Factors Influencing the Occurrence of Diarrhoea Among Children Under the Age of Five Admitted to Benadir Hospital Mogadishu - Somalia

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Abstract

*Diarrhea diseases, which kill more than a million children a year worldwide affect under-developed countries like Somalia (UNICE, 2007).The nature of diarrhea is not purely medical, but large part of it is related the social, economic, environmental status (Dana W, 2001). The main objective of this study was to identify factors influencing the occurrence of diarrhea among children under-five years that were attending Benadir hospital, Mogadishu. The questionnaire of the study focused on three key areas of assessment in order to understand how they influence the occurrence of diarrhea in the under-five children: (a) environmental factors (b) Socioeconomic factors and (c) knowledge and awareness levels of parents. A cross-sectional quantitative study was conducted, with a sample of 52 parents and caregivers of children under the age of five attending Benadir hospital. A interview questionnaire was used to collect data during 13th to 19th May 2017, after agreed informed consent. Our study found l*ack of mother's knowledge of diarrhea was correlated with increased diarrheal disease incidence in U5 children. *73.1% of respondents answered no to the questions of what causes diarrhea and how it spreads. Similarly, almost 50% of them gave untreated drinking water to their young children. Also our study didn't find much influence from environmental and socioeconomic factors in the responses of the subjects regarding what influences the occurrence of diarrhea. However, there is a relationship between rural dwelling and lower levels of knowledge and awareness of the diarrhea among respondents. Overall, our study concluded that knowledge of the parents and caregivers have correlated reducing the occurrence of diarrhea in children under-five years. The recommendation of this study that health education should be provided on importance*

of treating water by boiling and strengthen them in cover containers capacity in implementing preventive interventions, including sanitation, source water improvements, and household water treatment and safe storage. The study also recommended to promoting hand hygiene with detergent (soap, sand) to children care givers should be emphasized as it protects the children against diarrhea and improving water quality at the source and treatment of house hold water and safe strong system.

Keywords: *Diarrheal diseases, socioeconomics, knowledge, children under-five, Somalia,*

1.0 BACKGROUND

The Diarrhea is defined as having loose or watery stool for three or more times during a 24–hours period. The frequency and severity of diarrhea is motivated by lack of access to sufficient clean water and sanitary disposal of human waste, improper feeding practices and hand washing, poor housing conditions and lack of access to adequate and affordable health care (Keusch, *et al,* 2006).

In Africa especially Sub-Saharan Africa, diarrhaeal disease was the main mortality and morbidity due to dehydration, which accounts for over 90% of deaths in children below the five (Kosek, *et al,* 2003). This had been attributed to low socioeconomic status, lack of sanitation and poor living conditions, malnutrition, poor hygiene behavior in infants and young children (Grantham-McGregor, *et al,* 2007).

WHO reported in 2009 that the top four morbidity in Somalia were pneumonia, diarrhea, neonatal disorder and measles, 24%, 19%, 17% and 12%, respectively, diarrhea is the second most important condition among under 5 mortality in Somalia (WHO, 2009) It was widely recognized that exposure to diarrhea pathogens in Somali was associated with such factors as age of the child, quality of water, availability of toilet facilities, housing conditions, level of education, household economic status, place of residence, feeding practices, and the general sanitary conditions whether personal or domestic around the house (UNICEF,2007).

One of the main factors associated with acute childhood diarrhea, was awareness of caregiver of causes of diarrhea such as lack of hand-washing, poor infant and young child feeding practices and lack of child immunizations (Godana&Mengiste, 2013).

Another research showed that the incidence of diarrhea occurrence depended on the knowledge level of the mother; the higher the level of care giver awareness and knowledge, the better their hygiene, feeding and weaning practices, hence decreasing occurrence diarrhaeal deceases in their children (Gebremariam, 2001). Lack of parent awareness was another major factor when it comes to diarrhaeal diseases in children (Gebremariam, 2001).

The specific objectives of the study was

1. Socioeconomic factors that influence the occurrence of diarrhea in under-five children.
2. Environmental factors that influence the occurrence of diarrhea in under-five children.
3. Knowledge of parents and caregivers that influence the occurrence of diarrhea in under-five children.

2.0 METHODS & MATERIALS

2.1 Research design

The research design was descriptive cross sectional study it used to capture information based on data gathered for a specific point in time. The data gathered with this method was from a group of participants with varied characteristics and demographics. This design selected because it was cost-effective, time-efficient and easily accessible for collecting information from the target population.

2.2 Study Area and target population

This research was undertaken in Benadir Hospital, located in Benadir region Mogadishu, Somalia, The hospital was built in 1977. Benadir Hospital is the largest hospital in the whole country and as such serves as the nerve of Mogadishu, the largest city in Somalia and it is the only recognized 'National Referral Hospital' in the country. The study focused on children under the age of five who was admit to the hospital with acute and/ or chronic diarrheaThe study population was primarily the parents of children under the age of five who had been admitted to Benadir Hospital with acute or chronic diarrhea.

2.3 Sampling procedure

A sample of 52 respondents was purposively selected from 65 patients who had incidence of diarrhea who were admitted in the hospital during our data collection period after agreed informed consent. The 13 patients did not accept the informed consent.

2.4 Data collection

The research was collected primary data through the application of questionnaire used to collect the primary data. The data was collected 4 days during **13th to 19th May 2017.**

2.5 Data analysis

Data collected was compiled and analyzed using the SPSS version 21.

2.6Ethical considerations

The researchers was explained the purpose and benefits of the study to the subjects and ask them for their permission to answer the questions. Participation in the study was totally voluntary. Participants were not forced to participate in the study. Even those who initially accepted to participate were free to withdraw in the course of the study if they did not wish to continue.

3.0 RESULTS

3.1 Family Income of the respondent

Family Income of the respondent	Frequency	Percentage (%)
Low	38	73.1
Middle	11	21.2%
High	3	5.8%
Total	52	100.0

Table 3.1Family Income of the respondent

Table 3.1 above indicates that family monthly income, slightly more than half of the households (73.1%) earned less than 150 $USD and had income lower category. However, 5.1% earned 300-500 $USD monthly and income were high category.

3.2 How long has this family been living in Mogadishu?

How long has this family been living in Mogadishu	Frequency	Percent
less than 1 year	23	44.2
1-5 years	13	25.0
5-10 years	8	15.4
10 years over	8	15.4
Total	52	100.

Table 3.2 How long has this family been living in Mogadishu

Table 3.2above Show that almost 70% of the respondents have moved to the city side from rural areas within the last 5 years, A little over 30% of the respondents lived in the city for more than 5 years.

3.3 Do you wash your hand after cleaning feces from your child?

Do you wash your hand after cleaning feces from your child	Frequency	Percentage (%)
Yes	47	90.4
No	5	9.6
Total	52	100.

Table 3.3 Do you wash your hand after cleaning feces from your child

Table 3.3 above show that more than 90% of parents and caregivers said they washed their hands after cleaning feces, while only 9.6% said they don’t.

3.4:-Which type of hand wash do you use after cleaning your child?

Which type of hand wash do you use after cleaning your child	Frequency	Percentage (%)
Washing by water only	18	34.6
Washing by water and soap	12	23.1
Washing by water and soil	14	26.9
Other	3	5.8
Don't wash hands	5	9.6
Total	52	100.

Table 3.4 Which type of hand wash do you use after cleaning your child?

Table 3.4 above show that most parents (50%) use either soap or soil combined with water when doing hygienic washing and almost a third washes only with water while about 6% use other forms of washing.

3.5:-Do you believe lack of toilet can cause diarrhoea?

Do you believe lack of toilet can cause diarrhoea	Frequency	Percentage (%)
Yes	20	38.5%
No	32	61.5%
Total	52	100.0

Table 3.5 Do you believe lack of toilet can cause diarrhoea?

Table 3.5 above show that almost two thirds of respondents believed lack of toilet does not cause diarrhoea.

3.6:-Do you know how to prevent diarrhea especially among under 5 years?

Do you know how to prevent diarrhea especially among under 5 years	Frequency	Percentage (%)
Yes	12	23.1
No	40	76.9
Total	52	100

Table 3.6 Do you know how to prevent diarrhea especially among under 5 years?

Table 3.6 above show that more than three quarters of respondents said they did not know how to prevent the occurrence of diarrhea in children under the age of five.

3.7:-Do you know what the cause of childhood diarrhea is?

Do you know what the cause of childhood diarrhea is?	Frequency	Percentage (%)
Yes	14	26.9
No	38	73.1
Total	52	100.0

Table 3.7 Do you know what the cause of childhood diarrhea is?

Table 3.7 Above show that more than 73% of respondents did not know causes of diarrhea.

3.8:-Do you know how to spread of diarrhea?

Do you know how to spread of diarrhea	Frequency	Percentage (%)
Yes	14	26.9
No	38	73.1
Total	52	100.

Table 4.10 Do you know how to spread of diarrhea?

Table 3.8 above show that more than 73% of parents and caregivers did not know how diarrhea spreads.

4.0 DISCUSSION

Socio economic factors associated with diarrhea among children under-five children.

The results indicates that the more than 70% of families had an income in the lower category, while only 5.8% were of high income category that regarding socioeconomic situations of the respondents that the unemployment rate of the parents was law. This showed that in this group of respondents, their economic situations were not so dire compared to many in the nation (Fosto 2006). Having said that, the income of most respondents was considered low despite the employment levels. More than 44% of the respondents said they only moved to the big city of Mogadishu from rural parts of the country less than one year earlier and almost 70% said they moved within the past 5 years. Research shows that city residents and rural residents differ in their knowledge of and awareness of diarrhoeal diseases and their preventative practices (Godana & Mengiste, 2013). Our findings show that most of these respondents were not exposed to the knowledge and awareness that city life offers.

Environmental factors that may influence the occurrence of diarrhea in under-five children

More than 59% of the respondents said that they don't believe poor hygiene causes diarrhoea. This is a major problem amongst less educated societies (Chipeta, 2004). The researchers observed that the respondents absolutely believed that they were doing their best to practice a good hygiene. This can be explained by the level of washing the Somali society does. As Muslims, they wash many time a day, they wash before and after meals and after cleaning their excrements as evident from our results 90%. Having said that, the parents' actions in practicing preventative measure shows a stark difference

Evaluate knowledge of care giver and occurrence of diarrhea among children under five children

Despite the employment levels of the parents being above average, they lacked significant awareness of diarrhea as more than 60% of them answered no to the questions of the importance of toilets to the prevention of diarrhea. Furthermore, more than 76% of respondents said they didn't know the causes or prevention mechanisms of diarrhea. This can be attributed to the low levels of education amongst the respondent parents having about 42% no education for fathers and 56% no education for mothers. Studies show that the education levels of parent's co-inside well with their knowledge and care for their children when it comes to diarrhea and diarrhaeal diseases (Hashi, 2016).

For example, very few breast feed their kids; only 17% compared to other methods of feeding. They also do not know how diarrhea spreads 73%or the causes of diarrhea. This is supported by evidence from other research which shows that it is primarily the education of the parent that allows them to adopt good hygiene and preventative practices (Godana&Mengiste, 2013, Bacharach, & Gardner, 2002).

Considering the above mentioned observations, when socioeconomic factors such as education and income levels and environmental factors such as hygienic practices are considered, the research shows that it's the education that matters most in preventing or reducing diarrhea amongst parents with children under the age of five. There are studies that support this theory such as Aremu, 2011, which showed that education of parents was key in dealing with diarrhea effectively amongst parents in sub-Saharan Africa.

5.0 CONCLUSION

This study was conducted to find answers for the factors that influence the occurrence of diarrhea in under-five children in Benadir hospital, which the largest mother and child hospitals in the Somalia. To find answers, the researchers focused on factors such as socioeconomic, environmental and knowledge or awareness of parents of children who have diarrhea and under the age of five. The researchers conducted self-reporting style interviews amongst parents of children under the age who were visiting the hospital in order to obtain raw data for the study.

The study found that most respondents were under educated and although low, most of them had some sort of income (fig 4.6 and 4.9); they had some sort of income. The study also showed that the respondents believed that poor hygiene or lack of access to toilets was not very important to prevent diarrhea while at the same time having very risky behaviors such as lack of proper breast feeding and consumption of street food.

The study concluded that one of the major contributors of diarrhea in under-five children is lack of education and awareness of the parents or caregivers. There is strong evidence in the study to support this conclusion. For example, most of the respondents were migrants from rural areas of the country, which has very little access to education or health facilities (Fig 4.16). Furthermore, the no education figures were 41.7 and 55.6% respectively for father and mother.

Therefore, this study concludes that, the most important factor that influences the occurrence of diarrhea in under-five children is lack of education for the parents of the children.

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The Factors Affecting Level of Infection Control Practice in Benadir Hospital Mogadishu - Somalia

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Abstract

Infection control is a discipline proposed to prevent hospital acquired infections (HAIs) for those vulnerable the incidence of nosocomial infections (WHO, 2016). Nosocomial infections or hospital acquired infections are infections that can occur within 48 hours of hospital admission, three days after discharge and/or after one month of surgery and is a major global issue that affect for both patients and health-care workers (Rajabi et.al, 2016). The aim of this study was to investigate factors affecting level of infection control practice in Benadir hospital Mogadishu Somalia. The specific objectives of this study were; To assess the level of hand hygiene compliance by the health care workers (HCWs) in Benadir hospital, To determine health care workers utilization level of personal protective equipments (PPEs) and To evaluate biomedical waste disposal management of Benadir hospital. This study adapted a descriptive cross-sectional design and the study area is Benadir hospital in Mogadishu. the whole population of our study was 60 registered health care workers in Benadir hospital but 52 respondents were participated the study because 8 of the respondents were absent at day of data collection. The data were collected during May 2017 using structured questionnaire, observation checklist and interview. The data were compiled and analyzed by using SPSS version 20. we were observed that water sinks, solid soap and gloves weren't available in two wards and their status of use were rarely use accounting 37.5% and 25% were never use, while the liquid and solid soap were not available at all, whereas alcohol based hand rub were not available in seven wards. The other PPEs such as facemasks, gowns & Aprons weren't observed at wards. We also observed that biomedical wastes of the hospital were collected inside the hospital without segregation. In addition one of the hospital administrators told us that hospital doesn't have infection control

policy. Conclusion: Respondents were asked how often you wash hands after dressing wounds. The majority of respondents 24 (46.2%) said rarely. Respondents were asked how often do you recap used needles by hand. And the majority 29 (55.8%) said always. Respondents were asked how you would describe the infection control in this hospital. And the majority 27 (51.9%) replied poor, also we observed that HHC of the HCWs were poor, utilization level of PPEs and Biomedical waste management were very poor. The study recommends creating national policy for infection control practice to be adhered by the hospitals, to provide trainings for health workers about infectious control practice, to make sure availability of infection control facilities and To segregate the waste before it is disposed.

Keywords: *Infection control, Hand hygiene, Personal protective equipment, Biomedical waste management*

1.0 Background

Infection control is a discipline proposed to prevent hospital acquired infections (HAIs) for those vulnerable the incidence of nosocomial infections (WHO, 2016). Nosocomial infections or hospital acquired infections are infections those occurring within 48 hours of hospital admission, three days after discharge and/or after one month of surgery and is a major global issue that affect for both patients and health-care workers (Rajabi *et.al*, 2016). HAIs mostly caused by multiresistant pathogens, and they results prolonged hospital Stay for patients and their family, probable disability, high costs, and occasionally death (Nejad *et.al*, 2008).

To transmit the infection from person to another there must be three factors: the source of infection, vulnerable host, and the mode of transmission. These infections transmit from staff to the patient, from patient to the staff, from patient to patient or among the staff themselves or via infected instruments and/or environment through one of these modes: through contact whether direct or indirect, vehicle borne, respiratory droplets, and airborne transmission (Amy S. Collins 2008). Proper utilization of infection control measures minimizes the occurrence of HAIs as the WHO guidelines for infection control including; hand washing, sterilization/disinfection, immunization/vaccination, surveillance, isolation, and using of personal protective equipments (PPEs) such as gloves, gowns, goggles, and facemasks etc.

Health care associated infections are a major global problem for patient safety. In United States HAIs cause deaths more than heart diseases which is the most leading cause of death in USA (Reed *et.al*, 2009). Although HCAIs affects worldwide the problem is more likely in developing countries than the developed countries, it affects between 5 to 10 percent of admitted patients in developed countries and the problem exceeds 25 percent in developing countries (pittet *et.al* April, 2008).

Medical devices are major rout of HAI transmission as shows the national nosocomial infection surveillance report in 2006; they detected 8833 instrument related infections in older patients those participated healthcare services. There were 3759 catheter related urinary tract infections (UTIs) that was collected from hundreds of areas, the catheter associated UTIs were counts the most reported infections. While 2681 cases were vascular catheter related infections and 2393 ventilator related pneumonias from more than five hundred areas (Reed *et.al*, 2009).

In developing countries, the extent of the problem still remains underestimation or even unidentified, because HAIs' identification is difficult and surveillance activities to guide intervention needs proficiency and resources. These challenges increase the extent of the problem. As well as, overcrowding and shortage of staff in hospitals results poor infection control practices, and lack of infection control policies, guidelines and trained professionals also increases the scope of the problem **(**WHO 2011**).**

Although Somalia is one of the developing countries, those have been reported to be higher incidence of hospital acquired infections than developed countries; there is no evidence that shows the infection control systems in Somalia. The diminished infection control systems in Somalia is attributed several barriers including; lack of financial, lack of well trained professionals, unavailability of equipments, poor hospital policies and procedures for infection control practice, low hospital report and records, less surveillance and isolations. As well as overcrowding and low staff number, knowledge and motivation increase the burden of the problem. Therefore this study will try to investigate the factors affecting level of infection control practice in Somalia especially Benadir hospital Mogadishu.

The specific objectives of this research are:-

1. To assess the level of hand hygiene compliance by the health care workers (HCWs) in Benadir hospital.

2. To determine health care workers utilization level of personal protective equipments (PPEs).

3. To evaluate biomedical waste disposal management of Benadir hospital

2.0 Methods and Materials

2.1 Research design:

This research is designed as follows. The research design is descriptive cross sectional research design. Because this design is suitable in this study as it is cost effective design and enables to collect data in one time and one place. The researchers focused on health care workers in Benadir hospital and the study continued from December-2016 to July-2017. The researchers used cross-sectional designs with both quantitative and qualitative measurement approach with non manipulation of the variables. The research also used surveys to investigate the factors affecting level of infection control practice in Benadir hospital. And finally the data obtained were analyzed by using statistical tools such as statistical package for the social scientists (SPSS) version 20.

2.2 Study area and target population:

This research was conducted in Benadir hospital in Mogadishu. The target population of the study was the whole HCWs in the hospital which is 60 registered HCWs including; the manager or one of top level managers, doctors, nurses, laboratories, midwifes those are present at the day of study.

2.3 Sample Size and Instrument for data collection

The sampling technique of this study was non probability sampling technique. And the whole population of our study was 60 registered health care workers in Benadir hospital, as the member of top level managers of the hospital (Eng Mohamed Adam) told us that 60 HCWs present each day. But 52 respondents were participate the study because 8 of the respondents was absent at day of data collection.

The researchers used structured questionnaire, observational study and interview with the hospital management to gather reliable data.

2.4 Statistical data analysis

Qualitative and quantitative (mixed) data analysis was used for this study and the data were analyzed by the aid of SPSS version 20. The data were presented as a percentage, tables and graphs. Then the researchers interpreted the quantitative data into qualitative data to measure the hospital infection control level as a qualitative measurement such as follows; 0% — 25% equals very poor, 25% -- 50% equal's poor, 50% -- 75% equals fair and 75% -- 100% equals good.

2.5 Ethical Consideration and Approval

The research was done in the way that no one can harm or suffer adverse consequence from research activities. Therefore researchers were asked permission to the hospital administrators to investigate the factors affecting level of infection control practice. The research was conducted with respect to ethical values, confidentiality, and moral expectations of the respondents. The ethical approval was obtained from ethical review committee of Jamhuriya University of science and technology (JUST).

3.0 Findings

The results of the study were presented using frequency tables and figures.

3.1 How often do you wash hands after dressing wounds?

Washing hands after dressing wounds	**Frequency**	**Percent (%)**
Always	23	44.2
Sometimes	3	5.8
Rarely	24	46.2
Never	2	3.8
Total	**52**	**100.0**

Table 3.1 How often do you wash hands after dressing wounds?

Respondents were asked how often do you wash hands after dressing wounds? And replied as follows 24 (46.2%) said rarely, 23 (44.2%) said always, where 3 (5.8%) said sometimes, while the rest 2 (3.8%) said never with same question.

3.2 How often do you wash hands after removing gloves, masks, uniform, white coats and when leaving clinic?

Washing hands after removing gloves, masks, uniform & when leaving clinic	**Frequency**	**Percent (%)**
Always	18	34.6
Sometimes	8	15.4
Rarely	13	25.0
Never	13	25.0
Total	**52**	**100.0**

Table 3.2 How often do you wash hands after removing gloves, masks, uniform, white coats and when leaving clinic?

Respondents were asked How often do you wash hands after removing gloves, masks, uniform, white coats and when leaving clinic? And replied as follows18 (34.6%) said always, Where 8 (15.4%) said some times, whereas 13 (25%) said rarely, while the rest 13 (25%) said never with the same question.

3.3 How often do you use new pairs of gloves before handling waste?

Using new pairs of gloves before handling waste	**Frequency**	**Percent%**
Always	18	34.6
Sometimes	11	21.2
Rarely	19	36.5
Never	4	7.7
Total	**52**	**100.0**

Table 3.3 How often do you use new pairs of gloves before handling waste?

Respondents were asked how often do you use new pairs of gloves before handling waste? And replied as follows 19 (36.5%) said rarely, 18 (34.6%) said always, while 11 (21.2%) said sometimes and the rest 4 (7.7%) said never with the same statement.

3.4 How often do you use new pairs of gloves before handling new procedure?

Using new pairs of gloves before handling new procedure	**Frequency**	**Percent%**
Always	17	32.7
Sometimes	9	17.3
Rarely	21	40.4
Never	5	9.6
Total	**52**	**100.0**

Table 3.4 How often do you use new pairs of gloves before handling new procedure?

Respondents were asked how often do you use new pairs of gloves before handling new procedure? And replied follows 21 (40.4%) said rarely, 17 (32.7%) said always, while 9 (17.3%) said sometimes and the rest 5 (9.6%) said never with the same question.

3.5 How often do you use other PPEs such as facemask and apron?

Using other PPEs such as facemask and apron	**Frequency**	**Percent%**
Always	12	23.1
Sometimes	17	32.7
Rarely	17	32.7
Never	6	11.5
Total	**52**	**100.0**

Table 3.5 How often do you use other PPEs such as facemask and apron?

Respondents were asked how often do you use other PPEs such as facemask and apron? And replied as follows 17 (32.7%) said sometimes, another 17 (32.7%) said rarely, where 12 (23.1%) said always, while 6 (11.5%) said never with the same question. Although 23.1% of the respondents said always and another 32.7% said sometimes when asked how often do you use other PPEs such as facemask and apron? We were observed that facemasks and aprons were not available in the observed eight wards and their status in use was 0%.

3.6 How often do you recap used needles by hand?

Recapping needles by hand	Frequency	Percent%
Always	29	55.8
Sometimes	6	11.5
Rarely	8	15.4
Never	9	17.3
Total	**52**	**100.0**

Table 3.6 how often do you recap used needles by hand?

Respondents were asked how often do you recap used needles by hand? And replied as follows 29 (55.8%) said always, 9 (17.3%) said never, where 8 (15.4%) said rarely, while 6 (11.5%) said sometimes with the same question.

3.7 How often do you use color coding scheme to dispose the biomedical waste?

Using color coding scheme to dispose the biomedical waste	Frequency	Percent%
all the time	7	13.5
Sometimes	4	7.7
Rarely	5	9.6
never at all	36	69.2
Total	**52**	**100.0**

Table 3.7 How often do you use color coding scheme to dispose the biomedical waste?

Respondents were asked How often do you use color coding scheme to dispose the biomedical waste? And replied as follows 36 (69.2%) said never at all, followed by 7 (13.5%) said all the time, where 5 (9.6%) said rarely, while 4 (7.7%) said some times with the same question.

Respondents were asked if yes why don't you use the color coding scheme all the time? And replied as follows 33 (63.5%) said the material is not available, 16 (30.8%) said inadequate material, where 3 (5.8%) said the material is not accessible with the same question.

3.8 How you would describe the infection control in this hospital?

Describing the infection control in this hospital	Frequency	Percent%
Good	13	25.0
Fair	12	23.1
Poor	27	51.9
Total	**52**	**100.0**

Table 3.8 how you would describe the infection control in this hospital?

Respondents were asked how do you describe the control of waste in this hospital? And replied as follows 27 (51.9%) said poor, While 13 (25%) said good, and 12(23.1%) said fair with the same question.

4.0 Discussion

28 out 52 (53.8%) of the respondents said always when asked the question saying how often do you perform hand hygiene before patient contact? 26 (50%) of the respondents said always when asked the question saying how often do you perform hand hygiene after patient contacts.

Although the majority of the respondents said ALWAYS the above two question we were observed that water sinks and solid soap aren't available in two of the observed 8 wards and their status of use were POOR 37.5% rarely use and 25% never use, while liquid solid soap were not available at all whereas alcohol based hand rub were not available in seven wards 87.5%, alcohol based hand rub were available only in ICU while its status in use were VERY POOR. Therefore hand hygiene will be poor if the hand hygiene facility such as sinks, alcohol based hand rub, and solid soap and liquid soap are not available or less available.

24 (46.2%) of the respondents said rarely when asked the question saying how often do you wash hands after dressing wounds? 18 (34.6%) of the respondents said always when asked the question saying how often do you wash hands after removing gloves, masks, uniform, white coats and when leaving clinic? Where 13 (25%) said rarely whereas another13 (25%) said never. This shows that infection control of Benadir hospital is lower.

According to (Tenna A, *et.al*, 2014) research on infection control knowledge attitude and practice of HCWs in Addis Ababa Ethiopia shows that they made a survey participated by 261 respondents 51 percent was doctors and 49 percent was nurses, Whereas the respondents knowledge on hand washing was good. The doctors reported that they wash their hands 7 percent before and 48 percent after patient contact. They said the barriers for performing hand hygiene include; 77 percent lack of hand hygiene products, 67 percent itching and dryness of hand hygiene agents, 50 percent lack of appropriate training, and 30 percent hand washing sinks.

23 (44.2%) said sometimes when asked the question saying how often do you use new pairs of gloves before patient contact?, 19 (36.5%) said always when asked the question saying how

often do you use new pairs of gloves when examine new patient?, 21 (40.4%) said rarely when asked the question saying how often do you use new pairs of gloves before handling new procedure?. In our observation gloves were not available in two wards while their status in use were 50% sometimes use, 25% always use, 12.5% rarely use and the rest 12.5% never use.

41 (78.8%) said sharp waste when asked what types of wastes do you mainly generate in the hospital/your department?

Proper management of biomedical waste has become a worldwide humanitarian topic today (Mathur P *et.al*, 2012). But there is still gap in biomedical waste management. According to (Askarian *et.al*, 2004) Their survey in 15 private hospitals of Fars province (Iran) results indicated that the waste generation rate is 4.45 kg/bed/day, which includes 1830 kg (71.44%) of domestic waste, 712 kg (27.8%) of infectious waste, and 19.6 kg (0.76%) of sharps. Segregation of the different types of waste is not carried out perfectly.

5.0 Conclusion

28 out of 52 (53.8%) of the respondents were female while 24 (46.2%) were males. 28 (53.8%) were between ages of 25-34. 26 (50%) of the respondents were married. 20 (38.5%) of the respondents profession were nurses, 17 (32.7%) were doctors, 7 (13.5%) were lab technician, while 8 (15.4%) were midwife. The majority of the respondents 44 (84.6%) were university level. 26 (50%) have experience between 2 to 3 years, where 13 (25%) have less than 1 year of experience, while 13 (25%) have 4 to 5 years of experience.

Respondents were asked how often do you perform hand hygiene before patient contact? 28 (53.8%) said always, 26 (50%) said always when asked how often do you perform hand hygiene after patient contact? However in our observation water sinks and solid soap weren't available in two wards and their status of use were poor 37.5% rarely use, 37.5% sometimes use and 25% never use, while liquid and solid soap were not available at all, whereas alcohol based hand rub were not available in seven wards 87.5%, alcohol based hand rub were available only in ICU while its status of use were very poor. Table 4.10 and Figure 4.10 shows that respondents were asked how often do you wash hands after dressing wounds? And the majority 24 (46.2%) said rarely.

Respondent's response when asked how often do you use new pairs of gloves before patient contact? The majority 23 (44.2%) said sometimes. the majority 19 (36.5%) of the respondents replied rarely when asked how often do you use new pairs of gloves before handling waste?

Respondents were asked how often do you use new pairs of gloves before handling new procedure? And the majority 21 (40.4%) said rarely. Respondents were asked how often do you use other PPEs such as facemask and apron? And replied as follows 17 (32.7%) said sometimes, while another 17 (32.7%) said rarely. Respondents were asked how often do you recap used needles by hand? And the majority 29 (55.8%) said always.

Respondent were asked what types of wastes do you mainly generate in the hospital/your department? And replied the majority 41 (78.8%) said sharp waste. Respondents were asked how often do you use color coding scheme to dispose the biomedical waste? And the majority 36 (69.2%) said never at all and the majority 33 (63.5%) claimed the material is not available. Respondents were asked how you would describe the infection control in this hospital? And the majority 27 (51.9%) replied poor.

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Factors Influencing Miscarriage Among Pregnant Womenin Banadir Hosptial at Wadajir District

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Abstract

The World Health Organization (WHO) defines miscarriage as the expulsion or extraction from the maternal body of an embryo or a fetus with weight 500g which corresponds to a gestational age of about 20–22 weeks, (Caserta et.al, 2014). Aim of this study is to investigate thefactors influencing miscarriage among pregnant women at Banadir hospital at wadajir district in Mogadishu Somalia. The specific objectives of the study were to identify factors that cause miscarriage among pregnant women attending Banadir hospital at wadajir district, to investigate complication related miscarriage and to assess knowledge and experience on mother with miscarriage who visited Banadir hospital at wadajir district.The methods used in this study were cross sectional descriptive, the study population is pregnant women that were suffering miscarriage visiting Banadir hospital at wadajir district. A sample of 45 respondents were selected purposively, data collected during 1st- 20th May, 2017 using questionnaire, The data analyzed with the aid of SPSS and EXCELL. The results reveal that 22% of the respondents were house wives and 38% were business women. Most of the respondent's gestational were nearly 12 weeks accounting 42%. The factors contributed miscarriage

among pregnant women were 56% of the pregnant women did not take folic acid while 76% of the respondents lifted heavy objects during pregnancy. When pregnant women were asked their knowledge on miscarriage, 70% said no while 53% believed that miscarriage is not preventable. The main complication of miscarriage among pregnant women was infection accounting 62.5%. The study recommends encouraging the community leaders and influencers to advice the pregnant mother to attend MCH during pregnancy and To increase awareness of the pregnant mothers on the benefits of folic acid other micronutrients during pregnancy which can prevent the incidence of miscarriage

Keywords: *Miscarriage, pregnant women, wadajir district* **.**

1.0 Background

The study determined factors influencing with miscarriage most common factors are poor nutritional, heavy physical activity, poor awareness, and due to inadequate health education of the pregnant mother during ANC, poor family and social support.

The World Health Organization (WHO) defines miscarriage as the expulsion or extraction from the maternal body of an embryo or a fetus with weight/500 g which corresponds to a gestational age of about 20–22 weeks, (Donatella Caserta *at el*, 2014) Several studies have been conducted on miscarriage in world wide. The study in china indicate incidence of miscarriage is commonly stated as 10%–15% of all pregnancies, and it is the most common complication during pregnancy However, the incidence Is difficult to determine precisely, since as many as 30% may go unrecognized, and these can occur very early during a pregnancy. (LuLi *at el*, 2013).Studies of miscarriage in

low-income and middle-income countries face additional challenges almost miscarriages occur without any contact with the formal healthcare system and are not registered. Since pregnant women usually present for ANC late in pregnancy with an estimated 11–54% of women initiating ANC in the first trimester and most presenting late in the second trimester (Stephanie Delicious *at el*, 2013).

The specific objectives of this research are:

1. To identify factors that causes miscarriage among pregnant women attending Banadir hospital at wadajir district.
2. To investigate complications related miscarriage among pregnant women attending Banadir hospital in wadajir district.
3. To assess knowledge and experience on mother miscarriage among pregnant women attending Banadir hospital in wadajir district.

2.0 Methodology

2.1 Study design

This research used descriptive cross sectional research design in determining the severity and awareness on miscarriage on reproductive women .This study was adopt quantitative method that involved descriptive survey design and it included time and location survey, respondents, data collection and sampling, instruments, statistical treatment and challenges.

2.2 Study site and Target Population

This research had undertaken in Banadir Hospital, located wadajir district in Banadir region mogadishu-somalia. Wadajir district is 1of 16 districts in banadir region Mogadishu Somalia is the 2nd largest district in banadir region. Geographically it lies south western part of Mogadishu the district was established in 1970s.Benadir hospital built in 1977, and is the largest hospital in the whole country and as such serves as the nerve of Mogadishu, the largest city in Somalia and it is the only recognized 'National Referral Hospital' in the country. The study was focused factors influencing miscarriage on reproductive women, so target population was pregnant women that were suffer on miscarriage in banadir hospital at wadajir district.

2.3Sample Size and Instrument for data collection

The sample size of this was 45participates of 50 miscarriages who attended banadir hospital during 20 days of data collection phase from day 1-20 may 2017. Five remained refused to participate our data collection. This study used non probability technique and participates 45 respondents those were miscarriage women was attending banadir hospital at wadajir district.

2.4Data Processing and Analysis

The researcher was quantitative data analysis in this study, to analyze the data SPSS (statistically package for the social science used. the researchers used descriptive statistics to describe the variables in this study. as percentage and graphs.

2.5 Ethical Consideration and Approval

In this study the researchers should keep on the ethical issue through the research project by keeping the privacy, confidentiality and the secrecy of respondents, to maintain ethical issue the researchers requested the victim accepted the questionnaire the researchers was receive permission latter from jamhuriya university for science and technology.

3.0 Results

The results of the study were presented using frequency tables and figures.

3.1 Respondents by do you ever take folic acid during pregnant?

Take folic acid	Frequency	Percent
YES	20	44.4
NO	25	55.6
Total	**45**	**100.0**

Table 3.1 Respondents by do you ever take folic acid during pregnant?

Table above shows the status of respondents of the study 20(44.4%) of respondents were said YES, while another 25(55.6%) of respondents were said NO. so that this indicates the majority of respondents were not take folic acid during pregnant.

3.2 Respondents by Do you have any idea about miscarriage?

Any idea about miscarriage	Frequency	Percent (%)
YES	14	31.1
NO	31	68.9
Total	**45**	**100.0**

Tables 3.2 Do you have any idea about miscarriage?

Above shows 14(31.1%) of respondents said YES with the question saying Do have any idea about miscarriage? While another respondents 31(68.9%) were said NO.

3.3 Respondents by Do you have any problem after miscarriage?

Any problem	Frequency	Percent (%)
Yes	28	62.2
No	17	37.8
Total	**45**	**100.0**

Table 3.3 Do you have any problem after miscarriage?

The above shows the most respondents 28(62.2%) were said YES with the question do have any problem after miscarriage while the remained respondents 17(37.8%) were said NO.

4.0 Discussion

Respondents 9(20%) of respondents were between the age 15-20 years while16 (35.6%) of them were between 21-30 years of age the other hand14 (31.1%) and the last group were 6(13.3%) above 30 years of age. Other literatures also confirmed According(SunJae Jung 2015) many studies shows the majority of women effected miscarriage were agree in this study, we aim to evaluate the association between underweight, as well as obesity, at age 18–20 and the risk of SA in the Korean population. Experience of pregnancy, or no information on their parity. Additionally, we excluded the 20,729 women who had missing information on weight or height at ages 18– 20 years. A total of 1,244 women with a first pregnancy before age 18 or 20 or with unknown age of first pregnancy and 316 women with missing data on spontaneous abortion were also excluded. The respondents did you ever take folic acid during pregnant? of the study 20(44.4%) of respondents were said YES, while another 25(55.6%) of respondents were said NO. so Majority of respondents were said NO. Other study literatures confirmed this result were

Study conducted in China to evaluate the prevention of neural tube defects with folic acid supplementation. The sample comprised 207 936 singleton live births delivered at gestational ages of 20–42 weeks to women from two provinces in southern China. The incidence of preterm birth was significantly lower among folic acid users (5.28%) than among non-users (6.10%). Folic acid use showed a 14% risk reduction for preterm birth overall (Zhiwen Li at el 2014).

The largest study to report the protective effect of folic acid supplementation against preterm birth was conducted by Bukowskiet al .In a secondary analysis of the FASTER trial, they described that pre conception folic acid supplementation for1 year or longer is associated with a 70% decrease in the risk of spontaneous preterm delivery at 20–28 weeks and a 50% decrease in the risk of spontaneous preterm delivery at 28–32 weeks compared with no supplementation. (Min Woo Kim *at el,*2014).

The majority of respondents 34(75.5%) were said YES while remained respondents were said NO. on the statement shows Did you think if you lifting heavy objectives can cause miscarriage? According to the previous study were saying ,These findings are generally consistent with previous literature on occupational and recreational physical activity Miscarriage information in this study relied upon self-reported reproductive history, Elevations in miscarriage risk associated with postural effects may be due to increases in intra-abdominal pressure, leading to decreased blood flow to the fetus bending and lifting postures may increase intra-abdominal Pressure approximately 8 times the pressure seen in an upright walking posture (EY Wong *at el* 2010**).** Occupational hazards inherent in

physically demanding jobs must be considered. For example, experts caution against engaging in shift work that requires persistent heavy workloads including strenuous lifting, long hours of standing, or exposure to loud noise or vigorous vibrations. However, the risk for abnormalities in birth outcomes from physically demanding work is not clear; many potential biases and sources of error exist in available studies (Roger L *at el* 2000). studies described the relationship between five common occupational exposures ,prolonged working hours, shift work, lifting, standing and heavy physical workload and three major adverse outcomes, namely preterm delivery, low birth weight and pre-eclampsia (Claudia A Snijder*et.al* 2012). Respondents of this study 24(53.3%) were said NO, another 21(46.7%) were said YES in the question do you make excessive exercise during pregnant other study confirmed these results In the existing body of literature, exercise during pregnancy has generally not been associated with miscarriage, and one case–control study has even reported a protective effect of exercise during pregnancy.20 In contrast, found an increased risk of early miscarriage among women who reported high physical strain around the time of implantation of the embryo.(M Madsen *at el* 2007). The qualification of respondents, the content of qualification provided in the questionnaires was under primary, primary, secondary, and university. The majority of respondents 24(53.3%) of the respondents were under primary, 13(28.9%) were primary while others 5(11.1%) were secondary and remained groups 3(6.7%) were university. This means the most mothers visit in place of study were under primary. The previous study shows Knowledge and attitudes towards abortion services are important factors in decision-making processes for access to reproductive healthcare among Zambian women knowledge regarding the abortion law was strongly associated with their level of

education (Jenny A Cresswell, *at el* 2016) Respondents shows 23(51.1%) were said YES and rested others 22(48.9%) respondents were said NO. on the question saying Did you seek medical care after occurrence of miscarriage another studies were confirmed these results. In a study of all women in the Swedish Medical Birth Register we found that the number of cases of self-reported miscarriage had increased in Sweden during this 21 year period. This increase can be explained by the introduction of sensitive pregnancy tests around 1990, as well as an increase in the mean age of the mothers, by approximately 3 years, during the observation period.

The risk of miscarriage is 13% with the first child. With subsequent pregnancies, the risk of miscarriage is 8%, 6% and 4% with the second, third and fourth child, respectively. Thirteen of these women who had suffered a recent miscarriage were interviewed four months later, and their feelings of guilt and emptiness Were explored. Their experience was that they wanted their questions to be answered, and that they wanted others to treat them as the mothers to be that they felt themselves to be. (Annsofie Adolfsson, et *al* 2006**).** Respondents 28(62.2%) were said YES with the question do have any problem after miscarriage while the remained respondents 17(37.8%) were said NO. other studies shows 150 hospitalized women, presenting with infertility, who had had a miscarriage or medically induced abortion,.(SeviGia koumelou *at, el* 2015).

The association of *U. urealyticum* with pregnancy outcomes has been suggested by many observational studies and proof of causality in spontaneous abortion remains to be confirmed. (Amjad Ahmadiat, el 2014**).**

5.0 Conclusion

The conclusion of this study conducted in benadir hospital at wadajir district indicates, the factors influencing miscarriage among pregnant women in banadir hospital at wadajir District, the majority of respondents were mother's age between 21-30 years and most effected miscarriage were sitting wadajir district on villages bulaxubey, nastexo and sour ding area. 57.8 %of respondents said not known that folic acid deficiency can cause miscarriage while 55.6% of respondents said no on taking folic acid during pregnant. 68.9% of respondents said no idea about miscarriage, so poor knowledge on mothers increases occurrence of miscarriage which include 57.8% not known miscarriage can cause infection, 62.2% problems occurred after miscarriage.

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Factors Contributing Toward Medication Errors Among Nursing Staff in Shafi Hospital in Hodan District Mogadisho,

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Abstract

Medication errors are common in hospitalized patients which are main concerns in healthcare systems worldwide. Medication errors is any mistake that occur during the medication use process, medication errors can begin in the course of prescribing, dispensing, transcribing, administering and monitoring medicines (European medicines agency, 2015). The aim of this study was to investigate factors contributing towards medication error among nursing staff in shafi hospital in Hodan district, Mogadishu, Somalia. The specific objectives were to identify factors contributed medication error among nurse staff in shafi hospital and to determine frequency of medication error among nurse staff in shafi hospital. The method used was descriptive cross sectional using both qualitative and quantitative. The data collecting in Shafi hospital during May, 2017 using structured questionnaire and observation checklist. A total of 20 respondents from Nurse Staff working different departments of shafi hospital were purposively selected, data collected were analyzed using SPSS version 20. The researchers observed that 85% of the medication errors among nurse staff were due to fatigue due to high workload while 70% of the respondents agreed that low ratio of nurse to patient were also main contributing factor of medication errors among nurse staff in shafi hospital. During last month more than 4 medication errors were estimated to happen among nurse staff. The study concludes that the most common medication errors among nurse staff in shafi hospital were due to wrong dose calculation which accounts nearly 40%. This study recommends recruiting more nursing staff, to increase nurse to patient ratio and subsequently increase working interval of the nurse

staff to decrease work load and availability of medication error recording and reporting system can reduce errors.

Keywords*: Medication error, nursing staff, Shafi Hospital*

1.0 BACKGROUND

Medication errors are common in hospitalized patients and are a high main concern in healthcare systems worldwide. Defined as any mistakes that occur during the medication-use process, medication errors can begin in the course of prescribing, dispensing, transcribing, administering and monitoring medicines [European Medicines Agency, 2015]. Often, these errors are preventable and result in increased patient morbidity and mortality as well as increased healthcare costs and pointless hospitalization (Krzyzaniak N *et.al,* 2016)

Other Definition of Medication errors were characterized as deviations in arrangement and organization of oral or intravenous medicines from the specialists' prescriptions , the hospital approaches and systems or the producers' directions Medication mistakes were ordered into the accompanying classes, like that utilized by different creators wrong medication, wrong measurements, wrong dose shape, crumbled tranquilize ,wrong planning procedure, oversight, unordered medication ,and wrong organization strategy. Dosages given before or later than the allowed time were not considered blunders. A mistake could be grouped in one classification as it were. (Nguyen *et.al,* 2015)

The factors contribute to medication administration Errors are characteristics of the nurse like specific unit, nurse to patient ratio, route and time of drugs administration and poor communication during change of shifts in hospitals also contribute medication error. (Feleke *et.al*, 2015)

One of the few large studies found that 2.5% to 18.4% of hospital admissions were joined with an adverse event and about 30% of those resulted in the death of the patient which was much higher than those in developed countries. Poor health system communications and insufficiently trained healthcare staff probably contributed to this (Nguyen *et al* 2015).

Therefore this study investigates the factors contributing toward medication errors among nurse staff in Shafi Hospital in hodan district of Mogadishu.

1.1 SPECIFIC OBJECTIVES

1) To determine the frequency medication error among nursing staff in shafi hospital.

2) To identify factors contributing medication error among nursing staff in shafi hospital

2.0 METHODS & MATERIALS

This study was descriptive cross sectional design using both quantitative and qualitative approach. This research conducted in shafi hospital located in Hodan district. Data were collected from different departments including emergence, post-operative and delivery word. The research population was nurses that work in shafi hospital Hodan district. Muqdisho Somalia The study population included all the nursing staff working in three most important departments in shafi hospital. Total Sample size was 20 full time nursing staff working in shafi hospital and data was collected during May 2017. Data were collected using structured questionnaire designed by the researcher, key informant interview (KII) was also conducted for the hospital administrative. Data collected were compiled and analyzed using Statistical Package for social scientists (SPSS).

This study conducted with strict ethical consideration, proposal was approved by the ethical review committee of Jamhuriya University and permission letter was obtained from shafi hospital

3.0 Findings

3.1 Respondent by do you think fatigue due to high workload can result medication error

Fatigue due to high work load	**Frequency**	**Percent%**
Yes	17	85.0%
No	3	15.0%
Total	**20**	**100.0%**

Table 3.1 Respondent do you think fatigue due to high workload can result medication error

17 out of 20(85%) of the respondents said yes when asked do you think fatigue due to high workload can result medication error, while the rest of the respondents 3(15%) said no when asked with same question.

3.2 Respondent by do you think low ratio of nursing and patient can result medication Error in shafi hospital

Do you think low ratio of nursing and patient can result medication error	**Frequency**	**Percent%**
Yes	14	70.0%
No	6	30.0%
Total	**20**	**100.0%**

Table 3.2 respondent do you think low ratio of nursing and patient can result medication

14(70%) of the respondents said yes that low ratio of nursing and patient can result medication errors while the rest of the respondents said no.

3.3 Respondent by which type of medication error is more common in the hospital?

Which type of medication error is more common in the hospital	**Frequency**	**Percent%**
Administration Errors	6	30.0%
wrong dose calculation error	8	40.0%
Mistaken drugs	6	30.0%
Total	**20**	**100.0%**

Table 3.3 Respondent by which type of medication error is more common in the hospital

8 out 20 (40%) of the respondents said wrong dose calculation error was the most common error in shafi hospital, followed by 6 (30%) of both mistaken drugs and administration error among nurse staff in shafi hospital.

4.0 DISCUSSION

The main factor of the respondents 85% said yes when asked do you think fatigue due to high workload can result medication error. According to other literatures review also said the other two studies assessed fatigue along with other variables associated with medication errors. In one of these, a analysis of 57 nurses, respondents reported that the majority of medication errors were attributable to fatigue.70% the other study, a survey of 25 nurses in one hospital, found that one of the most frequently perceived causes of medication errors for nurses was being tired and exhausted. Other five studies assessed the association between fatigue and sleep loss with Medication errors. The first specifically investigated the effects of fatigue and sleep loss on errors using a national sample of nurses over a 2-week period. In this study, the rate of errors increased after working 12.5 hours.99 A subpopulation of critical care nurses reported absentmindedness, heavy workload, distractions, and high patient acuteness as causes for their medication errors or near errors.84 Fatigue and sleep loss was also a factor in a subpopulation of ICU nurses, who reported drugs (e.g., morphine, chemotherapeutic agents). Errors with high alert medications. (Hughes, et.al 2008).

The major respondents 14(70%) said yes, when asked do you think low ratio of nursing and patient load can result medication error . according to previous literatures said 67% of nurses working in the children's department reported that they have committed medication errors at least once. Medication errors may happen in each of the medication administration processes. The nurse-to-patient ratio is only one aspect of the relationship between nursing workload and patient safety. Overall nursing workload is likely linked to patient outcomes as well. A sophisticated 2011 study showed that increased patient turnover was also associated with increased mortality risk, even when overall nurse staffing was considered adequate. Determining adequate nurse staffing is a very complex process that changes on a shift-by-shift basis, and requires close coordination between management and nursing based on patient acuity and turnover, availability of support staff and skill mix, and many other factors. (Rogers, et.al 2004)

40% of the major respondents said wrong dose calculates error while the other respondents. According other literatures said one main reason medication errors in nurses is the wrong medication calculations, and in a study, the results were analytic that one-sixth of medication errors by nurses are due to wrong and faulty drug computations. It seems that calculation errors

are resulting from the weakness in the computational skills of nurses. Nurses on their ability to calculate volumes of drugs commonly administered to pediatric patients. In terms of experience, the proportion of nurses who made errors increased with the length of their professional experience, with 50% of nurses who had at least 11 years' experience making errors compared with only 25·8% of nurses with between 3 and 10 years of experience s.(Pournamdar, et.al 2016).

5.0 CONCLUSION

The majority of the respondents 11 (55%) were female, while 11 (55%) their ages were between 20 to 25 years, 13 (65%) of the respondents educational level were bachelor degree, while the majority 11(55%) their experience were between 2 to 3 years and13 (65%) were single. The majority of the respondent 14(70%) said no with statement saying do you think medication at in appropriate time can cause medication error? 17(85%) of the respondents said yes when asked do you think fatigue due to high workload Can result medication error, The respondents said yes 14(70%). 12(60%) The respondents said no of when asked do you know co-patient can result medication error.

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Factors Contributing Scabies Infection Among Children In IDPS Camps In Hodan District of Mogadishu

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Abstract

Scabies are most problems skin infection in developing countries. It can spread skin to skin contact, sharing clothes, lacks of personal hygiene. Scabies affect about 99% female, and rather than flapping to pictures of half human, half. (Mansu,2009). Epidemiological studies indicate that the prevalence of scabies is not affected by sex, race, age, or socioeconomic status. The primary contributing factors in contracting scabies seem to be poverty and overcrowded living conditions. Aim of this study was to investigate factors contributing scabies infection among children in IDPs Camps Mogadishu Somalia. Specific objectives To identify the effect of environmental hygiene on scabies among children in IDPs Camps in Hodan district.To assess the level of knowledge of caregiver with scabies infection among children in IDPs Camps in Hodan district.To determine the effect of socio-economic factor on scabies among children in IDPs Camps in Hodan distract,The methods used in this study were cross-sectional descriptive study design with quantitative data collection tool.sample size of the study was 60 respondents out of 70 respondents from care givers of children who were suffering scabies infection selected from 4 IDPs camps in Hodan District, 10 out 70 respondents were not participated the study because they were absent during data collection period. The data were analyzed by using SPSS which presented in the following results. The majority marital status of the caregiver 28 (46%) said married and 21(35%) were windowed. The majority respondents of 33(55%) said they know scabies infection while 27(45%) said they did not know scabies infection. Most of respondents of this study 32(53.3%) said that their children shared clothes with family members while 28(46.7%) said their children do not share clothes with family members. Most of the children presented with scabies came from IDPS areas. Scabies was highly associated with low socio economic and poor hygiene. The major issue related with scabies

was overcrowding barriers with lack of knowledge to access health education and good hygiene of children. The study recommends improving Environmental hygiene of the IDPS Camps and to increase awareness of parents on scabies infection among their children through health education.
Keywords: *scabies infection, among children in IDPs camps in Hodan district.*

1.0 BACKGROUND

Scabies are most problems skin infection in the developing countries. Can spread skin to skin contact, sharing-clothes, and lacks of personal hygiene. Scabies are about 99% female, and rather than flapping to pictures of half human, half. (Mansu, 2009)

Infection**:** The invasion and multiplication of microorganisms such as bacteria, viruses, and parasites that is not normally present within the body. An infection may cause no symptoms and be subclinical, or it may cause symptoms and be clinically apparent. An infection may remain localized, or it may spread through the blood or lymphatic vessels to become systemic (body wide, 2011).

Scabies transmission is mediated primarily by close, prolonged personal contact with an infected person and therefore is common among family members and often seen in institutional settings. scabies mite with from skin scraping most important means of transmission. The probability of being infected is related to the number of mites on the infected person and the length of contact. Scabies is not readily transmitted by clothing, bed sheets, or other, but this mode of transmission should be considered with cases of crusted (severe) scabies, due to the extreme mite burden. (Currie A.et. al, 2004).

Early accounts of the epidemiology of human scabies described large epidemics or pandemics of scabies. The principal peaks appear to coincide with major wars and occurred between 1919 and 1925, 1936 and 1949, and 1964 and 1979. Because scabies is not a reportable disease, this may not be truly representative of its prevalence, as data are often based on variable recording methods and come from countries with widely varied social and physical environments. (Williams A.*et.al*, 2012).

Nutritional status has been reported as a significant risk factor in a scabies outbreak in an Indian village, and malnutrition may predispose individuals to crusted scabies. (Jones jl, A.et.al, 2012)

The specific objectives of this research are:-

1. To identify the effect of environmental hygiene on scabies among children in IDPs Camps in Hodan district.
2. To assess the level of knowledge of caregiver with scabies infection among children in IDPs Camps in Hodan district.
3. To determine the effect of socio-economic factor on scabies among children in IDPs Camps in Hodan distract

2.0 METHODOLOGY

2.1 Study design

A quantitative approach was used in order to find numerical based data about the scabies infection among children in IDPs Camps in Hodan district. A cross-sectional descriptive study design was employed with quantitative methods of data collection.

2.2 Study Area and Target Population

Hodan district is one of the 16 districts of Benadir region and it is located in the middle east of capital city. Bordered in north-west by Afgoe district, lower Shebelle region, Halwadag district in the east, Waberi district in south east, Wadajir district Dharkenly district in the south, and Deynele in the north. The population size is estimated 163,225 persons, the district covers approximately 14.16km2. The district has approximately 15 secondary school, 30 primary school and 20 universities. The district is divided 4 branches: Taleh, ka'an, October and Ahmed gurey, each branch has subbed divided sections. One of the main aspects of Hodan district is that the most famous building in Mogadishu, such as: faculty of medicine, military hospital, faculty of military officers known as (faculty of said), military of defense, most of embassy building located in Hodan district, hotels such as: maka Almukarama Ambassador, hotel Raho, Amira, hotel red sea, markets such as apart of bakaro market, play fields former coca cola industry, most of ambassadors building and the most of ambassadors building and the important streets of the capital. There are thousand IDPS camps in Hodan district, and we are visited four camps of these IDPS camps.

2.3. Sample Size and Instrument for data collection

The sample size of the study was **60** respondents out of **70** respondents from care givers of children who have suffering scabies infection selected from **4 IDPs** camps in Hodan District**, 10 out 70** respondents were not participate the study because they were absent during data collection period. The number of days for data collection was 12days, from 1st to 12th June, 2017.Quantitative research methods were employing to investigate, describe, identify, establish and determine the prevalence of scabies infection among children in Hodan District, Mogadishu, Somalia. Data collected using questionnaires.

2.4Data Processing and Analysis

A quantitative approach adopted and Statistical Package for Social Scientists (SPSS) used to help the statistician guided by the researcher to facilitate interpretation. For descriptive statistics, percentages and frequency tables used to present the results.

2.5Ethical Consideration and Approval

To carry out this study, the researcher was bring together by used of Individual and academic data. Thus, the data kept confidential and exclusively used for the purpose of bachelor degree requirements. The respondents informed of the contents and the aims of the research prior and the administration of any instrument. The Ethical approval obtained from Ethical Review Committee of Jamhuriya University of Science and Technology (JUST). Informed consent obtained from all participants, they informed about their right not to participate or withdraw anytime at the time of data collection.

3.0 RESULTS

The result of the study was present using frequency tables and figures.

4.12. How often do you wash your hands? After disposal of waste

How often do wash your hands? (After disposal of waste)	**Frequency**	**Percent%**
Always	16	26.7%
Sometimes	11	18.3%
Rarely	28	46.7%
Never	5	8.3%
Total	**60**	**100%**

Table 4.12. How often do you wash your hands? After disposal of waste

The above table shows the most respondents 46.7% rarely wash their hands after disposing wastes from their houses, followed by those 26% wash always their hands after disposing their hands after disposing wastes. While 18.3% sometimes wash their hands after disposing wastes from the house, and the rest 8.3% never wash their hands after disposing wastes from the house.

4.13. How often do you wash your hands? After greeting someone with scabies infection?

How often do you wash your hands? After greeting someone with scabies infection.	Frequency	Percent%
Always	7	11.7%
Sometimes	12	20.0%
Rarely	20	33.3%
Never	21	35.0%
Total	60	100%

Table 4.13 How often do you wash your hands? After greeting someone with scabies infection

This table Shows the most respondents of hand washing after greeting someone with scabies infection said that 35% were never, 20% were sometimes and the respondent's were11.7 % were always while 33.3.% were rarely

4.17. Is there stagnant water near in your house?

Is there stagnant water near in your house?	Frequency	Percent%
Yes	31	51.7%
No	29	48.3%
Total	**60**	**100%**

Table 4.17 Is there stagnant water near in your house?

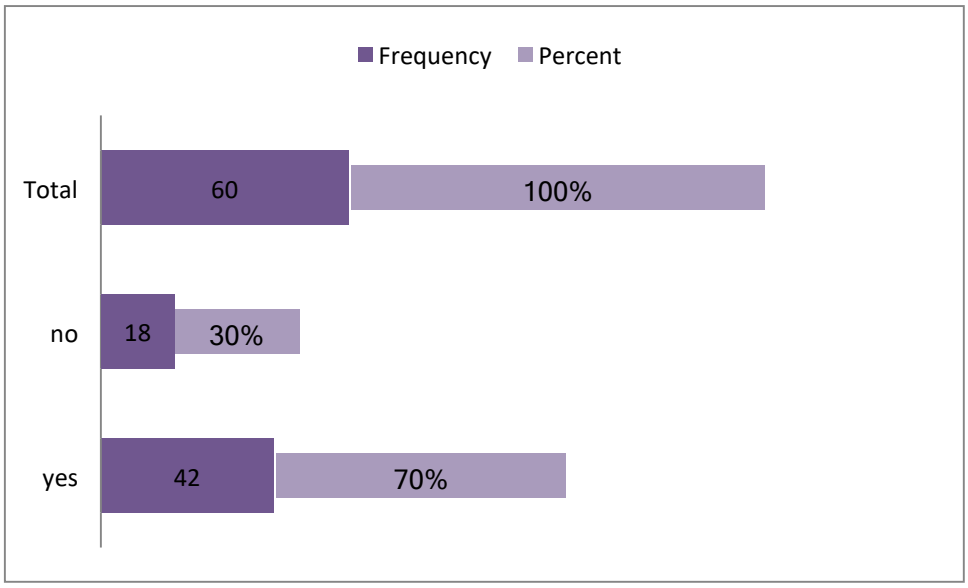
The majority of the respondent of this study 31(51.7%) were said there is a stagnant water near our houses while 29(48.3%) others said there is not stagnant water near our houses.

4.21. Is there family member suffering scabies infection?

Is there family member suffering scabies infection?	Frequency	Percent%
Yes	42	70.0%
No	18	30.0%
Total	**60**	**100%**

Table 4.21. Is there family member suffering scabies infection?

The majority of the respondents of this study 42(70%) were said there is family member suffering scabies infection while minority 18(30%) were said there is not exist family member suffering scabies infection.

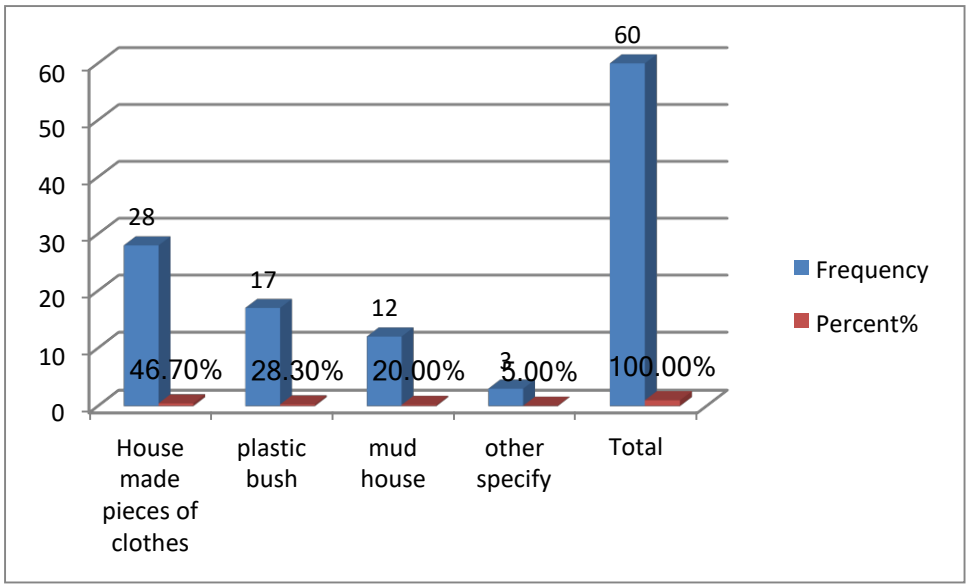


4.28. What type of your house constructed?

What type of your house constructed?	Frequency	Percent%
House made pieces of clothes	28	46.7%
plastic bush	17	28.3%
mud house	12	20.0%
other specify	3	5.0%
Total	**60**	**100.0%**

Table 4.28. What type of your house constructed?

This table shows the respondent types of houses constructed in IDPS Camps 28(46.7%) were House made pieces of clothes, 17(28.3%) were plastic bush,12(20%) were mud house while 3(5%) were other specify.



4.0 DISCUSSION

Epidemiological data about scabies infestation in children provide valuable information about its risk factors and suggest a basis for methods of prevention and therapy (Saurabh S, Sahu SK, Sadishkumar A, et al. 2013). The present study showed that the prevalence of scabies was higher among children from IDPS Camps than among those from high level ones. Many other studies from other countries also support this finding (Sehgai VN 1972 A.et al Amin TT, 2011).This finding could be explained by larger family size in IDPS areas, leading to overcrowding, in addition to the decreased level of health education, poverty, bad behavioral habits such as sharing clothes and bed linen with others, and dealing with animals.

Poor hygiene practices, such as not washing hands with soap or unhygienic water storage, are a major contributor to poor health and spread of disease and illness. Improving hygiene practices requires people to change the way they behave. (WHO, 2014).

The most respondents of hand washing after defecation said that 23(38.3%) were always, 21(35%) were sometimes. The most respondents of hand washing before meals said that 28(46.7%) were always, 27(45%) were sometimes.

The evidence concerning people's knowledge about the structure of their minds is mixed. Although people seem to be able to estimate fairly well what kind of efforts are required to commit something to memory (Brown, 1975, A.et.al, Hagen, 1972). The majority respondents of the study 21(35%) were only normal water, 17(28.3%) were water with OMO.

5.0 CONCLUSION

Result 21(35%) of the respondent’s current ages were between the ages of 35-40 years followed by 21(35%) between 25-30 years. The majority of the respondents of this study 42(70%) were said there is family member suffering scabies infection while minority 18(30%) were said there is not exist family member suffering scabies infection.

The respondent types of houses constructed in IDPS Camps 28(46.7%) were House made pieces of clothes, 17(28.3%) were plastic bush. The respondents of the majority children living in houses 27(45%) were one to two, 22(36.7%) were said three to four.

Most of the children presented for scabies come from IDPS areas. Scabies was highly associated with low socio economic and poor hygiene. The major issue of scabies was overcrowding barriers with lack of knowledge to access health education and good hygiene of children.

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