Ministry of Health - Northern State

Patient Support Organization - Dongola Branch

Research Proposal entitled:

Risk Factors and Complications of Diarrhea among Children Under Five Years in Kilometre 70 IDP Camp, Dongola, Sudan

Edited by:

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Introduction

Diarrheal disease remains one of the leading causes of morbidity and mortality among children under five years worldwide, particularly in developing countries and displaced populations. Children living in camps and areas with poor sanitation and limited access to clean water are at increased risk of diarrheal diseases and their complications.

Problem Statement

Despite the availability of preventive measures, diarrhea remains common among under-five children in Kilometre 70 camp due to poor sanitation, unsafe water, overcrowding, and inadequate hygiene practices. Limited local data are available regarding its associated risk factors and complications in the camp.

Justification

This study is important because it will provide baseline data about diarrhea among under-five children in Kilometre 70 camp. The findings may help health authorities and organizations in planning preventive interventions and improving child health services.

Objectives:

General Objective

To assess the risk factors and complications of diarrhea among children under five years in Kilometre 70 camp.

Specific Objectives

To identify socio-demographic factors associated with diarrhea.

To assess environmental and hygiene-related risk factors.

To identify common complications of diarrhea among under-five children.

To determine the relationship between feeding practices and diarrhea occurrence.

Research Questions

What are the major risk factors of diarrhea among under-five children in Kilometre 70 camp?

What are the common complications associated with diarrhea?

Is there an association between hygiene practices and diarrhea occurrence?

Methodology:

Study Design

Community-based cross-sectional study.

Study Area

Kilometre 70 IDP Camp, East Dongola, Northern State, Sudan.

Study Population

Children less than five years and their caregivers in the camp.

Study period:

From May 21, 2026, to July 9, 2026

Inclusion Criteria

Children under five years.

Residents of the camp.

Caregiver agrees to participate.

Exclusion Criteria

Severely ill caregivers unable to respond.

Incomplete questionnaires.

Data Collection Tool

A structured questionnaire will be used to collect socio-demographic, environmental, feeding practice, and clinical information.

Variables

Dependent Variable: Occurrence of diarrhea and complications.

Independent Variables: Age, sex, water source, sanitation, hygiene practices, feeding practices, vaccination status, and maternal education.

Data Analysis

Data will be analyzed using SPSS or Microsoft Excel. Frequencies, percentages, tables, and Chi-square tests will be used.

Ethical Considerations

Ethical approval will be obtained from the relevant ethical committee. Verbal or written consent will be obtained from caregivers before participation. Confidentiality and privacy of participants will be maintained.

Expected Outcomes

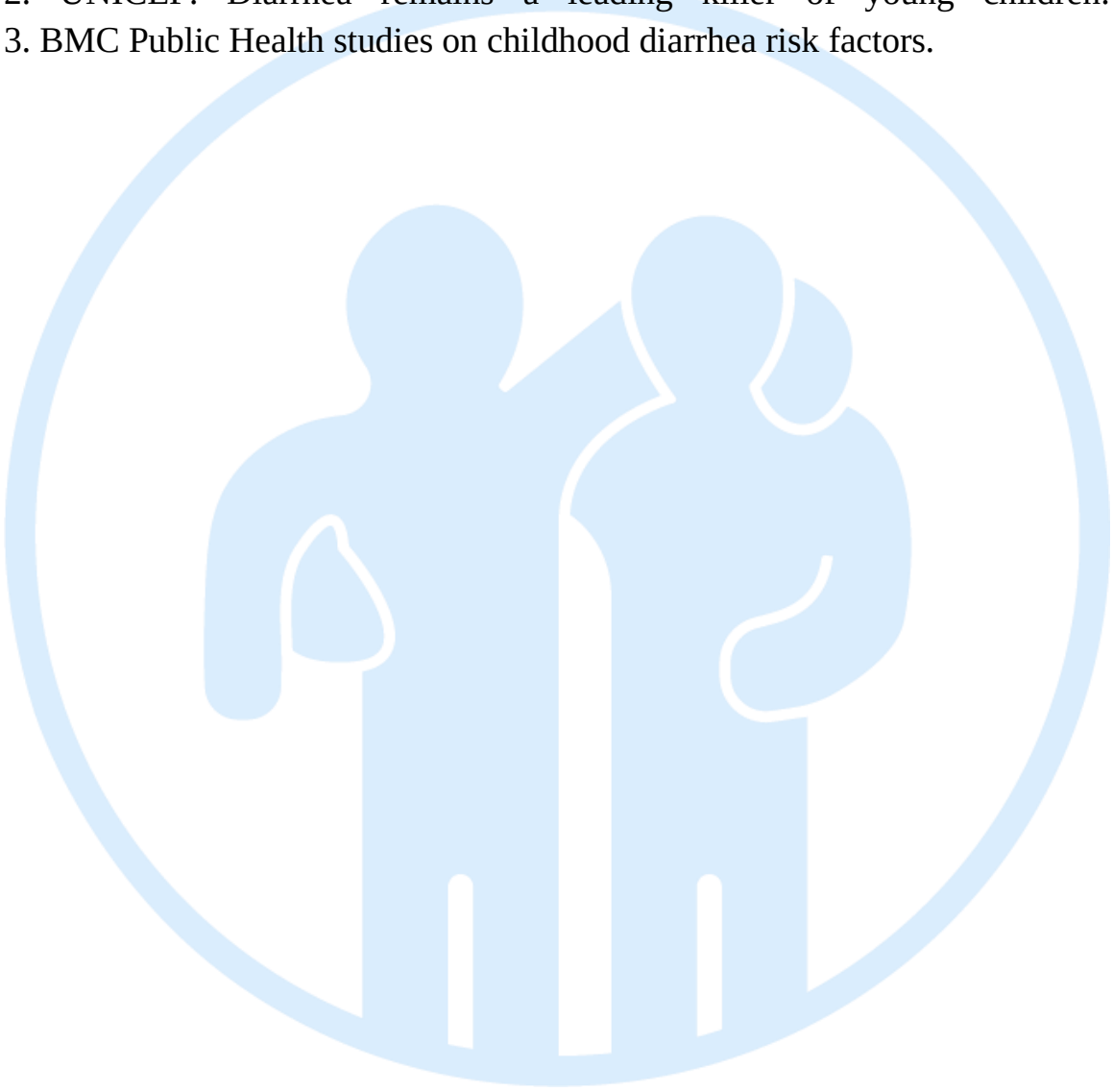
The study is expected to identify the major risk factors and common complications of diarrhea among under-five children in Kilometre 70 camp and provide recommendations for prevention and control.

Work plan and timeline:

Week	Activity
1	Preparation of research proposal
2	Data collection
3	Data organization and analysis
4	Writing the results
5	Discussion of results \ writing recommendations
6	Writing the introduction and conclusion
7	Final review

References

1. World Health Organization. Diarrhoeal disease fact sheet.
2. UNICEF. Diarrhea remains a leading killer of young children.
3. BMC Public Health studies on childhood diarrhea risk factors.



Questionnaire

Study Title: Risk Factors and Complications of Diarrhea among Children Under Five Years in Kilometre 70 Camp

1. Age of child: _____

2. Sex of child: Male / Female

3. Mother's educational level: _____

4. Source of drinking water: Tap / Well / Tank / Other

5. Is the water treated before drinking? Yes / No

6. Type of toilet used: Private / Shared / Open defecation

7. Do caregivers wash hands before feeding the child? Yes / No

8. Is the child exclusively breastfed? Yes / No

9. Has the child received routine vaccination? Yes / No

10. Has the child experienced diarrhea in the last two weeks? Yes / No

11. Number of diarrhea episodes: _____

12. Associated symptoms: Fever / Vomiting / Dehydration / Others

13. Did the child develop complications? Yes / No

14. Type of complication: Dehydration / Malnutrition / Convulsions / Other

15. Was medical care sought? Yes / No