

THE INFLUENCE OF LEARNING AND TRAINING WITH FGD METHODS ON THE ABILITY OF NURSES IN DETERMINING THE SEVERITY OF TRAUMA IN MOJOAGUNG JOMBANG HEALTH CENTER INDONESIA

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ABSTRACT

**Background:** The ability to determine the severity of trauma in patients must be owned by nurses. Nurses have an important role in early identification of trauma patients which can determine further management for trauma patients. The purpose of this study was to determine the effect of learning and practice using FGD on improving the ability of nurses in determining the severity of trauma patients. **Methods:** The research method used in this study is a quasi-experimental design with one group pre post test design. The population in this study were nurses who served at the Mojoagung Health Center. Determination of the sample using purposive sampling. The sample used was 25 nurses. All nurses underwent a pretest assessment to see the ability to identify the severity of trauma. The intervention was carried out by providing learning and training using the FGD Method on Trauma score. **Result:** The results of this study showed that the pretest data on the ability of nurses in the Good category were 9 nurses and the poor category was 16 nurses. After the provision of learning interventions and FGD training, data on the ability of nurses were obtained for 21 people in the Good category and 4 people in the Poor category. **Analysis:** The analysis test used in this study was using Wilcoxon to obtain Asymp value data. Sig. (2-tailed) is 0.000 thus indicating the effect of learning and practice with the FGD method on the ability of nurses. **Discussion:** The ability of nurses can be improved by doing learning and training with the FGD method. This activity has a positive impact on the ability to identify the severity of trauma patients in health services.

**KEYWORDS:** FGD, The ability of nurses.

I. INTRODUCTION

According to the World Health Organization (WHO), every 5 seconds, one person dies worldwide as a result of a traumatic event. The annual mortality rate worldwide due to trauma is more than 5.8 million people (WHO, 2017). Death due to hemorrhage accounts for up to 40% and is the leading preventable cause of death from trauma (Gerecht, 2014). Trauma events in Indonesia experienced an increasing prevalence from the results of RISKESDAS in 2013 increasing from 7.5% in 2007 to 8.2% in 2013 and increasing 9.2% in 2018 (Riskesdas, 2018). Based on a preliminary study at the Puskesmas Mojoagung in January 2021, trauma patients obtained an average of 20 cases per month per month.

The initial assessment is important so that it can be used to provide information about the severity of the disease.

There is no standard trauma assessment system so that not all emergency department services perform an initial assessment to determine the severity of trauma patients. The trauma scoring system tries to translate the severity of the injury into a number, helping to quantitatively assess the severity of the injury (Salim, 2015).

Good pre-hospital emergency services are supported by the ability of doctors and nurses to apply appropriate treatment to trauma patients. Scientists have the opinion that the assessment of the severity of the injury or trauma can provide objective information (Ozoiolo K. N, 2012). The purpose of this study was to determine the effect of learning and training on trauma scores with the FGD method on the ability to identify the severity of trauma in Mojoagung Public Health Center, Jombang Regency.

## II. METHODS

This study uses a one group pretest posttest design. This research was conducted at Mojoagung Health Center, Jombang Regency. The duration of time used in this study is starting from August 25 to October 15 2021. The population of nurses is 27 nurses at the Mojoagung Health Center. Determination of respondents is based on

determining the number of samples with purposive sampling technique. The respondents involved in this study were 25 nurses. Nurses conducted an initial assessment of the ability to identify the severity of trauma using the Trauma Score Instrument. The next stage, nurses provide intervention in the form of learning with discovery learning and exercises using FGD.

**Table 1: The steps taken are as follows.**

Interaction 1	Interaction 2	Interaction 3	Interaction 4
Pretest	Discovery learning	FGD	Posttest

### Research Design

The research instrument used was a questionnaire with affective cognitive and psychomotor approaches to determine the nurse's ability to identify the severity of trauma patients. Nurses were pretested before being given a learning and training intervention using the FGD method. After the FGD, the nurses did a posttest. The use of measurement instruments and materials for learning is

focused on trauma scores. Trauma scores used for learning and training are GCS, AIS/ISS, RTS and GAP.

This study is important because the program developed is expected to help improve the practical skills of Nurses. It will also contribute to career development through strong active learning, which is a goal to be achieved by national and educational institutions.

## III. RESULT

Based on the results of the study obtained the following data:

**Table 2: Data of Respondents Based on Age, Gender, Education, Length of Work, BTCLS Training and ATLS Training at Mojoagung Health Center.**

Age	Frequency	Percentage
<25 years old	3	12%
25-35 years old	13	52%
35-45 years old	6	24%
>45 years old	3	12%
<b>Sex</b>		
Male	14	56%
Female	11	44%
<b>Education</b>		
Diploma 3	17	68%
Bachelor	1	4%
Nurse Profession	7	28%
<b>Length of work</b>		
< 2 Years	2	8%
2-5 Years	6	24%
5-10 Years	14	56%
>10 Years	3	12%
<b>BTCLS Training</b>		
Once	25	100%
Never	0	0
<b>ATCLS Training</b>		
Once	2	8%
Never	23	92%

Primary Data 2021

Based on Table 2 above, it was obtained data that most of the nurses at the Mojoagung Public Health Center (52%) were aged 25-35 years, most (56%) were male, most had D3 Nursing education (68%), Most worked 5-10 years (56%), all of them had BTCLS trainin

**Table 3: Pretest data on the ability of nurses to identify the severity of trauma at the Mojoagung Health Center.**

	Pretest measurement results	
	Frequency	Percentage
Good	9	36%
Not Good	16	64%
Total	25	100%

Primary Data 2021

Based on the pretest data above, it shows that most of the respondents have the ability to identify the severity of trauma in the Less category (64%).

**Table 4: Posttest data on the ability of nurses to identify the severity of trauma patients at the Mojoagung Health Center.**

	Pretest measurement results	
	Frequency	Percentage
Good	21	84%
Not Good	4	16%
Total	25	100%

Primary Data 2021

Based on the pretest data above, it shows that most of the respondents have the ability to identify the severity of trauma in the Good category (84%).

#### IV. Data analysis

Determining the effect of learning and practice using the FGD method using the Wilcoxon Signed Rank Test. The test is a nonparametric difference test of 2 groups of paired or related data(Dahlan, 2011).

The analysis test used in this study was the Wilcoxon Signed Rank Test with a significance value of  $p < 0.05$ . Measurements obtained Asymp value data. Sig. (2-tailed) is 0.000 thus indicating the effect of learning and practice with the FGD method on the ability of nurses.

The results of this analysis indicate that the intervention with the Learning and training method using the FGD method is very effective in improving the ability of nurses. Nurses will have increased abilities after getting learning and training(Okamoto et al., 2020).

#### V. DISCUSSION

Ability is based on 3 main aspects, namely the cognitive, affective and psychomotor domains. A person's ability is based on how knowledge, how attitudes and how to behave. That knowledge is an important domain in

shaping one's actions, which in turn will perceive everything that will form an ability(Notoatmodjo, 2011).

Based on the results of research that has been conducted on 25 respondents, it shows that before the learning and training actions were carried out using the FGD method, most of the respondents were in the less category with a total of 16 respondents (64%). This shows that the ability of nurses in identifying the severity of trauma is classified as lacking. This is caused by the lack of knowledge of nurses in studying the severity of trauma. Factors that can influence action are knowledge, beliefs, beliefs, values, availability of health facilities, training and experience. As for other factors that influence action is motivation, this motivation is what drives a person to take action in accordance with the procedures that have been taught (Notoatmodjo, 2011).

The results showed that nurses' ability to identify the severity of trauma increased after being given learning and training using the FGD method. This increase can be seen from the categories before and after the intervention where before the intervention there were only 9 respondents in the Good category. It increased to 21 respondents. Training is the act of increasing one's knowledge and skills (actions) to carry out a particular job (Knipe et al., 2020). This study applies learning followed by training with the FGD Method.

The results of the analysis of the results showed that there was a significant effect between learning and training with the FGD method on increasing the ability of nurses in identifying the severity of trauma patients at the Mojoagung Health Center. This is indicated by the results of the Wilcoxon sign rank test with the results of the sign 2 tiled 0.000 ( $< 0.05$ ). This research is in line with research conducted by Loai in 2020. Which revealed that learning and training can improve the ability of community nurses(Tawalbeh, 2020).

#### VI. CONCLUSION

This study shows that to improve the ability of nurses in identifying the severity of trauma can be done by learning / discovery learning. After nurses get the learning process, it can be continued with training using the FGD method. The ability of nurses to identify the severity of trauma patients is to use an assessment based on the specified instrument, namely using a trauma score. Trauma scores used in FGD learning and training were trauma scores GCS, AIS/ISS, RTS and GAP. The trauma score can be applied to determine the severity of trauma patients based on the type of trauma present.

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