The agricultural sector is one of the industries that play an essential role globally, especially in developing countries like Indonesia. More than 65% of the population in developing countries live permanently, while 50% of Indonesians work in the agricultural sector (Pasaribu & Sudiyanto, 2016). Employment in agriculture is also about 58% of the workforce in developing countries, while only 5% in developed countries. In general, Indonesia's agricultural sector is the primary job field, which provides food raw materials and provides many jobs. Insufficient knowledge and motivation about using personal protective equipment on farmers can cause work accidents in the workplace (Arista et al., 2019).

Today's society handles emergency problems naturally obtained from the environment by considering side effects, information, and capabilities. The ability to process these resources, apart from being a cultural property that strongly supports the process of handling emergency problems, also has very important scientific value and needs to be known (Nugroho, 2020). Knowledge of emergency incident reporting needs to be explored more, including how to specifically handle it in dealing with everyday emergency health problems. This treatment, for example, in emergency first aid includes cardiopulmonary resuscitation (Deviantony et al., 2017). Knowledge of emergency incident reporting in problem handling is known for systematic information. This information includes patient care on the road, incident reporting, and transportation to health services.

The overall prevalence of work-related inju-
ries among farmers was 69% in the past 12 months. Common injuries among farmers were wounds (79.7%), stab wounds (11.3%), and lacerations (7.5%) (Koudogbo et al., 2014). Hand tools are responsible for most of the injuries, followed by slips at work, sharp instruments, animals, and falls from heights. Upper limb injuries comprised 67% of all injuries, and the most active part was the fingers (43%). The average number of years working in agriculture by the respondents was 23.6 ± 13.6 years. Farmers’ age and work experience are significantly associated with farmers (Widianto et al., 2019).

Due to the high number of injuries among farmers, the community needs emergency services where this emergency condition requires immediate health services to reduce mortality and prevent disability (Musyarofah et al., 2018). The response time should always be improved because the faster the response time, the better, but we also have to pay attention to service quality and safety (Howard et al., 2018). One thing can be education and training, which are essential components of a comprehensive effort to improve agricultural workplaces’ safety and health (Widianto et al., 2019). Along with knowledge, skills can also do increased by training farmers in the initial management of emergencies in agricultural areas (Setyoningsih, 2012).

Occupational safety and health care in agriculture focus on the promotion, prevention of agricultural diseases, and rehabilitation for farmers to create a conducive working environment for farmers. Occupational safety and health nursing in agriculture have main activities which include identification and prevention of diseases related to agricultural consequences (Maisyaroh et al., 2019). Injury in agriculture is accompanied by substantial morbidity and mortality and ranges from minor injuries to severe injuries. Soft tissue injuries and fractures are common (Maisyaroh et al., 2020).

Innovation becomes a new initiative or breakthrough made to improve the quality of public services, especially information technology, which is inseparable from the slow improvement of public services as a form of bureaucratic reform that aspires to World Class Development, which did expect to do achieved in 2025 (Nurmalia, 2019). The use of mobile phones as a medium for health intervention has advantages, including the tendency for users to carry cell phones to all places, making it easier for health workers to send information and support to the community or from the city to health workers independently (Ilmu et al., 2008). This effective communication is carried out to prevent unexpected events and near injury to patients and improve nursing services’ quality to increase information systems’ rates before and after development (Kemenkes, 2016).

Emergency conditions can occur anywhere, anytime and health workers have to deal with these problems. Even so, it is possible that it can occur in areas where it is difficult to help victims before being found by health workers becomes very important (Fibriansari et al., 2019a). When the community is unable to provide emergency first aid, health workers are needed in handling it. To get a fast and appropriate treatment, the community is expected to be able to report effectively. One of the reporting techniques that can be done is through the Public Safety Center (PSC) 119 service.

The case of disease emergency is still very high, prompting the Ministry of Health to make innovations to continue to improve health services, especially emergency services through the Public Safety Center (PSC) 119, including emergencies in the agricultural area. PSC services provide medical emergency services with free service, namely access code 119. PSC is an emergency fast response service formed in 2016 in collaboration with the Ministry of Transportation to handle public health-related accidents or other critical emergency events. The Lumajang District Health Office has developed the PSC 119 in 2019, which is still in the socialization stage for the Lumajang community. Types of transportation such as the use of ambulances, private vehicles, or public transportation are also associated with delays in handling before entering the hospital (Irman et al., 2017).

In a preliminary study conducted by interviewing the Lumajang P.S.C. Team, there was no specific reporting format when receiving emergency incident reports. The operator will guide questions to the reporter to fill in the required information. It makes the operator in detail give items to the reporter, so the time needed to fill out the report is quite time-consuming. Poor communication is the most common cause of side effects in all aspects of health care, causing problems in patient identification. The standard operating procedures (SOP) regarding effective communication in reporting trauma incidents at PSC 119 Lumajang Regency are currently not optimal.

**METHODS**

This research is a quantitative study with a cross-sectional design. The study identified farmers’ knowledge of injuries, management, and reporting of
Ability to Report Emergency at Farmers in the emergency cases. The researcher conducted this research in August - September 2020 in Jatiroto District, Lumajang Regency.

The population in this study were all farmers in Jatiroto District, Lumajang Regency. The sampling technique used is the purposive sampling technique. The number of respondents in this study amounted to 62 people. The subjects in this study were farmers who had attended emergency training for ordinary people. The research exclusion criteria were farmers who could not read and did not have an android.

Data collection used an online questionnaire consisting of knowledge of injury recognition, management, and emergency events reporting. The questionnaire used a Linkert scale of 1-5, composed of eight items of knowledge about an injury, six items of knowledge of injury management, and ten items of reporting emergency events. The data analysis used in this study was bivariate analysis with the Chi-Square test. The research has obtained the Faculty of Dentistry's ethical test eligibility, the University of Jember on August 26, 2020 Number: 982/UN25.8 / KEPK / DL / 2020.

RESULTS

Respondent Characteristics

Table 1 shows that most 63 respondents had male gender as many as 51 people (82.3%). while the female gender was 11 people (17.7%). Almost half of the respondents are in the productive age of 35-50 years, as many as 28 people (45.2%). The education level of farmers is mostly high school, namely 27 people (43.5%).

Farmer's Knowledge

Table 2 shows that most of the farmers' knowledge about injuries with good categories was 92%, with a significance level of 0.042. The knowledge of farmers in managing injuries in agricultural areas was 80.6% in the good category with p = 0.001. And knowledge of reporting daily emergency events in the agricultural area is as much as 61.3%, and a category is adequate with a significance level of 0.001.

DISCUSSION

Knowledge About Injuries

The knowledge of farmers about injuries was mostly in good categories as many as 57 respondents (92%) with a significance level of 0.042. Knowledge of injuries in agricultural areas includes falling, being hit, poisoning, being pinched by objects, radiation exposure, the influence of high temperatures, bites of wild animals, direct contact with hazardous materials, or other radiation.

According to the World Health Organization, most injuries are caused by traffic accidents, poisoning, falls, fires and burns, the intensive use of machinery and pesticides, and other agrochemicals increase the risk of injury (Schenker, 2015). Injuries in agriculture are accompanied by substantial morbidity and mortality and range from minor injuries to multiple severe injuries (Pfortmueller, 2013). Injury cases to farmers can be easily spread through communication interactions between farmers. The leading external causes of agricultural injury cases are hand tools, agricultural machinery, age, etc. Farmers with injury experience tend to share information about the mechanisms that cause injury. Other needs include prevention courses related to supporting systems, updating procedures, availability of retraining adapted to rural areas, substance use emergencies, and agricultural-related injuries (Wehbi & Rajvi Wani, 2018).

These differences are explained by looking at men and the roles and responsibilities of women in agriculture in specific cultural contexts and gender differences in access to resources, including information. Gender roles along the pesticide pathway vary, but women usually lack knowledge of pesticides' harmful effects and less access to training (Christie et al., 2015). Besides, there are also other factors, namely in-depth knowledge and motivation about PPE in farmers can cause workplace accidents such as farthest, stricken, poisoned, pinched by objects, radiation exposure, the influence of high temperatures, animal bites, direct contact with hazardous materials or other radiation (Maisyaroh et al., 2019). Cases of injury to farmers can be easily spread through communication interactions between farmers. The main external causes of agricultural injury cases are hand tools, agricultural machinery, age, and others. Farmers who have experienced injuries are more likely to share information about the equipment causing the injury.

Potential risk factors can be aggravated by occupational hazards associated with farm work, including exposure to environmental hazards such as pesticides and synthetic fertilizers, diesel exhaust, ultraviolet radiation, dust biologically active, and viral and bacterial zoonoses, all of which can put the working population agriculture at increased risk of various adverse health effects (Curl et al., 2020). Due to injuries that occur in agricultural areas, emergency first aid in agricultural areas is needed quickly and accu-
rately. There is a need for communities to provide first aid in the field with basic life support and people seeking medical assistance.

**Knowledge of Emergency Management**

The knowledge of farmers in carrying out the management of injuries in the agricultural area was 50 respondents (80.6%) in a good category with p = 0.001. Management of injuries in agricultural areas in this study included emergency first aid, management due to sharp wounds, snake bites, pesticides, and burns.

Agricultural nursing-based farmers integrated emergency risk reduction through increasing knowledge and knowledge in the early management of emergency events in the agricultural area. Along with experience, skills can also be improved by training farmers in the initial management of emergencies in agricultural areas. Training and awareness programs addressing safe handling practices and safety measures as well as education about the long-term risk of exposure to pesticides on health and the environment, through radio, television, and posters, can improve the safety behavior of farmers and harassers, first in dealing with trauma due to hazardous materials on agriculture by providing essential living assistance (Fibriansari et al., 2019).

Internal factor farmers related to the ability of farmers to recognize hazardous and toxic materials in the agricultural area is factors education and factors long been a farmer, although two factors other less provide a connection to the ability of farmers, namely gender and age (Widianto et al., 2020). Increased knowledge through sharing this information can give farmers a conservative attitude when doing work in agricultural areas. Based on research (Susanto et al., 2016), the ability can prevent farmers' awareness of tractor accidents. It can significantly reduce deaths from tractor accidents if drivers be are required to wear PPE, including seat belts and helmets, and frequent checks.

The increase in knowledge and skill is correlated with an excellent level of the score, but not correlated in a bad level. About 99% of people who have joined BLS training have a significant increase in knowledge and skills. These trained people have the willingness to be a bystander for cardiac arrest people near them (Stella et al., 2020). Comprehensive interventions are needed to reduce exposure and health risks, including training, increased labeling, measures to reduce cost barriers for implementing safe behavior, promotion of control measures, and support for integrated pest management (Lekei et al., 2014).

Based on research (Asgedom et al., 2019), productive age at 18-35 years of age had a higher knowledge of chemical hazards with a higher knowledge score after adjusting for education. Farmers can carry out management in agricultural areas with Ba-

| Variable                          | Categories          | Good | Adequate | Inadequate | p-value |
|-----------------------------------|---------------------|------|----------|------------|---------|
| Knowledge about injuries          | 92%                 | 8%   | 0        |            | 0.042   |
| Knowledge about management        | 80.6%               | 19.4%| 1.6%     |            | 0.0001  |
| Knowledge to report daily         | 14.5%               | 61.3%| 24.2%    |            | 0.0001  |

Table 1. Distribution of Respondent Characteristics

| Category          | Frequency (n) | Percentage (%) |
|-------------------|---------------|----------------|
| Gender            |               |                |
| Male              | 51            | 82.3           |
| Female            | 11            | 17.7           |
| Age (year)        |               |                |
| 18-35             | 16            | 25.8           |
| 35-50             | 28            | 45.2           |
| > 50              | 18            | 29             |
| Latest education  |               |                |
| Elementary School | 16            | 25.8           |
| Junior High School| 10            | 16.2           |
| Senior High School| 27            | 43.5           |
| Others            | 9             | 14.5           |

Table 2. Farmer's Knowledge to Report Daily Emergencies
ic Life Support (BLS) and there is an increase in the ability after mentoring in agricultural areas (Widianto et al., 2020). Inequality in Basic Life Support (BLS)’s knowledge and skills in agricultural areas can be caused by the absence of education about BLS obtained from formal schools, which causes variations in farmers’ knowledge. The approach’s application is expected to increase safety in agricultural areas and minimize hazardous substances in agricultural work environments.

**Knowledge to Report Emergency**

Knowledge of reporting of daily emergencies in the agricultural area was 38 respondents (61.3%), categorized adequately with a significance level of 0.0001. Emergency incident reporting includes a destination number and items to convey. Almost half of the respondents are in the productive age of 35-50 years, as many as 28 people (45.2%), and the education level of farmers is mostly high school, namely 27 people (43.5%).

The operation of the prehospital emergency service system is an integrated emergency service system. Therefore the fast and precise handling of sufferers starting from the scene of the incident will increase the life expectancy for sufferers who are hit by a disaster or disaster. To make the PSC run optimally, system support, infrastructure, and supporting resources are needed (Fikriana & Al-Afik, 2018). It is hoped that the PSC 119 system will help the officers perform better and provide satisfaction to the community (Nurulita & Darnoto, 2017). This effective communication is carried out to prevent unexpected events and near injury to patients and improve the quality of nursing services. There can be an increase in information systems’ rate before and after development (Kemenkes, 2016).

Farmers, as ordinary people, can provide first aid to anyone in an emergency, especially for people who experience cardiac arrest and stopping breathing which is generally found by ordinary people (Fibriansari et al., 2019). Farmer education and long farming factors illustrate the ability of farmers to socialize in farming communities. Farmers’ activities to gather and socialize at health service centers influence occupational diseases in agriculture (Arista et al., 2019). The influence of health service-seeking behavior on delays in handling before entering the hospital is something that must be considered. This improvement certainly returns to people’s behavior (Irman et al., 2017).

The results showed that the most common types of transportation used were non-ambulance vehicles, namely public transportation (31%), private vehicles (21.4%), and borrowed vehicles from neighbors (16.7%), so there was a relationship between the type of transportation and the delay in handling before entering to the patient’s hospital (Irman et al., 2017). The reporting technique is carried out following the "Si Lugas" service flow, namely contacting PSC 119. The closest assistance will come. The officer will perform first aid and refer to the nearest health facility. The information submitted by the reporter is the type of incident that occurred, the condition experienced by the victim, the location of the incident, and the reporter’s telephone number.

Transportation of patients using private vehicles results in faster arrival times, but definitive care is obtained faster by using an ambulance. In addition to speeding up the time to arrive at the hospital, the use of an ambulance to the ER is very important in increasing the response of health workers in providing appropriate action. Especially if there is a prior notification to the hospital to be addressed. Giving a good report will allow health workers to arrive at their destination and perform first aid immediately. The opportunity for the community is helped by ensuring the safety of victims with fast, precise, responsive, and safe handling.

The weakness of this research is that people are still not used to reporting to PSC 119. The implication for nursing services is optimizing emergency services in the community. The role of the ambulance is needed to reduce delays in handling before being hospitalized. The community needs to be socialized on effective communication in emergency reporting as an effective means for transportation services to health services. In addition, it is also necessary to provide village ambulance services in areas that do not yet have medical emergency service facilities.

**CONCLUSION**

The ability to report emergency events in agricultural areas is still in the good category. We must continuously improve the socialization of standard operating procedures regarding effective communication in reporting injury incidents at PSC 119 Lumajang Regency. Services provided are fast, precise, responsive, and alert to prevent disability and save a person’s life from death.

**ACKNOWLEDGMENTS**

The author would like to thank profusely all
respondents who sincerely wanted to be involved in this research. All those who were actively involved, directly or indirectly, could complete this research on time.

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