



พฤติกรรมการดูแลของพยาบาลและความพึงพอใจของผู้ป่วยในโรงพยาบาลระดับตertiaryสหสาธารณรัฐแทนซาเนีย

Nurse Caring Behaviors and Patient Satisfaction in a Tertiary Care Hospital, The United Republic of Tanzania

เดบอรา	ไดสัน บุกุกุ	พย.ม.*	Debora	Dyson Bukuku	M.S.N.*
รัตนาวดี	ชอนตะวัน	ปร.ต.**	Ratanawadee	Chontawan	Ph.D.**
ฐิติณัฐ	อัคคเดชอนันต์	ปร.ต.***	Thitinut	Akkadechanunt	Ph.D.***

บทคัดย่อ

ความพึงพอใจของผู้ป่วยเป็นสิ่งสำคัญในการปรับปรุงคุณภาพของการพยาบาล การศึกษาพบว่า พฤติกรรมการดูแลของพยาบาลส่งผลต่อความพึงพอใจของผู้ป่วย การศึกษาเชิงพรรณหานาทความสัมพันธ์ครั้งนี้มีวัตถุประสงค์เพื่ออธิบายพฤติกรรมการดูแลของพยาบาล ความพึงพอใจของผู้ป่วยและหาความสัมพันธ์ระหว่าง พฤติกรรมการดูแลของพยาบาลกับความพึงพอใจของผู้ป่วย กลุ่มตัวอย่างคือผู้ป่วยจำนวน 468 คนที่เข้ารับ การรักษาในโรงพยาบาลระดับตertiaryสหสาธารณรัฐแทนซาเนีย เครื่องมือที่ใช้ในการวิจัยประกอบด้วย: แบบ บันทึกข้อมูลส่วนบุคคล แบบวัดพฤติกรรมการดูแล (CBI) และเครื่องมือวัดความพึงพอใจของผู้ป่วย (PSI) ซึ่ง มีค่าความเชื่อมั่นของแบบวัด CBI และ PSI เท่ากับ .90 และ .80 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณ และสัมประสิทธิ์สัมพันธ์แบบพี่น้องสัน

ผลการวิจัยพบว่า:

- ค่าเฉลี่ยโดยรวมของพฤติกรรมการดูแลของพยาบาลตามการรับรู้ของผู้ป่วยอยู่ในระดับปานกลาง
- ค่าเฉลี่ยโดยรวมของความพึงพอใจของผู้ป่วยอยู่ในระดับปานกลาง
- พฤติกรรมการดูแลของพยาบาลมีความสัมพันธ์เชิงบวกในระดับปานกลางกับความพึงพอใจของผู้ป่วยอย่างมีนัยสำคัญทางสถิติ

ผลการศึกษาครั้งนี้สามารถนำไปใช้โดยโรงพยาบาลและผู้บริหารการพยาบาลของโรงพยาบาลระดับตertiaryที่จะพัฒนาการดูแลของพยาบาลและเพิ่มความพึงพอใจของผู้ป่วยให้มากยิ่งขึ้น

* พยาบาลหัวหน้าเวร, หอผู้ป่วยโรคขาดสารอาหาร, โรงพยาบาลแห่งชาติมุหิมบิลี, ดาร์ เอส ซาลาม

* Sr. In Charge Nurse, Malnutrition Ward, Muhimbili National Hospital, Dar Es Salaam, deborabukuku@gmail.com

** รองศาสตราจารย์, คณะพยาบาลศาสตร์มหาวิทยาลัยเชียงใหม่

** Associate Professor, Faculty of Nursing, Chiang Mai University

*** ผู้ช่วยศาสตราจารย์, คณะพยาบาลศาสตร์มหาวิทยาลัยเชียงใหม่

*** Assistant Professor, Faculty of Nursing, Chiang Mai University



Abstract

Patient satisfaction is important to improve the quality of nursing care. Studies indicated that nurse caring behaviors influence patient satisfaction. This descriptive correlation study aimed to describe nurse caring behaviors and patient satisfaction, and to explore the relationship between nurse caring behaviors and patient satisfaction. The sample consisted of 468 patients admitted to a tertiary care hospital, the United Republic of Tanzania. The research instruments were the Demographic Data Form, the Caring Behaviors Inventory (CBI) and the Patient Satisfaction Instrument (PSI). The reliability of the CBI and the PSI were .90 and .80 respectively. Data were analyzed using descriptive statistics and Pearson's Product-Moment correlation coefficient.

The results of this study indicated that:

1. The overall mean score of nurse caring behaviors as perceived by the patients was at a moderate level.
2. The overall mean score of patient satisfaction was at a moderate level.
3. There was a statistically significant moderate positive relationship between nurse caring behaviors and patient satisfaction.

The results of this study could be used by hospitals and nurse administrators of a tertiary care hospital in developing strategies to improve nurse caring behaviors, thereby, patient satisfaction would be increased.

Keyword: Nurse caring behaviors, patient satisfaction, tertiary care hospital, the United Republic of Tanzania

Background and Significance

The health care workforce has experienced a major global nursing shortage (Buchan & Aiken, 2008; Institute of Medicine, 2011). Tanzania, like other developing countries, was also experienced a severe shortage of nursing staff. The Tanzania National Nurses Association [TANNA] estimated that there was a 65% deficit of nurses (TANNA, 2013). Shortage of nurses can lead to high nursing workload, which can affect quality of nursing care (Heikkinen et al., 2008; Hughes, 2008). Quality of nursing care is important to patient satisfaction (Heikkinen et al., 2008), and

patient satisfaction is a key determinant of quality of care (Morris et al., 2013). Furthermore, patient satisfaction is an important and commonly-used indicator for measuring quality in health care (Prakash, 2010) as the need to improve quality in healthcare delivery is increasing.

Patient satisfaction (PS) was defined as the patient's opinion of the care received from nursing staff working in hospitals (Hinshaw & Atwood, 1982). It consists of three dimensions: (1) *technical-professional care* refers to technical activities and knowledge base required to



competently complete the nursing care tasks; (2) *trust* refers to nursing characteristics that allow constructive and comfortable patient-nurse interaction and communication aspects of the interaction; and (3) *patient education* refers to the nurse's ability to provide information for patients including answering questions, explaining care, and demonstrating techniques. This concept and its components reflects the contents of patient's satisfaction in Tanzania. Therefore, this concept was selected for this study.

Several studies on patient satisfaction using the Patient Satisfaction Instrument (PSI) developed by Hinshaw & Atwood (1982) showed different results. Wolf et al. (1998) conducted a study among 335 patients and found that the overall mean score of patient satisfaction with nursing care as high ($\bar{x} = 94.86$, $SD = 12.91$). Another study in the same country, among 73 cardiac patients, indicated that the overall mean score of patient satisfaction with nursing care as high ($\bar{x} = 105.67$, $SD = 12.26$) (Wolf et al., 2003). In Iran, the study by Rafi et al., (2007) among 250 patients indicated that the overall mean score of patient satisfaction with nursing care as moderate ($\bar{x} = 84.76$, $SD = 15.65$).

Nurse caring behaviors (NCB) is defined as an interactive and inter-subjective process that occurs during moments of shared vulnerability between nurse and patient (Wolf et al., 1994). It consists of five dimensions: (1) *respectful deference to others* incorporates a courteous regard for the other, (2) *assurance of human presence* reflects an investment in the other's needs and security, (3) *positive connectedness* indicates an optimistic and constant readiness

on the part of the nurse to help the other, (4) *professional knowledge and skill* indicates nurse caring as proficient, and (5) *attentiveness to the other's experience* incorporates an appreciation of and engrossment in the other's perspective and experience.

Several studies related to nurse caring behaviors used the caring behaviors inventory (CBI) developed by Wolf et al. (1994) indicated different findings. Wolf et al., (1998) conducted a study among 335 patients and found that overall mean scores of nurse caring behaviors as high ($\bar{x} = 203.92$, $SD = 34.35$). Another study by Wolf et al. (2003) among 73 cardiac patients indicated the overall mean score of nurse caring behaviors as high ($\bar{x} = 237.84$, $SD = 15.11$). A study by Rafi et al. (2007) among 250 patients indicated an overall mean score of nurse caring behaviors as high ($\bar{x} = 184.14$, $SD = 46.90$).

One of the most important factors that affected patient satisfaction was nurse caring behaviors (Wolf et al., 1998; 2003; Rafi et al., 2007). In the USA, a study conducted by Wolf et al. (1998) among 335 patients indicated a strong significant positive correlation ($r = 0.78$; $p < 0.001$) between nurse caring behaviors and patient satisfaction. In the same country, a study among 73 cardiac patients indicated a strong significant positive correlation ($r = 0.53$; $p < 0.01$) between nurse caring behaviors and patient satisfaction (Wolf et al., 2003). In Iran, a study conducted by Rafi et al., (2007) among 250 patients indicated a strong significant positive correlation ($r = 0.72$; $p < 0.000$). Likewise, Azizi-Fini et al., (2012) conducted a study in the same country among 250 patients in medical-surgical wards of a university hospital. The results also



indicated a strong significant positive correlation ($r = 0.57$; $p < 0.001$).

In Tanzania, there were no study regarding nurse caring behaviors and patient satisfactions and their relationship. The results of this study may provide based line information regarding nurse caring behaviors and patient satisfactions and their relationship for nurse managers and hospital administrators in order to develop strategies in enhancing patient satisfaction in the hospital. It is only known that there was a 50% dissatisfaction among patients in Muhimbili National Hospital (MNH) (Nyambo, 2013). This research finding will provide more information about patient satisfaction which is one of the indicators of quality of nursing care in the hospital.

Muhimbili National Hospital (MNH) is a tertiary care hospital located in Dar Es Salaam, the former capital of the United Republic of Tanzania. The mission of MNH was to provide effective, efficient, and high-quality tertiary special medical services to referred patients from all areas of Tanzania, as well as to offer an environment for training and research (MNH, 2012). Due to a limited budget, recruitment of new nurses was rare. According to the manager of the quality unit, the number of nurses does not often correlate with the large number of patients, especially in medical and surgical departments (MNH, 2013). The nurse-to-patient ratio in all shifts was on average 1:40 (Directors of Nursing Services, 2013). Staff nurses at MNH had three shifts: morning, evening and night. With the evident high workloads of nurses, some patients were deprived of the necessary time and attention from nurses (MNH, 2013).

According to the manager of the quality unit, approximately 50% of the patients were not satisfied with the care they received (Nyambo, 2013).

According to the nurse manager, staff nurses mostly spent their time completing routine tasks such as giving medications. However, due to limited time they sometimes did not double-check the medications. Furthermore, because of excessive workload, they rarely have time to properly instruct or even answer the patients' questions (Nyambo, 2013). The administrators of MNH have attempted to improve the quality of care in order to reduce the amount of patient dissatisfaction through some strategies such as redesigning the physical inpatient settings. It also gives patients/clients opportunity to voice their opinions about care received through the survey (Nyambo, 2013). MNH used to receive patient/client feedback through questionnaires, which were collected from different suggestion boxes in the majority of blocks. However, the concepts which the questionnaires were based in were not clear.

Tanzania is a developing country in which health care delivery systems may differ from those of developed countries. Patient satisfaction across countries may not be the same because of differences in the level of health care system, number of nursing staff providing care against number of patients admitted, and differences in culture that may affect the patient perception of the care provided. Therefore, it was important to describe nurse caring behaviors and patient satisfaction, and to explore the relationship between nurse caring behaviors and patient satisfaction in this country. The results of this



study could provide baseline information for nurse managers and hospital administrators in developing strategies in enhancing patient satisfaction in the hospital. The findings of this study could also provide the basic knowledge for future research on nurse caring behaviors and patient satisfaction in the United Republic of Tanzania.

Objectives

This descriptive correlational study aimed to describe nurse caring behaviors and patient satisfaction, and to explore the relationship between nurse caring behaviors and patient satisfaction in a tertiary care hospital, the United Republic of Tanzania.

Conceptual Framework

The conceptual framework of this study was based on literature review. The concept of nurse caring behaviors is based on Wolf et al. (1994), which consisted of five dimensions: (1) respectful deference to others, (2) assurance of human presence, (3) positive connectedness, (4) professional knowledge and skill, and (5) attentiveness to the other's experience. Nurse caring behaviors cause a sense of security and reduction of anxiety, which would subsequently enhance patient satisfaction. The concept of patient satisfaction based on the study by Hinshaw & Atwood (1982) consisted of three dimensions: (1) technical-professional, (2) trust, and (3) patient education. The relationship between nurse caring behaviors and patient satisfaction was tested in this study.

Methodology

Population and Sample

This descriptive correlation research was designed to study the population of 16,309 patients who were admitted annually in medical and surgical departments in a tertiary care hospital, The United Republic of Tanzania. The sample size was 468 patients based on Yamane formula (1976). Stratified random sampling method was used to determine number of patients from each unit, and subjects were selected by random sampling from the patient list. The inclusion criteria for selection of the patients in this study included patients who had been hospitalized for at least 48 hours, aged 18 years old or above and were willing to participate in this study. A total of 468 questionnaires were distributed to the sample by the coordinators of each department. Within two weeks, the researcher received 460 (98.29%) questionnaires, and 458 (97.86%) were complete and used for data analysis.

Research instruments

Instrument included:

1. The Demographic Data Form was developed by the researcher based on the patient profile record. The questions included age, gender, marital status, educational level, and department.

2. The Caring Behaviors Inventory (CBI) developed by Wolf et al. (1994), based on Watson's (1979), was used to measure nurse caring behaviors. The CBI comprised 42 items with five dimensions including respectful deference to others (12 items), assurance of human presence (12 items), positive



connectedness (9 items), professional knowledge and skill (5 items), and attentiveness to the other's experience (4 items). Patients responded to each caring behavior inventory (CBI) item by indicating the extent to which they experienced nurse care during their current hospital stay. The 6-point Likert scale ranged from 'never' (rated 1) to 'always' (rated 6). The possible total score ranged from 42.00-252.00. They were classified into three levels as follows: 42.00-112.00 = low level of nurse caring behaviors, 112.01-182.00 = moderate level of nurse caring behaviors and 182.01-252.00 = high level of nurse caring behaviors. The Cronbach alpha of the CBI was .90.

3. The Patient Satisfaction Instrument (PSI) developed by Hinshaw and Atwood (1982), based on Risser's (1975), was used to measure patient satisfaction. The PSI comprised 25 items with three dimensions including technicalprofessional care (7 items), trust (11 items), and patient education (7 items). There were eleven negative items and fourteen positive items. The 5-point Likert scale ranged from 'strongly disagree' (rated 1) to 'strongly agree' (rated 5). The score direction was reversed for eleven negative items. The possible total score ranged from 42.00-252.00. They were classified into three levels as follows: 25.00-58.33 = low level of patient satisfaction, 58.34-91.66 = moderate level of patient satisfaction and 91.67-125.00 = high level of patient satisfaction. The Cronbach alpha of the PSI was .80.

The instrument was translated into Tanzanian by the researcher and back-translated into English by one bilingual Tanzania expert.

The original English and back translated versions were checked for equal meaning by a native English-speaking person.

Ethical considerations

The study was approved by the Research Ethics Review Committees of the Faculty of Nursing, Chiang Mai University. The participants were informed of the purpose of the study and methods of data collection. They were given a consent form to sign to ensure human rights protection. The participants were also informed that they were free to withdraw from the study without any consequences. Their anonymity and confidentiality were maintained throughout, and the information they provided were used only in this study.

Data collection

After ethical approval was obtained from the hospital, the researcher met with the directors of nursing services, who were also requested to officially inform all the nurses about the study through a meeting. The coordinator of each department was appointed by the nursing director. The questionnaires were distributed by the coordinators. The box with all questionnaires was collected by the coordinators and sent to the researcher within two weeks. Four illiterate subjects were interviewed by the researcher. Data were collected from 25 February to 3rd March, 2014.

Data analysis

Data were analyzed using a Statistical Package for the Social Sciences (SPSS 13.0). Both descriptive and inferential statistics were used for data analysis. In this study, significance alpha (α) was at level of 0.05. The analysis of NCB and PS was conducted in terms of frequency,



percentage, mean and standard deviation. Normality testing by Kolmogorov-Smirnov showed the data to be in normal distribution. Pearson's product-moment correlation coefficient was used to examine the relationships between NCB and PS among patients.

According to Burns and Grove (2005), the following r values represented the relationship among variables: $r < .30$ is considered a weak relationship; $.30 \leq r < .50$ is considered a moderate relationship and $r \geq 0.50$ is considered a strong relationship

Results

Demographic characteristics

Most of the subjects (57.42%) were male and 42.58% were female with an average age of 46.81 years ($SD = 15.72$). The majority of the subjects (67.90%) were married, and half of the subjects (50.44%) had a primary education. More than half of the subjects (51.53%) were admitted to the medical department.

Nurse caring behaviors as perceived by the subjects

The overall mean score of nurse caring behaviors was at a moderate level ($\bar{x} = 180.68$, $SD = 28.72$). The results of the each five

dimensions were as follows: 1) respectful deference to others was at moderate level ($\bar{x} = 48.76$, $SD = 8.99$), 2) assurance of human presence was at a high level ($\bar{x} = 52.60$, $SD = 8.50$), 3) professional knowledge and skill was at a high level ($\bar{x} = 22.81$, $SD = 4.94$), 4) positive connectedness was at a moderate level ($\bar{x} = 38.85$, $SD = 8.09$), and 5) attentiveness to the other's experience was at a moderate ($\bar{x} = 15.97$, $SD = 3.30$).

Patient satisfaction of the subjects

The overall mean score of patient satisfaction with nursing care was at a moderate level ($\bar{x} = 79.81$, $SD = 9.78$). The results of the three dimensions were as follows: 1) technical-professional care moderate level ($\bar{x} = 25.36$, $SD = 4.55$), 2) trust was at moderate level ($\bar{x} = 38.45$, $SD = 5.86$), and 3) patient education was at moderate level ($\bar{x} = 25.06$, $SD = 4.79$). The relationship between nurse caring behaviors and patient satisfaction

It was found that nurse caring behaviors had a statistically significant moderate positive relationship with patient satisfaction ($r = 0.31$; $p < 0.01$).



Table 1 Range, Mean, Standard Deviation, and Level of Nurse Caring Behaviors Among the Subjects (n=458)

Dimension of nurse caring behaviors	Range	\bar{x}	SD	Level
Overall	38-242	180.68	28.72	Moderate
Respectful deference to others	10-66	48.76	8.99	Moderate
Assurance of human presence	12-72	52.60	8.50	High
Positive connectedness	9-54	38.85	8.09	Moderate
Professional knowledge and skill	4-28	22.81	4.94	High
Attentiveness to the other's experience	3-22	15.97	3.30	Moderate

Regarding patient satisfaction, the overall mean score was at a moderate level ($\bar{x} = 79.81$, $SD = 9.78$) (Table 2). This implied that the patients were somewhat satisfied with nursing care. According to the Donabedian model (1969), quality of care can be affected by structure in which care is delivered, including ward setup and equipment. When compared with the previous studies, the mean score of PS done in Tanzania was the lowest ($\bar{x} = 79.81$, $SD = 9.78$) whereas the two studies in the USA and one study in Iran showed the mean scores of PS as 105.67 ($SD = 12.26$); 94.86 ($SD = 12.91$); and 84.76 ($SD = 15.65$), respectively (Wolf et al., 2003; Wolf et al., 1998; Rafi et al., 2007). Ward setup, such as insufficient space for the patients and staff training is a possible explanation as to why PS was lower in Tanzania than in the other two countries.

As for the dimensions, technical-professional care, trust, and patient education were all perceived by the subjects at moderate levels ($\bar{x} = 25.36$, $SD = 4.55$; $\bar{x} = 38.45$, $SD = 5.86$; $\bar{x} = 25.06$, $SD = 4.79$;) respectively (Table 2).

One possible explanation might be that due to workload nurses rarely have time to teach or even answer the patients' questions. In the dimension of trust, the result of the mean score of the item if nurse was pleasant to be around was low ($\bar{x} = 1.81$, $SD = .99$) possibly due to the fact that the nurses had limited time to interact and communicate with patient's due to heavy workload. A possible explanation need is the need to review the nurse's role in providing information and orientation to the patient assisted. Another explanation is that information provided by nurses is one of the key factors for satisfaction regarding the nursing care provided. These moderate levels could also be due to the fact that they do have or (rarely have) any chance to take a training course to update their knowledge and skills. Also, others may not have received enough skill in nursing school. Moreover, further explanations could involve shortage of nursing staff, large number of patients, and heavy workloads, doctors' orders and writing reports. In short, the shortage of nurses in the hospital forced them to perform excessive



amounts of medical procedures and technical routine care; perhaps they had little or no time for patient nursing care (MNH, 2013).

Table 2 Range, Mean, Standard Deviation, and Level of Patient Satisfaction Among the subjects (n=458)

Dimension of patient satisfaction	Range	\bar{x}	SD	Level
Overall	44-110	79.81	9.78	Moderate
Technical-professional care	7-31	25.36	4.55	Moderate
Trust	21-55	38.45	5.86	Moderate
Patient education	9-35	25.06	4.79	Moderate

The results of this study showed that there was a significant moderate positive relationship between nurse caring behaviors and patient satisfaction ($r=0.31$; $p < 0.01$) (Table 3). The relationship indicates the more nurses interact and communicate with patients, the more patient satisfaction at a tertiary care hospital. This is supported by Azizi-Fini et al., (2012) that direct and significant relationships between the caring practices and the patient satisfaction show that the positive nurse behaviors could improve the patients' attitude to health care and their satisfaction. In this study, the finding was inconsistent with the previous studies. Studies done in the USA and Iran, indicated strong significant positive correlation ($r=0.78$; $p<0.001$; $r=0.53$; $p<0.01$; $r=0.72$; $p<0.000$; $r=0.57$; $p<0.001$). (Wolf et al., 1998; 2003; Rafi et al., 2007; Azizi-Fini et al., 2012), but this study conducted in Tanzania only indicated a moderate significant positive correlation. This slightly lower level of NCB and PS could be due to the structural features of care, severe staff shortages, workload,

or religious and cultural beliefs, which were attributed as affecting the results in this study.

Discussion

This study found that patients perceived overall nurse caring behaviors in the tertiary hospital, the United Republic of Tanzania at a moderate level ($\bar{x} = 180.68$, $SD = 28.72$) (Table 2). This means that the patients perceived some of the nursing care as good and others had somehow not met their expectation. A possible explanation would be because of differences in the healthcare system, ward setup, and socio-cultural context, which all affect patient perception of the care provided (Wolf et al., 2003). When compared with the previous studies, the mean score of NCB done in Tanzania was the lowest ($\bar{x} = 180.68$, $SD = 28.72$). However, two studies in the USA and one study in Iran showed the mean scores of NCB as 237.84 ($SD = 15.11$); 203.92 ($SD = 34.35$); and 184.14 ($SD = 46.90$), respectively (Wolf et al., 2003; Wolf et al., 1998; Rafi et al., 2007). A possible reason is



staff shortage and workload may not have allowed nurses to fully perform caring behaviors.

As for the dimensions, high levels of assurance of human presence and professional knowledge and skill were perceived by the subjects ($\bar{x} = 52.60$, $SD = 8.50$; and $= 22.81$, $SD = 4.94$), respectively (Table 1). In the dimension of assurance of human presence, the result of the mean score of the helping to reduce the patient's pain item was low ($\bar{x} = 2.80$, $SD = .97$) because the nurse need to assess pain after giving the patient analgesic as prescribed by doctor, but the nurse usually did not have enough time to go back and assess if the pain was reduced or not. Also, nurses may not have had enough time to perform nursing procedures like therapeutic massage, changing to comfortable position and providing diverse activities (MNH, 2013). In the professional knowledge and skill dimension, the result of the mean score of the item of making equipment skillful was high ($\bar{x} = 4.70$, $SD = 2.58$). This item shows that nurses worked hard to manage the equipment in order to help the patients. The possible explanation nurse should try to combine their knowledge and skills in various fields in order to increase the quality of care and the satisfaction by providing a caring and professional behavior. It indicates that less staff training, impact less of nurse knowledge and can affect at how a nurse provides services to the patients. Consequently, patient will rate low on satisfaction.

As for the other dimensions, moderate levels of respectful deference to others, positive connectedness, and attentiveness to the other's experience were perceived by the subjects

($\bar{x} = 48.76$, $SD = 8.99$; $\bar{x} = 38.85$, $SD = 8.09$; $\bar{x} = 15.97$, $SD = 3.30$), respectively (Table 1). This result was inconsistent with previous studies in the USA (Wolf et al., 1998) and Iran (Rafii et al., 2007). In respectful deference to others, the result of the mean score of the item of treating patient information confidentially was high ($\bar{x} = 4.88$, $SD = 1.12$). This is possibly because nurses usually maintain confidentiality on the patients' information. For example, for HIV patients the nurses always kept confidentiality by using a symbol, recognized only by medical personnel and patients perceived that nurses can maintain confidentiality. These finding could indicate that nurses put patients as a first priority in providing care.

Conclusion

It was found in this study that nurse caring behaviors as perceived by the patients was at a moderate level, and also patient satisfaction was at a moderate level. The study revealed statistical significant relationships between NCB and PS.

Implications for nursing

In this study, it was found that nurse caring behaviors were related with patient satisfaction. It was recommended that nurse administrators should try to enhance nurse caring behaviors by providing and supporting nurses to have more knowledge and skills and relieving them from non-nursing tasks, such as paper work. Moreover, psychological support should be considering nurses such as in enhancing their self-esteem, motivation for their work and rewarding for their good performance. The administrators should



also encourage and support nurses staff to develop new and effective intervention plans and methods. The administrators should provide more facilities and resources for patient teaching such as textbook and computer. If they can provide more valuable care to the patients, the patients satisfaction will increase.

Recommendations

Recommendations for further studies are

replication of this study in other types of hospitals and exploration of other factors that influence patient satisfaction among patients.

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References

Azizi-Fini, I., Mousavi, M.-S., Mazroui-Sabdani, A., & Adib-Hajbaghery, M. (2012). Correlation between nurses' caring behaviors and patient's satisfaction. *Nursing and Midwifery Studies*, 1(1), 36-40.

Best, J.W., & Kahn, J.V. (2005). *Research in education* (10th ed.). Boston: Pearson Education.

Buchan, J., & Aiken, L. (2008). Solving nursing shortages: A common priority. *Journal of Clinical Nursing*, 17(24), 3262-3268.

Burns, N., & Grove, S. K. (2005). *The practice of nursing research conduct: Appraisal, synthesis, and generation of evidence* (6th ed.). St. Louis, MO: W.B. Saunders.

Director of Nursing Quality Services, Muhimbili National Hospital. (2012). *Nursing quality services 2012*. Dar-Es-Salaam: Author.

Donabedian, A. (1969). *A guide to medical care administration, Volume II: Medical care appraisal*. New York: American Public Health Association.

Geography of Tanzania. (2013). Retrieved from http://en.wikipedia.org/wiki/Geography_of_Tanzania.html

Hinshaw A.S., & Atwood, J. R. (1982) A patient satisfaction instrument: Precision by replication. *Nursing Research*, 31(3), 170-175, 191.

Hughes, R. G. (2008). *Patient safety and quality: An evidence-based handbook for nurses*. Rockville, MD: Agency for Healthcare Research and Quality (US).

Israel, G. D. (2003). *Determining sample size*. University of Florida.Institute of food and Agricultural Sciences Extension. Retrieved from <http://edis.ifas.ufl.edu/pdffiles/PD/PD00600.pdf>

Manager of Quality Unit, Muhimbili National Hospital. (2012). *Quality of care report 2012*. Dar-Es-Salaam: Author.

Morris, B. J., Jahangir, A. A., & Sethi, M. K. (2013). Patient Satisfaction: An Emerging Health Policy Issue. AAOS Now.



Muhimbili National Hospital (2013). *Patient dissatisfaction quarterly report 2013*. Dar-Es-Salaam: Author.

Muhimbili National Hospital (2012a). *Total number of staff nurse report 2012*. Dar-Es-Salaam: Author.

Muhimbili National Hospital. (2012b). *Designed Mission of Muhimbili National Hospital 2012*. Dar-Es-Salaam: Author.

Muhimbili National Hospital. (2013). *Medical record report 2013*. Dar-Es-Salaam: Author.

National Bureau of Statistics. (2005). *Tanzania Demographic and Health Survey*. Dar-Es-Salaam: Author.

Nyambo, R. (2013). *Quality of care report*. Muhimbili National Hospital. Dar-Es-Salaam: Author.

Prakash, B. (2010). Patient satisfaction. *Journal of cutaneous and aesthetic surgery*, 3(3), 151.

Rafii, F., Oskouie, F., & Nikravesh, M. (2007). Caring behaviors of burn nurses and the related factors. *Burns*, 33(3), 299-305.

Republic of Tanzania. (2013). *Introduction to Tanzania*. IST-Africa Consortium, 2013. Author.

Risser, N. (1975). Development of an instrument to measure patient satisfaction with nurses and nursing care in primary care settings. *Nursing Research*, 24(1), 45-52.

Tanzania National Nurses Association. (2013). *Nurses report February, 2013*. Dar-Es-Salaam: Author.

Tervo-Heikkinen, T., Kvist, T., Partanen, P., Vehviläinen-Julkunen, K., & Aalto, P. (2008). Patient satisfaction as a positive nursing outcome. *Journal of Nursing Care Quality*, 23(1), 58-65.

United Republic of Tanzania. (2008). *Human resource for health strategic plan 2008-2013*. Dar es Salaam: Ministry of Health and Social Welfare.

Watson, J. (1979). *Nursing: The philosophy and science of caring*. Boston, MA: Little, Brown and Company.

Wolf, Z. R., Colahan, M., & Costello, A. (1998). Relationship between nurse caring and patient satisfaction. *Medical Surgical Nursing*, 7(2), 99-105.

Wolf, Z. R., Giardino, E. R., Osborne, P. A., & Ambrose, M. S. (1994). Dimensions of nurse caring. *Image-Journal of Nursing Scholarship*, 26(2), 107-111.

Wolf, Z., Miller, P., & Devine, M. (2003). Relationship between nurse caring and patient satisfaction in patients undergoing invasive cardiac procedures. *Medical Surgical Nursing*, 12(6), 391-396...

World Health Organization. (2011). World health statistics 2011, global health report. Retrieved from en.wikipedia.org/wiki/Pink-collar_worker

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). New York: Harper and Row.