

Caring Behavior And Associated Factors Among Nurses Working In Jimma University Specialized Hospital, Oromia, South West Ethiopia, 2019

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Abstract

BACK GROUND: Caring behaviors are actions concerned with the wellbeing of the patients such as sensitivity, comforting, attentive listening, honest and nonjudgmental acceptance. Nurses have an opportunity to convey caring and feeling being cared through their behavior. Behavior associated with caring has a paramount role in linking nursing interaction to the client in experiences but, the concept is ambiguous and elusive toward different scholars to reach on common understanding which is a myth in dealing with caring behavior. Only a few studies have been done on the caring behavior and associated factors globally, and there is a limitation of study done in Ethiopia particularly in this study area. Therefore; the purpose of this study was to assess caring behavior and its associated factors among nurses working in Jimma University specialized hospital, southwest Ethiopia. **METHODS:** The institutional-based cross-sectional study design was conducted on a sample of 224 nurses working in Jimma university specialized hospital from March 20-April 20, 2019 . Data were collected by self-administered questionnaire. Descriptive statistics including frequency table, mean, standard deviation and percentage were employed. Bivariate and multiple linear regression analysis was used with regression coefficient (β), coefficient of the determinant (R^2), CI 95% and $p < 0.05$ were used for statistical significance. **RESULTS:** The overall proportion of nurses caring behavior was 80.3% which was mostly measured in terms of professional –technical (82.9%) and psychosocial (81.3%) dimension. Job satisfaction as personal satisfaction ($\beta = 1.12$, $p = 0.00$), professional satisfaction, ($\beta = 1.07$, $p = 0.00$), joint participation in caring process ($\beta = 0.58$, $p = 0.00$), satisfaction with nurse management ($\beta = 0.85$, $p = 0.00$) were significantly associated with caring behavior. **CONCLUSION:** The proportion of nurses who had a high perception of caring behavior was found to be lower. Thus, all predictors have their own effect on enhancing job satisfaction, improving and creating conducive management and working environment to increase caring behavior. Further comparative studies involving a multidisciplinary and patient point of view were recommended. **KEYWORDS:** Caring, Caring behavior, Nurses, Jimma, Ethiopia

Background

Caring is described as human acts and can be effectively demonstrated and practiced interpersonally that result in the satisfaction of human needs. It represents an attitude of occupation, concern, responsibility and affective involvement with the others. Nursing care behavior and nurse's perception of effective care behavior is an act, conduct and mannerism enacted by professional nurses that convey concern, safety and attention to the patient [1]. Caring behaviors are categorized into two major components: instrumental and expressive components. Instrumental behaviors are associated with technical and physical behaviors, whereas expressive behaviors include psychosocial and emotional behaviors [2].

Caring is central in the art and science of nursing practice. Caring always occur when a nurse comes in contact with a client and expressed through actual nursing acts and behaviors [3]. Nurses have a professional responsibility to give a high-quality nursing intervention for better outcomes. This nursing activity demonstrated through nurses caring behaviors but lack of professional caring results in reducing

wellbeing and health consequently, nurses caring behaviors influence the patient satisfaction, quality of nursing care and plan to return to the institution for cares which are important indicators for quality services [4 & 5].

About 10–30% of general hospital nurses rated the quality of care on their ward as fair/poor and up to 50% felt that the quality of patient care had deteriorated [6]. Most studies indicated that nurses place high importance on expressive aspect of caring such as listening to the patient and less observable aspect of care like patient monitoring. Complaints of poor attitude among health care workers toward patient's care were increasing because of the perception that health care professionals are increasingly giving impersonal care especially in overcrowded settings being away from them [7].

The concept of caring and caring behaviors varies among nurses and patient category. Patients with cancer gave more importance to affective caring actions, intensive care unit patients felt technical competency and compassion to be of equal importance and patients in the emergency ward considered the technical aspect of caring as most important and Medical-Surgical patients were identified as placing greater caring emphasis on physical caring competencies and the ability to deliver a general feeling of well-being [8].

Caring behaviors might also be influenced by the methods used for assigning nurses to different patients. Another factor that might affect the caring behaviors of nurses is the lack of time and support. It has been reported that nurses might care too much and get over-involved with their patients to the extent of visiting them which have significant effect on nurses caring behaviors [9].

Studies undertaken with hospitalized patients and their nurses suggest those professional nurses' perceptions of caring and patients' perceptions of caring are not in agreement. Patients rate highly the technical aspects of nurses' work, while nurses value psycho-social skills. Physically ill patients stress task-orientated behaviors in particular. Nurses' perception of caring behavior has been related with different dimensions of determinants, including the nurse's characteristics, educational background, workload, job satisfaction and working place [10, 11, and 12].

The care environment in which the nursing work performed was also the major factors influencing nurses caring behaviors. An international sample of hospital study multivariate result showed that low staffing and support for nurses in the working environment were three times more likely express lower degree of caring behaviors compared to that those who had high staff and support [13, 14].

Even though caring is an important concept in nursing, it is complex, an elusive concept and difficult to measure. Culture and values affect the understanding of the concept of caring and helps us offer more appropriate cross- cultural nursing. There is also a paucity of research on specific programmatic effort to enhance nurses caring behaviors among nurses. Therefore, this study was aimed to assess caring behavior and associated factors among nurse in Jimma University specialized hospital, south west Ethiopia.

Methods

STUDY SETTING AND POPULATION

This study was conducted in Jimma University specialized Hospital from March 20-April 20, 2019. An institutional based cross-sectional study design was employed on 224 nurses working in Jimma university specialized hospital. All nurses in Jimma University specialized Hospital was the source population and the sampled nurses working in different wards present during data collection was the study population. All nurses working for more than six months in the hospital were included Nurses who were not present during data collection period were excluded from the study. Nurses who were not willing to take part in the study were also excluded.

SAMPLE SIZE DETERMINATION AND SAMPLING TECHNIQUES

The sample size of the study was calculated using the formula for estimation of a single population proportion with the assumptions of 95 % Confidence Level (CL), marginal error (d) of 0.05. Taking proportion of 0.682 (68.2%) from previous study conducted in Gondor [14], and by adding a non-response rate of 10%, a total of 224 nurses were enrolled in the study after using the correction formula. Simple random sampling method was used to select the study participants.

DATA COLLECTION TOOL AND PROCEDURES

Data was collected using a structured questionnaire. Data collection tools consist of five-part questionnaires: Demographic related questions, Caring dimension inventory scale adapted from the previous study originally developed by Lea and Watson in 1996 with reliability of Cronbach alpha 0.90[18]. Job satisfaction scale taken from job satisfaction scale developed by Warr et al.1979 [46]. Interaction (nurses-physicians) scale adapted from nurse –physician collaboration scale developed by Rei Ushiro 2009 which consists of 23 items with reliability of Cronbach alpha of 0.80 [47] and Work Environmental Scale adapted from tools developed by Moos,1994[48]. A Close ended self-administered structured questionnaire was distributed to participants by trained data collectors. Data was collected by three trained BSc nurses and one supervisor for duration of approximately one month.

DATA PROCESSING AND ANALYSIS

The data were coded, checked, cleaned and entered into Epi data version 3.1 and then exported to SPSS window version 20.0 for analysis. Univariate analysis like simple frequencies tables, percentages, mean, standard deviation, bar chart, radar chart and pie chart were used extensively. Bivariate linear regression analysis was used to determine independent predictors on outcome variable with regression coefficient (B). Significance was concerned at p-value <0.05 with 95% confidence interval. Multiple linear regression analysis by coefficient of determinant (R²) was used to predict outcome variable with backward fitness approach in order to get the final significant predictors.

DATA QUALITY CONTROL

Data was cleaned, coded and checked for consistency and completeness. The principal investigator prepared the template and entered data using Epi Data version 3.1. Finally, after missing value and incorrect entry checked the data was exported to SPSS version 20. Five percent (5 %) of the questionnaire was pre-tested on nurses at Shenen Gibe hospital. One-day training was also given for data collectors and supervisor.

Results

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Two hundred twenty-four participants participated giving a response rate of 97.8%. Majority of the respondents 111(50.7%) were female and with regards to marital status two thirds 132 (60.3%) were single respondents. Most of respondents 186 (84.9%) had work experience less than five years. Majority 111 (50.7 %) were fluent speaker of Afan Oromo followed by Amharic 92 (42%) language. Concerning their educational status majority 123(56.2%) hold diploma and staff nurses. The study also showed that majority of 87(39.7%) were working in surgical wards and as well orthodox Christian 84 (38.4%) followers. (Table1).

LEVEL OF NURSES CARING BEHAVIOR

Caring behavior was measured in terms of psychosocial, professional-technical, appropriate and inappropriate aspect of caring behavior. In current study caring behavior was measured in terms of emotional (psychosocial) and affective (technical-professional) dimension. Thus, the mean and average mean score of each component were psychosocial 40.75 ± 8.94 (81.5%) and professional –technical 24.87 ± 5.55 (82.9%). The mean and standard deviation of the overall scale was 100.36 ± 19.24 (80.3%). The level of agreement with caring behavior was measured in terms of low, medium and high through calculating mean difference of their agreement. So, low 70 (32%), medium 79(36.1%)

JOB SATISFACTION AMONG THE RESPONDENTS

The mean and standard deviation of each component of job satisfaction were professional satisfaction 18.46 ± 5.04 (73.54%), personal satisfaction 18.91 ± 4.53 (75.64%) and satisfaction with motivation and prospect 17.35 ± 4.86 (69.4%) (Figure1).

INTERACTIONS (NURSES- PHYSICIANS) RELATED FACTORS

The mean score of interactions related factors with respect to: joint participation in decision making process 24.82 ± 5.85 , joint participation in client care 21.30 ± 5.23 , sharing patient information 18.37 ± 4.35 and collaborative working 14.59 ± 3.64 . The average percentages of the mean of all component was: joint participation in decision making process 70.91%, joint participation in client care 71%, sharing patient information 73.48% and collaborative working 72.95 % (Figure 2).

CARING ENVIRONMENT (ORGANIZATIONAL FACTORS)

Each component has the mean and standard deviation of satisfaction with staffing and support 15.62 ± 6.01 (average mean of 62.48%) and satisfaction with nurse management 19.01 ± 6.99 (average mean of 63.57%) (Figure 3).

BIVARIATE LINEAR REGRESSION ANALYSIS

Bivariate linear regression analysis revealed significantly associated variables with caring behavior at $p < 0.05$. Among background variables age, religion (orthodox), working unit (surgical and pediatric wards), professional satisfaction, personal satisfaction, satisfaction with motivation and prospect, joint participation in decision making process, joint participation in client care, sharing patient information, collaborative working, satisfaction with nurse management, number of patient per shift and plan to leave the hospital were variable significant at bivariate level (Table 2).

MULTIVARIATE LINEAR REGRESSION ANALYSIS

Variables significantly associated with caring behavior in multivariate analysis includes religion, being working in surgical ward, personal satisfaction, professional satisfaction, satisfaction with staffing and support satisfaction with staffing joint participation care process. Hence, a unit increase in personal satisfaction increase caring behavior by average of 1.12 (beta=1.12, $p=0.00$, CI at 95%) whereas a unit increase in professional satisfaction increase caring behavior by an average of 1.07 (beta=1.07, CI at 95%). Similarly, a unit increase in joint participation in caring process increase caring behavior by an average of 0.58 (beta=0.58, $p=0.00$, CI at 95%) as well with regard to organizational factors, a unit increase satisfaction with nurse management increase caring behavior by an average of 0.85 (beta=0.85, $p=0.00$, CI at 95%). Overall the variance by 41% of caring behavior is due to the effect of all predictors as summarized in the final model of the study ($R^2 = 0.412$, $p=0.00$, $F=16.250$). This indicates that variance by average 59% of caring behavior was due to other factors (Table 3).

Accordingly the final model of the study:

Caring behavior = $16.25 - 6.730$ (Being working in surgical ward) + 1.12 (Personal satisfaction) + 1.07 (Professional satisfaction) + 0.58 (Joint participation in caring process) + 0.85 (Satisfaction with nurse management) - 1.14 (Satisfaction with staffing and support) + 4.35

Discussion

The overall proportion of nurses who had caring behavior was 80.3%. Relatively high proportion of nurses had professional – technical (82.9%) caring behavior compared to psychosocial (81.5%) caring behavior. This indicates that nurses more perceived concrete observable aspect of caring behavior than expressive caring behavior. This finding is similar with study conducted in Gondor and Sweden in which nurses were perceived the technical- professional aspect of caring behavior than the psychosocial caring behavior. This similarity might be due to nature of their profession in which nurses pay special attention mainly involving practical caring rather than motivational concern. [14, 25]. However, this finding is in

contrast with study done in Japan and Jordan, in which high proportion of nurses were perceived a psychosocial (emotional) aspects of caring behavior. This might be because of difference in organization nature, prevailing attitude given by society [7, 39]. The finding of the study also revealed that nurses' job satisfaction was associated with caring behavior. Nurses who had personal satisfaction of their job had high caring behavior which is consistent with study conducted in Gondor on perception of caring behavior [14, 41].

On the other hand, a cohort study conducted in South Africa revealed that caring behaviours related with job dissatisfaction reflected in increased duration absenteeism [42]. In this study, caring behavior is positively associated with collaborative working as measured joint participation in client care process among nurses and physicians ($B=0.54$, $p < 0.007$, $CI95\%$) which is similar with study conducted by Lu et al [43]. However, study conducted in Slovenian hospital showed those nurse and physician involvements in team work were low compared with current study [44]. These variations might be due to difference in organizational support, leadership style and the level of salary.

With regard to caring environment, nurses caring behaviors were significantly associated with caring environment as measured presence empowering nursing leader management, staffing and support ($B=0.85$, $P = 0.00$) which is consistent with study conducted in New York, Korea, and Saudi Arabia found that nurses who viewed the working environment as empowering were more likely provide high caring behavior [3, 5, 45]. In line with these findings, study conducted in Australia also indicate relationship between nurse's autonomy and strong ward management with caring behavior [2, 38]. The current study also indicate presence of inverse relation with working units likes intensive care unit, psychiatric and maternity wards which is inconsistent with study conducted by Ferrous H. Omar [35]. This disparity might be due to presence strictly followed up, unfavorable behavior client in psychiatric ward, and presence of workload lead low perception of caring behavior.

LIMITATION OF THE STUDY

Causality cannot be confirmed since the research design is cross-sectional.

Conclusion

The proportion of nurse's who had high perception of caring behavior was found to be lower. This study found that nurses' personal and professional satisfaction with their job was positively related with caring behavior. Moreover, nurses caring behavior enhanced with increased empowered nurse's management in coordinating, planning, controlling the whole process of caring behavior. Furthermore, caring behavior was positively associated with joint participation in client care especially among nurses and physician which is the most pivotal role in provision of quality care services for the client as a team.

Abbreviations

CARE-Q: Caring Assessment Report Evaluation Questions, CBA: Caring Behavior Assessment, CBI: Caring Behavior Inventory, CDI: Caring Dimension Inventory, ICU: Intensive Care Unit, DNCB: Determinants of Nurse Caring Behavior, JUSH: Jimma University Specialized Teaching Hospital, OPD: Outpatient Department, USA: United State of America

Declarations

Ethical approval and consent to participate

The study was reviewed and approved by the Institutional Review Boards of Jimma University Ethical review board. The purpose of the study was explained to medical director and staffs of the hospital and permission was obtained. All participants of the study were provided written consent, clearly stating the objectives of the study and their right to refuse. No minors were involved in the study and the consent was obtained from the participants themselves.

Consent for publication

Not applicable

Availability of data and materials

The data used during this study are available from the corresponding author on reasonable request.

Competing Interests

We declare that we have no competing interests.

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Authors' Contributions

The study was conceptualized by AO and the manuscript was written by MA. Both authors were involved in result writing and analyzing the finding, reviewing and approving the final manuscript.

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Tables

Table 1 Socio- demographic characteristics of nurses working in Jimma University specialized Hospital, 2019 (n=224).

Variables	Category	n	%
Sex	Male	108	49.3
	Female	111	50.7
Ethnicity	Oromo	147	67.1
	Amhara	64	29.2
	Others	8	3.7
Marital status	Married	87	39.7
	Single	132	60.3
Educational status	Diploma	123	56.2
	Bachelor degree and above	96	43.8
Language	Afan Oromo	111	50.7
	Amharic	92	42.0
	Others	16	7.3
Age (year)	15-24	175	79.9
	≥34	44	20.1
Work experience (year)	0-5	186	84.9
	≥6	33	15.1
Working unit	Medical ward	59	26.9
	Surgical ward	87	39.7
	Pediatric ward	54	24.7
	Intensive care, psychiatry and maternity	19	8.7
Religion	Orthodox	84	38.4
	Muslim	71	32.4
	Protestant	58	26.5
	Others	6	2.7
Position	Staff nurse	196	89.5
	Nurse leader(manager)	23	10.5

Table 2: Bivariate linear regression analysis of factors associated with caring behaviour among nurses in Jimma University specialized hospital, 2019 (n=224).

Variables	Outcome variable: caring behavior		
	Unstandardized B	P-value	CI at 95%
Background variables			
Age 15-24 (year)	6.646	0.04	(0.299,12.993)
Age >=25(year)	6.646	0.04	(0.299,12.993)
Religion (orthodox)	6.780	0.010	(1.649,11.911)
Surgical ward	-6.941	0.009	(-12.106, -1.776)
Pediatric ward	7.614	0.011	(1.744,13.484)
Job satisfaction variables			
Satisfaction with prospect and motivation	1.278		
Professional satisfaction	1.766	0.00	(1.314,2.219)
Personal satisfaction	1.888	0.00	(1.378,2.397)
Interaction (interdisciplinary) variables			
Joint participation in decision making	0.963	0.00	(0.543,1.384)
Joint participation in client care	1.239	0.00	(0.776,1.702)
Sharing patient information	1.196	.0.00	(0.626,1.766)
Collaborative working	1.598	0.00	(0.924,2.272)
Care environment (organizational) variables			
Satisfaction with nurse management	0.49	0.008	(0.128,0.853)
Workload and intention to leave variables			
Number of patients per shift	0.904	0.00	(0.502,1.306)
Plan to leave the hospital	-6.146	0.019	(-11.276, -1.017)

Table 3: Multiple linear regression analysis of factors associated with caring behaviour among nurses in Jimma University specialized hospital, 2019 (n=224).

Variables	Outcome variables: Caring behaviour		
	Unstandardized B	P-value	CI at 95%
Background variables			
Work unit (surgical ward)	-6.730	0.002	(-11.025, -2.436)
Work unit (Intensive care, psychiatry and maternity wards)	-7.834	0.054	(-15.447, -0.220)
Job satisfaction variable			
Personal satisfaction	1.119	0.00	(0.611,1.627)
Professional satisfaction	1.072	0.00	(0.604,1.539)
Interaction(interdisciplinary) variable			
Joint participation in caring process	0.584	0.007	(0.159,1.009)
Care environment(organization)			
Satisfaction with nurse management	0.852	0.00	(0.399,1.304)
Satisfaction with staffing and support	-1.140	0.00	(-1.657, -0.623)

Figures

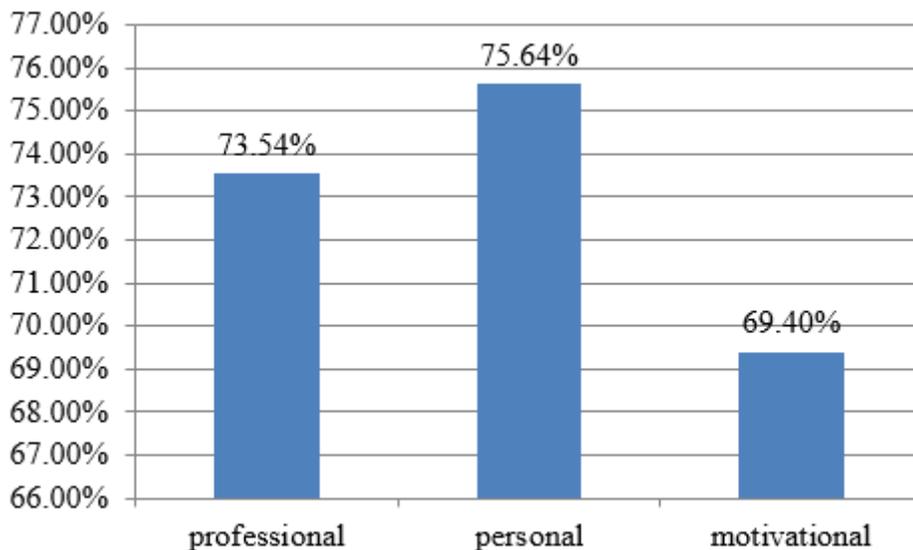


Figure 1

Bar graph illustrating Job satisfaction among nurses working in Jimma University specialized hospital, 2019

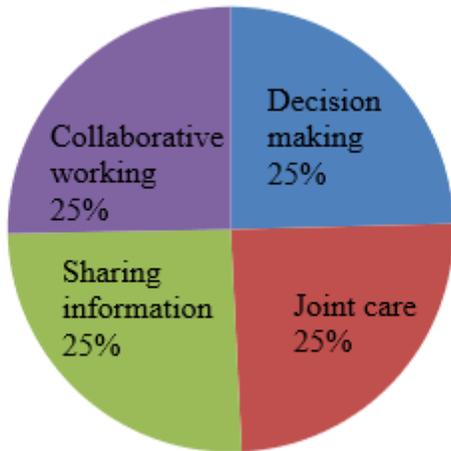


Figure 2

Pie chart illustrating Interaction components among nurses working in Jimma University specialized hospital, 2019

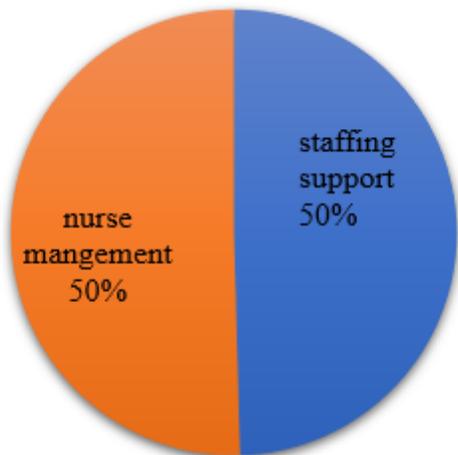


Figure 3

Pie chart illustrating caring environments among nurses working in Jimma University specialized hospital, 2019