THE ROLE OF PEER GROUP EDUCATION IN IMPROVING BASIC LIFE SUPPORT (BLS) ABILITIES OF FARMERSIN LUMAJANG

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Abstract
Farmer-based agricultural nursing integrated emergency risk reduction is needed by increasing the ability of farmers. This study aimed to improve farmers' basic life support (BLS) capacity using the peer group education approach in Lumajang Regency. This study's design was a quasi-experimental design with a pre and post-test group design on 209 respondents. Bivariate analysis in this study used the Wilcoxon test to determine the effect of BLS ability before and after peer-group education. The majority of respondents were male, as many as 168 people (80.4%) with a productive age of 35-50, 94 people (45%), and a high school education level of 84 people (41%). Before mentoring was carried out, 72% in the low category increased to 56% having good abilities after being assisted BLS. The application of a peer group education approach is expected to improve safety in agricultural areas and minimize hazardous substances in the agricultural work environment. To improve the farmer's ability about basic life support, not only with training methods, but it can be obtained from electronic media and print media regarding the application of basic life support.

Keywords : *Peer Group Education, Basic Life Support, Farmers.*

Abstrak
Pengurangan risiko kegawatdaruratan terpadu petani berbasis agricultural nursing sangat diperlukan dengan peningkatan kemampuan petani. Tujuan penelitian ini adalah meningkatkan kemampuan bantuan hidup dasar (BHD) pada petanidenganpendekatan peer groupeducation di Kabupaten Lumajang.Desain pada penelitian ini adalah quasy-experimental dengan rancangan pre and post testgroup design pada 209 responden. Analisis bivariate dalam penelitian ini menggunkan uji Wilcoxon untuk mengetahui pengaruhkemampuan BHD sebelum dan sesudahdiberikan peer groupeducation. Responden mayoritas berjenis kelamin laki-laki sebanyak 168 orang (80,4%) denganusia produktif 35-50 94 orang (45%) dan tingkat pendidikan SMA 84 orang (41%).Sebelum dilakukan pendampingan sebesar 72% dalam kategori kurang meningkat menjadi 56% memiliki kemamuan baik setelah diberikan pendampingan tentang BHD. Penerapan pendekatan peer group education diharapkan mampu meningkatkan keselamatan di area pertanian dan meminimalkan bahan bahaya di lingkungan kerja pertanian. Untuk meningkatkan kemampuan petani tentang bantuan hidup dasar, tidak hanya dengan metode pelatihan saja, tetapi dapat diperoleh dari media elektronik maupun media cetak mengenai aplikasi tentang bantuan hidup dasar.

Kata Kunci : *Peer Group Education, Bantuan Hidup Dasar, Petani.*

INTRODUCTION

Farmers are the largest working group in Indonesia. They were controlling about 40% of the workforce. Many areas in Indonesia rely on agriculture, including plantations, as a source of regional income. (Giri, 2016). Agriculture is also one of the most dangerous industries with a high rate of fatal injuries due to work, usually due to accidents of agricultural machinery, transporting crops, or work equipment, one of which is the use of tractors when plowing, which can pose a risk of physical harm due to sharp components. Rotary, so they experience the risk of injured feet. Farmers can also experience nerve and blood vessel disorders due to vibrations, slippery soil, biting, and sharp objects found in the raised beds (Ernawati & Tualeka, 2013).

Agricultural land can be perceived as a space and a place to grow crops (produce agricultural products) as well as a space to earn a living for farmers through farming. Agricultural land or paddy fields become farmers' tools to act to produce physical products, namely agricultural products and produce their social existence as farmers. Initially, the rice fields were just empty land, but with the need for a group of people who actualized themselves to cultivate the land and produce natural products, then a spatial meaning emerged that initially became agricultural land or rice fields (Putri, R Y. 2020).

Work in agricultural areas is one of the occupations that are at risk with the accident and death rates. Hazardous and toxic material is one of the risks that can threaten the health of farmers, which is very important to be known by farmers (Widianto, et al., 2020). In terms of occupational health and safety standards in agricultural areas, it is also classified as low, so that farmers' protection is also low. (Maisyaroh, et al., 2020) For this reason, in their work scope, farmers must know about the ability of basic life support, which is sufficient to reduce the risk of trauma or accidents in agricultural areas by taking preventive measures to overcome problems caused in agricultural areas. With knowledge and insight, it can also be improved the initial implementation of emergencies in the agricultural scope by explaining BLS. Basic Life Assistance itself is an effort made to maintain life when a patient experiences a life-threatening condition or means of movement (AHA, 2015). This condition can occur in areas where it is difficult to help victims before being discovered by health workers is very important. For this reason, the need for education regarding basic life support for farmers is very necessary to improve farmers' abilities and reduce threats in agricultural areas (Fibriansari, et al., 2020).

With the many risks resulting from work accidents in the agricultural area and the important role of nurses to minimize the occurrence of work accidents, farmers also play a direct role in personal safety, thus establishing K3 (Occupational Health and Safety), K3T (Working Health of Farmer Groups), and also Pos UKK (Occupational Health Efforts) with the hope of increasing the independence of farmers, preventing occupational diseases of farmers, receiving first aid measures due to work accidents, and increasing farmer knowledge and insight in the prevention and handling of occupational diseases for themselves, their families and the community in the environment. agricultural area. (Maisyaroh, et al., 2019).

Farming is one of the informal sector jobs, where people who work in the informal sector have less knowledge of the importance of personal protective equipment than people who work in the formal sector. The availability and use of personal protective equipment is also different, formal jobs such as in industry, the company has prepared and there is supervision by certain parties such as the Manpower Office, so that the health and safety of

the formal sector is more secure. Whereas farmers with fairly limited conditions usually only use makeshift personal protective equipment, so that occupational health and safety is far less guaranteed than the formal sector(Maisyaroh, Widianto, & Fibriansari, 2020). Diseases related to the work of farmers suffered by farmers, such as back pain (due to hoe tools that are not ergonomic), skin disorders due to ultraviolet rays and agrochemical disorders. The use of agrochemicals, especially pesticides, is the risk factor for disease that is most often discussed (Susanto, Purwandar, & Wuryaningsih, 2016).

Disasters in agricultural areas, including vulnerability. More than that, disaster vulnerability also arises because there is a vulnerability in the way humans think about nature and the environment. This context should also be considered in the formulation of policies regarding disaster reduction in agricultural areas. So that each policy does not only focus on how to deal with disasters, but rather encourages how everyone has the same awareness, can live in harmony with a strong knowledge and understanding of nature. Through this perspective, the role of peer group education in improving basic life support (BLS), the disaster curriculum policy becomes important as a benevolent project that must be placed as Education for Sustainable Development through established principles such as; relevance, effectiveness, efficiency and flexibility, and refers to the general principles in risk reduction (Sair,. 2018).

Based on the information above, it is found that problems such as occupational accidents and work-related diseases in the agricultural environment have a major influence on farmers' health conditions, farm families, and communities around agriculture andsignificantly affect the results of agricultural productivity itself. Initiatives for the prevention of injuries suffered by farmers can include including health models, community regulations, and techniques. Health education is the right choice in implementation, one of which is to provide health education on basic life support by applying the peer group education method in agriculture. Knowledge of basic life support is an important thing that farmers need to learn. Based on the theoretical study, there is an effort to prevent and reduce the consequences of death to farmers by taking appropriate BLS actions. One of them cannot be separated from the role of social groups that often interact with farmers. With this peer group method, it is hoped that farmers can improve their knowledge and skills in providing basic life support in the agricultural scope so that the mortality rate due to trauma in agricultural areas is reduced.

The peer group method is a process of communication, information and education carried out by and for groups or peer groups (Ervina, 2015). The Peer group method is also a characteristic that is formed in social behavior where the group will influence the behavior and values of each individual who is a member so that the individual will form behavior patterns and new values which in turn can replace the values and behavior patterns that are learned. (Sunarto, 2009). More clearly in the concept of peer group, this is a group that provides education, which are people who have almost the same status and age and with whom they usually associate or relate because of one profession, hobby, or have the same environment (Damsar, 2015) in (Agustin, et al. al., 2018)

The advantage of this peer group method itself is that the information conveyed by peer educators in their group gets direct feedback, receiving information using the same language can reduce misunderstanding. A peer group educator can also act as a role model for the group. With the existence of interpersonal relationships that exist in the same group in the act of changing, influencing, and improving the health behavior of farmers (Amry, 2020)

In peer groups, there is no importance for an organizational structure. Still, group members will feel a sense of responsibility, individuals will interact with each other, mingle, and motivate each other emotionally to create bonds that bring influence and benefits good in the group (Suherman, 2019).

Health education regarding the concept of basic life support would be better if given directly through peer group members to be more effective and more open in providing material so that communication will be established easier than from outside presenters. Peer counseling is carried out utilizing communication and discussion by peers or farmer representatives who have previously passed the training process and providing information, one of which is basic life support from health facilities or health agencies. (Amelia, 2014)

However, the peer group method of basic life support is rarely applied in the agricultural sphere. Therefore, this study aims to explore further the role of peer group education in improving farmers' basic life support abilities.

METHODS

The design in this study was quasi-experimental with a pre and post-test group design. The respondents used were 209 farmers.

This research has been submitted to the Research Ethics Commission of the Faculty of Dentistry, University of Jember, with Number 342 / UN25.8 / KEPK / DL / 2019 on February 8, 2019.

Farmers were given an informed consent form to become respondents (informed consent). Respondents were given questionnaires about basic life support knowledge. Researchers measured the level of ability to perform BLS. Researchers with BLS cadres conducted BLS training for farmers at farmer group meetings and were re-measured knowledge of basic life support.

Bivariate analysis was performed to prove the hypothesis. In this study using the Wilcoxon test to determine the difference between pre-test and post-test.

RESULTS AND DISUSSION

Characteristics of respondents showed that out of 209 respondents the majority had male gender as many as 168 people (80.4%), while 41 people (19.6%) were female. Almost half of the respondents are in the productive age of 35-50 years, namely 94 people (45%). The education level of farmers is mostly high school, which is 84 people (41%).

Tabel 1 : Characteristics of respondents (n=209)

Characteristics		Frequency (orang)	Percentage (%)
Gender	Male	168	80,4
	Female	41	19,6
Age	18-35	56	26,8
	35-50	94	45
	> 50 years	59	28,2
Education	No school	0	0
	Elementary	57	27,3
	Junior High School	32	15,3
	Senior High School	89	42,6
	Others	31	14,8

The distribution of the research variables on basic life support abilities in the pre-test and post-test showed that 72% of the assistance was in the poor category before the assistance was carried out. After mentoring was carried out, 56% had good intentions.

Tabel 2 : Distribution of the research variables

Group	Category		
	Good f(%)	Adequate **f(%)**	Inadequate **f(%)**
Pre test	29 (14%)	29 (14%)	151 (72%)
Post test	117 (56%)	92 (44%)	0
Wilcoxon Signed Ranks Test p = 0,000			

The bivariate analysis results in Table 2 using the Wilcoxon Signed Ranks Test in the treatment group obtained a significance value of 0.000 ($p < 0.05$). This statistical test results can be concluded that there is an increase in the ability of basic life support to farmers after being given peer-group education.

Based on the research results (Asgedom, Bratveit, & Moen, 2019), productive age at 18-35 years of age has a higher knowledge of chemical hazards with a higher knowledge score (3.7) after adjusting for education. Inequality in the knowledge and skills of BLS in agricultural areas can be caused by the absence of education about BLS that is obtained from formal schools, which causes variations in farmers' knowledge.Adulthood cognitive development is ripe coupled with emotional and experiential maturity. Some of these things underlie the fact that adults have good knowledge about BLS.

Training is one part of non-formal education to be able to find knowledge. A person who gets training means that he will gain experience related to the knowledge gained from training. Experience can be related to age and education such as higher education will have a wider experience and the older a person will also have more experience.

The results of this study are supported by Kim (2016) which shows that there is a significant relationship between BLS action training in families with a history of cardiovascular disease, this shows the positive benefits of basic life support training utilizingCPR and the majority of respondents show increased knowledge, attitudes, and actions when giving BLS (Kim, Kim, & Suh, 2016). According to (Roshana, 2012) another key area this study has identified is the positive attitude of the participants towards BLS and their readiness to perform it despite the paucity in their knowledge. Of the most participants were not reluctant to perform CPR when needed, and others were reluctant to perform resuscitation. The most commonly cited anxiety for the performance of resuscitation was fear of being ineffective (8.2 %) which was followed by fear of further harm to the victim (5.7%).

Basic life support can be taught to anyone. Every adult should have BLS skills, even farmers can also be taught according to their capacity, both health workers and non-health workers should be taught about basic life support so that they can provide immediate safety assistance. The implementation of one's skills must have a basis that has been obtained either in the form of information or in the form of training. Skills development must start from what a person has mastered, skills he has not mastered ((Fibriansari, Maisyaroh, & W, 2020). Good knowledge in the community as first responders will continue to update their knowledge so that they can reduce the death rate due to sudden cardiac arrest in pre hospital.

This study indicates that farmers, as ordinary people, can provide first aid to anyone in an emergency situation, especially for people who experience cardiac arrest and respiratory arrest which ordinary people generally find. The role of the common man as the first discoverer of victims was very influential. Even though the delay is only a few minutes a person's heart stops, can make the difference between life and death, and provides temporary assistance until obtaining competent medical care, if necessary or until the chance of recovery without medical care is met (Thygerson, 2009).Three questions were statistically significant when the sample was stratified among those who declared family income less than or equal to five minimum wages and those with higher income. The first one refers to what they would do in the presence of a " adult choking": 11.9% of the individuals with higher income answered correctly, compared to 5.2% among those with lower income. Regarding the usefulness of the AED, 85.3% of the individuals with higher income

answered correctly, compared to 73.5% of respondents with lower income. The latter referred to the position of the victim for the CPR procedure, with 57.8% of correct answers among those with higher income and 43.7% among those with lower income(Neto, 2016).

Increased knowledge through sharing this information can give farmers an alert attitude when doing work in agricultural areas. Based on research (Susanto, Purwandar, & Wuryaningsih, 2016) farmers' awareness of tractor accidents can be prevented and deaths from tractor accidents can be significantly reduced if drivers are required to wear PPE including seat belts and helmets and carry out frequent checks (Maisyaroh, 2019).

The role of peer group education in improving basic life support (BLS) is part of empowers communities. The empowerment process must be able to touch cognition of the 'awareness' of something that is seen as unfavorable for the environment and society. Empowerment The role of peer group education in improving basic life support (BLS) must be able to arouse, affirm and increase awareness of his position as a whole human being in his environment. Awareness can touch on all fields, namely awareness of politics, awareness of the economy, social awareness and awareness of security and comfort as citizens. Awareness The role of peer group education in improving basic life support (BLS) can also involve governance aspects of development and service governance.

The empowerment role of peer group education in improving basic life support (BLS) process must be able to improve cognition, affection and psychomotor society. To improve cognition, affection and psychomotor society, the process of education, especially non-formal and training often becomes important. The role of peer group education in improving basic life support (BLS) is Learning can not only be done through formal schools, but it can be done in non-formal schools to improve community affection and cognition, while improving community psychomotor is often carried out by organizing various types of skills training, such as sewing skills, mortars, salons, people's economic endeavors, etc (Putri, R Y. 2019).

In addition to requiring members, a social structure also requires social institutions / institutions as a medium to regulate the lives of its members. The absence of institutions / institutions makes social life less focused. (Handayani, 2018). The incorporation of motivational principles in occupational safety education programs has a positive effect in increasing knowledge, attitudes, and, in particular, the application of safe behavior by workers (Navidian, Rostami, & Rozbehani, 2015). The application of the approach is expected to increase safety in agricultural areas and minimize hazardous substances in agricultural work environments. Comprehensive interventions are needed to reduce exposure and health risks, including training, increased labeling, measures to reduce cost barriers to implementing safe behavior, promotion of control measures and support for Integrated Pest Management (Lekei, Ngowi, & London, 2014).Knowledge about BLS showed no association with age, suggesting that the new generations remain without adequate training. Therefore, there does not seem to be an expectation of increasing knowledge about BLS over the years, requiring that measures be taken to modify this trend.

This is in line with the efforts made by the government to improve the welfare of farmers is the establishment of farmer groups. The K3T program is implemented starting from the assessment, handling health problems related to complaints in farmer groups, and the establishment of health cadres as a continuation of the Farmer Group Health Clinic (K3T) program. The establishment

of K3T is also based on several things such as the low health status of farmers related to the lack of screening planning for farmers' health, the lack of optimal use of Personal Protective Equipment (PPE) in farmers while working especially in the use of pesticides, the absence of health clinic containers that serve the health of farmers workers. K3T is expected to add information to help the farming community in efforts to prevent and handle occupational diseases, one example is to reduce the risk of lower back pain in farmers by raising awareness of how to work in accordance with ergonomic work positions (Roga, 2015)

This is in line with the results of research conducted by maisyaroh (2020) on two groups of farmers, where one group is treated by forming a cadre of health cadres by providing training to cadres on first aid against injuries that occur in agricultural areas due to sharp or blunt objects while conducting activities in agricultural areas, after that the cadre was taught to provide information about wound management to the farmer group, there was a difference between the control group and the treatment group to improve wound care capability in farmers after being given training through the approach of Population Centered Health Nursing Care Bivariate analysis results using Mann-Whitney U test in the treatment group obtained significancy value of 0.000 ($p<0.05$). The test result is very different from the control group which does not have a significant value of 0.334 ($p>0.05$).The development of a model of improving the safety and security of farmers can be done by developing Population Centered Health Nursing Care in farmer groups by forming cadres to provide education in their groups.

Safety training is an important point in the world of work, including the agricultural sector. Farmers with high workloads, both physically, psychically and socially need a practical approach that can be easily accepted by farmer groups. Outside parties / governmentscan not just enter in providing intervention,inneedof cadres who come from the farmer group itself as a medium or conveying information in delivering interventions, in order to be well received by farmer groups. When farmers are able to accept intervention, it is likely that the

intervention will be implemented as expected. so that farmers become independent in carrying out healthcare in agricultural areas(Maisyaroh, Widianto, & Fibriansari, 2020).

This is also in line with the results of other research that states that in order for a change to be more accepted in the group there needs to be the development of local wisdom, according to the results of research from handayani&Bisri (2020) in its research on the role of local wisdom in Palaan Village with the development of village communities will have a very significant relationship. Local wisdom that is cultural such as traditional ceremonies are carried out in the framework of pre-implementation of activities for infrastructure development, the form of activities funded by APBDesa is an arts group (Sri Handayani, 2020)

The development of peer groups through the development of local wisdom is also contained in other research on reducing the risk of hazardous materials in agricultural areas more precisely using a local wisdom-based approach. This approach will be able to produce appropriate technology products that are closer to the experienceof farmers everyday so that it is easier to accept and applyn. (maisyaroh, Pesetya, & Fibriansari, 2019). Knowledge of BLS will increase individual knowledge about identifying signs of victims who should be given BLS, ways to carry out the stages of BLS and also knowing signs of victims who have recovered or are not saved. Knowledge about BLS can certainly reduce farmers' deaths while in agricultural areas. The final hope of increasing the knowledge and skills of the community in

performing BLS is that the general public will be trained to help cardiac arrest victims outside the hospital quickly and precisely so that the survival rate increases and prevents disability.

CONCLUSION

Farmers are able to carry out management in agricultural areas with Basic Life Support (BLS) and there is an increase in the ability after mentoring in agricultural areas. To improve the farmer's ability about basic life support, not only with training methods, but it can be obtained from electronic media and print media regarding the application of basic life support

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