



THE NEEDS OF CARE QUALITY IMPROVEMENT FOR ACUTE CORONARY SYNDROME PATIENTS IN EMERGENCY DEPARTMENT: NURSE PERSPECTIVE

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Received date: 24 April 2018

Revised date: 15 May 2018

Accepted date: 05 June 2018

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ABSTRACT

Background: The inadequacy in providing care for patients with the acute coronary syndrome is still a problem in an emergency department. The high rate of morbidity and mortality of ACS patients in Indonesia, which are not balanced with standardized care needs will give effect to nurses in implementing the health care system. Re-evaluation needs to be done by hospital management related to the requirements that must be given by nurse thus it will not have an impact on the decreasing quality of care service. The aim of this study to explore the need to improve the quality of nursing for acute coronary syndrome (ACS) patients in an emergency department. **Methods:** This is a qualitative phenomenological study with purposive sampling techniques at 8 emergency nurses and semi-structured interviews. Thematic analysis was used to analyze the data. **Result:** This research generates two themes: first, the basic needs of nurses that have not been fulfilled and, second, the needs of care planning. The theme of the nurses' basic needs includes rewards and performance recognition while the care planning consists of nurse personnel needs, equipment improvement, and the update of ACS management SOP (Standard Operational Procedure). **Conclusion:** The importance of identifying service needs includes basic needs and careful planning. It is expected that the stakeholders of the hospital should pay more attention to the nurses' needs when doing the service as an effort to improve patient satisfaction.

KEYWORDS: Quality Improvement; Emergency Nursing; Health Management; Acute Coronary Syndrome.

INTRODUCTION

Acute coronary syndrome (ACS) includes myocardial infarction (MI) with or without ST-segment elevation and unstable angina. This is a sudden reduction disorder in the coronary bloodstream^[1] that is life-threatening and as a source of morbidity and mortality.^[2,3] According to the statistical data of American Heart Association (AHA), about 18% of men and 23% of women aged over 40 years will die within 1 year after initial MI is recognized.^[3] In Indonesia, ACS is a major health problem. Indonesia is a high-risk developing countries caused by low education level. It is also known that ACS management in Indonesia is not optimal causing high mortality.^[6]

The provision of ACS care in the emergency department is a great challenge for nurses.^[7] ACS is the biggest cause of death, but evidence-based management and inadequate care are still a problem.^[8] The quality care of

ACS patient needs special attention in some countries including the United States.^[9]

The first need that must be met in a nursing organization is the basic needs. The basic needs of nurses that are still lacking are appreciation and recognition of performance.^[10,11] The appreciation of nursing profession can affect work motivation. Work motivation is a factor that is relevant to work quality and result in health care.^[12] This is in line with the research conducted by Neggusie, which indicates that there is a significant and positive relationship between appreciation with work motivation.^[13] In this case, salary is the most significant factor which affects nurses' performance. This study is consistent with other studies suggesting that low salaries are a major source of health worker dissatisfaction.^[14] The recognition of work is a basic need that must be met. This is in line with the study of^[15] which showed that employees with emotional acknowledgment tend to have a higher level of internal work satisfaction. This is in

contrast with the research of Negussie, that there is no significant relationship between recognition and motivation.^[13]

The need for planning is a complex issue.^[16] Care planning which includes personnel computation is still less sensitive,^[17,18] the infrastructure facilities also known to be less in line with the hospital standards.^[7,17] The update of ACS management SOP is less evidence-based.^[20,22]

The quality care of ACS patients still needs to be improved as it is an important aspect of health organization.^[16] The phenomenon on the field found that the planning care at the emergency department in Saiful Anwar Hospital does not take the human resources into account. It is also lack of infrastructure, not-updated ACS management, and lack of appreciation and recognition of performance. This will have an impact on the quality of service performed. The purpose of this research is to explore the need for improving the quality of nursing service for ACS patients. The benefit of this research is to assist nurse managers in planning and implementing ACS service standardization in emergency department installation.

METHODS

This study is a phenomenological study an analytic descriptive approach^[33] by the emergency nursing research team of Universitas Brawijaya for 4 months (September to December 2017). The interview is done in participants workplace which is Triage and CC (Critical Care) emergency department of Saiful Anwar Hospital Malang, East Java, Indonesia with face to face.

The interviews were conducted with in-depth interviews, semi-structured interview techniques, and interview guides. The process of data analysis was done directly with transcripts and theme determination. After the theme has been collected, the analysis is performed by using thematic analysis method.^[23] The researchers also read the materials repeatedly to find meaning and pattern. After that, several initial codes were made with color on keywords continued with theme defining, repeating theme to set as the main theme, define theme again, and produce and write the finished theme of analysis. The results will be presented in the form of keywords, categories, sub-themes, and research themes.

The participants in this study amounted to eight nurses. The initial sample determination was 12 people taken based on the minimum number of descriptive phenomenological research samples,^[24] however, in the implementation, the 2 people did not match the inclusion criteria and the other 2 people refused to be participants. The sampling technique was performed by using *Purposive Sampling*^[25,26] with the criteria of Nurses who are still active in ACS patient service for the last 1 year, have BCLS (Basic Cardiac Life Support) certificate, and willing to be respondent.

The research instruments consist of two main instruments and supporting instruments. The main instrument was the emergency nursing research team of Master of Nursing, Universitas Brawijaya while the supporting instruments were audio recorder (MP3), smartphone, interview guide, and field notes.

RESULT

Eight nurses from the Emergency Department (ED) in Saiful Anwar Hospital participated in the interview. The description of participant demographic data is between the ages of 28 years to 58 years; 5 males and 3 females; 7 people with Diploma III degree and one person with Bachelor degree; 3 people have worked time less than 10 years in ER and 5 people more than 10 years; all participants have attended BCLS training. This research gets two themes: (a) unfulfilled basic needs of the nurses, (b) the need for care service planning.

a. Unfulfilled Basic Needs of the Nurses

The theme of nurses' basic needs includes appreciation and performance recognition. The needs of an award, meaning that a respect for the performance of the nurses who have worked in the ER for a long time is an important component that can improve motivation in the service to patients. This can be seen from the statement of the participant below:

... We received less appreciation, both for those who are seniors and juniors. That's the fact. Whether I have Diploma III degree and my junior have a Bachelor Degree, there is no difference. The long-worked and the newbie nurses, all get the same treatment (Participant number 4).

... I am the team leader in the ER, but, instead of being involved in a meeting for SOP with other team leaders and room chiefs, I am excluded (Participant number 5).

The statement from the participant indicates the importance of an appreciation for the nurses who have worked for a long time in the ED. The nurses feel that there is no difference between senior nurses with junior nurses which can lead to jealousy and decrease in work motivation. Another nurse said "*I am excluded*" which means that that the nurse is one of the team leaders in CC room, but when there is a meeting for SOP (Standard Operating Procedure) update, this team leader was not being involved. This makes the nurse feel unappreciated despite having a long position and work period. In addition, when carrying out the service, there are some female nurses who do not want to perform the task which makes the male nurses upset because they bear more work but there is no difference in rewards from their chief.

Another basic requirement is the recognition of performance. Recognition is defined as the act of acknowledging a person in order to increase his/her confidence. According to nurses, many inequities that

occur in the ED, one of which is the imbalance of seniority recognition. One of the participants said that

In the ED, I felt that the room chief does not really appreciate our work. There should be a difference based on experience and work period (Participant number 4).

This means that the inequality occurs due to the lack of experience, recognition and work length. This participant assumes that although he/she has a Bachelor degree, it does not necessarily mean that the chief also has the same experience and working period with him/her.

b. The Need for Care Service Planning

This theme points out that the necessity is made in the form of the framework in order to facilitate the process of giving service to the patient. This theme has three sub-themes such as *the need for nurses, the improvement of tool availability, and the update of guidelines.*

What is meant by the needs of nurses, in this case, is the number of human resources that must be met by ED and hospital management. The calculation and placement of the ideal nurses, according to the needs of the respondents can answer the shortages that have been felt in the room. This can be seen from the statement below:

... it is true that we experience some difficulties in labour that is not relevant to BOR. However, this is the demand from KARS (Hospital Accreditation Committee) so that we only follow it (Participant number 5).

The Calculation from the remuneration a the accreditation teameam showed that the hospital has exceeded 200 labour, while in fact, we need more nurses. We do not know where the overbalance, whether in administration department or in the nursing department (Participant number 7).

The above statement shows that the number of nurses with the number of patients admitted under Bed Occupation Rate (BOR) is less relevant, what is meant by relevant is less balanced. This is exactly the opposite of the calculation done by the hospital remuneration team, which states that the hospital staff excess of 200 people.

The number of visits in ED per day reaches dozens of people in one shift while the nurses in one shift only consist of 3 to 5 people.

... In the ER, there are a lot of ACS patients who are going to install a ring before going to CVCU. In one shift, it reaches 3 to 5 people. Please note that the other non-ACS patients are still not counted (Participant number 1).

There are 5 nurses in second priority while there are only 2 nurses and 1 team leader in first priority. Therefore, we still experience a difficulty in handling the

patients because it could reach 50 patients in 1 shift (Participant number 5).

This indicates that the number of visits in the ED causes less excellent service so that it needs to be recounted in order to meet the ideal number of nurses according to the needs of the patient.

The qualification of the nurses when they enter the ED needs to be pre-planned as it must meet the established standards. The nurse's statement can be seen as follows:

Actually, there are requirements to recruit nurses in a triage room such as the nurse must have BLS certificate and triage officer certificate. However, the fact is not in accordance with the SOP. The recruitment is only based on the willingness of the nurses to be placed in certain room (Participant number 4).

The statement of the participant illustrates the need for regulatory guidance from stakeholders regarding the recruitment of prospective nurses at the ER. According to the nurse executive, the criteria of ED nurse is, minimum, to have BLS certificate and Triage Officer certificate. However, in reality, the recruitment implementation in the ED is not as expected.

The second sub-theme of this theme is the need for equipment availability. This theme is everything about the needs of facilities or infrastructures in the form of medical and non-medical equipment that can support the activities of nursing services. Saiful Anwar Hospital is a type-A hospital that should no longer have constraints on the lack of tools. This is supported by the statement of the participant which said that:

The infrastructure is still lacking. We already propose for the equipment which has been months and years, but there is no response. This is essential because this is a type-A hospital and used for education which belongs to Malang city government (Participant number 2).

The infrastructure in the ER is not complete, for example oxygen. Back then, when the ER was built, I tried to propose an oxygen tube designed like an air compressor that is automatic and can be moved. I also admit that the floor is cracked and the instruments for wound care are never replaced so that it is no longer feasible to use (Participant number 4).

The statement shows that the management of the regulation and the need for complete equipment in the ED need to be upgraded. Lack of tools is a constraint that must be immediately solved and equipped considering that the need for complete equipment is the main thing that becomes part of the existing infrastructures or facilities.

The second sub-theme is the update of ACS management SOP The update is done by updating, replacing, adding,

or subtracting. With the updated guidelines, nurses have a sense of calm in performing the action. So far, there are still not many reforms in the ED.

In my opinion, the SOP should be upgraded in accordance with the scientific development and adjusted to the policy. The existing SOP may be replaced, added, or subtracted (Participant number 3).

Maybe, the hospital should have SOP for antibiotics. Sometimes, the patients show allergies after the antibiotic was being given. By that, it is expected that with the SOP, the nurses will not be afraid because it is in accordance with the standards of the hospital (Participant number 6).

The participant's statement indicates that the nurse wants changes in the work implementation guidelines. With such renewal, the old rules can be increased or reduced as needed due to the latest developments in science and the existing evidence-based practice. In some actions, the nurse is still doubtful or afraid of performing the service because there are no standard guidelines. For example, antibiotics should be tested first to see whether the patients have allergies or not, so that the preparation of SOP is required. The importance of such SOP is a tool to legitimize the action and as an evaluation instrument for nurses.

DISCUSSION

a. Unfulfilled Basic Needs of the Nurses

The need for performance, appreciation is greatly needed by nurses in an effort to achieve service objectives. The theory of needs developed by Abraham Maslow explained that the need for nursing appreciation belongs to the fourth order, as for the sequence are as follows: physical needs (oxygen, eating, drinking, sleeping), the need for security, the need to be accepted, the need to be entertained, and need for self-actualization.^[27] The first need that must be met in a care organization is the basic needs such as appreciation and performance recognition.^[10,11] Appreciation of nursing profession may affect work motivation.^[12] Motivation is a process that influences and directs behavior to meet certain need.^[28] Appreciation of the nursing profession can affect work motivation. Work motivation is a factor that is relevant to work quality and result in health care.^[12] This is in line with the research conducted by Neggusie, indicating that there is a significant and positive relationship between appreciation and motivation.^[13] Salary is known as the most significant factor which affects the performance of nurses. This study is consistent with the study of Agyepong, suggesting that low salaries are the main source of health workers' dissatisfaction.^[14]

Another basic requirement is the recognition of performance.^[10,11] In line with the study of Miyata, the recognition from the nurse executive to subordinates is able to reduce stress levels and supports the mental health of the nursing staff.^[29] Work recognition is a basic

need that must be met. This is in accordance with the research of Çekmecelioğlu *et al.*, that employees with high emotional recognition tend to have higher levels of internal work satisfaction.^[15] Neggusie shows a counterpoint that there is no significant relationship between recognition and motivation. Therefore, it is necessary to re-evaluate the work recognition done by the nursing manager to know the nurse's motivation in doing the service because it will affect the satisfaction of the patients.^[13]

b. The Need for Care Service Planning

The Ministry of Health of the Republic of Indonesia said that the standard of emergency nursing service planning includes labor and infrastructures/facilities. The need for planning is a complex issue.^[16] The care service planning which includes a computation of personnel is still less sensitive,^[17,18] the infrastructures/facilities are less in line with the hospital standards,^[9,19] and the update of ACS management SOP is still less evidence-based.^[20,22]

The first sub-theme is the need for nurses. Researchers found that the role and function of nurses in the ED are in accordance with their duties. However, the number of nurses is still less than ideal. The nurse recruitment system at the ED of Saiful Anwar Hospital still complex. This is in accordance with the study of Ward, which says that the calculation of full-time nursing staff based on the estimated number of emergency patients are not sufficiently sensitive to apply.^[18] The ability to provide an excellent quality of emergency care services depends on the resources trained so that a comprehensive understanding of the role qualification in the room is required.^[30] Mostly, new nurses who are placed in the triage room of ED, Saiful Anwar Hospital do not have the required qualifications. Triage is a room that requires special skills relating to the safety of the soul and an excellent nurse qualification is a requirement that needs to be applied. The research conducted by Yurkova shows that competence is a validation process from the patient's safety in the emergency room.^[31] This is in line with the research from Teoh & Chan, that there are still many failures of newly enrolled nurses to be properly transferred to the room.^[32]

The second sub-theme is the improvement of equipment availability. Completeness of tools in ED is a benchmark of the existing service standards. The Decree of the Minister of Health of the Republic of Indonesia number 856/menkes/SK/IX/2009 has set the standard for hospital emergency equipment includes a defibrillator, AED, EKG, oxygenation system, etc. Meanwhile, according to The American College of Emergency Physicians (ACEP), the provided equipment must have a high quality to anticipate critical situation.^[19] The standard equipment in ACS management may refer to the recommended American Heart of Cardiology/American Heart Association (ACC/AHA) guidelines.^[9] The nurses in Saiful Anwar Hospital said there were still some shortcomings in terms of equipment such as

oxygenation. This deficiency is associated with budget constraints which will have an impact on service quality.^[33]

The third sub-theme is the update of ACS Management SOP. The management of emergency nursing service is an integral part of health service. The purpose of emergency service is to save lives, reduce morbidity, mortality, and disability. The research conducted by Steiner, shows that the SOP development is an effective tool to improve the quality of PCR (Patient Care Report) and item documentation completion.^[20] Some experts agree that procedural guidance is an essential element for an institution to deal with an incident or disaster in its daily actions as well as the need for a special management as a structure to design, update, and strengthen procedures effectively.^[22] The update of the existing guidelines can be based on evidence-based practice.^[8,21] Another study conducted by^[34] showed that 64% of the nurses expressed positive attributes to EBP (Evidence Base Practice) but because of the heavy workload, they could not keep up with new evidence. Therefore, the nurse practice guidelines renewal is important to be done to improve the quality and service.

CONCLUSION

The need to improve the quality of ACS patient care services can be done by providing basic needs that still need to be increased such as appreciation and recognition. The planning of care services is not only limited to energy and infrastructure needs but also ACS management guidelines.

Ethics

This research has passed the Medical Research Ethics Committee of Medical Faculty, Universitas Brawijaya, Malang with the letter number: 216/EC/KEPK/06/2017.

Funding

This research was funded by Medical Faculty, Universitas Brawijaya

ACKNOWLEDGMENT

The authors are pleased to thank the mentors, hospital, and colleagues who have spent much time and ideas for the completion of this research.

Conflict of interest

There is no conflict of interest in this research.

REFERENCE

1. Amsterdam EA, Wenger NK, Brindis RG, Casey DE, Ganiats TG, Holmes DR, et al. 2014 AHA/ACC guideline for the management of patients with non-ST-elevation acute coronary syndromes: A report of the American college of cardiology/American heart association task force on practice guidelines. *Circulation*, 2014; 130(25): e344–426.
2. Ariza-Solé A, León V, Formiga F, Sánchez-Salado JC, Lorente V, Cequier A. [Body mass index and prognosis in the elderly patients with acute coronary syndromes]. *Med clínica*, 2015; 145(1): 14–7.
3. Kolansky DM. Acute coronary syndromes: morbidity, mortality, and pharmacoeconomic burden. *Am J Manag Care*, 2009; 15(2 Suppl): S36–41.
4. Sitorus RA, Hamonangan R, Sofyan N. APSC2015-1091 A Prospective Review of Acute Coronary Syndrome in a Primary Hospital in Indonesian Rural Area. *Glob Heart*, 2015; 10(2): e20.
5. Letvak S, Rhew D, Beinecke RH. Assuring Quality Health Care in the Emergency Department. *Healthcare [Internet]*, 2015; 3(3): 726–32.
6. Hoekstra JW, Pollack Jr. C V, Roe MT, Peterson ED, Brindis R, Harrington RA, et al. Improving the care of patients with non-ST-elevation acute coronary syndromes in the emergency department: The CRUSADE initiative. *Acad Emerg Med*, 2002; 9(11): 1146–55.
7. Tsai C-L, Mgid DJ, Sullivan AF, Gordon JA, Kaushal R, Ho PM, et al. Quality of care for acute myocardial infraction in 58 U.S emergency department. *NIH Public Acces*, 2010; 385(1): 22–9.
8. Kaur A. Maslow 's Need Hierarchy Theory : *Glob J Manag Bus Stud*, 2013; 3(10): 1061–4.
9. Huitt. Maslow 's Hierarchy Maslow 's Hierarchy of Needs [Internet]. *Educational Psychology Interactive*. Valdosta: GA: Valdosta State University, 2007; 1500–3.
10. Toode K, Routasalo P, Suominen T. Work motivation of nurses: A literature review. *Int J Nurs Stud*, 2011; 48(2): 246–57.
11. Negussie N. Relationship between Rewards and Nurses' Work Motivation in Addis Ababa Hospitals. *Ethiop J Heal Sci*, 2012; 22(2): 107–12.
12. Agyepong IA, Anafi P, Asiamah E, Ansah EK, Ashon DA, Narh-Dometey C. Health worker (internal customer) satisfaction and motivation in the public sector in Ghana. *Int J Health Plann Manage*, 2004; 19(4): 319–36.
13. Çekmecelioğlu HG, Günsel A, Ulutaş T. Effects of Emotional Intelligence on Job Satisfaction: An Empirical Study on Call Center Employees. *Procedia - Soc Behav Sci*, 2012; 58: 363–9.
14. Andersson A-C. Quality Improvement in Healthcare: Experiences from a Swedish County Council Initiative, 2013.
15. Gräff I, Goldschmidt B, Glien P, Klockner S, Erdfelder F, Schiefer L, et al. Nurse Staffing Calculation in the Emergency Department - Performance - Oriented Calculation Based on the Manchester Triage System at the University Hospital Bonn, 2016; 11(5).
16. Ward R. Nurse staffing levels and skill mix in accident and emergency departments. *Nurs Pr Edinb Scotl*, 1992; 6(1): 1480248.
17. American College of Emergency Physicians (ACEP) Board of Direction. These guidelines are intended to apply to either hospital-based or free-standing

- emergency departments open 24 hours a day, 2014.
18. Rc F, Schmidbauer W, Cd S, Sørensen M, Bubser F, Kerner T. Standard operating procedures as a tool to improve medical documentation in preclinical emergency medicine. *Emerg Med J.*, 2010; 27(5).
 19. Richard P, Jarvis E. Improving emergency department patient flow. *Clin Exp Emerg Med.*, 2016; 3(2): 63–8.
 20. Steiner N. Standard operating procedures (SOP) in emergency situations management in health system. *Manaj Heal*, 2014; XVIII(4): 14–6.
 21. Braun V, Clarke V. Using Thematic Analysis in Psychology, 2006; 3: 77–101.
 22. Gentles SJ, Charles C, Ploeg J. Sampling In Qualitative Research. *SAGE Encycl Soc Sci Res Methods*, 2015; 20(11): 1772–89.
 23. Polit DF, Beck CT. *Essential of Nursing Research, Appraising Evidence for Nursing Practice*. 7th ed. Philadelphia: Lippincott William & Wilkins, 2010: 769.
 24. Streubert HJ, Carpenter DR. *Qualitative Research in Nursing: Advancing the Humanistic Imperative*. 5th ed. Philadelphia: Lipincott William and Wilkins, a Wolter Kluwer Business, 2011; 374.
 25. Maslow AH., Bennis W. *Maslow On Management* By Foreword by Warren Bennis. *Management*, 1998; 28.
 26. Jooste K, Hamani M. The motivational needs of primary health care nurses to acquire power as leaders in a mine clinic setting. *Heal SA Gesondheid*, 2017; 22: 43–51.
 27. Miyata C, Arai H, Suga S. Characteristics of the nurse manager's recognition behavior and its relation to sense of coherence of staff nurses in Japan. *Collegian*, 2015; 22(1): 9–17.
 28. Boyce C, Neale P. *Conducting In-Depth Interviews: A Guide for Designing and Conducting In-Depth Interviews for Evaluation Input*. Vol. 2, Pathfinder International, 2006.
 29. Yurkova I, Wolf L. Under-triage as a significant factor affecting transfer time between the emergency department and the intensive care unit. *J Emerg Nurs*, 2011; 37(5): 491–6.
 30. Teoh YTE, Pua LH, Chan MF. Lost in transition - A review of qualitative literature of newly qualified Registered Nurses' experiences in their transition to practice journey. *Nurse Educ Today*, 2013; 33(2): 143–7.
 31. Ernst C, Szczesny A. Capped hospital budgets, risk-influencing activities and financial consequences. *J Account Public Policy*, 2008; 27(1): 38–61.
 32. Majid S, Schubert, Luyt B, Zhang X, Leng Theng Y, Ke Chang Y. Adopting evidence-based practice in clinical decision making: nurse perceptions, knowledge, and barriers. *J Med Libr Assoc*, 2011; 99(3): 229–36.
 33. Kumboyono K, Cathrine ST, Yulia CL, Dini PW. Resilience of people living with HIV-AIDS in Indonesia: a phenomenological study. *HIV Nurs.*, 2018; 18(1): 4–7.