

Awareness Of Farmers In Using Personal Protective Equipment In The Event Of A Farmer Bitten By A Snake In Lumajang

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ABSTRACT

One district in East Java where the majority of the population works as a farmer, namely in Lumajang district. Farmers need to use personal protective equipment when working to protect themselves from work accidents and hazardous materials used by farmers. This research focuses on farmers' awareness in terms of knowledge, attitudes and behavior of farmers in the use of personal protective equipment in Kaliwungu Village, Tempeh District, Lumajang. This type of research is descriptive research and uses qualitative methods. Using purposive sampling where there are 4 samples chosen are those who have been bitten by a snake. Data collection is done by means of interviews using interview guides that have been prepared. The results showed that farmers in Kaliwungu Village who had been bitten by a snake and did not use PPE when farming due to feeling uncomfortable and lack of self-motivation and family not to rule out the importance of using PPE to avoid being bitten by poisonous animals that threaten health and some PPE is not ergonomic when used.

Keywords: Farmer, PPE, qualitative, bitten by a snake, Lumajang.

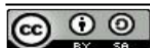
INTRODUCTION

The majority of residents in Lumajang Regency work as farmers, farmers who have their own rice fields or gardens, or labor farmers. Someone at work must prioritize safety at work, one of which is by complying with the use of personal protective equipment (PPE) according to environmental conditions and the work he is doing consciously because he knows the risks that will occur when ignoring this.

PPE should be considered as the last line of defense, because often this equipment is not practical to use and is considered to impede movement. It is not surprising that PPE is often overlooked by workers because it can cause chills, sweating, and fatigue, because it retains body heat and moisture in it. PPE has become such an important protector because of its fairly accurate function in various types of work.

When working, farmers do not use PPE, one of which is experiencing poisonous animal bites and experiencing health complaints with signs of having a high fever, the area around the part of the body that has been bitten to become swollen even turning blue, feeling dizzy or having severe headaches. Farmers who experience these complaints will go to a health worker at the nearest health center, while someone who is believed to be able to handle an accident due to the bite of a poisoned animal in the village.

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Kaliwungu Village is one of the villages in Tempeh Subdistrict where 4 farmers have been bitten by a snake while looking for grass or leaves to feed their livestock because they are not wearing PPE. In-depth research is needed to find out the motive for this incident.

METHODS

This research variable regarding personal protective equipment (PPE) with a qualitative descriptive research design and using a sampling technique, namely purposive sampling. Meanwhile, the data analysis used the miles and huberman model.

Data analysis in qualitative research is carried out during data collection and after completing data collection within a certain period. At the time of the interview, the researcher had conducted an analysis of the interviewee's answers. There are 3 informants who have been bitten by a snake in Kembangan, Kaliwungu Village, Tempeh District, Lumajang. The process of collecting data prepares the results of the interview from a series of questions in the interview guide that has been provided. The research instruments include the arrangement of interview guides, notebooks, ballpoint pens, audio recording devices and cameras.

The subjects of this study were farmers who had experienced a snake bite. As a triangulation, the researchers conducted interviews with the head of a farmer group in Kaliwungu Village, Tempeh District, Lumajang. This research was conducted in July-August 2020.

RESULTS

This chapter will present the results of data collection from interviews by researchers to 3 informants and interviews with farmer group leaders. To get results in accordance with the research, the researchers built a trusting and open relationship first before in-depth interviews with informants. The results of research on farmers who have been bitten by snakes in Kaliwungu Village, Tempeh District, Lumajang, regarding personal protective equipment (PPE), namely:

Convenience in using PPE. All informants said that they felt uncomfortable, stifling, hot when using personal protective equipment while working. As conveyed by the following informants:

"Yes, personal protective equipment, yes, the mind is complicated, it's uncomfortable, right? Yawis is stifling, it's hot when you wear gloves, it's not normal so ongek is usually the language. I also don't use a mask. Village people are used to not using it like that, so that's the reason being lazy and complicated. "(Infoman 2)

The informant's statement above is supported by triangulation which explains the discipline of farmers in the village in using PPE when working as follows:

"I don't think so, because they often complain of heat, it's not very practical, it's so complicated."

Other factors forming behavior are knowledge about personal protective equipment and attitudes. This was proven in in-depth interviews, the informants explained that PPE was not very clear and was still very simple. All informants interpreted that PPE was only a tool to protect themselves when they were working. Informants 1, 2 and 3 are also incomplete in mentioning personal protective equipment as a farmer, such as head coverings (hats), masks, long sleeves, gloves, protective goggles, trousers, and boots. As conveyed by the following informants:

"As far as I am ... gloves, shoes, long shoes that are made to wear to the fields are also personal protective equipment. Then masks and others. " (informant 2)

This is supported by the following triangulation statement:

"Ee .. they know PPE, but they don't know in detail because in general their graduates come from elementary school, so they don't really know anything like that."

From the results of the interview, it was also found that their attitude regarding the use of PPE was quite good, this was evidenced by their statement that the use of PPE was considered important after having been bitten by a snake when not wearing PPE. As stated by the following informants:

"Personal protective equipment is a tool to protect ourselves while in the fields and gardens." (informant 3).

"As a result, it is very dangerous if you don't wear personal protective equipment" (informant 3).

This is supported by the following triangulation statement:

"PPE is important, where PPE is used on farmers to protect themselves from unwanted things."

Communication between farmers to always remind each other about the use of PPE is considered good enough after the snake bite accident occurred. As stated by the following informants:

"If that is the case, then I can only advise my friends not to be lazy about wearing personal protective equipment, such as trivial gloves, when working in the bushes, boots when flowing water into the land from the gutter and also wearing a bamboo hat. being to protect the head from collisions or insect disturbances" (informant 1)

Adapun hal mendukung yang disampaikan informan lain, sebagai berikut :

"yaitu karena saya jera, kapok gitu ya jadi saya tidak mau melihat oranglain kejadian seperti saya, jadi saya mengingatkan mereka, saya mengingatkan keluarga terdekat saya, tetangga saya akan pentingnya menggunakan alat pelindung diri saat pergi kesawah atau kebun supaya mereka tidak terjadi seperti saya, agar mereka melindungi diri lah dari kejadian yang tidak terduga, gitu" (informan 2).

": It is to make other farmers aware that they should warn that if they use a garden or rice field, they should use safety" (infoman 3).

DISCUSSION

A. Knowledge

Knowledge is the result of human sensing, or the result of someone knowing the object through their senses. Most of a person's knowledge is obtained through the sense of hearing and the sense of sight. The results showed that the definition of PPE described by the 3 main informants and supported by tirangulation only gave short or simple answers by stating that PPE was only a tool to protect the body. In terms of this statement, it can be interpreted that workers' knowledge about PPE is still lacking or just knowledgeable and this knowledge is not implemented properly because in doing their work there are no supervisors if they don't wear PPE. This is also supported by Defri Afrianto's (2014) research which shows that farmers' knowledge of more than 20 people (> 65%) about PPE is lacking.

PPE based on Permenaker No. 8 of 2011 Personal Protective Equipment is a device that has the ability to protect someone whose function is to isolate part or all of the body from potential hazards in the workplace.

It can be seen that workers actually understand about the types of PPE and the potential dangers that can threaten them if they do not wear PPE, but they do not have an awareness of safety at work by not implementing it in their daily lives and their behavior at work.

Personal protective equipment hereinafter abbreviated as PPE is a device that has the ability to protect a person whose function is to isolate part or all of the body from potential hazards in the workplace (PP Number PER.08 / MEN / VII / 2010).

PPE to be used in the workplace must pay attention to several things, namely: The weight of PPE should be as light as possible and the tool should not cause excessive

discomfort, the tool must be able to be used flexibly, PPE must be durable for long use, PPE does not pose a danger to its users .

Personal protective equipment is needed by farmers or workers in applying pesticides. The types and functions of PPE are as follows:

a. Protective clothes

To protect the body from exposure to pesticides, we must wear protective clothing consisting of:

1. Long sleeve shirt

Long sleeves should not have too many folds, if necessary do not provide pockets on the front and neck collars must be tied or at least cover the neck.

2. Trousers

Trousers must not have creases, because the folds will serve as a gathering place for particles of pesticides.

3. Overalls

It is a garment with long arms and covers the whole body, practical and more specialized.

b. Hand Protective Equipment

Hand protective equipment is the most widely used tool because accidents on the hands are the most common of all accidents that occur in the workplace. Workers must wear hand protective equipment when there is a possibility of accidents such as wounds to the hands due to hard objects, scratches, exposure to dangerous chemicals and insect stings.

c. Head Protection Equipment

To prevent the entry of toxins through the scalp, a cap is needed. Some hat requirements that need to be considered are:

1. The hat must be made of a liquid-tight material and not made of cloth or leather.

2. Hats are used wherever possible to protect

parts of the head (nape, mouth, eyes and face). Therefore the hat should be wide brim.

3. The hat that is used does not cause discomfort when worn under the hot sun.

d. Foot Protection Equipment

Boots are very important when workers spray pesticides in the form of dust or other types of residuals. Boots can be made of neoprene. Safety shoes and boots must be leak-proof. When working in a place that contains electricity, you must use shoes without metal that can conduct electricity. If you work in an ordinary place like rice fields, you must use shoes that are not easily slipped, shoes made of rubber when working with chemicals.

e. Face Shields

Face shield is a protection made of transparent material that is fire resistant and tied to the head and can be easily raised or lowered in front of the face.

f. Ear Protection Equipment

Hearing loss is a common occurrence in the workplace and is often ignored because the disturbance does not cause injury. Ear protection works as a barrier between noise and inner ear. Ear protection can be divided into two, namely:

1) Ear plug (ear plug)

The ear plug provides the most effective protection because it is inserted directly into the ear.

2) Cover the ears (ear muffs)

It is worn over the ear and the cover is made of a sponge for good protection.

Farmers know that wearing masks, shirts with long sleeves, and boots will protect them from harm. However, the practice of farmers using PPE is not worth their knowledge and attitude. Many farmers do not use PPE properly and correctly. In fact, only 3.8% wore protective eyewear, but even then did not protect their eyes, and only 1.9% did wear shoes.

There are many farmers who do not wear hats, masks, long-sleeved shirts, trousers, and gloves. Farmers' knowledge and attitudes regarding the use of PPE are not in line with practice in the field (Yuantari, 2015).

In this study, in my opinion, the knowledge of simple PPE by farmers in Kaliwungu Village is due to low farmer education, lack of insight into the importance of various personal protective equipment and their functions and the lack of socialization from the leaders of farmer groups in the village regarding farmer PPE.

B. Attitudes and behavior

Attitudes when associated with Green's theory, namely the formation of a person's behavior is influenced by good knowledge and followed by a good attitude, the results of the study stated that all informants were in accordance with the PPE each used, all also stated that they still felt discomfort.

From the interview results, it was also found that their attitude regarding the use of PPE was quite good, this was evidenced by their statement that the use of PPE was considered important after the incidence of snake bite when not wearing PPE. The results of this study are consistent with the research of Jacqueline N. N. Kaligis (2015) which shows that farmers' attitudes towards the use of PPE are quite good, from 33 people (49.3%). Real action is determined not only by attitude, but by various other external factors. Attitudes are different from behavior, so behavior does not always reflect a person's attitude, because it often happens that someone shows actions that are contrary to their attitudes (Kholid, 2014). One of the factors that influence the use of PPE is the work comfort factor. Some farmers think that the PPE that is used while working can interfere with work comfort and limit the movements of farmers. Knowledge can influence a person in behaving and then it is followed up into behavior or practice. The use of a complete PPE can reduce the risk of unwanted events at work. Attitude is a reaction or response that is still closed from someone to a stimulus or object. This result is supported by research by Maria Goretti Catur Yuantari, namely that there is a relationship between the use of PPE and the risk of work accidents or unwanted events at work. This is in accordance with the statement that humans at every level of development will be strongly influenced by the environment to behave, besides the human environment tends to follow or imitate the behavior of those around them. The fact is that before the snake bite the farmers lacked discipline in use.

PPE, causing the bite of a snake by some farmers who were not disciplined in using PPE while working. A person's attitude is also related to perception, personality, and motivation that arise as a reaction to the experience or knowledge he has. Most of the farmers in this study have good knowledge of the use of PPE and have a positive attitude to using PPE. This was also proven in Endah Retnani Wismaningsih's (2015) research that the results of statistical analysis showed that there was a significant relationship between farmer attitudes and the use of PPE. Knowledge of good PPE accompanied by positive reactions raises awareness and motivation from farmers to protect themselves from the dangers of work accidents by using PPE.

From the results of this study it can be seen that the attitude and behavior of farmers towards the use of PPE is quite good after learning from the incidence of snake bites, from these problems farmers can learn and improve themselves to be more disciplined in using PPE so that similar incidents or problems do not occur.

CONCLUSION

In accordance with the focus of the research in this thesis, the awareness of farmers regarding the use of PPE can be concluded that farmers are aware of and know the importance of using PPE at work and at the time after the snake bite incident, this is evidenced by the more discipline of farmers in using PPE. Furthermore, regarding the

knowledge of farmers in Kaliwungu, tempeh, Lumajang, the importance of PPE is quite simple because the average education of farmers in these villages is still low. The attitude and behavior of farmers regarding PPE is quite good after learning from the incidence of snake bites, from these problems farmers can learn and improve themselves to be more disciplined in using PPE so that similar incidents or problems do not occur.

REFERENCES

- Afrianto, Defri. 2014. *Pengaruh Penyuluhan Terhadap Pengetahuan, Sikap dan tindakan petani paprika di desa Kumbo – pasuruan terkait penggunaan alat pelindung diri (APD) dari bahaya pestisida tahun 2014.*
- Bernadetta, 2011. *Pengaruh Penyuluhan Pestisida Terhadap Pengetahuan Dan Sikap Petani Jeruk Dalam Menyemprot Pestisida Di Desa Serdang Kecamatan Barusjahe Kabupaten Karo, Medan.*
- Damalas, C. dan I. Eleftherohorinos. 2011. *Pesticide Exposure, Safety Issues, and Risk Assessment Indicators. International Journal of Environmental Research and Public Health.*
- Fikri, E., O. Setiani, dan Nurjazuli. 2012. *Hubungan Paparan Pestisida dengan Kandungan Arsen (As) dalam Urin dan Kejadian Anemia (Studi pada Petani Penyemprot Pestisida di Kabupaten Brebes). Jurnal Kesehatan Lingkungan Indonesia.*
- Kementerian Pertanian. 2011. *Pedoman Pembinaan Penggunaan Pestisida. Direktorat Jenderal Prasarana dan Sarana Pertanian. Direktorat Pupuk dan Pestisida.*
- Kholid, A. 2014, *Promosi Kesehatan: Dengan Pendekatan Teori Perilaku, Media, dan Aplikasinya untuk Mahasiswa dan Praktisi Kesehatan. Jakarta: PT RajaGrafindo Persada.*
- Kim, J., E. Cha, Y. Ko., D. Kim, dan W. Lee. 2013. *Work-Related Risk Factors by Severity for Acute Pesticide Poisoning Among Male Farmers in South Korea. International Journal of Environmental Research and Public Health.*
- Mohanty, M. K., B. K. Behera, S. K. Jena, S. Srikanth, C. Mogane., dan S. Samal. 2013. *Knowledge attitude and practice of pesticide use among agricultural workers in Puducherry, South India. Journal of Forensic and Legal Medicine 20(8).*
- Rivas, F., dan H. Rother. 2015. *Chemical Exposure Reduction: Factors Impacting on South African Herbicide Sprayer's Personal Protective Equipment Compliance and High Risk Work Practices. Environmental Research.*
- Shobib, M. 2013. *Hubungan Antara Pengetahuan dan Sikap Dengan Praktik Pemakaian (APD) Alat Pelindung Diri Pada Petani Pengguna Pestisida di Desa Curut Kec. Penawangan Kab. Grobogan.*
- Jurnal: Universitas Dian Nuswantoro Semarang
- Yang, X., F. Wang., L. Meng, W. Zhang, L. Fan, dan V. Geissen. 2014. *Farmer and Retailer Knowledge and Awareness of The Risk From Pesticide Use: A Case Study in the Wei River Catchment, China. Science of The Total Environment.*
- Yuantari, M., C. Gestel., N. Straalen, B. Widianarko, H. Sunnoko, dan M. Shobib. 2015 *Knowledge, Attitude, and Practice of Indonesian Farmers Regarding The Use of Personal Protective Equipment Against Pesticide Exposure. Environment Monitoring Assessment 187.*
- Zadjali, S., S. Morse, J. Chenoweth, dan M. Deadman. 2014. *Factors Determining Pesticide Use Practices by Farmers in The Sultanate of Oman. Science of The Total Environment.*