



Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/18658

DOI URL: <http://dx.doi.org/10.21474/IJAR01/18658>



RESEARCH ARTICLE

PRACTICE OF HOME MANAGEMENT OF DIARRHEA AMONG CAREGIVERS OF CHILDREN BELOW FIVE YEARS IN NGANDU LOCATION IN NYERI COUNTY

L. Gathogo and M. Wachira

Dedan Kimathi University of Technology, School of Health Sciences, Department of Nursing P.O. Box Private Bag
Kimathi, Nyeri.

Manuscript Info

Manuscript History

Received: 29 February 2024

Final Accepted: 31 March 2024

Published: April 2024

Key words:-

Diarrhea, Home Management of
Diarrhea, Practice of Home Management
of Diarrhea

Abstract

Background: To prevent dehydration and malnutrition in children with diarrhea, it is important they get good management at home. The caregivers should commence home remedies immediately before they seek medical advice.

Objective: This study determine the practice of home management of diarrhea among caregivers of children below five years.

Methods: This research applied descriptive cross sectional study design. The current study was a household survey targeting caregivers of children below five years with diarrhea. The Cochran's Sample Size Formula was used to calculate a sample size of 345 respondents. Purposive sampling was used to recruit respondents in the study. The study employed a researcher- administered semi-structured questionnaire. Descriptive statistics and chi-square tests were used in the analysis.

Results: The study found that majority 67.1% (n=231) of the respondents had poor practices in regards to home management of diarrhoea. Only 25.8% (n=89) of the respondents indicated that they boiled water while only 15.7% (n=54) indicated they washed hands the researcher observed that slightly above half 57.4% (n=198) did not breastfeed their child during diarrhoea. The vast majority 78.7% (n=199) indicated that they did not prepare the ORS themselves. ORS was prepared incorrectly in 67.1% (n=231) of the respondents.

Conclusion: There was poor practice of home management of diarrhea among caregivers of children below five years with diarrhea. The study recommends enhanced education of mothers on home management of diarrhea by community health workers.

Copy Right, IJAR, 2024,. All rights reserved.

Introduction:-

Arnold (2013) defined diarrhea as when a child passes three or more loose or liquid stools within 24 hours, and this may be passed more regular than what normally the child does. Passage of loose watery stools in children below five years can be caused by Rotavirus. Other risk factors include poor personal hygiene, when food is prepared in unclean environment or stored in unhygienic conditions and use of unclean domestic water, which may get contamination during storage or handling (Boschi Pinto, 2012).

Corresponding Author:- L. Gathogo

Address:- Dedan Kimathi University of Technology, School of Health Sciences,
Department of Nursing P.O. Box Private Bag Kimathi, Nyeri.

Diarrhea remains the major contributing factor to childhood illness and death in children below five years in third world nations. In both third world countries and developed nations the cause of diarrhea in children remains multifactorial ranging from infectious causes, unhygienic practices to poor nutritional and dietary habits (Bhutta et al. 2013).

In Sub-Saharan Africa, diarrhea disease remains the second cause of morbidity and mortality of children. World Health Organization (2014) with pneumonia (acute respiratory infections) (ARI) being recorded as top most. Diarrhea disease accounted for 4.6 billion cases and 1.16 million deaths in Africa in the year 2014 of which more than 50% were from low income countries and most of the cases were children under 5 years (Army, 2011).

Home based care is the right approach in management of passage of stools that are very loose and frequent. This is due to the fact that diarrhea will start when the child is at home, the child will be taken to the hospital for treatment and even after going back home the very loose and frequent motions may persist. (Masiha et al., 2015).

To prevent dehydration and malnutrition from occurring it is important that children get good management at home. The caregivers who are well informed on home remedies should commence it immediately even before they seek any medical advice. Guarino et al. (2018) note that increased fluid intake with continued feeding is one of the indicators of appropriate management to decrease childhood death due to diarrheal disease since the 1980s. But diarrheal disease remains number one cause of loss of lives among children in third world countries. The knowledge and practices of on the early interventions of passage very loose and frequent stools motions at home is important in the prevention of diarrhea related complications (Chiabi et al., 2018).

Methods:-

This research applied descriptive cross sectional study design. The study involved quantitative techniques of data collection and analysis. This research was conducted at Ngandu Location. This is a rural settlement located in Kirimukuyu division, Mathira west sub-County in Nyeri County. The current study was a household survey targeting mothers of children below five years with diarrhea. Sampling frame was 3414. The Cochran's Sample Size Formula was used to calculate a sample size of 384. Purposive sampling technique was used to recruit respondents in the study. The study included Caregivers of children with diarrhea who were below five years, caregivers aged 18 years and above and those who provided informed consent. Exclusion criteria of the study were caregivers with children below five years who were mentally ill and those who failed to provide informed consent. The study employed the use of a researcher- administered semi-structured questionnaire. Collected data was checked for errors of omission or commission and then entered into a computer using SPSS Version 23 software. Descriptive statistics and chi-square tests were employed in analysis.

Results:-

On Diarrhoea Prevention Practices Slightly above half 54.5% (n=188) indicated that they maintained general hygiene which comprised environmental and personal cleanliness. The findings also showed that 25.8% (n=89) of the respondents indicated that they boiled water while 15.7% (n=54) indicated they washed hands. As indicated in the table below.

Table 1:- Diarrhea Prevention Practices.

Response	Frequency	Percent
General hygiene	188	54.5
Boiling drinking water	89	25.8
Washing hands	54	15.7
Others	14	4.1
Total	345	100.0

Respondents who indicated that their child had experienced diarrhoea and gave ORS were asked whether they prepared ORS themselves. The vast majority 78.7% (n=199) indicated that they did not prepare the ORS themselves.

Figure 1: Preparation of ORS

Findings showed that 37.9% (n=22) gave the ORS later than 1 hour after preparation while 22.4% (n=13) gave the ORS between 31 and 60 minutes after preparation. This suggests poor practices regarding administration of ORS.

Table 2:- Time of Administration of ORS.

Response	Frequency	Percent
Immediately after preparation of mixture	11	19.0
1-30 minutes	12	20.7
31- 60 Minutes	13	22.4
Over 1 hour	22	37.9
Total	58	100.0

The study indicated the foods they gave their child when they were experiencing diarrhoea. Slightly less than half 44.7% (n=113) indicated that they gave their child “hard foods” like bananas, bread and ugali. The findings showed that 22.5% (n=57) gave their child the normal foods while 18.2% (n=46) gave the child liquids and fluids.

Table 3:- Foods Given to Child with Diarrhea.

Nutrition aspect	Category	Frequency	Percent
Foods Given to Child with Diarrhea	Normal foods	57	22.5
	“Hard foods”	113	44.7
	Liquids and fluids	46	18.2
	Other foods	37	14.6
	Total	253	100.0

Slightly above half 56.8% (n=144) of the respondents did not continue to breast feed during their child’s diarrhoea episode. This shows that parents of children with diarrhoea perceived that more solid foods are beneficial contrary to recommendations.

Table 4:- Breast feeding practices.

Nutrition aspect	Category	Frequency	Percent
Breastfeeding during Diarrhea	Yes	109	43.2
	No	144	56.8
	Total	253	100.0

Majority of the respondents 80.3% (n=203) indicated after visiting the toilet while 68.4% (n=173) indicated that they washed their hands before preparing meals. The findings also showed that slightly above half 57.3% (n=145) indicated that they washed their hands after cleaning the baby.

Table 5:- Washing of Hands.

Response	Frequency	Percent
After visiting toilet	203	80.3%
After cleaning baby	145	57.3%
Before preparing meals	173	68.4%

Discussion:-

The study sought to establish the practice of home management of diarrhoea among caregivers of children below five years with diarrhoea in Ngandu location in Nyeri County. The study found that majority 67.1% (n=231) of the respondents had poor practices in regards to home management of diarrhoea. Only 25.8% (n=89) of the respondents indicated that they boiled water while only 15.7% (n=54) indicated they washed hands the researcher observed that slightly above half 57.4% (n=198) did not breastfeed their child during diarrhoea. The vast majority 78.7% (n=199) indicated that they did not prepare the ORS themselves. ORS was prepared incorrectly in 67.1% (n=231) of the respondents. The poor practice can be attributed to poor knowledge regarding home management of diarrhoea and lack of proper training on ORS preparation.

This finding is similar to Njeru et al. (2017) who found that 41% of the respondents in Kenya managed diarrhoea cases with non-recommended home remedies such as salt and sugar solutions. It is similar to Mukiira and Ibisomi (2015) who showed that 55% of the caregivers in Kenya who were above half of the study population searched for incorrect health care for the treatment of diarrhoea for their young ones. This finding is however dissimilar to findings of Verma et al. (2017) where 54.76% Indian mothers were able to provide oral rehydration solution (ORS) to their young ones with frequent watery loose motions. Similarly, in Ogunrinde et al. (2012) study in Nigeria where a minority of the caregivers (8.6%) gave their children ORS. In addition, the findings are inconsistent with a study in Kenya Olsson et al. (2011) study whereby 61% of mothers gave oral rehydration therapy (ORT) as a remedy 45% gave ORS and those mothers who continued to feed their young ones were 64%.

Conclusion:-

The study concludes that there was poor practice of home management of diarrhea among caregivers of children below five years with diarrhea and therefore need for education of mothers on home management of diarrhea by community health workers. Also training to community workers on demonstration to caregivers on ORS preparation, administration and storage as part of home management of diarrhea.

Acknowledgement:-

The authors wish to give special thanks to the research participants, Karatina Sub-County hospital, Deputy County Commissioner Mathira west Sub County and KNH/UON Ethics Review Board for granting the approval to conduct the study.

Competing Interests

The authors declare that they have no competing interests whatsoever

References:-

1. Ahmed, F., Farheen, A., Ali, I., Thakur, M., Muzaffar, A., & Samina, M. (2009). Management of Diarrhea in Under-fives at Home and Health Facilities in Kashmir. *International Journal of Health Sciences*, 3(2), 171–5.
2. Amare, D., Dereje, B., Kassie, B., Tessema, M., Mullu, G., Alene, B., & Ayele, A. (2014). Maternal Knowledge and Practice Towards Diarrhea Management in Under Five Children in Fenote Selam Town, West Gojjam Zone, Amhara Regional State, Northwest Ethiopia, 2014.
3. Arnold, C. (2013). Treating water with chlorine at point-of-use to improve water quality and reduce child diarrhea in developing countries: a systematic review and meta-analysis. *Am J Trop Med Hyg.* , 354-64.
4. Brown, K. (2013). Diarrhea and Malnutrition. *J Nutr*, 328S-332S.
5. Burke, R. M., Rebolledo, P. A., Embrey, S. R., Wagner, L. D., Cowden, C. L., Kelly, F. M., ... Leon, J. S. (2013). The burden of pediatric diarrhea: a cross-sectional study of incurred costs and perceptions of cost among Bolivian families. *BMC Public Health*, 13, 708.
6. Burns, A. (2010). *Doing action research in English language teaching: A guide for practitioners*. London: Routledge.
7. Carter, E., Bryce, J., Perin, J., & Newby, H. (2015). Harmful practices in the management of childhood diarrhea in low- and middle-income countries: a systematic review. *BMC Public Health*, 15(1), 788.
8. Chandra, K. A., & Wanda, D. (2017). Traditional method of initial diarrhea treatment in children. *Comprehensive child and adolescent nursing*, 40(sup1), 128-136.
9. Desta, B. K., Assimamaw, N. T., & Ashenafi, T. D. (2017). Knowledge, Practice, and Associated Factors of Home-Based Management of Diarrhea among Caregivers of Children Attending Under-Five Clinic in Fagita Lekoma District, Awi Zone, Amhara Regional State, Northwest Ethiopia, 2016. *Nursing Research and Practice*, 4(2), 1–8.
10. Ferdous, F., Das, S. K., Ahmed, S., Farzana, F. D., Latham, J. R., Chisti, M. J., ... Faruque, A. S. G. (2013). Severity of diarrhea and malnutrition among under five-year-old children in rural Bangladesh. *The American Journal of Tropical Medicine and Hygiene*, 89(2), 223–8.
11. Gaffey, M. F., Wazny, K., Bassani, D. G., & Bhutta, Z. A. (2013). Dietary management of childhood diarrhea in low- and middle-income countries: a systematic review. *BMC Public Health*, 13(3)
12. Gazi, E., Chowdhury, A., Kumar, R., Sarkar, A. P., Basu, S. S., & Saha, S. (2015). Can mothers care for acute diarrheal disease of their under five children effectively at home? a cross sectional study in slum community in Bankura. *Journal of Evidence Based Medicine and Healthcare*, 2(36), 5575–5584.

13. Géa-Horta, T., Silva, R. D. C. R., Fiaccone, R. L., Barreto, M. L., & Velásquez-Meléndez, G. (2016). Factors associated with nutritional outcomes in the mother–child dyad: a population-based cross-sectional study. *Public health nutrition*, 19(15), 2725-2733.
14. Guillaume, D. A. (2020). Management practices of acute diarrhoea by caregivers of children under five years in Mathare Informal Settlement, Nairobi City County, Kenya (Doctoral dissertation, Kenyatta University).
15. Harrison, J. A., Mullen, P. D., & Green, L. W. (1992). A meta-analysis of studies of the health belief model with adults. *Health education research*, 7(1), 107-116.
16. Kitony, F. (2016). Caretakers' home management and health seeking behaviour for diarrheal diseases among children under five years in Eldoret Municipality, Kenya. Kenyatta University.
17. Masiha, S. A., Khalid, A., Malik, B., & Shah, S. M. Al. (2015). Oral Rehydration Therapy-Knowledge, Attitude and Practice (KAP) Survey of Pakistani Mothers. *Journal of Rawalpindi Medical College Students Supplement* (Vol. 2015). Retrieved from <https://www.journalrmc.com/volumes/1425738586.pdf>
18. Mugenda, O.M. & Mugenda, A.G. (2003) *Research Methods, Quantitative and Qualitative Approaches*. ACT, Nairobi.
19. Osonwa K.O., Eko J E., E. S. (2016) Utilization of Oral Rehydration Therapy in the Management of Diarrhea in Children among Nursing Mothers in Odukpani Local Government Area of Cross River State, Nigeria. *American Journal of Public Health Research* 4(1), 28-37.
20. Padhy, S., Sethi, R. K., & Behera, N. (2017). Mother's knowledge, attitude and practice regarding prevention and management of diarrhea in children in Southern Odisha. *International Journal of Contemporary Pediatrics*, 4(3), 966.
21. Rokkappanavar, K., Nigudgi, S., & Ghooli, S. (2016). A study on knowledge and practice of mothers of under-five children regarding management of diarrhea in urban field practice area of MRMC, Kalaburagi, Karnataka, India. *International Journal of Community Medicine and Public Health*, 3(3), 705–710.
22. Rosenstock, I.M. (1966) why people use health services. *Milbank Memorial Fund Quarterly*, 44, 94-124. Doi10.2307/3348967.