



CARING ENVIRONMENT MODEL IN EMERGENCY SERVICES OF HOSPITALS BY BANYUMAS PUBLIC PERCEPTION

Jebul Suroso^{1✉}, Yuliarti¹, Eko Mardiyarningsih²

¹Faculty of Health Sciences, Universitas Muhammadiyah Purwokerto, Central Java, Indonesia

²Faculty of Nursing, Universitas Ngudi Waluyo Semarang, Central Java, Indonesia

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Abstract

Caring environment for providing service in the emergency department of the hospital becomes the need of the society. Caring environment has impact on the satisfaction, safety, and potential success of the services for the patients. The research aims at identifying the perception of society on caring environment as well as confirming the model of caring environment for providing emergency service in the hospital. This research employs descriptive exploration, involving 300 patients of emergency department from three hospitals in Banyumas. The analysis of descriptive data is conducted to categorize the perception of society on caring environment. The construct validity of caring environment is tested using confirmatory factor analysis. The result shows that the perceptions of society on caring environment in emergency department are good (86.3%) and fair (13.7 %). As the construct used to shape the model of caring environment has met the criteria of goodness of fit, involving: GFI; 0.96, RMSEA; 0.031, AGFI; 0.94; NFI; 0.98; CFI; 1, so it is revealed that the measurement model of caring environment for providing emergency service is fit. Moreover, all indicators are able to explain and support the model of caring environment for providing emergency services, involves; clean and comfortable room, complete facilities and equipments, and room safety. This finding could be the foundation for formulating the policy of caring quality improvement related to the aspect of caring environment for providing emergency services.

Introduction

The environment aspect as a part of health service in hospital is among the aspects that patient and their family are concerned with. The environment condition of the hospital even has become a fundamental consideration for society in deciding their choice of health care facilities. The condition of the environment could either satisfy the patient in the hospital or dissatisfy them at the same time. Most patients look forward to good care environment condition to support their recovery. The same goes for the patients cared for in emergency department (Suroso, 2015).

Emergency department is among the forefront unit and a gate of entry for the patients to the hospital. This unit provides

initial care for patients, especially those in critical or emergency condition. Patients coming to emergency department often bears unpredictable and unexpected illness they or their family never imagined, prompting better care in emergency department. The number of patients visits to emergency department in Indonesia in 2007 reached 4,402,205 (13.3% from total visits in general hospital), 12% of which are referred patient, with the number of general hospital ranging from 1,033 to 1,319 hospitals (Kemenkes, 2008).

The number of visits and the patient conditions are the problems that require special concern of the management and the officer of the emergency department. For nurse, working in emergency department is an occupation

✉ Correspondence Address:

Jalan Raya Dukuhwaluh PO. BOX 202 Purwokerto 53182

Email : injeso@yahoo.com

full of pressure in a wide area but limited time (Kemenkes, 2008). Because of that, concerns in many aspects, including environment aspect, is necessary to embody caring culture in emergency department (Jarrin, 2012).

The environment aspect in this study used human caring theory by Watson (2008). Caring is defined as a condition when nurses are present and they are considered as caring, always ready, and always concerning caring aspect. Caring is a core of nursing practice ethic and philosophy. Caring means understanding, synergy, patience, honesty, trust, humility, hope, and courage (Watson, 2008). Caring is a science about human being, not only as a behavior, but also as a way of making something meaningful and motivating people to act. In this regards, attention and care from nurses also includes environment aspect that refers to development of caring according to Jarrin's integrative caring concept (Jarrin, 2012).

Caring environment encompass development which potentially create or increase health and care of the patient. Hospitals should create caring environment in all service, including in emergency department. Hospital minimum standard of care regulates environment aspect in health care facilities. The term environment refers to physical environment. Physical environment conditions in several service units in hospitals are often the cause of patient dissatisfaction.

In practice, both the patient and family felt the problems in environment aspect. The patient and their family not only look forward to receiving good service from the officer, but also desired an ideal environment condition as they are treated in the hospital. According to a survey, the needs of caring according to patients of emergency department in general hospital in Banyumas area encompass behavioral aspect, environment aspect, and administration (Suroso, 2015).

Assessment in RSUD in Banyumas area toward 20 respondents (patient) revealed the needs of emergency department patients encompass promptness of the service, clarity of information, comfort, friendliness of the nurse, privacy, attention, and fulfillment of the need for wards cleanliness. In environment aspect, 8 out of 20 respondents complained about

comfort, clarity of information, privacy, and cleanliness of emergency department ward.

Suroso's study (2011), in a private hospital in Purwokerto, explained that several things society was concerned about outpatient service, including emergency department, are: security, parking facility, and availability of other supporting facilities. It is in accordance with the people's satisfaction index indicators of hospital services according to ministerial decree MENPAN N0. KEP-25/M.PAN/2/2004. A study in a specific hospital showed that 60.7% of outpatients are dissatisfied with the services they received, some of which are related to environment aspect (Maharani, 2009). Hospital accreditation requires fulfillment of caring environment aspect according to the concept of international patients safety goals (Suroso, 2015).

It is, therefore, necessary to identify society's perceptions on caring environment services in the emergency department in hospital, and also to arrange a model of caring environment in emergency department service in hospitals.

Method

This explorative descriptive study involved 300 respondents who are patients of emergency department in three RSUD in Banyumas with inclusion criteria: adult patients aged > 18, in fully conscious condition, willing to become respondents evidenced by signing the informed consent sheet.

The data are collected using caring instrument consisting of 46 items, which is arranged based on the results of assessments needs by (Suroso, et al., 2015). It has been tested for validity and reliability (Cronbach's alpha 0.87). Descriptive analysis described the characteristics of the respondents – consisting of patients and nurses – using the frequencies and percentages, encompassing age, gender, education, hometown, and caring measurement scoring. The result of caring measurements was then categorized into deficient, sufficient, and decent. The measurement assessed cleanliness and comfort, completeness of facilities, and room security.

Based on the number of statement items in the environment aspects, measurement results of caring environment was categorized

into deficient ($x < 33$), sufficient ($33 \leq x < 5$), and decent, ($51 \leq x$), where x was a score of caring environment according to the perception of Banyumas society. The creation of caring environment model was conducted with factor analysis using confirmatory factor analysis (CFA). The ethic aspect of this study was guaranteed by ethic pass letter from Medical and Health Research Ethics Committee (MHREC) ethic committee, Faculty of Medicine Universitas Gadjah Mada, the number of which is: KE/FK/190/EC.

Result and Discussion

The characteristic of respondents in this study encompass education, gender, and respondent's home address. The respondents were aged 18-78 years old, averaging 36.13 years old and standard deviation of 9.94. Most respondents (66.3%) were a secondary school

graduates, and 17% were primary school graduates. Most respondents (44.3%) were from Banyumas. The frequency distribution of the characteristics of the respondents was shown in Table 1:

Three factors and 14 statement items respectively described and revealed caring environment in this study, as shown in Table 2. Caring environment of this research also could be described by 3 factors and revealed by 14 statements item, with instrumental factors as shown in Table 2

The explanation/commentary of each indicator was showed in caring environment instruments on table 3:

People's perception on caring environment in emergency department service in Banyumas was divided into three categories: deficient, sufficient, and decent. The complete

Table 1. The characteristics frequency distribution of the respondents based on their education, gender and place of origin

Characteristics	Frequency	Percentage (%)
Education		
1 Primary	51	17
2 Secondary	199	66.3
3 Higher education	50	16.7
Gender		
1 Male	144	48
2 Female	156	52
Place of Origin		
1 Banyumas	133	44.3
2 Banjarnegara	14	4.7
3 Purbalingga	114	38
4 Outside the area	39	13

Source: Primary data, 2015

Table 2. The instrumental factors of caring environment in emergency department service of the hospital

No	Indicators	Numbers of item
1	Cleanliness and comfort of rooms	4
2	Completeness of facilities and equipment	5
3	Security of rooms	5
	Total Statements	14

Source: Primary Data, 2015

Table 3. Emergency department's instruments of caring environment services

Indicators	Statements
Cleanliness and comfort of rooms	Emergency department room is clean and not slippery
	Proper room lighting
	Emergency department room felt cool, so the patient can rest comfortably
	The officers keep the privacy of the patients by setting a divider curtain among patients
Completeness of facilities and equipment	The equipment are available and ready to use as patients need it
	Beds are clean, tidy, and ready to use
	The equipment for patients examination is ready in procedure rooms
	Family waiting room and a clean toilet is available
Room's security	There are worship rooms not far from emergency department
	Family are allowed to accompany the patients after procedure
	There are secure place/storage to keep patient's belonging while in emergency department
	The beds that equipped with fall prevention measures
	Contagious patient are separated
	The officers do not leave the patient without any bed protection

Source: Primary Data, 2015

categorization of people's perception is shown in table 4:

According to table 4, most respondents (86.3%) were satisfied with caring environment in emergency department service in Banyumas, while the rest (13.7%) felt that it was sufficient. Those perceptions were based on their responses to each statement which is derived from caring environment indicators.

At completeness of facilities and equipment indicators, patients need emergency department facilities which have complete equipment for patient's need. Patient also need a waiting room, rest room and worship room for their family located near the emergency

department. Emergency department also require Kiblat sign for muslim patients. It is in accordance with previous findings which mentioned that the needs of patients related to environment aspects encompass completeness of the equipment, adequate room (patients are not placed in the hallway), adequate facilities, good environment condition, proper waiting rooms, nearby located canteen, availability of a rest room for family, availability of worship room, Kiblat sign, and information about worship facilities (Suroso, 2015).

Emergency department's patients need safety; among others, they expect clarity between employees and student practitioner

Table 4. People's perception on caring environment in hospital's emergency department service in Banyumas

Caring environment in emergency department	Numbers	Percentage (%)
Deficient	-	-
Sufficient	41	13,7
Decent	259	86,3
Total	300	100

Source: Primary Data, 2015

caregiver, safety side rail in patient's beds, safety storage place for patients and families belongings. In previous study, patients expressed need for; "safety side rail in patient's beds, clear distinction between employees and student practitioner, and fewer workers on site."

Society expect that emergency department service rooms are clean and comfortable, have comprehensive facilities and equipment, and secure. This is in line with the efforts of current and future services that focus on creating a caring environment for nurses, patients, and families within a complex organization of health services. Clean and comfortable space allows for therapeutic relationship between nurses and patients. The nursing process will proceed effectively in a comfortable room conditions. Maintained patients privacy in emergency environments was proven to satisfy patients (Lin, 2013).

Among the criteria for excellent services are conditions that include; easiness in receiving location-associated services, services room, ease of access, and availability of support services attributes associated with the environment, cleanliness, waiting rooms, entertainment facilities and others. Also included was psychological environment that become an integral part in achieving patient satisfaction (Watson, 2008).

Moreover, associated with the environmental aspects of the criteria is the availability of infrastructure services, waiting rooms and information, as well as clean and cool environment conditions. Comprehensive public facilities was among the need of patients and families, especially considering the characteristics of Banyumas society *gemblung gemblung ari rubung* (however crazy, at least we're together) meaning the people of Banyumas is gregarious despite bad condition (Priyadi, 2003). This is evident when a family member or neighbors turn ill, they would generally be visited by lots of people (family and neighbors). This condition can at least be accommodated by providing a sufficient waiting room, especially for families. The flip side of this is that people expect that their presence will encourage and reassure the patient and the family.

Likewise, considering the characteristics of Banyumas religious community, health care

facilities need to provide places of worship to calm oneself and pray for ailing family. The high number of available health care organizations in Indonesia failed to satisfy the people. Protracted health care services, high cost, lack of available facilities and others were among the cause of the discontent (Maharani, 2009).

Security is also an inseparable requirement from environmental aspects in health care, namely; ensuring the safety in service provider unit environment or means used, so people feel at ease, and receives service from the risks posed by the service implementation. These aspects underlie the needs for patient caring associated with emergency department service environment in public hospital in Banyumas. Schreuder (2016), identified environmental factors capable of assisting recovery of patient: spatial comfort, privacy, autonomy, sensory comfort, safety and security, and social comfort. This is in line with the principles of quality management in ISO 9001: 2000, that is; 1) Customer Focused Organization, 2) Leadership, 3) Involvement Of People, 4) Process Approach, 5) System Approach for Management, 6) Sustainable Improvement, 7) Facts-Oriented Decision Making, 8) Mutually Beneficial Relationship with Suppliers (Maharani, 2009).

Caring environment model with confirmatory factor analysis (CFA) was conducted to identify the dimensions of the instrument, to test whether or not the dimensions were confirmed, and to adjust with actual empirical data. The test is a further step in the model building process, having the caring instrument content previously tested for validity using expert judgment. This technique is commonly used in the formulation of instruments (Salim, 2013). CFA in this study used the following parameters: Goodness of Fit Index (GFI) > 0.90, Root Mean Square Error of Approximation (RMSEA) between 0.05 and 0.08, Adjusted Goodness of Fit Index (AGFI) > 0.90, Normed Fit Index (NFI) > 0.90, Comparative Fit Index (CFI) > 0.90. Complete view of the caring environment model was shown in Figure 1.

Based on empiric measurement model of caring environment as shown in Figure 1, statistically, there was a relationship between

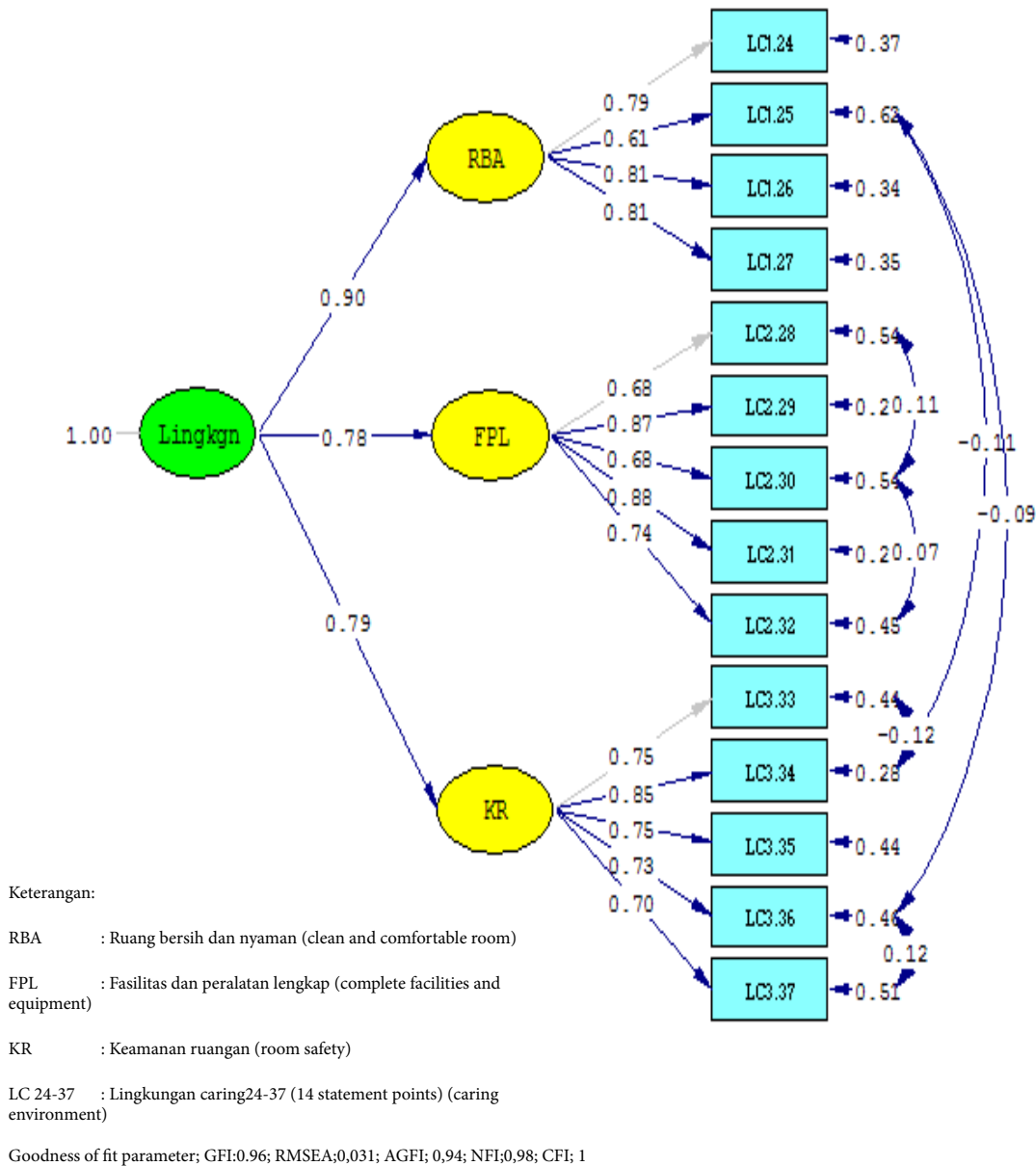


Figure 1. Empiric model for measurement of caring environment

indicators of clean and comfortable room (RBA) and indicator of room safety (KR). The relationship was on item “adequate room lighting” (LC1₂₅) with “Safe storage for patient belonging in the emergency department” (LC3₃₆) and “Patients are separated between infectious and non-infectious” (LC3₃₇).

Evaluation of construct validity based on Figure 1, suggested each indicator from each latent variable had fulfilled the requirement,

which is loading factor above 0.50, therefore, it is acceptable. The value of loading factor of each indicator was as follows; clean and comfortable room (RBA) was supported by items with loading factor of 0.79; 0.61; 0.81; 0.81. Loading factor of each indicator of complete facilities and equipment (FPL) item was 0.68; 0.87; 0.68; 0.88; 0.74. Loading factor of each indicator of room safety (KR) item was 0.75; 0.85; 0.7; 0.75; 0.70. Validity test result with regard to

loading factor was relevant to the t test showing t count > 2. Therefore, all statement items were considered valid, supporting, and clarifying.

Goodness of fit evaluation based on factor analysis results showed that the construct used to form caring environment models already fulfilled the predetermined goodness of fit criteria. Probability value of goodness of fit index test showed a value of 0.96, and RMSEA 0.031. Match testing of other model resulted in AGFI; 0.94; NFI; 0.98; CFI; 1, thus the caring environment measurement model as shown in Figure 1, was concluded fit.

Therefore, caring environment model also reinforces the concept of quality caring model (Duffy, 2009). Quality caring model describe role of various factors, including environmental resources factors. These factors could be used in interaction process between care provider and patient. In this concept, interaction with good environmental resources would lead to patient safety and satisfaction. In line with the concept of quality caring models, that patient satisfaction is also related to provider HR (human resources) aspect, so integration of each component of care was paramount. This was because caring environment models in the care could only be achieved if the human resources were willing to commit.

The role of HR in creating a caring environment in care, are through spryness and perceptiveness. In addition, emergency department personnel need to have special skills related to rapid and precise care. Therefore, the hospital emergency department should establish a basic competence in its personnel. It is similar to the one applied in the Netherlands (Ikkersheim, 2012), and Singapore, both of which have acknowledge emergency specialist since 1984 (Wen, 2012). In Italy, there are some concerns regarding health care system to provide satisfaction to the patients, that is; organizing a queue list, prolongation of care and incorrect inpatient admission (Broccardo, 2015).

HR in emergency department services also need to support the realization of caring environment by smiling, greeting and courtesy to every patient, family, and fellow officers. Officers should greet every patient, family, and fellow officers to please everyone meeting said

officer. Officers are also expected to be well-behaved. Unfriendly, impolite, grumble, and unskilled officers can result in dissatisfaction and discomfort of the patient (Saputra, 2015).

Related to efforts to provide satisfaction and comfort to patients, service management also needs to be in line with the concept of nursing which is currently improving that states, “care is a reciprocal practice, occurring within a framework of a relationship between the nurse (caregiver) and patient (care receiver)” (Lachman, 2012). The human resource development related to caring culture in the service environment need to pay attention to the following four aspects: 1) the need for a role model/example in caring learning; 2) supportive environment for nurses to learn and practice caring behavior; 3) the need for a manual to construct caring learning; 4) the need for knowledge/cultural competence to learn and practice caring behavior (Ma, 2014).

Conclusion

Environmental aspects of emergency care needed by patients include security rooms, complete facilities and equipment, and clean and comfortable room. Measurement model of caring environment was declared fit, and all indicators are able to explain and support the emergency services models of caring environment. This finding may be a consideration for the hospital management in formulating policies to improve the quality of service associated with environmental aspects of emergency department services based on caring environment models.

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