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## RESEARCH ARTICLE

### CHALLENGES AND COPING MECHANISMS OF NURSES WORKING IN INTENSIVE UNITS OF SELECTED HOSPITALS IN ADDIS ABABA-ETHIOPIA

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#### ABSTRACT

**Background:** Intensive care unit (ICU) is where by critically and terminally ill patients are admitted and strictly followed. As every patient, nurse and setup where to carry are different providing the right nursing care for critically ill patients needs assessing the ICU from different angles including skill, knowledge and attitude of nursing staff, complexity of patient's needs, the physical environment where to care and difficulties that ICU staffs faces. This study aimed to assess challenges and coping mechanisms of nurses working in intensive care units of selected hospitals in AddisAbaba-Ethiopia.

**Methods:** Institution based cross-sectional study was implemented. All nurses (N=207) working in intensive care units of 16 hospitals in Addis Ababa-Ethiopia were included. Data was collected by using a self administered structured questionnaire. Descriptive statistics were used to analyze the data.

**Result:** Majority of the respondents were females (87.4 %), in the age group of 20-30 years (63.3%) and diploma nurses (57.5 %). Communication problem, resistance from patient and patient relatives and inadequate information about patient condition from physicians were the challenges faced by Nurses bothin governmental and nongovernmental hospitals. Lack of in-service training, no choice based assignment in ICU, non cooperative hospital management, inadequate material supply and absence of authority to perform independent nursing interventions were also constraints reported by the ICU nurses. Among the study population most of the nurses 114 (62.3%) had conflicts with physicians followed conflict with head nurses accounts for 17.5%.

**Conclusion:** This study revealed that nurses in ICU face multiple intrapersonal, interpersonal and organizational challenges and use a number of coping mechanisms which may have both positive and negative impact on the service. Based on this study finding continuous and regular assessment of ICU unit is recommended to identify and solve challenges in ICU for betterment of service.

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## INTRODUCTION

### Background

Intensive care unit (ICU) is parcel of hospital where by critically ill patients are admitted and cared for. As the number of highly dependent patients increases and their needs changes through time. It is evidences that critical care health services face significant changes over time(1). If the is change must to face as a challenge in hospital critical care units, many of the individual challenges confronting other hospital units intersect, making the critical care setting the most complex environment in the healthcare facility. While other units may need to manage one or two of the challenges at a time, critical care settings must manage them all simultaneously (2). Patients in ICU has to be followed minute by minute and Nurses, as health care provide, play a great role in with holding or with drawing life-sustaining therapies by investing much of their time(3).

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Even though working in the Intensive care unit (ICU) produces formidable stress for nursing personnel, it is must to be there. Major problems for nurses are the repetitive exposure to death and dying, posing threats of object loss and personal failure. Some nurses may use defensive distancing techniques to support continued function in ICU but this raises secondary adaptive problems. The strenuous demanding work overload and lack of gratification from obtunded patients also add the problems of maintaining self-esteem. The special nature of the work promotes communication breakdowns with other health professionals, relatives, nursing and hospital administration, probably leading to lack of support from these crucial groups. As there was no concrete information on the challenges and coping mechanisms of nurses working in intensive care unit in provision of care for patients in Ethiopia, this study was conducted to identify the challenges and coping mechanisms of nurses working in intensive care units in both government and non-governmental hospitals of Addis Ababa-Ethiopia.

## METHODS AND MATERIALS

The study was conducted from March to May-2012 in Addis

Ababa-Ethiopia using institution based cross sectional studydesign. The study was conducted in total of 16 hospitals. Five of them were Government or public hospitals and rest 11 of them were private hospitals. All nurses, N=207, working in intensive care units were included in the study. After oral consenting of study participants information was collected by english version of a self-administered structured questionnaire. The collected copies of the questionnaire were checked manually for its completeness, coded and entered into SPSS version 20.0 for the analysis. Descriptive statistical analysis was computed to generate the numerical result.

**Ethical considerations**

Ethical clearance was obtained from the Institutional Review Board of the Institute of College of Medicine and Health Sciences, Addis Ababa. Official letters were also submitted to respective hospitals. The purpose and importance of the study were explained and oral consent was secured from each participant. Confidentiality was maintained at all levels of the study. Participant involvement in the study was voluntary and those who were unwilling and need to break their participation in between were informed of the freedom.

**RESULT**

**Socio demographic characteristics of the respondents**

A total of 207 nurses, working in intensive care units, were participated in the study. Of which 102 (49.3 %) were

**Table 1** Socio demographic characteristics of study participants

Variable	Governmental	Non Governmental	Total N(%) (207)
Sex			
Male	12	14	26 (12.6%)
Female	90	91	181 (87.4%)
Age in Years			
20-30	72	57	11(63.3%)
31-40	27	34	61(29.5%)
Above 40	3	12	15(7.2%)
Religion			
Orthodox	61	56	117(56.5)
Catholic	1	4	5(2.4)
Muslim	8	3	11(5.3)
Protestant	31	40	71(34.3)
Others	1	2	3(1.4)
Level of qualification			
Diploma nurse	45	74	119(57.5)
BSc nurse	57	31	88(42.5)
Ethnicity			
Amhara	33	57	86(41.5)
Oromo	22	32	54(26.1)
Tigre	10	14	24(11.6)
Others	37	6	43(20.8)
Marital status			
Single	54	52	106(51.2)
Married	45	44	89(43)
Divorced/Separated	3	5	8(3.9)
Widowed		4	4(1.9)
Working unit			
Neonate ICU	30	9	39(18.8)
Pediatrics ICU	13	1	14(6.8)
Medical ICU	42	48	90(46.9)
Surgical ICU	17	31	48(23.2)
Emergency ICU		1	1(0.5)
Cardiac ICU		15	15(7.2)
Work experience			
Less than 2 years	31	27	58(28)
3- 5 years	42	52	94(45.4)
Above 5 years	29	26	55(26.6)

working in Neonate, Pediatrics, Medical and Surgical intensive care units of Government hospitals, where as the rest of them 105 (50.7 %) were working in Neonate, Pediatrics, Medical, Surgical, Emergency and Cardiac intensive care units of Non-Governmental hospitals. Majority of the respondents were females (87.4%) and are in the age group of 20-30 years (63.3%), orthodox in religion (56.5 %), from Amhara ethnic group (41.5%) and were diploma nurses (57.5 %).(Table-1)

**Intra-personal, Inter-personal and organizational issues related with ICU Nurses**

Nurses both in Governmental (88.2%) and Non-Governmental hospitals (84.4%) faced communication problems with their patients. Among all nurses in Non-Governmental hospitals 67.6% faced resistance from their patients and patient families during care provision compared with 56.9% of nurses in governmental hospitals. Less than half 85 (41.1%) of the ICU nurses complained about having inadequate information from the physicians about the patient’s over all condition.

Most 187 (90.3 %) of the nurses responded that there was no in-service training being conducted in their working hospitals. Majority 156 (75.4%) of nurses were assigned in intensive care units without their choice, of which 78 were from governmental and 78 were in nongovernmental hospitals. Non cooperative hospital management 163 (79%), inadequate material supply 78(37.7%) and no authority to perform independent nursing interventions 58(28%) were also issues raised by the ICU nurses. Eighty three (40.1%) of the total nurses in intensive care units were assigned for more than 4 patients in the ICU to provide care in each shift of their working hours.

**Table 2** Work environment related to factors affecting care provision of nurses in ICU of hospitals, Addis Ababa, Ethiopia, 2012

Variable	Hospital		
	Public n (%)	Private n (%)	Total n (%)
Appropriate space in the unit			
Yes	93 (91.2)	77 (73.3)	170 (82.1)
No	9(8.8)	289(26.7)	37(17.9)
Noise around the unit			
Yes	93 (91.2)	77 (73.3)	170 (82.1)
No	9 (8.8)	28 (26.7)	37 (17.9)
Comfortable room temperature			
Yes	82 (80.4)	70 (66.7)	152 (73.4)
No	20 (19.6)	35 (33.3)	55 (26.6)

Among all respondents 170 (82.1%) responded that the space

**Table 3** Conflict of Nurses in ICU with their team members in hospitals, Addis Ababa, Ethiopia, 2012

Conflict of ICU Nurse with other teams	Frequency	Percent
Conflict with Physicians		
Yes	114	55.1
No	93	44.9
Conflict with Head Nurse		
Yes	32	15.5
No	175	84.5
Conflict with nurse who works in ICU		
Yes	28	15.5
No	179	86.5
Conflict with Others		
Yes	9	4.3
No	198	95.7

of intensive care units were appropriate, the rest 37 (17.9%) of them mentioned that, the space is not appropriate to provide care. According to the respondents of governmental hospital ICU had appropriate space compared to the nongovernmental hospitals which accounts for 91.2% and 73.3 % respectively.

From the total study participants, 183 (88.4 %) nurses faced conflict with other members in ICU. Most of them 114 (62.3%) had conflict with physicians followed by conflict with head nurses which accounts for 17.5%.

**Communication bottlenecks of nurses working in ICU with their patients**

Language difference and health condition of the patient were common communication barriers faced by most (75.4%) of the study participants.

**Coping strategies of nurses for lack of in-service training and supportive management**

Coping strategies used by nurses in intensive care units were prioritized computed their means, standard deviation, maximum and minimum values of four scaled questionnaire with excel.

As shown in table 4, the top 3 coping strategies were no need to mention \* taken based on working of others’ experience (Mean= 2.3092, S.D= 0.80717), positive thinking about work (mean=2.1836, S.D= 0.85623) and attempt to change the work unit ( mean= 1.6957, S.D= 1.0654) as they were challenged by lack of in-service training & supportive management.(Table-4)

**Table 4** Coping strategies of Nurses working in intensive care units for lack of in-service training and supportive management hospitals, Addis Ababa, Ethiopia, 2012

Coping Strategy	N	Total	Mean	SD	Rank
Taking advantages of others experience	207	478	2.3092	.80717	1
Positive thinking about my work	207	452	2.1836	.85623	2
Attempt to change my work unit	207	351	1.6957	1.0654	3
Attempt to leave the hospital as a whole	207	275	1.3285	1.1009	6
Referring the problem to the head nurse	207	327	1.5797	.9564	4
Referring the problem to higher officials of the hospital	207	288	1.3913	.9934	5

Using reference books (Mean= 2.1063, S.D= 0.82926), assigning friends to perform the procedure (mean=1.7295, S.D= 0.85004) and seeking advices from other nurses (mean= 1.6763, S.D= 0.86830) were the first three coping strategies of nurses identified for lack of knowledge as a challenge. Talk to likely friends (m=1.9710, S.D=0.8528), ask apology immediately (m=1.9662, S.D=0.88340) and coming up with a couple of solutions (m=1.7101, S.D=0.80233) were the commonly used strategies to cope as nurses who were in conflict with some others in the ICU. Based on the results the most commonly used coping strategies were, taking time to talk with members (M=1.7729, S.D= 0.85705), explore the events further (M=1.6763, S.D= 0.85705) and performing only that activities that they understood (M=1.6184, S.D= 0.83854).

**DISCUSSION**

In hospital critical care units, many of the individual

challenges confronting other hospital units intersect, making the critical care setting the most complex environment in the healthcare facility. The results of this study indicated that, nurse-physician communication in intensive care units is in doughty. From all study participants 41.1 % responded that they didn’t get adequate information about their patient’s condition, as a result 23.7 % of nurses who were working in intensive care units face difficulties of understanding the diagnosis of their patients. In addition to this 23.2 % of nurses faced a problem of inability to interpret the findings of the patient. This might indicate that poor communication between intensive care unit teams might be one of the reason for the difficulties occurred in ICU on care givers and patients (4,5). The availability of resources to care for critically ill patients varies across countries. In this study 40.6 % of the study participants responded that, there was no adequate material to provide care for patients in intensive care units. The figure was lower as compared to findings of S.P.Beaua which revealed, lack of human and material resources as a factor causing stress in the intensive care environment. He also found that, 87.5% of respondents were unable to cope with excessive workload, shortage of personnel and inadequate resources (6). Creating supportive and enabling work environment for nursing staff is a way of finding solution to the problem occurring in intensive care units. In this study, 88.4 % of nurses faced conflict with ICU teams, of which 62.3 % of nurses faced conflict with physicians, 17.5 % faced conflict with head nurses and the rest with nurses who work in ICU 15.3%. It implies that conflict among nurses comprises of 32.8 %. The figure was high compared with a study conducted to identify stressors in intensive care units which found that conflicts were perceived by 5,268 (71.6%) respondents. Nurse–physician conflicts were the most common (32.6%), followed by conflicts among nurses (27.3%) and staff-relative conflicts (26.6%) (7). Nurses in Intensive care units are expected to have the knowledge and skills required to function competently in a high technology environment, and to utilize critical thinking skills in the planning and implementation of excellent care. Knowledge and techniques, like care techniques, timely judgment, and patient education, are critical to perform services properly. In this study 90.3 % of nurses responded that there was no in-service training or education in their working hospitals. The findings of this study also indicated that, nurses who were working in intensive care units used different coping strategies for different challenges. Coping strategies used by the nurses to cope with lack of in-service training and supportive management & lack of supportive management were taking advantages of others experience, positive thinking about work and attempt to change the work unit. Nurses in this study used different coping strategies for lack of knowledge such as using references, assign friends to perform the procedure and seek advice from nurses. Similarly for other challenges such as conflict with ICU teams, communication problem with ICU teams and patients they used the following strategies, talking to likely friends, asking apologizies immediately and coming up with a couple of solutions, taking time to talk with members exploring the events further and performing only the activities that they understood.

**CONCLUSIONS AND RECOMMENDATION**

Most researches indicate that intensive care units remains as

challenging environments for the delivery of healthcare services. Alternatively; working in the Intensive care unit produces formidable challenges for nursing personnel. As a result, the care of critically ill patients can no longer be accomplished by a single healthcare professional. This study revealed that, nurses assigned in intensive care units were not based on their experience and willingness rather it was based on the organization will and this predisposes them for a number of challenges since there was no in-service training in most of the hospitals. Nurses have no adequate supplies to provide care for their patients and also there was poor team spirit in the intensive care units of both governmental and nongovernmental hospitals. On top of the study findings it was recommended that stake holders like Ministry of Health-Ethiopia and Ethiopian Nurse Association shall develop a sound credentialing program for critical care providers and validate the skills of nurses in critical care settings and other ICU staff members. Hospital administrative bodies shall assess the ICU culture and environment in order to identify problems in early stages and to improve care delivery, educate or train ICU staff to promote the development of skills and knowledge of care givers. Ministry of Health and Addis Ababa Health Bureau should follow the staffing policy of hospitals to maintain quality of health service. As the study is confined in AddisAbaba only it can be done on large scale for its universality in Ethiopia.

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