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Thai nursing students' experiences when attending real life situations involving cardiac life support: A Phenomenological study

Yaowarat Matchim *, Waraporn Kongsuwan [1]

Faculty of Nursing, Prince of Songkla University, Hat Yai, Songkhla 90112, Thailand

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SUMMARY

Background: During the last few years, manikin simulations have been used for cardiac life support training procedures in medical and nursing education. However, some nursing students have experienced attending real events involving cardiac life support during their clinical practice.
Objective: This study aims to describe the meaning of experience of Thai nursing students when attending real situations of cardiac life support.
Methods: A hermeneutic phenomenological study was used. Third and fourth year bachelor of nursing students at a university in the southern region of Thailand who had the experience of attending real situation of cardiac life support were purposely selected as the informants. The data were generated from individual in-depth interviews with eighteen nursing students. Van Manen's approach was used to analyze the data. Trustworthiness was established using the criteria set out by Lincoln and Guba.
Results: Essential themes situated in the context of the four existential grounds of body, time, space, and relation emerged. These were: being worried and fearful while desiring to participate in cardiac life support procedures; enhancing self value; knowing each moment is meaningful for one's life; having time to understand the reality of life; being in a small corner; appreciating such opportunities and the encouragement given by nurses and the healthcare team; and feeling empathy.
Conclusions: Besides learning in classrooms and practicing in labs, experiencing real situations is beneficial for nursing students in learning cardiac life support. This study provides information that can be used for clinical teaching management in the topics relating to cardiac life support.

Introduction

Cardiac arrest is the leading cause of death in critical situations around the world. The Advanced Cardiac Life Support (ACLS) course is one dealing with the treatment of cardiac emergencies. The ACLS was created by the American Heart Association and is used in many countries to train medical and nursing staff to improve and ensure rapid survival after cardiac arrest (Field et al., 2010). Evidence shows that effective ACLS can save lives. In hospitals, the mortality and morbidity rates of cardiac arrest victims are directly affected by the ability of healthcare providers in using ACLS knowledge and skills effectively. ACLS competency has been defined as encompassing both the acquisition and retention of ACLS cognitive knowledge and psychomotor skills (Yang et al., 2012). ACLS training is important for healthcare professionals and health science students, especially medical and nursing students.

Through the nursing curriculum of the Faculty of Nursing, Prince of Songkla University (Faculty of Nursing, 2011), nursing students learned about cardiac life support. This program started with Basic Life Support (BLS), which is a core skill in which all healthcare professionals should be proficient. Lectures were also delivered in relation to BLS that demonstrated its importance and when and how it is performed. Individuals practiced BLS through simulation using manikins and this was undertaken in nursing laboratories. This started with assessment, asking for help, performing chest compression, and using a self inflating bag with a mask to help breathing. ACLS was taught in a later course after the BLS instruction had been given (Faculty of Nursing, 2011). These nursing students learned the principles of ACLS through course work. This included its importance, the way ACLS is performed, and the equipment and medication used in ACLS. A video of an ACLS situation taking place in clinics was provided for viewing. Nursing instructors explained and discussed the details of the ACLS procedures in the video. The nursing students were then assigned to groups of 10–12 persons. Each group was instructed about the way to practice simulated ACLS procedures using manikins in the laboratories. These procedures included assessment, EKG

* Corresponding author. Tel.: +66 74 28 6525; fax: +66 74 28 6421.
E-mail addresses: yaowarat.m@gmail.com, yaowarat.m@psu.ac.th (Y. Matchim), waraporn.k@psu.ac.th (W. Kongsuwan).
[1] Tel.: +66 74 28 6522; fax: +66 74 28 6421.

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interpretation, preparing an endotracheal tube, and the medication used in ACLS. Each student had to practice all these procedures and demonstrate them in turns. All the practice took place and evaluation conducted in the laboratories.

In clinical practice, as nursing students are a part of the health care team, some nursing students have a chance to attend real situations involving cardiac life support at some points during their clinical practice. In an evaluation of a course for practical adult nursing, nursing students stated that studying cardiac life support in a real situation is quite different from studying it in the laboratory. These nursing students emphasized that being given the opportunity to attend real situations involving ACLS on clinical practice enabled them to understand and memorize the procedures of ACLS more clearly. However, no existing study has been found that examines the experience of nursing students studying ACLS in real-life situations. Thus the present study aimed to explore nursing students' experiences of attending real-life events involving cardiac life support during their clinical practice. Understanding such experiences could assist nursing instructors develop appropriate teaching and learning strategies. These could enhance nursing students' positive learning outcomes relating to cardiac life support and also increase their satisfaction about how they have learned.

Literature Review

A review of educational theory suggests that hands-on activities or real experiences can lead to greater cognitive gains (Clark et al., 2010). When undertaking hands-on practice, students can integrate theory and practice, experience success and failure, and work in learning environments that help them develop their mental strength. Hands-on practice, incorporated with real time feedback, has been identified as the best method for teaching cardiopulmonary resuscitation (Plant and Taylor, 2013). However, in medical and nursing education, appropriate real-life situations in clinical practice are not always available for students to engage in hands-on practice. When developing training courses it has been assumed that the more realistic the scenario, the more the related skills improve, and the greater the knowledge that is retained. It is of interest to note that one study reported on the use of live actors to create realistic scenarios or role play. However, this did not improve the retention of knowledge (Miotto et al., 2008). A comparative study has shown that real-patients problem-based learning (RPBL) is better than digital problem-based learning (DPBL) and paper problem-based learning (PPBL). RPBL is even better than traditional lecture-based learning (LBL) to help students achieve critical assessment and management skills in a dermatology course (Li et al., 2013). This study reported that cases involving real patients were more effective, compared to digital and paper cases, in helping students develop self-directed learning skills, improving their confidence about future patient encounters, and encouraging them to learn more. One study evaluated the impact of a computer-based educational intervention on teamwork behaviors and patient care performance. It reported that computer-based team training positively impacts on teamwork and patient care during simulated patient resuscitations (Fernandez et al., 2013).

Regarding cardiac life support, few studies have been found that deal with students experiencing it in real situations. Price et al. (2006) examined the effects of attending a cardiac arrest situation and cardiac life support among medical students. This study reported that medical students' confidence about being involved in resuscitation procedures changed positively after participating in them. No existing study has been found that examined the effect among nursing students on attending a cardiac life support event. Therefore the purpose of this present study was to explore the experience of nursing students when attending real situations dealing with cardiac life support in hospitals.

Methods

Study Design

Hermeneutic phenomenology was used to explore the meaning of the lived experience of Thai nursing students when attending real situations involving adult cardiac life support in their clinical practice. The research question that this study intends to address is, "What are the experiences of attending real situation involving cardiac life support of Thai nursing students?"

Setting and Samples

The study was conducted in Songkhla province, southern Thailand. The settings of the study included adult medical, surgical, and intensive care wards in three tertiary hospitals. Nursing students who had experienced practical study were recruited to be participants and to be interviewed about the study. Eighteen nursing students who met the inclusion criteria were selected to participate in this study. The inclusion criteria were: (1) to be a third or fourth year nursing student at a university in Songkhla province; (2) to have had experience of attending real life situations involving cardiac life support in hospitals; (3) to be able to verbally express their recollections of cardiac life support procedures and situation that they observed; and (4) be willing to participate in the study.

Ethical Consideration

This study was approved by the Research Ethical Committee of Faculty of Nursing, Prince of Songkla University (REC approval number: PSU 604.2/040). A detailed description of the study, the risks and benefits, the matter of confidentiality, and the informed consent procedures followed were explained to the potential participants during the initial contact. The consent form was signed before the interviews. The real names of the participants were not used in any verbal or written presentations and/or reports.

Data Collection

The data were collected between October, 2011 and February, 2013. A purposeful snowball-sampling method using word-of-mouth contact was employed to recruit the participants. In addition, flyers inviting participation in the study were announced in classrooms and other places in the school of nursing. After contacting the participants, the researchers and each participant mutually agreed upon the setting for the interview. All interview settings were quiet, private, comfortable, and in convenient locations. The interviews took place in the researchers' office as it was accessible to both the researchers and the participants. These individual face-to-face interviews were conducted in the Thai language. They were tape recorded and took from 45 to 90 min for each participant. The set of questions used in the interviews were: "Please tell me your experience of having attended real situations involving cardiac life support during your clinical practice."; "What was it like for you attending real situations involving cardiac life support during your clinical practice?"; and "How did you feel about attending real situation involving cardiac life support?" In order to encourage further reflection, follow-up prompts were given, such as: "Please tell me more"; and "Can you give an example?" During the interviews the researcher also observed the behavior and facial expressions of the participants and entered these in a field note journal. Each interview continued until the participant reported that she had nothing more that she wished to share. In the first year of collecting data, only 10 nursing students had experiences of interest and the data did not meet saturation point. Thus the data collection continued after the practicum course was completed in the next academic year. The data derived from the