

**ASSESSMENT OF THE AVAILABILITY OF NURSES, MATERIALS AND WARDS ENVIRONMENT AT MEDICAL AND SURGICAL WARDS IN SUHUL HOSPITAL SHIRE, ETHIOPIA 2015.**Hadgu Gerensea\*<sup>1</sup>, Tadis Brhane<sup>1</sup> and Hagos G/luel<sup>2</sup><sup>1</sup>School of Nursing, College of Health Science, Aksum University, Aksum, Ethiopia.<sup>2</sup>Shire Campus Aksum University, Shire, Ethiopia.**\*Correspondence for Author: Hadgu Gerensea**

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**ABSTRACT**

**Background:** Suhul hospital is a general public hospital. The main objective of the hospital is providing medical service for the community and serves for greater than one million peoples. **Objective:** To assess the availability of human resources, materials and wards environment at medical and surgical wards. **Method:** institutional based cross-sectional survey was conducted to address the objective using structured interview for all nurses of medical and surgical ward. Similarly observational checklist was also used. **Result:** It was found that a total of 24 nurses were involved in the provision of the nursing care, out of these 3(12.5%) BSc and 21(87.5%) were diploma holders in these wards. The availability and adequacy of the equipment and consumable supplies was serious problem at medical wards –A, of the 12 sample required 11(91.7%) were available out of 8 (66.7%) were inadequate. In all the wards the unavailability and inadequacy of the emergency drugs and the equipment were also among the problems described by the head nurses. It was observed that most of the wards condition was bad. **Conclusion:** Except one ward that had undergone major renovation work the condition of the other wards was deteriorating, even it was found that the environmental condition of all the rest wards were bad. Some of the wards were even devoid of their own toilets and bath rooms. In the specific wards surveyed the staff reported they were crippled by unavailability and inadequacy of certain equipment and supplies.

**KEYWORDS:** Nursing, Material, Ward Environment, Adequate, Available.**1. INTRODUCTION****1.1. Backgrounds Information**

Suhul Hospital is a general public hospital located in Shire Endassellasse town situated 301 KM from Mekele and 1087 Km from Addis Ababa in the North West part of Tigray region in Ethiopia. It was established in 1995 E.C. The main objective of the hospital is providing medical service for the community and serves for greater than one million peoples. It has five wards, 179 beds and 284 employees (173 are health personnel). The activities of the hospital are running through 3 specialist doctors, 7 general practitioner doctors and 83 nurses (diploma and BSc) to mention some of the health care personnel. The services given in the hospital include medicine, surgery, pediatric, gynecology, obstetrics, and dental therapy. The hospital also includes a psychiatric, TB and ART (anti retroviral therapy) clinic.

The medical and surgical wards of the hospital are both subdivided to block A and B. The medical ward and the surgical wards consisted each of them thirty-three beds (total 66 beds). 1 BSc and 8 diploma nurses; and 2 BSc and 7 diploma nurses in medical and surgical wards

respectively were running the nursing activities during our study period.

There was no sound research conducted on nursing outcomes for chronically ill patients in Suhul hospital. If we look at the nursing care being offered in this hospital we can realize that there are some elements missing from it. Some patients that can't get out of their beds are found soaked in their urine and faces. Also, other patients use soiled bedding materials unchanged for many days. The bed odor of bedpans and urinals is unbearable because they are not soaked in disinfectant solutions after the patients have used them. At some seasons patients are being admitted to the corridors of the wards and left seemingly unattended by nurses. The smell in the patient's environment is sometimes offensive as if the wards have never been cleaned. Although these issues relate to the workload of cleaners and not necessarily nurses, nurses are ultimately responsible for patient care environment in their wards. Having in mind the weak adherence to professional standards and absence of an enforced ethical code, at

medical and surgical wards and what are available human resources, materials and the wards environment.

## 2. OBJECTIVES

### 2.1 General Objective

To assess the availability of human resources, materials and wards environment at medical and surgical wards.

### 2.2. The Specific Objectives

To describe the human resources and materials available in medical and surgical wards

To determine the condition of medical and surgical wards environment

## 3. METHODS AND MATERIALS

**3.1 Study area:** The research was conducted at suhul hospital (general public hospital), Shire town, Tigray, Ethiopia. Suhul hospital, previously known as Midregenet hospital, is a zonal hospital found in Shire Endaslassie town (north western Tigray). The town is located 301kilometers from Mekelle and 1087 kilometers from Addis-Ababa. The hospital serves for greater than 1 million peoples.

**3.2 Study design and period:** Institutional based cross-sectional survey was conducted between April and May 2015 on nurses of medical and surgical wards of suhul hospital.

**3.3 Source population and study population:** All nurses of medical and surgical wards of Suhul hospital were the source population for the research.

**3.4 Sample size & Sampling technique:** No sampling technique was used as all nurses were taking on those wards.

**3.5 Data collection tools and technique:** The questionnaire for data collection included closed questions with fixed formats and categorical YES/NO questions. Information pertinent to research was collected by administering and completing the questioners to the head nurses, and general observation of the wards` environment.

**3.6 Quality control method:** To ensure the quality of data; training of data collectors and checking whether the questionnaires were filled completely on a daily basis was done.

Pretest: a pretest was performed on St. Marry Hospital Aksum prior to the actual data collection. By doing so the deficits of the format was identified and required modification indicated by the result of the pre-test was made.

**3.7 Data analysis and interpretation:** the data collected were summarized on master sheets & analyzed using SPSS.

**3.8 Ethical considerations:** Before staring data collection a letter of permission was obtained from Axum University the school of nursing and student research project office to suhul Hospital administrator and head nurses of medical and surgical wards. Privacy and confidentiality of participants was maintained by avoiding writing their name on the questionnaire. The respondents were given the right to withdraw at any time in course of the data collection period. This all was explained to nurses and head nurses.

## 4. RESULTS

**4.1. Health Care Personnel:** In all the wards at which this research was conducted, 3(16.6%) BSc, and 15(83.3) diploma nurses were providing the nursing care to the admitted patients. In both wards (medical and surgical) there existed a total of 18 nurses. Nine of them were serving in medical wards while the rest 9 were serving in surgical wards. The BSc holder nurses were 1(5.5%) at medical wards and 2(11.1) at surgical wards where as the diploma holders were 8(44.4) at medical and 7(38.9) at surgical wards. (Refer table-1 below). It was reported that the staffing level was fairly adequate in surgical wards and not adequate in medical wards. See Table-1

**Table-1. Number of health care personnel involved in nursing care provision in terms of their educational (qualification) background and the wards where they were serving, Suhl hospital, 2015.**

Qualification	Ward		
	Medical ward No, (%)	Surgical ward No, (%)	Total
BSc nurse	1(5.5)	2(11.1)	3(16.6)
Diploma nurse	8(44.4)	7(38.9)	15(83.3)
Total	9(50)	9(50)	15(100)

The wards` head nurses were requested to give their opinion on the wards human resources. It was described that the number of health care personnel being involved in provision of nursing care and the flow of patients was not sufficient to give quality services.

**4.2 Equipments and Supplies:** Pertaining to the availability and adequacy of samples of equipments and consumable supplies the result obtained from the research showed that at medical ward- A gauze was not available. In general of the 12 Samples of equipment and consumable supplies requested 11(91.7%) were available but the availability of 8(66.7%) of them were inadequate. at medical ward –B, it was reported that basins were not available to give nursing care. of the 12 samples of equipment and consumable supplies requested at this ward, 11(97.7%) were available but 5(41.7%) of them were inadequate. At surgical wards-A and B all the requested samples of equipment and consumable supplies were available but at each ward 7(58.3%) of them were inadequate. (See table-2 below).

**Table-2. Response of head nurses of wards on the availability as well as the adequacy of the available samples of equipments and consumable supplies for provision of nursing care, Suhul hospital, 2015.**

wards	availability and adequacy of equipments and consumable supplies			
	Available No, (%)	not available No, (%)	adequate No, (%)	inadequate No, (%)
medical-A	11(91.7)	1(8.30)	4(33.3)	8(66.7)
medical-B	11(91.7)	1(8.30)	6(50.0)	5(41.7)
surgical-A	12(100.0)	-	5(41.7)	7(58.3)
surgical-B	12(100.0)	-	5(41.7)	7(58.3)

The problems associated with the equipment and consumable supplies were described as inadequacy of emergency drugs such as IV fluids, adrenaline and oxygen; scarcity of beds, autoclaves, procedure rooms; low quality nursing care and prolonged patient stay in the ward. On the contrary the successes of the wards were described as relatively enough staffing and availability of materials during this time in one of wards and good supply of detergents materials; linen and blankets in one of the other wards.

**4.3 The Wards' Environment:** It was found that the conditions of most of the wards observed were bad. All the wards had good illumination. On the contrary all had bad ventilation. Two of the wards had no toilet, one ward had only one toilet and the same holds true for the bathroom. In most of wards the patients were using a communal toilet and bathroom located some 200 meters away from the wards. (See table 3).

**Table- 3. Condition of the wards' environment (medical and surgical wards), suhul hospital, 2015.**

S. No	Characters	Bad No,	Fair No,	Good No,	Remark
1	Wall	2	1	1	
2	Ceiling	2	1	1	
3	floor	3	1	-	
4	Ventilation	4	-	-	
5	Illumination	-	-	4	
6	Toilets	1	1	-	two wards have no toilet at all
7	bath room	-	1	1	two wards have no bathroom at all
8	Beds	2	1	1	
9	linen	3	1	-	
10	bed pans and urinals	-	4	-	

## 5. DISCUSSION

**5.1 Health Care Personnel:** The health care personnel involved on nursing care were waiting mostly for the order of the interns or senior physicians to offer nursing care. This lack of autonomy and inability to manage nursing care is strongly related to the level of education preparation and knowledge of all nurses at medical and surgical wards. This condition was similar to the suggestion given in the case of The Voice of Nurses (Ethiopia).<sup>[1]</sup>

**5.2 Equipment and Supplies:** The availability and adequacy of samples of equipment and consumable supplies were assessed and it was found that most were available but inadequate. Of the reported unavailability and inadequacies the emergency drugs, oxygen and equipment for measuring the vital signs were emphasized. This signified that the lives of critical ill and admitted patient were at risk and also contributes to low quality nursing care and increased morbidity and mortality at the wards.

**5.3 The Wards' Environment:** Effective functioning of health-care settings depends on a number of different requirements, including safe and sufficient water, basic sanitation, adequate management of health-care waste, appropriate knowledge and application of hygiene, and adequate ventilation. However, many of these requirements are not available in many health-care settings across the world.<sup>[2]</sup> Some characters were taken to determine the condition of the wards' environment. Most of the wards the environment was bad but the waste -disposal was comparable with the waste-disposal zone should also be located at least 30 metres from groundwater sources<sup>[3]</sup> similarly the cleansing process and materials for cleaning is mismatched with ordinary soap or detergents which have no antimicrobial activity, and the cleaning process depends essentially on mechanical action. Wet mopping with hot water and detergent, if available, is recommended, rather than sweeping.<sup>[4]</sup>

Some wards had even limited or no toilets and bathrooms for their patients which is not comparable with the recommended ratio of one toilet per 20 people is

common and widespread, and should be used as a planning guideline.<sup>[3]</sup> Apart from this a good renovation was performed at medical ward- B in which most of the observed characters was good and there was an appreciable improvement. Common to all the wards, their illumination/lighting condition was good. As indicated in the voice of nurses, published by the Ethiopian nurses association, the factors seen in the above two paragraphs negatively affect the quality nursing care.

## 6. CONCLUSION AND RECOMMENDATIONS

**6.1. Conclusion:** The wards considered were staffed with few health cares' personal that is why staffs were over whelmed with a number of tasks during their working hours. In the specific wards surveyed the staff reported they were crippled by unavailability and inadequacy of certain equipment and supplies. The problems ranged from the inadequacy of life saving supplies and equipment including IV drugs adrenaline, oxygen and autoclaves to relatively cheap supplies including gauze and cotton wool.

Except one ward that had undergone major renovation work the condition of the other wards was deteriorating, even it was found that the environmental condition of all the rest wards were bad. Some of the wards were even devoid of their own toilets and bath rooms.

**6.2 Recommendations:** Based on the findings of the research the following recommendations were forwarded:

1. Related to health care personnel Adequacy  
There should be adequate numbers of health care personnel in the wards to decrease the workload now existing for better nursing care.
2. Equipment and consumable supplies  
Equipment and supplies are important for the provision of quality care. Therefore, the concerned body should make them adequately available in wards.
3. Conditions of the wards' environment

The ongoing renovation work of the hospital is appreciable. But more effort is required to involve all the wards. Since most of the wards' environmental condition was bad, over all renovation will contribute to the betterment of the care given.

## AUTHORS CONTRIBUTION

Hadgu Gerense<sup>1</sup>, Tadis Brhane<sup>1</sup>, Hagos G/luel<sup>2</sup>

<sup>1</sup>Editing, Preparing Manuscript, Analysis, Whole Write up, Supervising, Advising, Editing

<sup>2</sup>Data Collection, Research write up, Analysis

## CONFLICT OF INTEREST

There is No Conflict of interest.

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