

Relationship of Predisposing and Enabling Factors with Unsafe Action of Nurse in the Inpatient Unit I of Rsud Dr. Saiful Anwar Malang

Ani Asriani Basri¹, Ratih Andhika A.R¹, Rindang Diannita¹

¹Lecturer Department of Occupational Safety and Health, Darussalam, Gontor Ponorogo, East Java University, Indonesia

Abstract

One of the factors causing occupational accidents and illnesses that occur in nurses in hospitals is a behavioral factor. The study was conducted to study the relationship between Predisposing, Enabling and Reinforcing factors with unsafe behavior of nurses in the inpatient room 1 Dr. Saiful Anwar Malang “. This type of research is a quantitative research with analytic observational design with cross sectional approach. The sample in this study were nurses in Inpatient Room I as many as 42 nurses were analyzed using the *Chi Square Test* and *Fisher Exact*. The method used is to use a questionnaire, observation and interviews. Chi Square test results showed $p = 0.818 > 0.05$ that there is no relationship between knowledge and unsafe actions. Fisher’s exact test results show $p = 0.481 > 0.05$ that there is no relationship between the Occupational Safety and Health policy with unsafe actions, Fisher’s exact test results show $p = 1,000 > 0.05$ that there is no relationship between Standard Operational Procedure and no action safe, Fisher’s exact test results show $p = 0.158 > 0.05$ that there is no relationship between Safety Training and occupational health with unsafe actions. Conducting routine socialization related to Operational Standards Procedures for how to appoint patients, conducting routine supervision related to unsafe actions of nurses when lifting patients, implementing reporting systems related to complaints of low back pain, implementing a reward system for workers who behave safely and punishment for workers who acted insecure.

Keywords: *Relationship, Predisposing, Enabling, Unsafe Behavior, Nurse*

Introduction

The hospital is a public service institution that has a high complexity, both in terms of personnel, services and equipment. The most important element in a hospital is a nurse. Nurses are those who care for or maintain, help, and protect someone because of illness, injury, and the aging process. For nurses, the hospital is one of the dangerous places because it can be infected with various types of risk of occupational diseases and injuries. Hospital leaders as managers must know, understand, and carry out protection for workers who are mostly nurses

One of the factors causing the high number of accidents and illnesses due to work at nurses in hospitals is the behavior factor. Unsafe behavior at work contributes significantly to accidents¹. 64.26% of occupational diseases and work accidents are caused

by low knowledge, understanding and awareness about occupational safety and health². Research which shows that 96% of work accidents are caused by unsafe behavior and 4% are caused by unsafe conditions³

Nurses in carrying out their activities, often do not pay attention to important things that are risk factors for occupational diseases. Occupational diseases can occur while doing work activities. Of the many occupational diseases, musculoskeletal complaints are the most frequently reported complaints. According to WHO the incidence of musculoskeletal diseases is the most common disease and is estimated to reach 60.4% of all occupational diseases. There are several things that cause nurses at risk of developing musculoskeletal disorders (MSDs) namely, nurses often do bending movements in handling patients (repositioning, transferring), helping lift patients with varying body weight without using assistive devices, then how to lift

and transport incorrectly so that it can cause sprains, and sit for too long in a position that is not ergonomic Indonesia, especially in the clinic at Siaga Raya Hospital, an average of 10 nurses per year came to the clinic with complaints of musculoskeletal injury, which is caused by pushing, lifting or transferring patients⁴. Various physical activities of work in nursing care such as frequent bending (twisting) and twisting (twisting), moving or changing the position of patients identified as having a risk that can cause low back pain⁵

Dr. Regional General Hospital Saiful Anwar (RSSA) functions to provide health services to the community, especially to patients in the inpatient ward 1 RSSA which is supported by more than 250 nurses. The results of initial observations and interviews with several nurses at the Regional General Hospital Dr. Saiful Anwar (RSSA) Malang in the inpatient room, there are nurses who experience complaints of back pain when providing services to patients, because of the work factor that is still manual handling, namely lifting patients with varying patient weights, thus requiring over exertion to be able to lift patients .

Conditions like this that can cause musculoskeletal disorders in nurses. This unsafe work behavior, if continually carried out by nurses, risks a serious work accident. Therefore, one of the efforts to prevent work accidents whose biggest cause is unsafe action or unsafe behavior is to implement a Behavior Based Safety (BBS) program as a process of increasing safe work behavior.

Based on this background, the researchers wanted to find out the relationship between Predisposing and Enabling factors with the action element (how to lift patients from a wheelchair to bed) on nurses in the inpatient room of Dr. RSUD. Saiful Anwar (RSSA) Malang.

Material Dan Methods

This research was conducted at Dr. Saiful Anwar (RSSA) Malang in the Inpatient Room I. The data collection process was carried out in January-May 2017. This type of research is a type of quantitative research with an analytical observational design using a cross sectional study approach. The sample in this study were nurses in the inpatient room I at Dr. General Hospital Saiful Anwar Malang as many as 42 nurses. The method used is by questionnaire, observation and interview.

The dependent variable in this study is unsafe behavior (how to lift patients from a wheelchair to bed) in nurses in the inpatient room I. The independent variables in this study are predisposing factors (knowledge), enabling factors (Occupational safety and health policy, standar operational procedure (SOP) and Occupational safety and health training). Data analysis techniques using the *Chi-square test* and *Fisher's exact test*. This study was approved by the ethics committee of RSUD Dr. Saiful Anwar Malang. All subjects received complete information about the procedures and objectives of this study and each subject before the study signed the consent form

Findings

The following are the results of the research presented in tabular form.

Table 1:Relationship Knowledge with Unsafe Action

| Knowledge | Unsafe Action | | | | N | Total | p-value |
|------------------|---------------|------|--------|-------|----|-------|---------|
| | Safe | | Unsafe | | | | |
| | N | % | | % | | | |
| Good knowledge | 8 | 40 | 100% | 0,818 | 20 | 100% | 0,818 |
| Enough knowledge | 7 | 31,8 | 100% | 68,2 | 22 | 100% | |

Based on table 1.1 shows p-value > 0.05, meaning that there is no relationship between knowledge and unsafe action (unsafe action). There were 15 study subjects (68.2%) who acted unsafe (unsafe action) which were categorized with sufficient knowledge. Research subjects with good knowledge category still acted unsafe (unsafe action) of 12 (60%).

Tabel 2: Relationship Occupational Safety and Health Policy with Unsafe Action

| Occupational safety and health Policy | Unsafe Action | | | | N | Total | p-value |
|---------------------------------------|---------------|------|--------|------|----|-------|---------|
| | Safe | | Unsafe | | | | |
| | N | % | N | % | | | |
| There is a policy | 10 | 32,3 | 21 | 67,7 | 31 | 100% | 0,481 |
| No Policy | 5 | 45,5 | 6 | 54,5 | 11 | 100% | |

Based on table 1.2, the p-value > 0.05 is obtained. This means that there is no relationship between K3 policy and unsafe action (unsafe action), as many as 21 research subjects (67.7%) who say there is a occupational safety and health policy but still take unsafe actions when lifting or moving patients from a wheelchair to bed. Research subjects who said there was no occupational safety and health policy but their actions were safe when lifting or moving patients from a wheelchair to bed were 5 respondents (45.5%)

Tabel 3: Relationship standar operational procedure (SOP) with Unsafe action

| Standar Operational Precedure | Unsafe Action | | | | N | Total | p-value |
|-------------------------------|---------------|------|--------|------|----|-------|---------|
| | Safe | | Unsafe | | | | |
| | N | % | N | % | | | |
| There are SOP | 12 | 35,3 | 22 | 64,7 | 34 | 100% | 1,000 |
| No SOP | 3 | 37,5 | 5 | 62,5 | 8 | 100% | |

The results of the analysis of the relationship between SOP and unsafe action in table 1.3 show that p-value > 0.05, meaning that there is no relationship between standard operating procedure (SOP) with unsafe behavior (unsafe action) when moving or lifting a patient from a wheelchair to bed. Research subjects who

considered that there were standard operation procedures (SOP) but did not perform safe actions as many as 22 respondents (64.7%). Research subjects who said there were no SOPs with the category of safe action were 3 respondents (37.5%). A valid SOP will not guarantee that research subjects will take safe action.

Tabel 4: Relationship Occupational Safety and Health Training with Unsafe Action

| Occupational Safety and Health Training | Unsafe Action | | | | N | Total | p-value |
|---|---------------|------|--------|------|----|-------|---------|
| | Safe | | Unsafe | | | | |
| | N | % | N | % | | | |
| Have attended training | 9 | 29 | 22 | 71 | 31 | 100% | 0,158 |
| Never attended training | 6 | 54,5 | 5 | 45,5 | 11 | 100% | |

Based on table 1.4, $p\text{-value} > 0.05$ shows that there is no relationship between K3 training and unsafe behavior (unsafe action). Research subjects who had attended OSH training but whose actions when lifting or moving patients from wheelchairs to unsafe beds were 22 respondents (71%). While research subjects who have never attended OSH training in the safe action category were 6 (54.4%)

Discussion

The following is a discussion of the results of statistical tests related to the relationship of independent variables with independent variables.

Relationship Knowledge with Unsafe Action.

The results of this study indicate that there is no relationship between knowledge and unsafe actions (unsafe actions), research subjects who have good knowledge and who have sufficient knowledge mostly do unsafe actions. The better a person’s knowledge, then does not indicate the better one’s actions. Increasing someone’s knowledge does not always cause changes in worker behavior, because in the process many people know but few implement it in real form. This is influenced by the habits and culture of each individual.

Research subjects in the category of good and sufficient knowledge actually most of the unsafe actions (unsafe action). Based on observations, this is because respondents already know that the work they do is not safe, but they still do that on the grounds they are familiar with the condition even though in an unsafe way. The results of this study are in line with the results of previous studie⁶ “Analysis of Behavioral Safety Program with Unsafe Action in the Production Department 11 PT. Petrochemical Gresik “. The results of the analysis of the influence test show that the value of $p > 0.005$, meaning that there is no influence between knowledge and unsafe

action. A good level of knowledge does not guarantee that someone will behave safely.

These results are not in line with existing theories that behavior based on knowledge will be more lasting (long lasting) compared to behavior that is not based on good knowledge. Knowledge is one of the predisposing factors related to the motivation of individuals or groups to act.⁷

Relationship Occupational safety and health Policy with Unsafe Action.

The role of management has a direct bearing on occupational health and safety because management has control and provides work instructions. Management is required to be able to guide and control health and safety issues in the workplace⁸. One way is to form policies and regulations.

The majority stated that there was a occupational safety and health policy made by the hospital but still unsafe action (unsafe action). The existence of a Occupational safety and health policy will not necessarily increase safe actions on research subjects. The OSH policy made by the hospital is not to improve behavior. The OSH policy in writing is to set forth a hospital policy regarding the implementation of OSH in an organization whose function is to provide information to hospital workers, hospital visitors, and those who collaborate with hospitals. The written OHS policy is not intended to improve behavior about OHS

but is informational.

Based on observations in Irna 1 room at Dr. Saiful Anwar Malang, there are some rooms where the Policy is not posted in an easily visible place. Based on the results of the interviews, it was found that there was a policy, but for information documents such as SOP and policies, it was stored on a shelf because there were too many documents if they were posted on the wall, so that many did not know about them.

Relationship Standard Operational Procedure (SOP) with Unsafe Action.

Availability of facilities/ infrastructure and regulations are enabling factors for the formation of behavior⁹; by implementing SOP, the organization can ensure that an operation runs according to existing procedures and if the SOP is implemented properly, the organization will get many benefits from the application of the SOP¹⁰. Therefore, SOP plays an important role in meeting work standards that are organized, with the achievement of the objectives of implementing SOP the better the performance and quality of the organization.

Research subjects assessing that there are SOP lifting or transferring patients from wheelchairs to beds in the category of unsafe acts. This is based on the observation that when lifting or moving a patient from a wheelchair to bed, there are still many research subjects who do not carry out or refer to the correct SOP, so it is possible to act unsafe when providing services to patients.

The results of the interview by the head of the inpatient room 1, found information that there are standard operating procedures (SOP) in inpatient room 1, but there are still those who say that there are no standard operating procedures (SOP), this indicates that there is still a lack of socialization by parties management related to standard operating procedures (SOP) in each room. SOP storage in the form of documents in each room causes some research subjects to not know the existence of the SOP. The SOP is stored in a rack.

Relationship Occupational safety and health Training with Unsafe Action

Research subjects who said they had attended OSH training, with the category of still acting unsafe. The training that has been obtained by nurses will not necessarily improve one's behavior, this is because the

training is held to fulfill the hospital's accreditation only. However, that does not mean that training is not needed to increase knowledge and encourage workers to act safely. The training provided by the RSUD Dr. Saiful Anwar Malang to nurses, especially to new nurses, one of which was the training of patients for the purpose of fulfilling hospital accreditation.

One of the biggest causes of safety training cannot run properly because there is often no match between the requirements for training success and the training provided, safety training programs are often not in accordance with the needs of trainees¹¹. One reason is that training time is not enough to guarantee understanding complex issues. Effective safety training is important to educate employees how to prevent accidents and identify potential hazards in their work. Therefore training and education programs play an important role in increasing safety awareness^{12 13}

Conclusion

There is no relationship between predisposing factor (knowledge) with unsafe action (how to appoint patients) to nurses in the inpatient room 1 of the Regional General Hospital Dr. Saiful Anwar Malang (RSSA) “.

There is no relationship between enabling factors including (policies, SOPs and training) with unsafe actions for nurses in the inpatient ward 1 Regional Hospital Dr. Saiful Anwar Malang (RSSA) “.

Conflict of Interest: None

Source of Funding: Source of Funding-self

Ethical Clearance: The study was approved by the ethical committee of Hospital Dr. Saiful Anwar Malang. All subjects were fully informed about the procedures and objectives of this study and each subject prior to the study signed an informed consent form.

References

1. Cooper, D, *Improving Safety Culture: A Practical Guide*, Applied Behavioural Science. 2001. UK.
2. Silalahi, Bennet N. B. and Rumondang B. Silalahi. *Occupational Safety and Health Management*. Jakarta: PT. Binaman Pressindo Library. 1985.
3. DuPont Company. *Not Walking The Talk: DuPonts's Untold Safety Failures*. 2005. <http://assets.usw.org/resources/hse/resources/Walking-the-Talk-Duponts-Untold-Safety-Failures.Pdf>.

Accessed Maret 2017.

4. Meity Nur. The Influence of the Use of Nurse Safety Guidelines on Nurse Health and Safety Behavior at Siaga Raya Hospital. Tesis. Depok. Nursing Masters Program. 2012.
5. Smedley J., Egger P., Cooper C., Coggon, D. Prospective cohhort studt of predictors of incident low back pain in nurses. *British Medical Journal*. 1997. vol. 314.p. 1225-1228.
6. Deviani Dita. Behavioral Safety Program Analysis with Unsafe Action in the Production Department 11 PT. Petrokimia Gresik “. Tesis. Surabaya. Faculty of Public Health, Airlangga University Masters Program. 2015.
7. Green Lawrence. *Health Education Planning A Diagnostic Approach*. Baltimore. The John Hopkins University, Mayfield Publishing Co.1980.
8. Ridley J. *Occupational Health and Safety*. Ikhktisar. Jakarta: Erlangga Publisher. 2008.
9. Green Lawrence W and Kreuter Marshall W. *Health Promotion Planning an Education and Environmental Approach*. 2000. Second Edition, Mayfield Publishing Company.
10. Zumrotum. Overview of the Causes of Trans Jakarta Bus Corridor III (Kalideres-Harmoni) Bus Accident. Skripsi. Jakarta. FKIK UIN Syarifhidayatullah. 2012.
11. Cooper, D. *Improving Safety Culture: A Practical Guide*. UK. Applied Behavioural Sciene. 2001.
12. Ghani, M.K., Abdul H, Z., Mohd Zain, M.Z. *Safety in Malaysian Construction: The Challenges and Initiatives*. Contruction Research Institute Malaysia (CREAM). 2010. CIDB Malaysia.
13. Wong, F.K.W, Chan, S.C.M., Tse, R.Y.C., Love, P.E.D. Improving Safety Knowledge Through Training-The Case of Hong Kong, *Journal of Safety Research*. 2000. Volume 33(2), 259-