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## The Effect Of Health Education Using Direct Demonstration Method On Compliance In The Use Of Personal Protective Equipment (PPE) In Sugar Cane Farmers Group In Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang

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### A B S T R A C T

Personal protective equipment is very important in carrying out work which can cause work accidents, so health education using direct demonstrations makes a huge contribution to change respondent behavior. So with direct demonstrations it was hoped that people would understand and remember more quickly. The aim of this research was to identify the effect of direct demonstration method health education on compliance with the use of personal protective equipment (PPE) in sugar cane farmer groups. The research method used in this research was a pre-experimental one group pre test and post test design. The population of this study was a group of sugar cane farmers in Desa Banyuputih Kidul , Jatiroto subdistrict, Lumajang district with a sample of 30 respondents. The sampling technique used Amount sampling with a data collection sheet, observation sheet and analyzed using the SPSS statistical test, the Willcoxon test showed that the results were  $p \text{ value} = \alpha = 0.000, \alpha < 0.05$ . The results of the research before health education using the direct demonstration method showed that most of the compliance was not good, 30 people (100%) and after health education using the direct demonstration method, the majority of compliance was good, 17 people (56.7%), and there was an influence of health education using the method. direct demonstration of the level of compliance among sugar cane farmer groups. It is hoped that this research can increase more efforts and support from village officials and farmer group administrators in providing personal protective equipment (PPE), and health education using the direct demonstration method can be applied in educational services in village communities, especially in farmer groups with other implementations.

## I. INTRODUCTION

Worker safety is a very dominant factor in an industry, because the progress of an industry is also greatly influenced by the existence of a guarantee of the safety of its workers. So this is the key to the smooth productivity of a company. While working, it really needs Personal Protective Equipment (PPE), PPE itself is a set of tools used by workers or laborers to protect all or part of their bodies against the potential dangers of work accidents. If PPE is used properly and correctly, work accidents can be reduced and worker safety can be increased (ILO, 2021).

Compliance with the Use of PPE is an action in preventing work accidents, especially in health care facilities. Compliance with the use of PPE is a behavior that can be influenced by factors of awareness or environmental factors. The use of PPE is included in environmental factors, which can affect compliance in the use of PPE, in the use of PPE is a behavior so that physical safety is formed to avoid work accidents. Compliance with the use of PPE has an important position in making efforts to avoid the dangers of accidents (Lenie Marline, 2020).

Non-compliance with the use of PPE greatly affects the occurrence of work-related accidents and work-related diseases which will cause 5 types of losses including damage, organizational chaos, complaints and sadness, abnormalities, disabilities and death. While in the farmer group environment, lack of compliance in the use of PPE can cause work accidents. Work accidents that occur include falling, being hit, poisoning, being pinched by objects, exposure to radiation, the effects of high temperatures, bites from wild animals, direct contact with hazardous materials or other radiation (Wulansari, 2019). According to the World Health Organization (WHO) in 2009 there were around 600,000 cases and 60,000 deaths in India, workers in the informal sector and farmers. In Bangladesh in 2008, pesticide poisoning caused the highest death. In Cambodia, 88% of farmers experience acute effects of pesticide poisoning. In China between 53,000 and 123,000 people are poisoned by pesticides each year. Around 5,000 to 10,000 people

experience impacts such as skin cancer and disability every year (Shohib, 2019).

There were 95,624 cases of work accidents in Indonesia, consisting of 4,973 cases of functional disability, 2,918 cases of partial disability, 122 cases of Amount disability, 1,784 cases of death and 85,827 cases of recovery. Then in 2007 there were 65,474 cases of work accidents and work-related diseases. This resulted in 1,451 deaths, 5,326 people with disabilities, and 58,697 people who recovered without disabilities (Depnakertrans, 2020).

Kabupaten Lumajang has an area of 179,090 Ha or 3.74% of the area of East Java province. The Amount area of land use in Kabupaten Lumajang is 180,864.86 Ha with a standard area of rice fields of 36,392 Ha, consisting of irrigated rice fields, rainfed rice fields, tidal rice fields. and the contribution of GRDP at constant prices in 2018\*\*\* was 34.31%.

Based on the results of the 2017 population registration, the population of Jatiroto sub-district was recorded at 47,280 people spread across 6 villages. So that the population density reaches 614 people/Km<sup>2</sup>. Based on the type of land in Jatiroto sub-district, it can be divided into 3 types, namely rice fields, dry land, and others. Among the three types, other land has the largest area, which is 2,814 hectares or 64.14 percent of the Amount area. The harvested area of agricultural crops, especially sugar cane and rice in Jatiroto sub-district in 2017 reached 4,043 Ha. The largest percentage of the harvested area is the rice field commodity which reaches 3,835 hectares or 96.54 percent of the Amount harvested area. To meet the needs of animal fat for its population, the availability of livestock and livestock products is greatly needed. The population of cattle in 2017 was 3,498, sheep 1,696, goats 2,354, native chickens 29,369, broiler chickens 6,700, and ducks 20,346. Based on a preliminary study from the results of interviews with the Sugarcane Farmer Group in Desa Banyuputih Kidul , almost all Sugarcane farmer groups do not use PPE when working in the fields, many people complain of itching on their feet due to not using PPE such as gloves, protective clothing, masks, boots. The incident was caused by the lack of compliance of farmer groups from the benefits of using PPE and

they felt uncomfortable when using PPE. The results of observations of 5 farmer groups working in the fields did not use PPE at all. The farmer group said that there had never been any counseling on the demonstration method of using PPE for farmer groups from the relevant agencies, what was conveyed to the farmer group was only providing knowledge about how to use and the benefits of pesticides to increase yields, but not to increase compliance with the use of PPE, so that the safety of farmer groups was maintained.

Based on the results of research conducted by Sufyan Stauri (2016) in Wringin Telu Village, Puger District, Jember Regency on the influence of health education with demonstration methods on the level of knowledge and motivation for the use of personal protective equipment (PPE) in tobacco farmers ( $p$ -value = 0.001). Based on the results of Khamdani's research (2009) the relationship between knowledge and attitudes with the use of personal protective equipment (PPE) for spray pesticides on Farmers in Angkatan Kidul Village, Pati, Semarang. The results of the study explained that out of 80 respondents, most had poor knowledge, namely 34 respondents or 42.5%, sufficient knowledge was 29 or 36.3%, and only 17 respondents or 21.3% had high knowledge about PPE. The results of the study (Said, 2014) on the relationship between nurse performance and motivation to use personal protective equipment (PPE) in carrying out nursing actions in the inpatient room of Salewangang Maros Hospital explained that out of 31 respondents who had the motivation to use PPE, 19 people (61.3%) and did not have motivation, 12 people (38.7%).

This compliance is important and interrelated. Basically, if the farmer group is obedient and motivated, of course, disease and danger will be avoided. However, in reality, compliance and motivation in farmer groups are considered still low in the Desa Banyuputih Kidul environment, Kecamatan Jatiroto, Kabupaten Lumajang, of course, it is very necessary and very important to avoid work accidents in the workplace. In reality, many farmer groups still do not use PPE when working for reasons of not understanding, hot, stuffy, uncomfortable to

wear, unpleasant to look at, heavy, disruptive to work, not in accordance with the existing dangers, no sanctions, superiors also do not use it, not provided by the Land Owner (Farmers), considered in vain, not in accordance with the existing dangers.

Health education in the form of demonstrations in the use of PPE in farmer groups is important because farmer groups have the right to know and receive information about the diagnosis, prognosis, treatment and risks they face. The role of nurses can provide health education using the most appropriate teaching methods (Potter & Perry, 2005). Current learning methods vary, namely lectures, questions and answers, discussions, group work, simulations, demonstrations, problem-based learning, self-directed learning (Susilo, 2011).

Previous researchers' efforts to overcome this by One of the existing health education methods in nursing is the demonstration method, namely nurses and officers provide knowledge and direct examples of PPE that are in accordance with the work of farmer groups with the hope of increasing knowledge and motivation to use PPE in farmer groups (Susilo, 2011).

Based on the explanation above, the researcher intends to conduct health education using a demonstration method on the use of Personal Protective Equipment (PPE) and analyze the effect of health education using direct demonstration methods on compliance with the use of PPE in sugarcane farmer groups in Desa Banyuputih Kidul, Kecamatan Jatiroto, Kabupaten Lumajang.

## II. METHODS

This type of research is a two-group pretest-posttest treatment design study with the aim of comparing the results of health program interventions before and after being given demonstration health education. Pretest (O1) was conducted on the experimental group to determine the level of compliance with the use of personal protective equipment (PPE) before the demonstration method of health education was conducted. The treatment of health education using the Demonstration method of PPE (X) on the experimental group. Posttest (O2) was conducted on the experimental group to

determine the effect of the level of compliance with the use of PPE after the direct practice method of health education was conducted. The design of this study can be described as follows:

**Figure 1 Research plan with a group pretest-posttest treatment design.**



Description:

01: Pretest compliance with the use of PPE

X: Direct demonstration method of health education

02: Posttest compliance with the use of PPE

### III. RESULT

#### 1) Reseach Result

The results of this study present two main data, namely general data and specific data. General data contains characteristics of sugarcane farmer groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang. Meanwhile, specific data presents the results of the analysis of research variable data in the form of health education using the Demonstration method on compliance and use of PPE in sugarcane farmer groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang, which are presented as follows:

#### 1) Univariate Analysis

##### 1. General data

##### a. Age in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang

**Table 1. Frequency Distribution of Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang Based on Age in July 2024**

Number	Age	Freq	Percentage (%)
1	25 - 35	11	36,6
2	36 - 45	12	40
3	46 - 55	7	23,3
Amount		30	100

Based on table 1, it was found that the age of the largest number of Sugarcane Farmers Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang was 36 - 45 years old, with the youngest being 29 years old and the oldest being 55 years old.

##### b. Education Level in Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang

**Table 2 Distribution of Freq in Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang Based on Age in July 2024**

	Characteristics	Frequency (f)	Percentage (%)
1	Elementary School	14	46,7
2	JHS	10	30
3	SHS	5	16,7
4	No School	1	3,3
Amount		30	100

Based on Table 2, it was found that the level of education in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed that the majority had elementary school education, namely 14 people (46.7%).

##### c. Gender in Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang

**Table 3 Gender in Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

Nu	Gender	Freq	Percentage (%)
1	Male	20	66,7
2	Female	10	33,3
Amount		30	100

Based on Table 3, it was found that the gender of the Sugarcane Farmers Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed that the majority were male, namely 20 people (66.7%).

**d. OCCUPATIONAL HEALTH AND SAFETY Information on Sugarcane Farmers Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

**Table 4 Distribution of Sugarcane Farmer Group Freq in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang Based on OCCUPATIONAL HEALTH AND SAFETY information for July 2024**

NO	Information	Freq	Percentage (%)
	<b>OCCUPATIONAL HEALTH AND SAFETY</b>		
1	Yes	0	0
2	No	30	100
Amount		30	100

Based on Table 4, it was found that the OCCUPATIONAL HEALTH AND SAFETY information in the Sugarcane Farmers Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed that all of them had never received OCCUPATIONAL HEALTH AND SAFETY information (100%).

**e. Availability of Personal Protective Equipment (PPE) in Sugarcane Farmers Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

**Table 5 Distribution of Sugarcane Farmer Group Freq in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang Based on the Availability of PPE in July 2024**

Numer	Availability of PPE	Freq	Percentage (%)
1	YA	0	0
2	TIDAK	30	100
Amount		30	100

Based on Table 5, it was found that the Availability of PPE in the Sugarcane Farmer Group in Desa Banyuputih Kidul ,

Kecamatan Jatiroto, Kabupaten Lumajang showed that all of them did not have availability of PPE (100%).

**2. Special Data**

**a. Compliance Before Being Given Health Education Demonstration Method in Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

**Table 6 Compliance Before Being Given Health Education Using the Demonstration Method in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang in July 2024**

NO	Compliance before health education	Freq	Percentage (%)
1	Compliance is not good	23	76,7
2	Compliance is lacking	7	23,3
Amount		30	100

Based on Table 6, it was found that compliance with the Demonstration Method in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed that the majority of compliance was poor, namely 30 people (100%).

**b. Compliance After Being Given Health Education Using the Demonstration Method in Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

**Table 7 Compliance After Being Given Health Education Using the Demonstration Method in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang in July 2024**

Therapy Demonstration	compliance	Freq	Percentage (%)
Before	Compliance is not good	23	76,7
	Compliance is lacking	7	23,3
After	Compliance is very good	13	43,3
	Compliance is good	17	56,7
Amount		30	100

Based on Table 7, it was found that compliance with the Demonstration Method in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed that the majority were at a good level of compliance, namely 17 people (56.7%).

**3. The influence of health education using direct demonstration methods on compliance with the use of PPE**

To determine the effect of health education using the Demonstration Method on compliance with the use of PPE using the Wilcoxon statistical test on the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang, the following results were obtained

**Table 8 Statistical test using the Wilcoxon signed ranks test Level of Compliance with the Use of PPE Between Before and After Being Given Health Education Using the Demonstration Method on the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang.**

		Ranks	Mean Rank	Sum of Ranks
		N		
BEFORE	Negative Ranks	0 <sup>a</sup>	,00	,00
- AFTER	Positive Ranks	30 <sup>b</sup>	15,50	465,00
	Ties	0 <sup>c</sup>		
	Amount	30		

- A. Before < After
- B. Before > After
- C. Before = After

Test Statisticsa

BEFORE - AFTER	
Z	-5,035 <sup>b</sup>
Asymp. Sig. (2-tailed)	,000

- a. Wilcoxon Signed Ranks Test
- b. Based on negative ranks.

**Table 9 Table of the level of compliance with the use of PPE between before and**

**after being given health education using the Demonstration Method in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

Therapy Demonstration	compliance	Fre q	Percentag e (%)
Before	Compliance is not good	23	76,7
	Compliance is lacking	7	23,3
After	Compliance is very good	13	43,3
	Compliance is good	17	56,7
Amount		30	100

Based on Table 9, it is found that compliance before being given education with the Demonstration Method in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed poor compliance of 30 (100%), and the level of compliance after being given education with the Demonstration Method in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang was mostly at a good level of compliance, namely 17 people (56.7%)

Based on table 5.8 above, p value =  $\square$  = 0.000, so the statistical assumption if the  $\square$  value <0.05 then H0 is rejected and H1 is accepted, then there is an effect of providing direct Demonstration Method health education on the level of compliance with the use of PPE in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang. This proves that intervention by providing health education through the Demonstration Method on the level of compliance with the use of PPE in the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang will increase.

**IV. DISCUSSION**

**1. Pembahasan Hasil Penelitian**

**1) Compliance with the use of PPE before being given health education using the direct demonstration method to the sugarcane farmer group in Desa**

### **Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

Based on the research results in table 5.6, it was found that compliance with the use of PPE in the Sugarcane Farmer Group before being given health education using the direct demonstration method in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang was 30 people (100%), indicating that most of them were at a poor level of compliance.

Compliance comes from the basic word obey which means obey, like to follow orders. Compliance is the level of patients carrying out the treatment methods and behavior recommended by doctors or others (Santoso, 2005). According to Notoatmodjo (2018) compliance is a change in behavior from behavior that does not obey regulations to behavior that obeys regulations (Notoatmodjo, 2018). Furthermore, another opinion was put forward by Sacket (In Neil Niven, 2020) defining compliance as "the extent to which a person's behavior is in accordance with the provisions given by health professionals". a person may not comply with the objectives or may simply forget or misunderstand the instructions given.

Reveals that in the sugarcane farmer group, the highest level of compliance is poor compliance. The process is based on compliance, awareness and positive attitudes, then the behavior will be sustainable. Conversely, if the behavior is not based on compliance and awareness, it will not last long (Notoatmodjo, 2018). It can be assumed that the conditions before receiving health education are stressors that trigger non-compliance with a procedure. This finding is in line with Hamidah (2020) who stated that compliance is influenced by many factors that can change significantly. Based on OCCUPATIONAL HEALTH AND SAFETY information, it is known that almost all do not receive information about OCCUPATIONAL HEALTH AND SAFETY. Hamidah (2020) in her study explained that there is a relationship between knowledge and compliance in individuals. Based on the level of education, it is known that in this study the majority of respondents' education levels were at elementary school level.

Hamidah (2020) in her study explained that there are factors that influence the level of compliance, namely the level of education. The study also revealed that respondents with basic education tended to have lower compliance scores than individuals with higher levels of education.

Based on the results of the study, it provides evidence that knowledge and education as a form of mediating factors for decreasing compliance, that lower compliance conditions were found in respondents who did not receive knowledge compared to respondents who at least received direct information. Based on general data in this study, all respondents had never received information about this PPE, which could reduce respondent compliance. In addition, the level of education of respondents who were in the elementary school range was also a factor that could reduce compliance. The results of this study provide a logical reason that although knowledge and education levels are important factors, the absence of educational maturity and sufficient knowledge will have an impact on individual compliance, so that they are less able to adapt well which ultimately results in poor compliance.

### **2) Compliance with the use of PPE after being given health education using the direct demonstration method to the Sugarcane Farmer Group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

Based on the research results in table 5.7, it was found that compliance with the use of PPE in the Sugarcane Farmer Group after being given health education using the direct demonstration method in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang was 17 people (56.7%), indicating that most of them were at a good level of compliance.

According to Feist (2019) in his research, he explained that providing information to individuals is closely related to compliance, he also stated that increasing compliance in respondents also has implications for knowledge itself. Based on According to Feist (2019) revealed that there is a relationship between increased knowledge and individual compliance. Smet (2023) in

his research explained that nursing interventions can increase compliance in respondents.

This study through interventions in the form of health education using the Direct Demonstration method was able to significantly increase the impact of respondent knowledge. that compliance with the use of PPE is a real indicator that changes. This study also strengthens previous research that increased compliance is a result of the nursing action plan in this case, namely the existence of a procedure for providing education using the Direct Demonstration method will have implications for knowledge that is proven by motivation, self-control, and self-efficacy. And, this study also provides evidence that after providing health education, signs of compliance in the use of PPE show good conditions, because providing health education can provide information to respondents about what negative impacts will arise for them if they do not use PPE, so indirectly it will increase the level of compliance in the use of PPE.

### **3) The Influence of Health Education Using the Direct Demonstration Method on Compliance with the Use of Personal Protective Equipment in Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang**

Based on the results in table 5.8, it was found that there was an influence of health education using the Direct Demonstration method on the compliance of the use of PPE in the sugarcane farmer group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang. There was a difference in compliance before and after being given health education using the Direct Demonstration method on the level of compliance with the use of PPE in the sugarcane farmer group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang, which was shown to be positive ranks 30, which means that the value before and after health education using the Direct Demonstration method on the level of anxiety, the level of compliance with the use of PPE in the sugarcane farmer group in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang increased from poor

compliance of 23 people to good compliance of 17 people. As the concept explained by (Sanjaya, 2014), that in the Direct Demonstration method, health educators practice directly with the target, health educators use media as an intermediary and reduce the possibility of misinterpretation, when compared to only reading and listening to information to be memorized, in delivering messages for example, students can be involved by imitating the demonstration given so that they are competent, skilled and confident so that the target targets can increase their knowledge and are expected to change their health behavior in a positive direction. in line with the results of a study by (Shohib, 2013) which revealed the existence of factors that influence compliance in the use of PPE, one of which is the knowledge gained after being given health education.

The results of the study showed that the level of compliance with the use of PPE respondents increased from before being given education there was compliance with the use of PPE and after being given health education using the demonstration method to the majority of good compliance. This shows that, after health education, compliance with the use of PPE in sugarcane farmer groups experienced a significant difference, this study proves that intervention by providing health education through the Direct Demonstration method, the level of compliance with the use of PPE in sugarcane farmer groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang will increase. That sugarcane farmer groups with information that receives information and the application of Direct Demonstration of the use of PPE have the potential to experience increased compliance compared to information that is not direct in its application. This provides empirical evidence that health information must be provided comprehensively to individuals and knowledge about the use of PPE has a great impact on increasing compliance with the use of PPE itself, because in Direct Demonstration can focus attention on important things during the learning process. most respondents will think that the procedure for using PPE is difficult but with Direct Demonstration respondents get convenience because they



practice it directly. In addition, this study provides an alternative solution that providing health information through Live Demonstration is able to provide the facilities and understanding needed by respondents or sugarcane farmer groups to minimize the possibility of misinterpretation, when compared to just reading and listening to information to be memorized, Can involve respondents by imitating the demonstration given so that they are competent, skilled and confident. And can improve the quality of understanding and avoid negative impacts in the implementation process if they do not use PPE. This study also provides a concrete picture of the importance of evaluating the implementation of education with Live Demonstration because it can increase the complexity of the procedure. This has an impact on increasing compliance with the use of PPE which is very significant from poor compliance to good compliance. The health education method through the Live Demonstration method goes hand in hand with the increasing need to prevent work accidents. Providing education using the Live Demonstration method in face-to-face modeling and direct practice may be the best way to reach the widest population.

## 2. Research Limitations

The limitations of the study include:

- a. The instrument in this study contains a complex construction that includes respondents' concerns related to the procedure for using PPE and related to the PPE facilities themselves as well as information needs so that it does not provide a specific evaluation of respondent compliance.
- b. This study is only limited to studies of individuals whose compliance was measured.
- c. This study was conducted in a minimal population so that, in terms of its potential, it is less representative if used for generalization.
- d. This study also did not evaluate the possibility of mental disorders, so this could trigger bias in the results.

## 3. Nursing Implications

Respondents need Live Demonstration education on the use of PPE to help improve

compliance towards positive results. However, considering the situational analysis that contributes to increasing interaction between nurses and respondents, an educational model can be built through Live Demonstration so that the health information needs of respondents, especially in farmer groups, can be mediated. This is a logical implication that providing Live Demonstration education on the use of PPE can improve compliance. While the development and delivery of Live Demonstration education requires time and resources, increasing farmer group compliance can lead to guaranteed levels of work safety for farmer groups and what is higher is the reduction in the risk of greater complications, namely avoiding unwanted work accidents.

## V. CONCLUSION

The conclusion obtained based on the objectives and results of the study on the influence of health education using the direct demonstration method on compliance with the use of personal protective equipment (PPE) in sugarcane farmer groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang, namely:

1. Compliance in farmer groups before health education using the Direct Demonstration method was carried out on Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed that most of them were at poor compliance, namely 23 people (76.7%).
2. Compliance in farmer groups after health education using the Direct Demonstration method was carried out on Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang showed that most of them were at a good level of compliance, namely 17 people (56.7%).
3. There is an influence of health education using the Direct Demonstration method on the level of compliance with the use of PPE in Sugarcane Farmer Groups in Desa Banyuputih Kidul , Kecamatan Jatiroto, Kabupaten Lumajang with a p value = 0.000 <math>< \alpha</math> 0.05

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