



Mother's Knowledge Regarding Diarrheal Disease Among Children Under Five Years Old Khartoum State 2017

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Abstract

Background

Diarrhea is the second leading cause of death in children under five in developing countries and one of the nine causes of death in children worldwide. Mothers' knowledge is a very important factor that can participate in saving children's lives during incidence of diarrhea.

The aim of this Study

To assess mother's knowledge regarding management of diarrheal diseases among children under five years.

Methods

This is a descriptive cross-sectional, hospital-based study, conducted among 120 mothers who have children with diarrhea at pediatric departments at Mohammed AL amen Hamid [1] pediatrics teaching Hospital. Data was collected by using a designed questionnaire, which fulfilled by direct interview, then collected data was analyzed by using Statistical Package for Social Science, the result used frequency and percentage and findings were presented as Tables and Figures.

Results

This study reveals that most of the mother age (25-36) years and have primary level of education. More than half of the mothers they are not know what the diarrhea is mean (55.7 %) and what the causes (55.7%). Tow third of study population (62.7%) they did not know about complication 73%of the mothers, treated their children at home while 46% of the mother immediately going to the hospital if their child developed diarrhea. Most the mother have poor knowledge regarding the preparation of ORS (75%), and importance of given ORS after vomiting (50%). Mother they did not know how to evaluate the danger sign (29.2%). Most of the mother have good knowledge regarding prevention (66.6%), while (35%) they did not know Rota virus vaccine.

Conclusion

The study conclude that the mothers had poor knowledge regarding managements of diarrhea and recommend heath education for all mother in community.

Background

Diarrhea is defined as the passage of three or more loses of liquid stool per day or more frequent passage than is normal for individual. Diarrheal disease rank among the top of three causes

of child hood illnesses in the developing countries [1]. UNICEF and WHO report that 1.5 million children die of diarrheal diseases each year [1]. Diarrhea as one of the famous causes of global morbidity and mortality it is essential to quantify factors such as duration

and severity, its comprehension will allow furthermore accurate assignment to diarrhea diseases [2]. Diarrhea is a leading cause of childhood death and the second most death worldwide [2]. Globally in 2010 (Tables 1 & 2), there were 1.731 billion episodes of diarrhea (36 million of which progressed to severe episodes) in

children younger than 5 years (Table 3). In 2011, 700 000 episodes of diarrhea led to death [2]. Each episode deprives the child of nutrients necessary for growth, thus diarrhea is a major cause of malnutrition and malnourished children are more likely to die from diarrhea (Figures 1 & 2).

Table 1: Distribution of the mothers according to their knowledge regarding what is Diarrhea mean in Mohammed Amlin Hamid pediatric hospital diarrheal word in 2016-2017. The mean of above table 54.6% that is mean mother have poor knowledge about what is diarrhea mean.

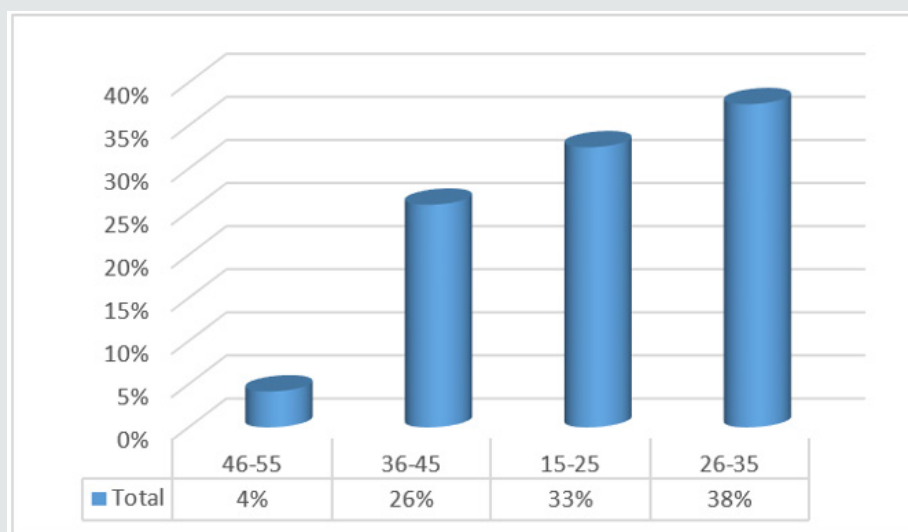
	Total	Answer	Incorrect	Answer	Correct	Mother Knowledge
%	No	%	No	%	no	
100	120	22	26	78	94	Water liquid stool
100	120	79	95	21	25	Increase number of defecation time
100	120	63	76	37	44	Increase amount, number of stools more than three time per day
		54.60%		45.30%		Mean

Table 2: Distribution of the mothers according to their knowledge regarding cause of diarrhea in Mohammed Almin Hamid pediatric hospital diarrheal word I in 2016-2017. The mean of these 55.6% that mean the mothers have poor knowledge about cause.

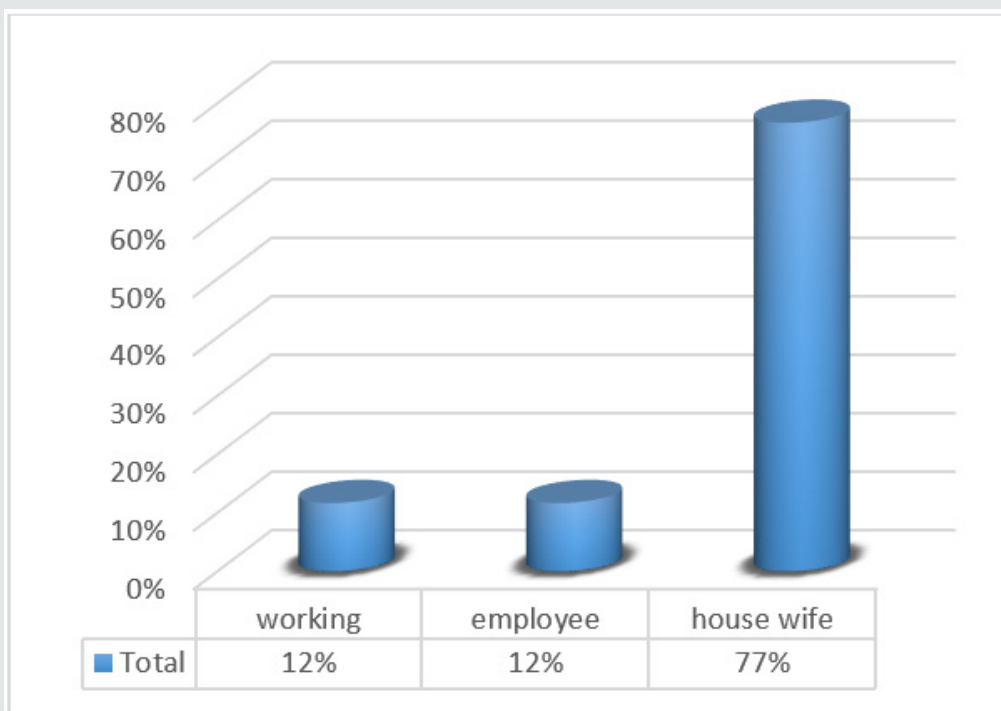
	Total	Answer	Incorrect	Answer	Correct	Mother Knowledge
%	No	%	No	%	No	
100	120	32	39	68	81	Food contamination
100	120	63	76	37	44	Poor personal hygiene
100	120	72	86	28	34	Virus, bacteria, fungi
		55.60%		44.30%		Mean

Table 3: Distribution of the mothers according to their knowledge regarding m complication of diarrhea in Mohammed Almin Hamid pediatric hospital in 2016-2017. The mean of these knowledge 37.3% that is mean poor knowledge regarding complication.

	Total	Answer	Incorrect	Answer	Correct	Mother Knowledge
%	No	%	No	%	No	
100	120	27	33	73	87	Dehydration
100	120	83	100	17	20	malnutrition
100	120	78	94	22	26	Growth retardation
		62.60%		37.30%		Mean



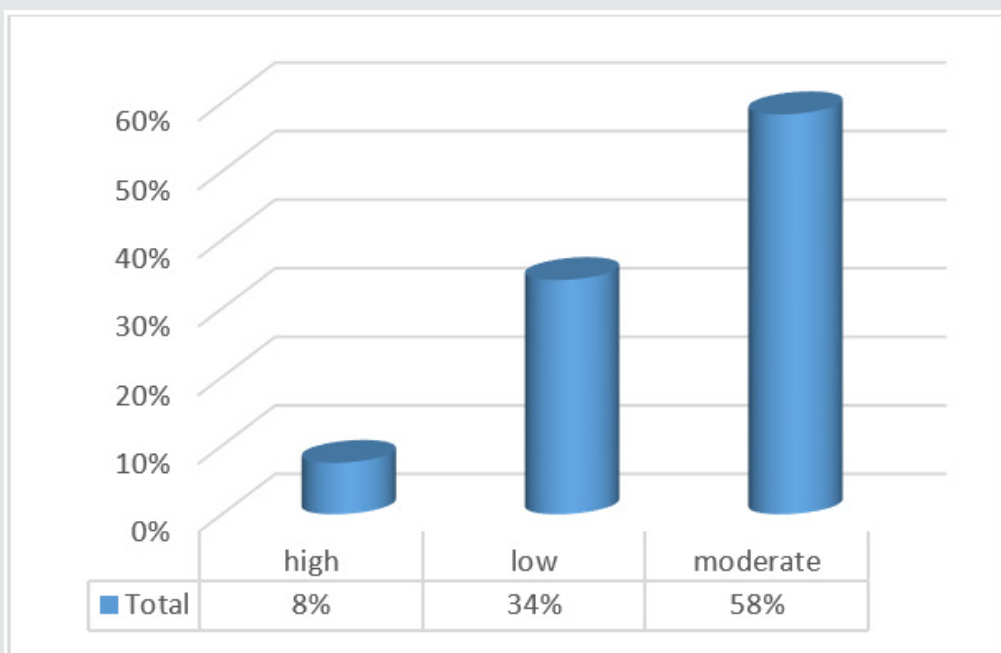
Figures 1: Distribution of the mothers according to their age in Mohammed Amlin Hamid pediatric hospital diarrheal word in 2016-2017 most of the mothers age between (26-35) years.



Figures 2: Distribution of the mothers according to their job of mothers in Mohammed Amlin Hamid pediatric hospital diarrheal word in 2016-2017 most of the mother housewife 77%.

Simple and cost-effective solution has been designed for the controlling and treatment of diarrhea in addition to the perception of mothers and care givers in the treatment of the existing problem (Figure 3). During the past 10 years there have been some major improvements in our knowledge base regarding the treatment of infectious diarrhea. Oral rehydration therapy (ORT) remains central to case management but advances have been made by the

introduction of hypotonic solutions and there is early evidence that resistant starch may be the substrate of the Future [3]. The search for anti-secretory drugs continues, with real progress having been made by the introduction of a new class of drugs, enkephalins inhibitors. Other new drugs are in the early phases of development [4].



Figures 3: Distribution of the mothers according to their socioeconomic of mother in Mohammed Amlin Hamid pediatric hospital diarrheal word in 2016-2017. Most of them moderate socio-economic status 58 %.

The role of antimicrobial agents in the management of infective diarrhea continues to be clarified with the emergence of new agents and simplified treatment regimens. Probiotics are popular with diarrhea sufferers and have been shown to have some efficacy, but further scrutiny is required to determine the magnitude of their effects [4]. The Rota virus vaccination has been said to be included in all national immunization programs, but the major factor associated with adequate home treatment is the mother's knowledge about the cause and treatment of diarrhea [5]. Concisely this study will focus on the mother's perception regarding the treatment of diarrhea and sensitize them about oral hydration therapy. To study mother knowledge regarding home management of diarrheal disease in children under 5 years [6].

Problem Statement

Diarrhea is a leading cause of childhood death and the second most death worldwide [2]. Globally in 2010, there were 1.731 billion episodes of diarrhea (36 million of which progressed to severe episodes) in children younger than 5 years. In 2011, 700 000 episodes of diarrhea led to death [2]. Each episode deprives the child of nutrients necessary for growth, thus diarrhea is a major cause of malnutrition and malnourished children are more likely to die from diarrhea [6]. According to the Integrated Management of Neonatal and Childhood Illnesses guidelines, children with some or no dehydration should be managed at home for diarrhea. The WHO plan A [7,8] also encourages mothers and caregivers to treat diarrhea at home by giving ORS and ORT. Thus, it is important to assess their awareness regarding based management of diarrhea at frequent intervals to provide feedback for the ongoing programs.

Justification

Diarrheal disease rank among the top of three causes of childhood illnesses in the developing countries [1]. About one-third of total hospitalization children are due to diarrheal disease and 17% death related to this condition [2]. WHO estimate that diarrhea accounted for 13.1% of deaths among child under five in Sudan in 2009 reported [9]. Mothers are a very important group that can able to save their children's lives, therefore this study will concern with mother's management of diarrheal diseases.

General Objective

To study mother's knowledge regarding of diarrheal disease among child under five years in Mohammed Alarmin Hamid pediatric hospital 2017 [10-20].

Specific Objectives

To assess mother's knowledge regarding Diarrhea Definition, causes, complication, home management prevention.

Materials and Methods

Study Design

Descriptive cross-sectional hospital-based study aiming to assess mother's knowledge regarding management of diarrhea.

Study Period

The study was carried out during the period which extends from first October 2016-end February 2017.

Study Area

The study was conducted at Mohammed Elemi Humid pediatric hospital which is in Omdurman city [21-30]. The hospital is west Omdurman teaching hospital North al-Khalifa mosque east, it includes five department which are Emergency part located in the floor one contains outpatient clinic receive all emergency cases and cold for 24 hours, laboratory contain all routine and special investigation, pharmacy provide medication need, also ultra sound echocardiography. Physiotherapy part, dialysis center, ICU, NURU unit, also contain referral clinic of asthma, GIT, tuberculosis, diabetics. Emergency words for 24hours consist of general word contain 20 bed, respiratory word contain 20 beds, diarrheal word contain 20 beds, internal word for diarrhea and malnutrition contain 20 beds for any words.

Study Population

All mothers whom their children under five admitted in diarrheal word.

Sampling/ Sample Size

The current study includes all the mother in pediatric diarrheal word during the period of the study. (120) Data was collected through interview questionnaire by random sample. (total coverage).

Data Collection Tools and Technique

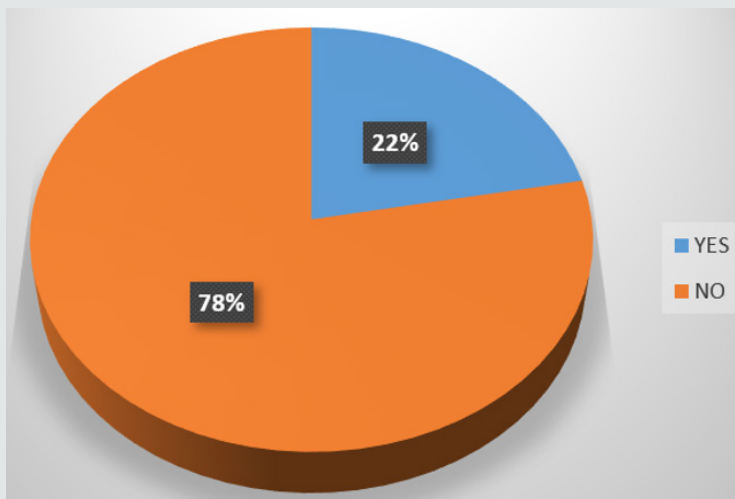
Interview structured questionnaire consist of two-part personal data and, knowledge of diarrhea (what's diarrhea mean, causes, complication, management, prevention) [31-50].

Data Analysis

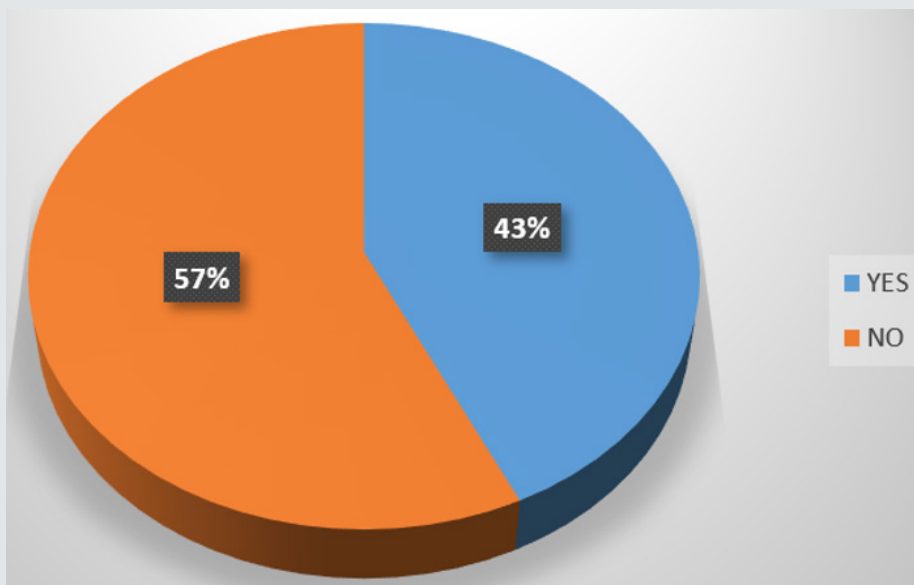
Data was analyzed by using the computerized program (statistical package for social science (SPSS) presented in form of Tables and Figures.

Ethical Consideration

- a) After approval of the study research by board of nursing faculty of Ribat university (Figure 4 & 5).
- b) Then the permission taken from director manager of Mohammed Amlin Hamid pediatric hospital.
- c) Verbal Consent from the mother (Tables 4-7).



Figures 4: Distribution of the mothers according to their knowledge regarding If her child complains of diarrhea treated at home in Mohammed Amlin Hamid pediatric hospital in 2016-2017. The above figure (78%) of women are preferring to treat their child at home while 22% did not treated at home.



Figures 5: Distribution of the mothers according to their knowledge regarding If her child complains of diarrhea Immediately going to hospital in Mohammed Amlin Hamid pediatric hospital in 2016-2017. The above figure show that 57% of the mother immediately going to the hospital if her children developed diarrhea while 43% of the mother did not go to the hospital.

Table 4: Distribution of the mothers according to their knowledge regarding management at home in Mohammed Almin Hamid pediatric hospital in 2016-2017. The mean of these knowledge 51.7% that is mean mother have good knowledge about treated at home.

	Total	Answer	Incorrect	Answer	Correct	Knowledge of the mother
%	No	%	No	%	No	
100	120	36	43	64	77	Increase fluid intake
100	120	42	51	58	69	Continue breast feeding
100	120	82	98	18	22	Stop breast feeding
100	120	47	57	53	63	Give ORS
		51.75%		48.25%		Mean

Table 5: Distribution of the mothers according to their knowledge regarding preparation oral rehydration solution in Mohammed Almin Hamid pediatric hospital in 2016-2017. The above table show that the mother has poor knowledge about preparation of ORS 75%.

	Total	Answer	Incorrect	Answer	correct	Mother knowledge
%	No	%	No	%	no	
100	120	75	75	25	45	In 6 cup of tea water
100	120	94	113	6	7	In 3 cup of tea water
100	120	95	114	5	6	In 4 cup of tea water

Table 6: Distribution of the mothers according to their knowledge regarding management after vomiting ORS in Mohammed Almin Hamid pediatric hospital in 2016-2017. The above table show that mean of these 70.4% that is mean the mother has poor knowledge.

	Total	Answer	Incorrect	Answer	Correct	Mother Knowledge
%	No	%	No	%	no	
100	120	77	93	23	27	Increase amount of ORS
100	120	87	104	13	16	Stop ORS
100	120	62	75	38	45	Stop and giving after 10 min
		75.4		24.60%		Mean

Table 7: Distribution of the mothers according to their knowledge regarding evaluate stage of danger in Mohammed Almin Hamid pediatric hospital in 2016-2017. The above table show that mean of this knowledge 29.6 % that is mean the mother has poor knowledge about evaluation.

	Total	Answer	Incorrect	Answer	Correct	Mother Knowledge
%	No	%	No	%	No	
100	120	58	70	42	50	Refuse drink and breast feed
100	120	81	97	19	23	Having fever more than 24 hour
100	120	78	94	22	26	Prescience of blood in the stool
	72.4%		29,6%		Mean	

Discussion

Diarrheal disease rank among the top of three causes of child hood death in developing countries. The current study was conducted among 120 mothers had children complain of diarrhea in pediatric department of Mohammed AL amen Hamid [51-67] teaching hospital, aimed to assess their knowledge regarding diarrhea and management of diarrhea in child under five years.

Most of the mothers in current study their age was 25-36 years (38%), as well as most of them were housewives (77%) that consist with study done by BOMA in south Nigeria 2014 age group (26-35) and most of study population housewife [68]. Regarding educational level most of the mothers their educational level was primary (31%) moderate socioeconomic status was reported among most of mother and this is not consisting with study done by BOMA (Tables 8 & 9).

Table 8: Distribution of the mothers according to their knowledge about sings of dehydration in Mohammed Almin Hamid pediatric hospital in 2016-2017. The above table show the mean of this knowledge 54.5% that is mean more and have of the mother have knowledge regarding sing of dehydration.

	Total	Answer	Incorrect	Answer	Correct	Mother Knowledge
%	No	%	No	%	No	
100	120	41	49	59	71	Dry skin and mouth
100	120	58	70	42	50	Un able to drink or breast feed
100	120	78	61	22	59	Lethargy
100	120	41	66	59	54	Sun ken eye
		45.50%		45.50%		Mean

Table 9: Distribution of the mothers according to their knowledge about how to protect child from recurrent diarrhea Mohammed Almin Hamid pediatric hospital in 2016-2017. The above table show that mother knowledge regarding prevention was good 66% but only 35% of the mother know Rota virus.

	Total	Answer	Incorrect	Answer	Correct	Knowledge of the mother
%	No	%	No	%	No	
100	120	22	26	78	94	Wash hand and breast before feed the child
100	120	22	26	78	94	Cover food well
100	120	65	78	35	42	Give your child Rota virus vaccine
100	120	27	33	73	87	Wash your child hand from age over 2 years

A.N in south Nigeria 2014 whom their level is university [68]. More than half of the mothers 54.6% did not know what's diarrhea mean this is not consist with study done by JAMIUM in Nigeria setting 2012 78.5% know regarding what's diarrhea mean [69]. More than half of the mothers didn't know what the causes of diarrhea (55.6%), identify the causes in current study and this consist with the study reported in Negara setting by JAMUM 2012 the study shows that (55.5%) didn't knew the causes [69]. Regarding complication (62.37%) of mother they don't know the complication, that is mean they did not know the hazard of diarrhea may be because that is due to their educational level which was primary on other hand mothers did not know how to evaluate the danger sign of their children (27.6%).

Mother's knowledge regarding management 73% treated at home while 46% treated at hospital, as the same time mother have good knowledge regarding treated their children at home 73% this consist with study done in south Nigeria 2014 (76%). The current study show (75%) of the mothers did not know how to prepare ORS and uses of it after child vomiting (75.4%), the result of that all children included in this study had a sign of dehydration that is mean the mothers had poor knowledge regarding sign of dehydration and proper manage of diarrhea (59%)this is not consist with study done by John in per urban communities 2002 (93.3%) of the mothers know how to prepare the ORS [70]. Regarding prevention of diarrhea 74% of the mother they know how to prevent diarrhea, 35% did not know about Rota vaccine, that is same with study done by JAMIUM in Nigeria setting 2012 which found (71%) of the mothers know regarding prevention but did not know about Rota vaccine. Although most of them had poor knowledge regarding diarrhea, most of them understand how to manage diarrhea at home of their children also they didn't know how to prepare ORS and preventing dehydration.

Conclusion

In current study most of the mothers did not know diarrhea and management of diarrhea) what's diarrhea mean (54.6%), causes (55.6%), complication (62.7%), how to prepare ORS (75%), how to evaluate danger sing (54.5), sign of dehydration (54.5%). The mothers they know how to prevent their children from recurrent diarrhea.

Recomination

The Study Recommended That

- More health educational for the mothers regarding (diarrhea, causes, complication, sign of dehydration, preparation of ORS) in hospital via media, lectures.
- Importance of education for the mothers.
- Health education regarding importance of vaccine in health center during ammunition (Rota vaccine).
- More researches should be conducted in area of this study that is research the literature to support the health management among communities.

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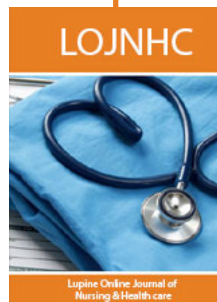


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