

# Relationship of Hospital Factors and Individual Behavior Prevention of The Injury Needle Stick Against Nurse in Treatment Room of General Hospital of Jombang District

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## Abstract

The hospital is a health care institution centre for capital intensive, technology, and works as well as a risk of workplace accidents 2.5 times greater when compared with other industries, so that the application of the K3 has become an absolute requirement that must be presented by the hospital management. The relationship between prevention behaviors of the hospital and the individual against needle stick injury to nurses in the treatment room of Jombang Hospital. This study is analytical observational research with quantitative methods and using cross sectional design. The total samples are 80 people while data collected by using questionnaires and observation sheets.

Data were analyzed using univariate analysis and correlation with the chi square test. Results of correlation analysis with Chi-Square test was obtained  $p = 0.012 < \alpha (0.05)$  showed no significant relationship between policy K3 with prevention behavior of needle stick injury. Human resource variables K3  $0.046 < \alpha (0.05)$  there is a relationship. Knowledge  $0.027 < \alpha (0.05)$  there is a relationship. Training  $0.034 < \alpha (0.05)$  there is a relationship. Motivation  $0.026 < \alpha (0.05)$  there is a relationship. Attitude  $0.033 > \alpha (0.05)$  there is a relationship. Perception  $0.046 < \alpha (0.05)$  and individual commitments  $0.044 < \alpha (0.05)$ .

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There is a correlation between the hospital and individuals with behavior prevention of needle stick injury to nurses in the treatment room of Jombang Hospital. The need for a shared commitment between management and individuals to make health and safety described as a culture and not just a program.

**Keywords:** hospital factor; individuals; behavioral prevention; needle stick injury.

## 1. Introduction

"Healthy and happy is not everything, but without healthy and happy everything is meaningless," as the slogan that is announced by the International Labor Organization (ILO) with the World Health Organization (WHO) in order to promote Health and Safety (K3) at the workplace throughout the world, including Indonesia. Generally, workforce and population in Indonesia will increase, if the applicable standards in the world applied to every workplace in Indonesia.

The decision of Health minister of Indonesia Republic Number 1087/Menkes/SK/VIII/2010 on K3 standards in Hospital. K3 hospital services should be implemented to an integrated manner and involve all components. The K3 standards in Hospital include: K3 policies, development of human resources (HR), familiarization K3 behavior, occupational health services, safety and evaluation of K3 [1], commitments can also mean strong reception from the individual to the goals and values of the organization, individuals and work strive, and have a strong desire to remain in the those organization. Behavioral indicators can be seen on employee commitment include: efforts adjustments, example of fidelity following, actively support, and personal sacrifices by placing personal interests and supporting decisions that benefit to the organization.

Jombang Hospital a regional work units (SKPD) belonging to the local district government with Type B status (non-education) and has 473 beds with BOR 75 and ALOS 6-8 days. Facilities and infrastructure include management offices, treatment rooms, central operating rooms (OK), laundry, central sterile services department (CSSD) plant nutrition, emergency department (IRD), polyclinics outpatient care, and other support infrastructure such as radiology, laboratory, pharmacy, clinical pathology, and anatomical pathology. Data of needle stick injury in the treatment room Jombang General Hospital reported in 2012 as many as 7 cases, 11 cases in 2013, and by 2014 as many as 12 cases. Efforts are underway Hospital to prevent needle stick injury including by issuing policies SOP form and making use of PPE, then, adding inject action and disseminate to all workers in unit service. While individual factors include the training of emergency, giving injections and handling techniques early needle stick. However, efforts to improve behavior (attitude reinforcement) is not easy to be done, but in a planned manner throughout planning program, dissemination, implementation, and evaluation in order to create a high total safety culture. the background and study the problem described above, then the formulation of the problem of how to analyze the relationship between Hospital and individuals with behavioral prevention of needle stick injury in the treatment room for nurse at General Hospital of Jombang district".

## 2. Methods

This study is observational analytic and using quantitative methods to analyze the relationship between the

hospital and the individual against needle stick injury of behaviors prevention to nurses in the treatment room Jombang Hospital. The draft of this study is using cross sectional and retrieving data with interviews using questionnaires and observation sheets. Data were analyzed using correlation analysis to find the level of the relationship. Independent variables of this study include hospital factors that are human resource policies and K3 Hospital whereas individual factors include knowledge, training, motivation, attitudes, perceptions and individual commitment.

### 3. Discussion and Results

#### A. Relationship of K3 Policy and behavior Prevention of Needle Stick Injury

**Table 1:** Relationship of K3 Policy and behavior Prevention of Needle Stick Injury of Nurses in treatment room of Jombang Hospital.

K3 Policy	behavior Prevention of Needle Stick Injury				Totaly		p value
	Good		Less				
	n	%	n	%	n	%	
Good	9	29,0	22	71,0	31	100,0	0,012
Less	14	63,6	8	36,4	22	100,0	
Totally	23	43,4	30	56,6	53	100,0	

Table 1 show that the assessment of the policy K3 nurses in Hospital with both categories NSI prevention behaviors as many as 9 (29.0%), and the behavior of NSI prevention less category as many as 22 people (71.0%). While the nurse assessment of the policy unavailable K3 with NSI Category better prevention behaviors as many as 14 people (63.6%) and less category as many as 8 (36.4%)

Results of statistical test by Chi-Square values obtained  $p = 0,037 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a significant relationship between policy factors K3 in the hospital with prevention behavior of a needle stick injury.

#### B. Relationship of K3 Hospital Human resource and Behavioral Prevention of Needle Stick Injury

Table 2 shows that the assessments of nurses to the hospital with K3 human behavior NSI prevention of both categories were 17 (54.8%), and the behavior of NSI prevention less category as many as 14 people (45.2%). While the nurse assessment of the SDM unavailable K3 with NSI prevention behavior Category well as 6 people (27.3%) and less category as many as 16 people (72.7%)

Results of statistical test by Chi-Square was obtained  $p = 0.046 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a relationship between human factors K3 in the hospital with a needle stick injury

prevention behavior.

**Table 2:** Relationship of K3 Hospital Human resource and Behavioral Prevention of Needle Stick Injury of Nurses in treatment room of Jombang Hospital

K3 of Hospital Human resource	Behavioral Prevention of Needle Stick Injury				Totally		p value
	Good		Less				
	n	%	n	%	n	%	
Good	17	54,8	14	45,2	31	100,0	0,046
Less	6	27,3	16	72,7	22	100,0	
Total	23	43,4	30	56,6	53	100,0	

C. Relationship of Knowledge and Behavior Prevention of Needle Stick Injury

**Table 3:** Relationship of Knowledge and Behavior Prevention of Needle Stick Injury Nurses in treatment room of Jombang Hospital

Knowledge	Behavior Prevention of Needle Stick Injury				Totally		p value
	Good		Less				
	n	%	n	%	n	%	
High	6	60,0	4	40,0	10	100,0	0,027
Medium	13	56,5	10	43,5	22	100,0	
Low	4	20,0	16	80,0	20	100,0	
Totally	6	60,0	4	40,0	10	100,0	

Table 3 shows that the relationship of knowledge to the prevention behavior NSI good category 6 (60.0%), and the behavior of NSI prevention less category as many as 4 people (40.0%). Knowledge was the prevention of NSI Category good behavior as many as 13 people (56.5%) and fewer categories as many as 10 people (43.5%). While the low knowledge with the NSI prevention behavior Category well as 4 people (20.0%) and less category as many as 16 people (80.0%).

Results of statistical test by Chi-Square was obtained  $p = 0.027 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a significant relationship between knowledge and behavior of needle stick injury prevention.

D. Relationship of Training and Behavioral Prevention of Needle Stick Injury

**Table 4:** Relationship of Training and Behavioral Prevention of Needle Stick Injury Nurses in treatment room of Jombang Hospital

Training	Behavioral Prevention of Needle Stick Injury				Totally		<i>p value</i>
	Good		Less		n	%	
	n	%	n	%			
Yes	9	45,0	11	55,0	20	100,0	0,034
No	14	42,4	19	57,6	33	100,0	
Totally	23	43,4	30	56,6	53	100,0	

Table 4 shows that nurses who had attended training with NSI prevention behavior both categories were 9 (45.0%), and the behavior of NSI prevention less category as many as 11 people (55.0%). While nurses are not trained to conduct NSI prevention both categories as many as 14 people (42.4%) and fewer categories as many as 19 people (57.6%).

Results of statistical test by Chi-Square was obtained  $p = 0.034 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a significant relationship between the training undertaken by a nurse with needle stick injury prevention behavior.

E. Relationship of Motivation and Behavior Prevention of Needle Stick Injury

**Table 5:** Relationship of Motivation and Behavior Prevention of Needle Stick Injury of Nurses in treatment room of Jombang Hospital

Motivation	Behavior Prevention of Needle Stick Injury				Totally		<i>p value</i>
	Good		Less		N	%	
	n	%	n	%			
High	6	85,7	1	14,3	7	100,0	0,026
Medium	8	11,7	19	15,3	27	100,0	
Low	9	47,4	10	52,6	19	100,0	
Totally	23	43,4	30	56,6	53	100,0	

Table 5 shows that high motivation relationship with NSI prevention behavior either category 6 (85.7%), or the behavior of NSI prevention less category as many as one person (14.3%). Motivation medium category with

preventive behavior NSI Category well as 8 people (11.7%) and fewer categories as many as 19 people (15.3%). While the motivation low category with preventive behavior NSI Category well as 9 people (47.4%) and less category as many as 10 people (52.6%).

Results of statistical test by Chi-Square was obtained  $p = 0.026 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a significant relationship between motivation and behavior of needle stick injury prevention.

F. Relationship of attitude and Prevention Behavior of Needle Stick Injury

**Table 6:** Relationship of attitude and Needle Stick Injury Prevention Behavior of of Nurses in treatment room of Jombang Hospital

attitude	Prevention Behavior of Needle Stick Injury				Totaly		<i>p value</i>
	Good		Less		N	%	
	n	%	N	%			
Cognitif	5	71,4	2	28,6	7	100,0	0,033
Afectif	10	58,8	7	41,2	17	100,0	
Conatif	8	27,6	21	72,4	29	100,0	
Totally	23	43,4	30	56,6	53	100,0	

Table 6 shows that high motivation relationship with NSI prevention behavior either category 6 (85.7%), and the behavior of NSI prevention less category as many as one person (14.3%). Motivation medium category with preventive behavior NSI Category well as 8 people (11.7%) and fewer categories as many as 19 people (15.3%). While the motivation low category with preventive behavior NSI Category well as 9 people (47.4%) and less category as many as 10 people (52.6%).

Results of statistical test by Chi-Square was obtained  $p = 0.026 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a significant relationship between attitude and behavior of the prevention of needle stick injury.

G. Relationship of Perception and Behavioral Prevention of Needle Stick Injury

Table 7 shows that the perceptions of positive behavior NSI prevention of both categories were 17 (54.8%), and the behavior of NSI prevention less category as many as 14 people (45.2%). While the perception of negative behavior prevention category NSI Category well as 6 people (27.3%) and less category as many as 16 people (72.7%).

Results of statistical test by Chi-Square was obtained  $p=0.046 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can

be concluded there is a correlation between perception and behavior of needle stick injury prevention.

**Table 7:** Relationship of Perception and Behavioral Prevention of Needle Stick Injury of Nurses in treatment room of Jombang Hospital

Perception	Behavioral Prevention of Needle Stick Injury				Totaly		<i>p value</i>
	Good		Less		N	%	
	n	%	N	%			
Positive	17	54,8	14	45,2	31	100,0	0,046
Negative	6	27,3	16	72,7	22	100,0	
Totally	23	43,4	30	56,6	53	100,0	

H. Relationship of Individual commitment and Behavioral Prevention of Needle Stick Injury

**Table 8:** Relationship of Individual commitment with Behavioral Prevention of Needle Stick Injury of Nurses in treatment room of Jombang Hospital

Individual commitment	Behavioral Prevention of Needle Stick Injury				Totaly		<i>p value</i>
	Good		Less		N	%	
	n	%	n	%			
Afectif	5	62,5	3	37,5	8	100,0	0,044
<i>Continuance</i>	8	42,1	11	57,9	19	100,0	
Normative	10	38,5	16	61,5	26	100,0	
Totally	23	43,4	30	56,6	53	100,0	

Table 8 shows that the commitment of the individual categories of affective relationship with NSI prevention behavior either category 5 (62.5%), and the behavior of NSI prevention less category as many as 3 (37.5%). Individual commitment continuance with NSI prevention behavior both categories of 8 people (42.1%) and less category as many as 11 people (57.9%). While the commitment of the individual categories of normative behavior NSI prevention both categories as many as 10 people (38.5%) and less category as many as 16 people (61.5%).

Results of statistical test by Chi-Square was obtained  $p = 0.044 > \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a relationship between the individual commitment of nurses to the behavior of needle

stick injury prevention.

## Discussion

### 1. Behavioral Prevention of Needle Stick Injury

The Nations Institute For Occupational Health and Safety (NIOSH) defines injury needle stick as injuries caused by needles such as hypodermic needles, needle blood taker, style intravenous and needles used to connect parts of the system intravenous, behavioral prevention are all activities carried out directly or indirectly to prevent a health problem. Prevention-related health problems are specific and include avoidance behavior. Causes contact (immediate cause), includes measures (not wearing PPE, is not feasible, make the safety devices is not functioning, operating without authorization, failed to secure, placement is not feasible, the position is unsafe), and conditions that do not match the standard (the neighborhood is not safe, the system less warning, cleanliness and neatness).

Research conducted by [2], suggests that the syringe stab wound to the nurse at the Hospital of Dr.Sardjito. The results showed that the incidence of wound syringe punctured due to nurses in inpatient room I Dr. Sardjito Hospital of 18.6%. Based on the frequency distribution of the dependent variable that most respondents still had a needle stick injury prevention behaviors were less as many as 30 people (56.6%) and both categories as many as 23 people (43.4%). Therefore, improvement of safety behavior through civilizing culture of safety is very important. This approach through observation with safe behavior (safe behavior) and unsafe behavior in the hospital.

Indicators of the use of needle stick injury include the use of personal protective equipment (PPE) and adherence to standardized operating procedures (SOP). Researchers obtained the observation that the majority of nurses taking action injected by not using gloves because of the risk of such actions in the category type of low exposure so that the use of PPE is considered inconsistent. While the provisions of the Department of Health (2003) on a standard precaution where all the action is given health care workers should wear gloves without looking at the patient and the type of the disease.

According to the researchers the use of PPE is very important to protect nurses from exposure in contact with blood, body fluids and secretions, which prevents them from working accidents. Other attempts were made also to prevent nosocomial infections (INOS) that occurred during patients undergoing inpatient treatment. The use of PPE needs to be done regardless of her illness. While adherence to SOPs injecting action is essential for nurses to avoid needle stick accidents. Needle stick injuries are more common at the time of closing of the syringe. Uses of safety box as shelters used needles are very effective from the closing of the needle after injecting action.

### 2. Relationship of K3 Policy and Needle Stick injury Behavior

Results of correlation analysis with Chi-Square test was obtained  $p= 0.012 < \alpha (0.05)$  showed no significant correlation between the presence of K3 policy with prevention behaviors of needle stick injury to nurses in the



treatment room of Jombang Hospital. The decision of Health minister of Indonesia Republic Number. 1087/Menkes /SK/VIII/2010, on health and safety standards at the hospital where the execution policy K3 consists of the establishment and revitalization program, plan, create and socialize as well as to evaluate the implementation of the program [3]. Policy management is a major catalyst in management involvement and participation of the workers to support the achievement of the objective of the implementation of K3 in the hospital.

Research above is in line with what is done Novi (2013), that Hospital already have policies K3 form of SOP use of personal protective equipment (PPE) and regular socialization has a risk of work accidents is smaller when compared with that rare to disseminate the existence of policies K3, Jombang Hospital has had a policy of K3 in the form of standard operating procedures (SOP) to inject action guide the use of PPE and its implementation largely good nurse assessment if there is a policy that affects the behavior K3 NSI prevention.

According to the investigators, in performing service activities, nurse must use PPE gloves and always adhere to the availability of SOP regardless of disease because in addition to preventing contact with pathogenic germs also avoid exposure resulting from the work. Repair nurse's behavior in the presence of feedback (feedback) is a basic step in the change of performance.

### 3. Relationship of Human Resource and Behavioral Prevention of Needle Stick Injury

Results of correlation analysis with Chi-Square test obtained by value  $p= 0,046 < \alpha 0,05$  and suggest a link between the human resources (HR) K3 hospital with a needle stick injury prevention behavior. That is where HR regularly to socialize and inspection and the testing of a number of equipment K3 can prevent nurses from workplace accidents especially NSI.

The decision of Health minister of Indonesia Republic Number. 1087/ Menkes/SK/VIII/2010 on standardization K3 hospital where the standard HR K3, and explained that the general Hospital and specialized type B must have HR K3 RS with educational qualification maximum S2 K3 and has received accredited special training about K3 hospital. Besides requiring hospital managers and human resources in order to always seek K3 through occupational health and safety in the hospital in order to avoid the risk of occupational disease (PAK) and occupational accidents (TOR).

The results of the above study conducted in line with [4] for human resources in the hospital K3 highly correlated with the number of work accidents. According to hospital personnel who have regular K3 and to disseminate the existence of policies K3 very positive impact on decreasing the incidence rate of work accidents.

According to researchers, one of the key elements in the implementation of K3RS management is the availability of competent human resources and authority to carry out their duties. K3 facilitator ability in disseminating the policy of the use of PPE gloves and SOP continuously inject action will raise awareness of nurses that have a very positive assessment of the adequacy of competent human resources in the field of K3. Planning in the form of human resources, facilities and infrastructure are key elements needed for testing as well

as to control and prevent accidents in the hospital.

#### 4. Relationship of Knowledge and Behavioral Prevention of Needle Stick Injury

Results of correlation analysis with Chi-Square test was obtained  $p = 0.027 < \alpha (0.05)$  and shows the relationship between knowledge of the behavior of respondents with needle stick injury prevention in nurses. It is known that the higher the education level, the greater the respondent can apply PPE properly use and adherence to SOP injecting action.

Knowledge is the result of human sense [5], or knows someone proceeds towards its object through the senses (eyes, nose, ears and so on). By itself when sensing the resulting knowledge is strongly influenced by the intensity of attention and perception of the object. that the causes of accidents are caused by human factors that include lack of knowledge, lack of motivation, lack of skills, problems, physical and mental stress as well as capabilities that are not sufficiently physically and mentally. Control efforts work accidents by improving the system resources can be considered more effective than the improvement of facilities and infrastructure.

Research [2] which states that a nurse with a good knowledge of the practice of action associated with a sharp object by observing the standard of early warning, while nurses with knowledge less often act without regard to the standards early awareness, so that the risk of the incidence of needle stick injuries.

According to the observations of the average researcher educated respondents nursing diploma program, thus expected in order to more easily receive information and new knowledge from both inside and outside the hospital environment. High and low formal education a person does not specify or narrow the breadth of knowledge.

#### 5. Relationship of Training and Behavioral Prevention of Needle Stick Injury

Correlation analysis with Chi-Square test was obtained  $p = 0.034 < \alpha 0, 05$  and suggest a link between the training undertaken by a nurse with needle stick injury prevention behavior. DeJoy et.al (2000), in the model of behavioral determinants of adherence to universal precautions, revealed that training or training the individual factors that influence adherence to universal precautions.

Smart Safety (Safety Management and Attitude Reinforcement Technique) is a K3 approach using improved behavior (safety behavior). This approach to suppress incidents caused by unsafe behavior (unsafe behavior). Improved behavior (attitude reinforcement) is not easy and is done in a planned way by implementing training programs [6].

Research [7] showed no significant correlation between the education and training undertaken by a nurse with a needle stick incident ( $p = 0.014$ ,  $\alpha=0.05$ ,  $OR=1.926$ ). According to the formal and informal education obtained particularly nurse can change behavior in performing acts of service that tend to be prevented from occurrence of occupational accidents.

The results showed the majority of nurses in Jombang hospital are unavailable unfollow the infection prevention and control training. The high incidence of NSI caused by unsafe behavior committed nurse. Improved behavior can be demonstrated by conducting standard training and training in particular precaution.

According to researchers of NSI prevention in general by finding the root causes of what happened and has been known to cause the compiled plan prevention through behavioral improvement efforts. One of the nurse's behavior improvement efforts including by providing training and competence as early as possible to minimize and prevent the occurrence of NSI.

#### 6. Relationship of Motivation and Behavioral Prevention of Needle Stick Injury

Results of correlation analysis with Chi-Square test was obtained  $p=0.033 < \alpha (0.05)$  and showed no significant correlation between nurse motivation with prevention behavior of needle stick injury. This means that with a high motivation to have a desire to look for updates and find alternatives in the form of a new way to do its job. Mangkunagara says that some of the principles in employee motivation among the principles of participation, communications related to achieving the task, with clear information, the principle admit share of subordinates and the principle of delegation of authority where the leader gives authority or the authority to individuals to change at any time in making decisions in their work so as to encourage enthusiasm to keep working

Research conducted quality assurance team, there is a relationship between nurse job motivations with the incidence of needle stick injuries. This study illustrates the nurses who have high motivation will affect the performance, especially the behavior of the implementation of standardization when compared with medium and low levels of motivation. Results were not in line with that of [8], shows that there is no relationship between motivation nurses with infection prevention behaviors. The value of  $OR=3.248$  (95% CI: 1.578 to 6.651), it can be interpreted that the high motivation of the respondents who do not have the opportunity to behave safely in the prevention of infection and vice versa.

Results of this study note that the majority of nurses have the motivation to moderate category that has not been fully implemented K3 culture in the hospital. While a strong motivation for NSI prevention behavior, especially the use of PPE and adherence to SOPs can produce safe work behavior, so avoid the danger of accidents.

According to investigators, a high motivation for safe behavior is not always followed by the will and desire. When individuals achieve satisfaction in their work, such as job performance, respect, and responsibility will encourage a strong motivation level and to build a sense of solidarity and a sense of belonging among fellow nurses or otherwise. Besides motivation can also be given through a method of human resources by giving the responsibility and the opportunity to prove his ability to be able to behave safely.

#### 7. Relationship of attitude and Prevention Behavior of Needle Stick Injury

Results of correlation analysis with Chi-Square test obtained by value  $p = 0,026 < \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a correlation between the attitude of the needle stick injury and prevention behaviors.

suggests the three (3) components elements of attitude are: cognitive (component perceptual), which is a component related to knowledge, views, beliefs, namely matters relating to how people perceive the attitude towards the object, affective (emotional component), the component associated with pleasure or not pleased with the attitude object. Pleasure is a positive thing and is not happy is negative and conative (behavioral component, or action component), the component associated with the tendency to act or behave towards an object.

This study is in line with what is done by [9], the statistical test between the attitude of the nurse's behavior on the incidence of NSI in RSKO Jakarta shows the value of  $p=0.002$  ( $p > 0.05$ ), it means that there is a significant relationship between attitude to compliance with NSI behavior to nurses in RSKO Jakarta in 2012 (OR = 4.34).

Based on the characteristics of the respondents showed most have conative attitude among 29 people (54.7%), affective 17 (32.1%) and cognitive many as 7 people (13.2%). It means that the majority of needle sticks injury prevention behaviors caused by unsafe acts, namely the lack of adherence to SOPs and use of PPE.

According to researchers, nurses attitudes towards preventive behavior of NSI room of Jombang hospital. The higher the knowledge will contribute to the formation of a good attitude. Attitude formation cannot be separated from the factors affecting such experience, cultural and emotional factors of the individual so as to make it avoid workplace accidents, especially needle stick.

#### 8. Relationship of Perception and Behavioral Prevention of Needle Stick Injury

Results of correlation analysis with Chi-Square test obtained by value  $p = 0,046 < \alpha$  (0.05) then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a correlation between perception and behavior of needle stick injury prevention. Perception is a process where a person chooses and organizes and gives meaning to stimuli both internal and external. Perception and understanding of the K3 is an essential factor for the success of health and safety. A positive perception and understanding of the right to K3 among employees is a decisive element of progress in the implementation of normative K3.

The relationship between perception and behavior of NSI prevention in nurses corroborated by research conducted [10], the number of respondents 100 result  $p=0.001$  ( $\alpha=0.05$ ) then  $p < \alpha$  and  $H_0$  received, so that it can be concluded that there the relationship between perception and compliance with needle stick injuries as a result.

Research conducted at the Jombang Hospital obtained the majority of nurses among 31 people (58.5%) have a positive perception of the behavior of NSI prevention. The basis of the commitment and K3 culture is the perception of workers on safety, which became one picture of the behavior of the workers towards the implementation of the rules and procedures in order to control the source of danger. While the negative perception caused by low utilization (use) of the safety facilities such as APD and adherence to SOPs so has the risk of accidents, especially NSI.

According to investigators, the high number of work accidents caused by the NSI forms the character of a nurse.

Misperceptions about the use of PPE based SOP procedures and provisions of PPIs can be considered as forming the basis of the perceived character of the target and the background so that the relationship can be an obstacle in efforts to prevent NSI. The cumulative results of the assessment will lead to a positive or negative impression of the respondents to the object being assessed.

#### 9. Relationship of Individuals Commitment and Behavioral Prevention of Needle Stick Injury

Results of correlation analysis with Chi-Square test obtained by value  $p = 0,044 > \alpha (0.05)$  then  $p < \alpha$  and  $H_0$  received so that it can be concluded there is a relationship between the individual commitment of nurses to the behavior prevention of needle stick injury. Reference [1] divides the individual commitment into three (3) sections includes: affective commitment that includes emotionally desire tied to the organization, identification and engagement based on the same values. Commitment continuance of an underlying awareness of the costs to be borne if it did not join the organization. While the normative commitment by feeling obliged as an employee to remain because of the feeling of indebtedness.

#### 4. Conclusions

There is a correlation between policies, Human Resource of K3 hospital, knowledge, training, motivation, attitudes, perceptions and behaviors of individual commitment to the prevention of needle stick injury in nurses care in Jombang Hospital.

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