that most of them were male, with the working period between <5 years and > 5 years, most of them had never attended OSH training / socialization, and the last level of formal education was Diploma III of Nursing. Most of them had a level of knowledge about OSH and work safety motivation in the high category, and 85% of nurses still had unsafe behavior in infusion during work.

Conclusion: pointed out that nurses who had a safety behavior in the less safe category were nurses with a high level of knowledge about OSH and nurses with high motivation for work safety who had a safety behavior in the less safe category

Keywords: Nurses Factors; Safety Behavior; Installation of Infusion

Introduction

Hospital is considered as a place for people to get medical treatment and health care with various health facilities and equipment. Hospital as a unique and complex workplace and it does not merely provide the health services for the community, but is also a place for medical education and research. The wider of the health services and functions of the hospital so then the more complex the equipment and facilities. As a consequence, the potential for occupational health and safety hazards cannot be avoided, such as: radiation exposure hazard, toxic chemicals, biological hazards, extreme temperatures, noise, dust, stress, etc. compared to other civilian workers. Hospital workers undergo the more occupational health and safety problems, based on the claim of compensation claims that put forward (US Department of Health and Human Services, 1990) (Aditama, 2006).

Accidents that often occur in health services are pricked by used needles to inject patients. Several studies have identified the frequent accidents of needle stick on the health workers. According to Rogers, in the United States more than 800,000 needle-stick injuries to health workers occur each year despite continuing education and accident prevention efforts.

Healthcare Associated Infections (HAIs) is one of the risks that faced by health workers. HAIs occur throughout the world with the highest incidence in poor and developing countries. Research undertaken by WHO in 2006 noted that approximately 8.7% of 55 hospitals in 14 countries in Europe, Middle East, and Southeast Asia and the Pacific had Healthcare Associated Infections (HAIs). In the United States, there were 20,000 deaths each year due to HAIs and cost more than 4.5 billion dollars per year (Marwoto, 2007 in Yuliana 2016).

The preliminary study was carried out through interviews with several nurses in Emergency Room of Lumajang Regional Hospital, it is discovered that there were two instances of needle sticking in that month, namely the infusion and the patient's blood sampling due to non-compliance in implementing work procedures and negligence. This indicates that the incidence of accidents as asserted in the domino theory put forward by Heinrich (1950) in Ta rwaka (2012), reveals that human carelessness is the basic cause and unsafe human actions are the direct cause of work

accidents. To prevent a work accident, it can be done to throw away one of the domino



cards or break the chain of dominoes (human error dominoes) which includes; environment, human carelessness and potential harm caused by human actions and unsafe conditions.

Method

This study used a qualitative method based on a descriptive survey. The population in this study were all nurses who served in Emergency Room of Lumajang Regional Hospital. The sampling technique used was total sampling, due to the population was less than 30 people. The data collection technique used a questionnaire in interviews and observation using a checklist sheet. Data were analysed using univariate analysis including median, modus, percentiles and range score (minimum-maximum) for analysis of descriptive data. This research has received ethical approval from the Health Research Ethics Committee of the Faculty of Public Health, Airlangga University with the number 627- KEPK.

Result

1. Nurse Characteristics

Table 1. Frequency Distribution of Individual Characteristics Nurses in Emergency Room of Lumajang Regional Hospital

No	Characteristics	Result	N	%
1	Individual Age	a. Late teen	4	20 %
		b. Early adulthood	8	40 %
		c. Late adulthood	8	40 %
		Total	20	100 %
2	Gender	a. Male	19	95 %
		b. Female	1	5 %
		Total	20	100 %
3	Work Period	a. ≤ 5 Years	10	50 %
		b. > 5 Years	10	50 %
		Total	20	100 %
4	OSH Training	a. Ever	1	5 %
		b. Never	19	95 %
		Total	20	100 %
5	Formal Education	a. D3 in Nursing	12	60 %
		b. D4 in Nursing	2	10 %
		c. S1 in Nursing with Nurse	6	30 %
		Total	20	100 %

Based on the table above, it is found that most of the respondents are in the productive age when this study is conducted, almost all of them are male, with a working period that has the same distribution between working period <5 years and> 5 years. For the participation of respondents in the training / socialization activities of OSH, almost all of them have never attended any training or socialization of OSH. The formal education of the respondents indicate that most of them have a formal education, namely Diploma 3 of Nursing. The Diploma 3 Nursing education level has skills and competence in accordance with the work as a nurse in charge.

The individual characteristics studied, it includes the age, gender, years of service, OSH training / socialization that had been attended and last education. The results showed that the results showed that almost all of them were 19 people (95%) nurses in Emergency Room of Lumajang Regional Hospital had never attended any training or socialization on OSH. Ramli (2010) explains that safety culture will be more effective if management commitment is implemented in a real way and there is direct involvement of workers in work safety.

The involvement of workers in work safety can be carried out in various ways, in the form of active workers in OSH activities, providing input dealing with the existence of dangerous conditions in the environment, undergoing and carrying out activities in a safe manner, providing input in preparing procedures and safe work methods, and reminding workers other regarding the dangers of OSH. Including nurses in OSH training / socialization activities is also a form of management commitment in the OSH culture in the workplace, the OSH culture can be undertaken in the workplace to reduce the risk of work accidents.

2. Safety Behavior on Infusion Installation

Table 2 Frequency Distribution of Safety Behavior on Infusion Installation of Nurse in Emergency Room of Lumajang Regional Hospital

No	Category	Frequency	Percentage
1	Safe	3	15 %
2	Less safe	17	85 %
	Total	20	100 %

Table 2 points out that most of the nurses' behavior in Emergency Room of Lumajang Regional Hospital in carrying out unsafe infusion procedures, it consists of 17 people (85%). Unsafe behavior has the potential to cause work accidents.

Discussion

1. Nurse Characteristics

The characteristics of the individuals studied included age, gender, years of service, OSH training/socialization that they had attended and their last education. The results showed that the age of most of the individuals included in the category of early adulthood and late adulthood as many as 8 employees (40%). The researcher argues that there are two age groups that have the same average in this study, namely the early adult age group and the late adult age group, can complement each other when working, namely the older age group has experience in work that can be transferred to nurses with an easy age group. The tendency of the easy age group to have an attitude that tends to be careless and less careful at work.

Early adulthood has an age range of 26-35 years which is still a young age. The young age group according to research conducted by Kurniawati (2013) shows that age has an important influence on the incidence of work accidents. The younger age group has a higher tendency to experience work accidents than the older age group. This is caused by negligence and carelessness regarding work accidents. The older a person gets, the more likely they are to be thorough and experienced at work. While the late adult age group has an age range of 36-45 years. Suma'mur (2009), explained that the late adult age group also has a tendency to work accidents considering that their work capacity has decreased.

Santrock (2003 in Sumaningrun, 2016) explains that age is the length of a person's life since birth which is an indicator in every decision making that refers to each experience, with increasing age eating in receiving instructions and in carrying out a procedure will be more responsible and experienced.

The results showed that the male sex was the most dominant as a nurse in Emergency Room of Lumajang Regional Hospital that is equal to 95%. Researchers believe that working in the emergency room requires stamina and good work performance. Gender in workers determines physical performance at work, male sex

tends to have stronger physical work performance. These results are in accordance with research conducted by Kasmarani (2012), it was found that the respondents, namely emergency room nurses at RSUD Cianjur, were dominated by men who had greater physical ability than women, making the physical activity carried out within the limits of the capacity of the emergency room nurses at the Cianjur Hospital. allows most nurses in light workload conditions and do not experience work stress.

The working pattern of Emergency Room of Lumajang Regional Hospital has a rest period that is not permanent because it is adjusted to patients entering the ER, so nurses take breaks between working hours, this can provide an opportunity for nurses to refresh themselves through the opportunity to communicate and social contact with colleagues so as to prevent fatigue and can reduce work stress and the risk of work accidents.

The results of this study indicate that the working period of nurses in Emergency Room of Lumajang Regional Hospital had the same distribution between nurses with < 5 years of service and > 5 years of service. Suma'mur (2009), explains that a long working period gives a person's experience to recognize hazards in the workplace will be better, so that old workers will be more familiar with the danger points in their workplace which in turn can minimize the occurrence of errors (errors), which may result in an accident. The researcher argues that the distribution of working years has the same proportion between tenure of < 5 years and > 5 years, tenure is related to one's experience when working, individuals with longer tenures have better work experience, with the distribution of working years. that are not the same allow for the transfer of work experience.

The results showed that almost all of them were 19 people (95%) implementing nurses in Emergency Room of Lumajang Regional Hospital has never attended any training or socialization about OSH. Ramli (2010), explained that the safety culture will be more effective if the management's commitment is implemented in real terms and there is direct involvement of workers in work safety. The involvement of workers in work safety can be done in various ways, in the form of active workers in OSH activities, providing input regarding hazardous conditions in the environment, carrying out and carrying out activities in a safe way, providing input in the preparation of safe working procedures and methods, and reminding workers. others regarding the dangers

of OSH. The researcher believes that the OSH training/socialization is one of the means of increasing the knowledge and skills of nurses in working safely and safely. Involving nurses in OSH training/socialization activities is also a form of management commitment in the OSH culture in the workplace, OSH culture can be implemented in the workplace and can reduce the risk of work accidents.

The results showed that most of them were 12 people (60%) nurses in Emergency Room of Lumajang Regional Hospital has the last formal education, namely Diploma III Nursing. The researcher argues that the Diploma III Nursing education level has the skills and competencies that are in accordance with the work as an implementing nurse, with the skills and competencies possessed when working can reduce the risk of work accidents. According to Notoatmodjo (2007), a person's level of education will affect his insight and perspective in dealing with a problem. Someone with a high level of education tends to put forward rationality when faced with new ideas than those with a lower education. Formal education actually raises expectations about the level and type of change in the behavior of educational targets, including changes in their knowledge, attitudes, and abilities. The formal education that has been taken by most workers is one of the predisposing factors that contribute to workers making it easier to understand and understand work safety procedures that apply in the workplace.

2. Safety Behavior on Infusion Installation

Safety behavior or safe behavior in the infusion installation is carried out by observing the behavior of the implementing nurses in Emergency Room of Lumajang Regional Hospital when inserting an infusion using the SOP as an indicator of his assessment. The results showed that most of the nurses, namely 85% when the infusion was still not safe. Researchers argue that unsafe behavior when working will have a tendency to work accidents, safety behavior has an important role in preventing work accidents, especially for nurses who work in the emergency room with workloads that tend to be heavy because nurses are required to work quickly and precisely because it is related to patient safety. Behavior that is included in the human factor is the basic cause of work accidents, this is in accordance with the ILCI theory (1985) which states that the basic cause is something that causes unsafe actions and conditions. There are two basic causes, namely human factors and occupational factors. The human

factors include inadequate physical abilities, inadequate mental/psychological abilities, lack of knowledge, lack of work motivation, and so on. While the work factor includes inadequate equipment and supplies.

In the theory of ILCI Loss causation Model also explains that the beginning of accidents and losses is management, namely the lack of management supervision control. So it can be concluded that the loss is an indication of failure on the part of management in carrying out one of its important functions. By asking the right questions, lack of oversight in the management system can be identified and can be used to prevent accidents and losses (Storbakken, 2002).

Conclusion

The results of this study indicate that most nurses act unsafely in infusion based on the SOP checklist in the hospital. Based on the nurse's individual factors that can be changed, including participation in OSH training and formal education, it is recommended that all nurses have the opportunity to participate in OSH training and increase formal education. This research is expected to contribute in enlightening nurses' perceptions about the risk of work accidents faced by nurses.

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