HEALTH EDUCATION ON LATRINE USE, WATER AND HYGIENE TO REDUCE MALNUTRITION AMONG CHILDREN AGED 6-23 MONTHS IN HOMABAY COUNTY, KENYA.

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Introduction

- Childhood malnutrition is an underlying cause of almost half of all infant and young child deaths in the world (Black et al., 2013).
- Human waste disposal, water management and food handling practices influence nutritional status (Marshak et al., 2016).
- Water and sanitation is an underlying cause for malnutrition(UNICEF, 1997).

Problem statement

- Approximately 2.4 billion people lack access to improved sanitation and 946 million practice open defecation in the world (Garn et al., 2016).
- In Homabay County, majority of families do not have access to clean water and latrine coverage is less than 30% (MOH, 2016).
- Over the years the county has reported severe epidemics of cholera.

Water pan for humans, animals and laundry

Temporary latrine in Homabay County, Kenya

Approaches tried

- Health education on complementary feeding and on exclusive breastfeeding
- Kitchen gardening and diet diversification

Global Alliance on Improved Nutrition (GAIN)

- Food fortification
- Micronutrients supplementation
- Food donations


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Objectives of the project

- To determine the nutritional and health status of children aged 6 – 23 months in Homabay County, Kenya.
- To demonstrate the impact of promoting health education on latrine use, water, sanitation and hygiene (WASH) interventions in reducing malnutrition among children aged 6 – 23 months in Homabay County, Kenya.

A double-blind, cluster randomized, parallel controlled trial research design

Outcome variables

Primary outcome variables:

- Iron status indicators (hemoglobin, ferritin, transferring receptor)
- Parasitic worm infestations (hookworms)

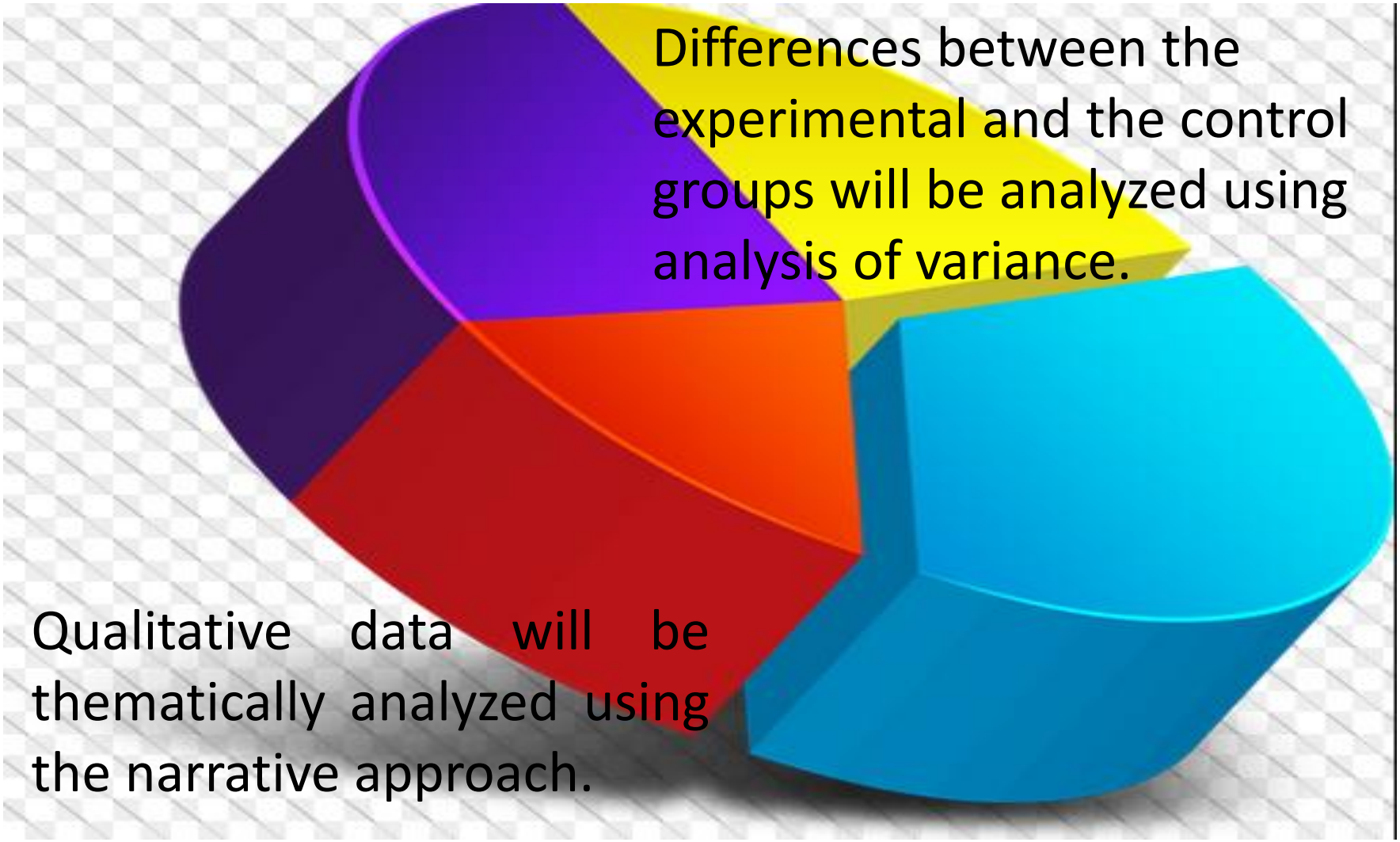
Secondary outcome variable(s):

- Morbidity (episodes of diarrhea, fever, acute respiratory tract infections, incidence of admission to hospital)
- Growth (weight for age, weight for height, height for age, mid upper arm circumference MUAC)

Data collection

- Survey questionnaire, interviews, observations, and focused group discussions will be used for data collection.
- **Morbidity symptom questionnaire:** episodes of diarrhea, fever, acute respiratory tract infections, incidence of admission to hospital
- **Blood sample collection:** Non-fasting venous blood samples of a volume of 4 ml.
- Early morning **stool collection**: 5 grams of solid or 10 grams of liquid stool.

Data analysis



Differences between the experimental and the control groups will be analyzed using analysis of variance.

Qualitative data will be thematically analyzed using the narrative approach.

Proposed approach

- Community health volunteers and service providers will be trained on WASH for capacity building.
- The study from the onset will collaborate with nutrition and public health WASH programs in the division to enhance sustainability.
- Women will be targeted since they feed children and make key decisions regarding their health and nutrition.


1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

Justification

SDG goal 3; good health and wellbeing -reduce child mortality, increase access to clean water and end waterborne diseases

SDG goal 6; clean water and sanitation-access to safe water, adequate sanitation and end open defecation

Thank you