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THE CAUSE OF WEAKNESS NURSES' ABILITY IN EMERGENCY DEPARTMENT (ED) OF REGIONAL PUBLIC HOSPITAL TYPE C DEALS WITH CARDIAC ARREST PATIENT: NURSES' PERSPECTIVE

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ABSTRACT

Nurse is the first health worker to identify patients with heart attacks in hospital. An important attention to everything which the nurse needs to improve their ability to handle cardiac arrest is the absolute thing to do by a regional public hospital type C to reduce the number of death and disability due to cardiac arrest. The aim of this study was to explore the experience of emergency department nurses performing resuscitation in cardiac arrest patients. This study is a qualitative study using interpretive phenomenology design, involving 8 nurse participants. The data was collected through in-depth interviews with interview guidelines, and then analyzed it using Interpretive Phenomenology Analysis (IPA). The theme obtained in the study is the lack of support to improve the ability received. This theme is formed from two sub themes; the low empowerment of human resources capability and the lack of acceptance of cost assistance for capacity improvement. Participants did not get maximum support from the hospital in upgrading skill. The result of this study showed that the importance for related parties in regional public hospital type C, to pay attention to everything that can support the improvement of nurse's ability as the spearhead of health care providers at the regional level.

KEYWORDS: Nurses' ability, cardiac arrest resuscitation, emergency services, phenomenology.

INTRODUCTION

The case of cardiac arrest is one of the health problem that faced by various countries. In the USA and Europe, there are over 500,000 deaths due to cardiac arrest every year,[1] and there were more than 500 thousand cardiac arrests each year in China.[2] Merchant explained that in developed countries, there are 1-5 patients from 1000 hospitals that have a heart attack, and less than 20% of patients who survived.[3] The success rate of resuscitation in cardiac arrest patients in Indonesia is still difficult to find, while the number of cardiac arrest deaths is the first cause of death.[4] The prevalence of heart failure disease in Indonesia are 229,696 people, some of it comes from South Sumatera Province with the estimated amount of 3,836 people with heart failure.[4]

Nurses are usually the first health worker to identify patients with heart attacks in regional public hospital (RSUD) type C. The lack of nurse resuscitation skills has been identified as one of the supporting factors to the increasing number of deaths from cardiac arrest.[5-7] Based on preliminary study with one of the Prabumulih RSUD nurses, the nurse said she did not dare to use defibrillation in cardiac arrest patients, and did not understand the heart rhythm that appears on the monitor. This condition certainly should not happen, considering they have been provided Basic Cardio Life Support training (BCLS). This condition is in line with the study of Passali *et al.*[8] if the nurse has attended BCLS training, then the nurse is able to provide safe defibrillation in cardiac arrest patient.

Emergency nurses are required to be able to recognize signs of turbulence, determine the level of turbulence, and take immediate and precise rescue measures.[9] Based on the problems above, the researcher is interested to know more about the cause of the weakness of the nurse's ability dealing with patients with cardiac arrest at Emergency Departement of RSUD Prabumulih Type C, South Sumatra Province, Indonesia. The results of this study are expected to be considered for the management of the hospital in improving the ability of nurses.

RESEARCH METHODS

This study used qualitative design of interpretive phenomenology. Qualitative interpretive phenomenology is an approach that describes general meaning, about the life experiences of a number of individuals towards a concept or phenomenon.[10]

Study setting and participants

This study was located in Prabumulih RSUD Type C, South Sumatera Province, Indonesia. This hospital is the only government-owned hospital in Prabumulih City. Based on the results,[4] the prevalence of heart failure in Indonesia are 229,696 people, while in South Sumatra Province, the estimated number of heart failure patients are 3,836 people.

The participants of the study were eight nurses who worked at emergency department. The selection of participants in qualitative research was based on the research focus. The selection was done by basic principles, to obtain extensive and in-depth information, and addressed to certain individuals, who have an experience on the phenomenon to be studied.[11] Participants of this study were eight nurses who worked in the Emergency department. The criteria were determined to make it easier for the researcher to achieve the objectives of this study, while the criteria of participants as follows: 1) Nurses who are working in the ER for more than 2 years. 2) Nurses who have received BCLS training. 3) Nurses who have performed cardiac arrest resuscitation. 4) The education of nurses is DIII nursing program.

Data Collection

This study has obtained ethical approval from the medical research ethics committee of Central Public Hospital Mohammad Hosein and Medical Faculty Sriwajaya University with no. 34/ kepkrsmhfkunsri/2018. The study was conducted within 3 months, starting from January to March 2018.

Procedure

The study was conducted by the researcher himself. The process of interview was conducted at different times, adjusted to the participants' time readiness. The data collection was done by in-depth interview process with the help of interview guide. The interview was conducted in one of the nurses' room emergency department. The interview was done for 25 minutes to 40 minutes. The statements that have been conveyed to be secrecy guaranteed and the interview was conducted face-to-face between the researcher and the participants without being witnessed by others. The participant's statement was recorded into audio form (MP3).

Data Analysis

The data obtained from the interviews are then transcribed one by one, then analyzed using Interpretative Phenomenology Analysis (IPA) according to Larkin and Thomson in the following order: a) Researchers read and reread the transcripts that have been made from interviews' result with participants; b) Researcher began to look for and explore important content in study records; c) Important note findings are grouped to develop themes with a keyword focus; d) And then, the resulting themes are combined to look for connection; e) Once the theme on one participant is found, then the next does the same thing to the other participants; f) After all participants are done by those steps, then the researcher look for the pattern of the overall theme found; g) The final step of this analysis is to look for a higher and deeper interpretation of the overall theme which obtained.[12]

RESULTS

The participants of this study were 8 people who are nurses who worked in IGD RSUD Prabumulih South Sumatra. The participants already had an experience dealing with cardiac arrest patients. Characteristics of participants in this study can be seen in the Table 1.

Table 1: Participants Characteristics.

Characteristics	Amount
The Duration of Nurses Working at the IGD	
3-9 years	6 people
10-18 years	2 people
The Training Has Been Followed	
Basic Cardio Life Support (BCLS)	5 people
Advance Cardio Life Support (ACLS)	3 people
Last education	
Diploma	6 people
Bachelor	2 people

Table 1 above showed that the duration of nurses working at Prabumulih RSUD as participants are above 3 years, the average training that ever followed is BCLS, the last education is Diploma.

The theme gained in this study was the lack of support for the improvement of the ability received. This theme is formed from two sub themes; the low strengthening of human resources capability and the lack of acceptance of cost assistance for capacity improvement.

The first sub-theme is low strengthening of human resource capability. This sub-theme consists of several other categories that do not exist, which never get the simulation activity, and cannot access defibrillation use functions. This condition showed various obstacles faced by the nurse in order to increase ability. The participant's statements related to this can be seen as follows:

If from the room, if there is no problem, if the patient's family is okay, nothing happened, the head of the room was quiet, except if the family had complained, then the head of the room was looking for, just looking for, what

happened with the patient, but there is no evaluation from the head of the room, nothing, the head of the room also should participate in evaluating, why the subordinates always fail to do this kind of actions. There is no head of the room, then no one care. (Nurse 1).

If the evaluation of the management was never done, then there is no evaluation until now, but actually it needs to be evaluated, it is a necessary, so that the success rate is higher than now, who knows we did a wrong SOP, maybe that's one cause most patients are fail (Nurse 2).

Eeee,,, it has not been done for now, it has not done A B C D E F all sorts and so on, it has never been done, the simulation has never been done. After the training, if formally answered, gathering friends to spread the ability has never been done, or maybe non-formally, maybe I do not know like chatting like this, this,, this ,,, maybe, but I have never heard (Nurse 7).

For me, no one has taught the use of defibrillation during 5 years of work until now, no one teaches me from the room. Whereas it is very necessary, I think it is very necessary, because it is very supportive for patients with cardiac arrest. The second is because it can increase the knowledge for the nurse itself (Nurse2).

Never mas, yes I have never been taught during my 8 years in the ER. It should need to be taught, I want be able to, it is IGD, IGD is the first patient handling (Nurse 5).

There is no one mas, it was already from the last training, no one taught us again, of course we forgot (Nurse 3).

The participants' statement above showed that they do not gain maximum strengthening of skill. This condition can be seen from the statement of participants who claimed never received evaluation and simulation related to the treatment of cardiac arrest patients. This can be seen from the words of participants that "there is no evaluation from the head of the room" and then confirmed to the next participant who said "If the evaluation of the management was never done, then there is no evaluation until now ". The participants also stated that they did not gain the strengthening of the abilities that came from the room in which they worked related to the use of defibrillation in cardiac arrest patients. This condition can be seen clearly in the participant's statement that "For me, no one has taught the use of defibrillation during 5 years of work until now, no one teaches me from the room". This thing showed that during the work, the participants have never gained strengthening ability of the room where participants work.

The next sub-theme is lack of acceptance of cost assistance for upgrading ability. This sub-theme explained that obstacles arising from the weakness of the cost of assistance for training in the framework of ability upgrading. This condition occurs due to the employment status held by the participants, where participants have the status as a daily freelance employee (PHL), this is according to the participants who causes them not getting help the cost of the hospital where they work. The participants' statement as follows:

Because the economic value or cost to be spent for the training is quite high Sir, so for now, maybe later also discussed, for now the training for the nurse has not been evenly distributed Sir, because for the high enough cost Sir. Not that I do not want to, but for the cost that incurred is very large, and that's my salary for a month is not enough if I want training outside (Nurse 7).

Yes already includes expiration, because it's a minimum of 3 years for training certificates. There is a plan for extending, I have the intention, I have the desire, but maybe the obstacle here is because of the cost from the training (Nurse 3).

There is a plan for renewing, but there are still many obstacles. So my planning is asking for help from hospital management, but I think it's hard. Maybe the hospital management is not willing to finance, the possibility is using my own expense (Nurse2).

It's needed. it is needed to be taught, I want be able to, in IGD, IGD is the first handling of patients, here, the civil servants (PNS) are noticed, if we are not the civil servants(PNS) then by our own costs "(Nurse 5).

The head of the room said that it still doesn't exist yet. But I have not got it yet, I have not got any, only the civil servants, not for the PHL (Nurse 6).

The participant's statement above revealed that nurses are also constrained by costs in order to attend the training for ability upgrading. The intended costs are the grants derived from the support from where they work. This statement can be seen in the quote "hospital management is not willing to finance" which explains there is no cost assistance from the hospital where participants work. Then reaffirmed on the statement of the next participant "I have not enough salary (for a month) if I want to attend the training outside" which explains the need for assistance to attend the training due to large costs to be incurred. Participants also complained about the employment status they have now as PHL, so that they cannot afford the help of costs if they want to attend the training. This can be seen from the participants' statement which "only for civil servants and not for PHL". This condition explains that the employment status has an important role in the acceptance of cost assistance.

DISCUSSION

The result of this study showed that the lack of support for improvement of skills received by the nurse. This condition was reflected in the statement of participants who said that the lack of simulation or evaluation activities received. This is further complicated by the weakness of hospital assistance, in order to improve the ability of an emergency nurse.

The conditions in this study are in line with the results of the study of Carol *et al.*[13] in which several factors such as weakness of ability upgrading, lack of attention and support are factors inhibiting the ability of nurses to provide optimal services in the emergency department. The study of Carol *et al.*[13] also emphasizes that the lack of support from managers is a major obstacle for nurses to improve their maximum care capabilities. The statement above is then confirmed in the study of Fernandez *et al*., where team coordination from planning, leadership and communication is an important factor in the management of cardiac resuscitation activities.[14]

Cardiac arrest is a condition that can lead to sudden death. This situation can occur if the heart electrical system can not function and produce an abnormal rhythm.[15] Cardiac arrest conditions are usually associated with low survival rates, as well as poor neurologic status results in survivors, but the recent data showed that both conditions may also improved in good condition.[16]

Performing cardiopulmonary resuscitation has potential benefits for patients with cardiac arrest. Cardiopulmonary resuscitation may increase life expectancy and may prevent future deaths in patients with cardiac arrest.[17]

Joining cardiac resuscitation training activities is one way for nurses to increase their capabilities. This is in line with the study of Passali *et al*.,[8] where, if the nurse wants to be included as the first link in the chain of survival in the hospital, the nurse must be provided with the training of BCLS and ACLS. Nursing abilities that have been provided by external training such as BCLS and ACLS, should also be supported by internal strengthening of the room. Furthermore, appropriate planning of emergency procedures, clear allocation of task distribution, with leadership techniques through verbal communication are easily understood. However, it is not enough, the availability of the resources are required, the giving of workshops in communicating, the existence of simulated actions of resuscitation, are major factors that should not be forgotten in the management of resuscitation measures of cardiac arrest patients in a work unit.[18]

Patients with cardiac arrest are in urgently requiring a rapid and effective life-saving measures. However, as time goes by, the knowledge and abilities of nurses in performing cardiac resuscitation have decreased. This is in line with Hamilton's study, where the main problem after pulmonary cardiac resuscitation training is to retrain for a certain period of time.[19] BCLS and ACLS skills and knowledge will deteriorate significantly if it is not updated regularly. Woolland *et al*.[20] also identifies refresher courses to be performed every 7 months to maintain cardiac pulmonary resuscitation skills. A study conducted by Nori *et al.*[21] found that the average score of nurses' knowledge and ability about pulmonary cardiac resuscitation after training was 17.81, but the score was became 15.26 in the second week after training and decreased to 12.86 in next 2 years. Besides lowering knowledge and abilities, a non-upgraded cardiac pulmonary resuscitation measures may also reduce confidence for nurses in cardiac arrest management.[22]

Increasing science in this modern era certainly requires funds that are not small. This condition is one of the obstacles in improving the ability, so there must be an assistance from the hospital to ease the expenditure of funds for the nurse. Based on PMK No. 49 in 2013, the Nursing Committee has an important role in the optimization of clinical nursing level. Some follow-ups that should be performed by the nursing committee are credentials, nurse mapping, competency level determination, dissemination of competency assessment, re-credentials and submission of budget assistance in improving nursing skills. Some of the point above was done to identify and improve the ability of nurses as a professional workforce. Thus, it is important for hospital management to evaluate and improve the nurse's knowledge or ability to perform regular cardiac pulmonary resuscitation in accordance with the development of science.

CONCLUSION

The results of this study revealed that the weakness of nurses' ability of regional public hospital type C is due to the lack of support that is provided by the internal room and the management of the hospital. It includes the weak of evaluation and simulation activities, as well as the lack of financial assistance provided to nurses for the improvement of skills as a professional worker. This condition can certainly impact on the provision of health services that are not optimal, and ultimately can increase the number of disability or death due to cardiac arrest.

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CONFLICT OF INTEREST

There is no conflict of interest.

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