
**RELATIONSHIP BETWEEN DIET AND NUTRITIONAL STATUS OF CHILDREN
BELOW THE AGE OF 5 YEARS IN RAILWAY KASOLI TORORO MUNICIPALITY
UGANDA**

BY

KABASA EMMANUEL

1900401736

BU/UP/2019/1736


**RESEARCH PROPOSAL SUBMITTED TO THE DEPARTMENT OF BIOLOGY IN
THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
OF DEGREE OF BACHELOR IN EDUCATION
OF BUSITEMA UNIVERSITY**

APRIL 2023

DECLARATION

I **Kabasa Emmanuel**, declare to the best of my knowledge that the study her forth is my original work and has not been submitted to Busitema University or any other university before the award of a diploma or degree

Candidate.


Signature 

Date..... 16 May - 2023

CONSENT OF SUBMISSION

I have satisfactorily read through the dissertation and consent to its submission to the department of Biology, Nagongera campus for the award of Bachelor of Science and education of Busitema University

Sign

..........Date 16. May, 2023.....

Mr. Kifuko Richard

Department of Biology

Busitema University

ACKNOWLEDGEMENT

First and foremost I would like to thank God for the gift of life, good health and strength that has enabled me to push through with no major hindrance.

I thank my supervisor Mr. Kifuko Richard for his constant guidance, advice and patience in helping me all through the research process.

DEDICATION

To my beloved parents and brother who have been with me throughout the whole research supported me both financially and emotionally

Table of Contents

DECLARATION	i
CONSENT OF SUBMISSION	ii
ACKNOWLEDGEMENT	iii
DEDICATION	iv
ABSTRACT	xi
CHAPTER ONE: INTRODUCTION	1
BACKGROUND	1
PROBLEM STATEMENT	1
OBJECTIVES	2
General objectives	2
Specific objectives	2
Research question	3
Significance of the study	3
CHAPTER TWO: LITERATURE REVIEW	4
CHAPTER THREE: METHODOLOGY	6
RESEARCH DESIGN	6
AREA OF STUDY	6
STUDY POPULATION	6
Inclusion criteria	6
Exclusion criteria	6
Data collection methods	8
Data collection	8
Data Analysis	9
CHAPTER FOUR: RESULTS	9

Household size	9
Marital status.....	9
Educational levels.....	9
Religion.....	9
Birth weight	9
Child feeding patterns.....	12
Dietary intake and diversity (Food taken by the child and frequency)	12
Nutritional status of the children.....	14
Nutrition status of the children according to weight for age.....	14
Nutritional status of the children according to height for age	18
Nutritional status according to height for weight.....	21
Health condition of the children and immunization status	24
Health condition of the	
children.....	24
Immunization status of the children.....	25
Discussion of results	26
Introduction	26
Dietary intake and dietary diversity	26
Nutritional status of the children	26
Feeding habits and patterns.....	26
Health condition and immunization status	26
Nutritional knowledge and access to health	26
CONCLUSION AND RECOMMENDATIONS	27
CONCLUSION.....	27
RECOMMENDATIONS	27

REFERENCES.....	28
APPENDIX.....	30
APPENDIX 1: QUESTIONNAIRE.....	30
APPENDIX 2: TIME FRAME.....	36
APPENDIX 3 BUDGET	38
APPENDIX 4 RELATIONSHIP BETWEEN DIET AND NUTRITION.....	39

List of tables

Table 1: Social demographic factors of the households

Table 2: Dietary intake and dietary diversity by highest frequency of the children

Table 3 Nutritional status of the children according to weight for age

Table 4: Nutrition status of the children according to height for age

Table 5: Nutritional status of the children according to height for weight.

Table 6: nutritional health status of the children

Table 7: immunization details of the children

Definition of terms

Operational terms used in the study are defined as below

Breastfeeding: Breastfeeding refers to giving of human breast milk to children while exclusive breastfeeding is feeding infants with breast milk only from 0– 6 months with no other liquids or solids except vitamins or mineral drops and medicines.

Child care Practices: Child care practices refer to child rearing practices by the mother and other caregivers for the wellbeing of their children under the age of five years. Such practices will include breastfeeding, infants and young child feeding and health seeking behavior.

Diet: Diet means food or drink that an individual usually takes.

Nutritional Status: Is defined using the following anthropometric indicators: Height for Age (HAZ) Z scores, Weight for Age (WAZ) Z scores, and Weight for Height (WHZ) Z scores.

Height-for-Age Z scores: This compares the height or length of a child to the reference weight of another child of the same age. Children with HAZ of -2SD are considered stunted.

Weight-for-Age Z scores: This compares the weight of a child to the reference weight of a child with the same age. All children with WAZ less than -2SD is considered malnourished.

Weight-for-Height Z scores: This compares weight of a child with the reference weight of a child of the same height. All children with WHZ of -2SD is considered malnourished/wasted

Household: Household refers to people who live together in the same homestead /compound and operate as a unit, including unrelated servants and relatives who share food from the same pot and share other resources of livelihood and are answerable to the same household head.

Malnutrition: In this study malnutrition was defined using anthropometric indicators of height-for-age, weight-for-age, and weight- for-height Z scores.

Moderate malnutrition was defined using the cut off points of less than minus 2 Z scores while severe malnutrition was defined using cut off points of less than minus 3 Z scores.

Z-Score: Refers to the number of standard deviation below or above the reference median value, (WHO 2

ABSTRACT

Introduction:

Several studies made on nutrition status of children in Uganda have given high percentages of malnutrition in the children. This has proved to be a serious problem in Uganda and several sub-Saharan countries

Highest rate of malnutrition recorded in slums in Uganda has attributed to several problems such as high rate of poverty, unemployment, illiteracy and many others. In this research carried out in Tororo district in Railway Kasoli quarters the aim is to find out the effect on the diet of the children and feeding practices on the nutritional status of the children below the age of five

The total number of children in the study was 11

Methodology. The data was collected using a questionnaire covering the background information of the parents and their children, social economic status, feeding habits, access to health care services

From the statistics by Uganda nutrition profile USAID, 2015) children under five; 33% of the children are stunted, 14% are underweight & 5% are wasting, feeding habits Nutritional status of the children was determined using anthropometric measurements. ENA software was used to compute Weight-for-age (WAZ), Height-for-age (HAZ), and Weight-for-height (WHZ) z-scores. MINITAB was used to present descriptive statistics (Mean, Standard Deviation, and Frequencies).

Results:

From the results above, the most consumed foods were Maize, beans, pig weed “dodo” ground nuts and cow milk with a percentage as high 90-100%. Followed by the root tubers. It was noticeable that there was a relatively low level of dietary diversity especially in fruits due to factors such as low household income and poverty causing deficiency in vitamins.

Stunting was the most prevalent malnutrition issue noted especially in the girls in all food types with yams, matooke and irish potatoes having 100% of the girls severely stunted while the rest were normal

27.3% of the children were still breastfeeding while 72.7% of the children had already been weaned and 100% of these stopping to breast feed at about 2 years old

All children in the study had their immunization cards available with 63.6% having complete their immunization and 36.6% incompleated

All members who participated in this study had accessed nutritional health and training in the past 6 months especially through prenatal and post natal visits to health centers.

Conclusion:

According to the results high levels of malnutrition were observed in children that had a high frequency of foods such as matooke, irish potatoes, sukuma, rice and peas exhibited by the severe stunting in the girls averaging above 75% food types with high frequency such as maize, beans. Cow milk and had an overall good nutrition of average 84% of all the children normal.

CHAPTER ONE: INTRODUCTION

BACKGROUND

In sub-Saharan African countries, diets of pre-school children are predominantly based on starchy foods with little or no animal products and few fresh fruits and vegetables. This research is aimed at finding out the relationship between the different compositions of the diet in the community of the children below the age of 5 and how they affect their nutrition. In this the main outcome will be to recommend the better ways of feeding in terms of food eaten at meals according to the findings and also how the government can come in to counter the malnutrition problem caused due to improper feeding and underfeeding. Feeding problems are common, and touch approximately 25% to 50% of young children. These problems are usually minor and temporary. They tend to be seen when children are exposed to new foods or events during mealtime, or when they are trying to master a new feeding skill. However, 1% to 2% of children experience chronic feeding problems, including overeating, malnutrition, and problematic behaviors during meals and atypical eating choices. These problems are especially common in children born prematurely, and those with developmental disabilities. Eating problems can be highly stressful for parents and can result in a strained parent-child relationship these results of this study can be archived using the following methods; Questionnaire. Asking the target community about the different constituents of the diet for their children below the age of seven .Measuring the levels of nutrition and malnutrition by us of weight scale thereby finding out the different weights of the children in relation to their feeding behavior and age and thus assessing how their nutrition is. The target population in this case is children of age 5 and below in Railways Kasoli Tororo municipality, this is because malnutrition is very prevalent in children and if not addressed can cause adverse effects such as stunted growth, mental retardation and body deformation Data analysis

PROBLEM STATEMENT

Malnutrition is a common, under-recognized and undertreated problem children in Africa. It is both a cause and consequence of disease and exists in institutional care and the community.

REFERENCES

1. **Fink**, G., C.R. Sudfeld, G. Danaei, M. Ezzati, and W.W. Fawzi. 2014. “*Scaling-Up Access to Family Planning May Improve Linear Growth and Child Development in Low and Middle Income Countries.*” PLoS ONE 9(7): e102391. Doi: 10.1371/journal.pone.0102391.
2. **Harris** G, Mason S. (2017) *Are there sensitive periods for food acceptance in infancy?* Current nutrition reports
3. **Klienman** R, Greer F (2014) American Academy of Pediatrics. *Pediatric Nutrition*. 7th ed., editors. Illinois: American Academy of Pediatrics
4. **Klienman** R, Greer F, editors. Illinois (2014) American Academy of Pediatrics; *Pediatric Nutrition*. 7th edition
5. **Medical** Gazzette, 2012. *Various Anthropometric Method of Assessment of Nutritional status in under five children*; Department of Committee, Medicine Navale Medical College, Pune September 2012 12.
6. **Mudambi** et al, (2012). *Fundamental of Food nutrition and diet therapy* 6th edition, New Age International P ltd. Publisher, Delhi India, Food, nutrition and health page no. 5-6 13.
7. National Health and Medical Research Council. *Eat for Health Educator Guide*. In: National Health and Medical Research Council, editor. Australian Government. Canberra. 2013.
8. National Health and Medical Research Council. *Infant feeding guidelines: information for health workers*. Canberra: NHMRC, 2012.
9. National Institute for Health and Care Excellence (NICE). *Maternal and child nutrition* London: 2014.
10. NDHS, 2011. *Nepal Demographic and Health Survey Report, Nutritional status of children*
11. Queensland Health. *A healthy start in life: a nutrition manual for health professionals*. Brisbane: Queensland Government; 2008.
12. **Rajalakshmi**, (1987). *Applied Nutrition Oxford*. IBH publishing com. Pvt. Ltd. India, 3rd edition pp 387
13. **Raymond** J, Mahan L. Krause's (2014) *Food and Nutrition Care Process*. 14th edition: Elsevier

14. **Srilakshmi, B.** (2002). *Nutrition Science*. 1st edition New Age International (P) Limited, Publisher, Delhi, India.
15. UNICEF, 2009. State of world's children Report
16. Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), United Nations Children's Fund (UNICEF), World Food Programme (WFP), and World Health Organization (WHO). 2017. The State of Food Security and Nutrition in the World 2017. Building resilience for peace and food security. Rome, Italy: FAO.
17. Finch S, Doyle W, Lowe C et al. National diet and nutrition survey. London: The Stationery Office, 1998
18. Elia M (ed.). Guidelines for detection and management of malnutrition. Malnutrition Advisory Group, Standing Committee of BAPEN. Maidenhead: BAPEN, 2000.
19. . Yimer G (2000) Malnutrition among children in southern Ethiopia: Levels and risk factors. *Ethiopian Journal of Health Development* 14: 283-292.
20. Ola E, Ahmed, Mofida Y, et al (2011) Nutritional status of the children under age of five in a decertified area of Sudan - Alrawakeeb valley. *International Journal of Current Research* 2: 103-108.
21. Kwena AM, Terlouw DJ, de Vlas SJ, Phillips-Howard PA, Hawley WA, et al. (2003) Prevalence and severity of malnutrition in pre-school children in a rural area of western Kenya. *Am J Trop Med Hyg* 68: 94-99.
22. Siddiqi NA, Haque N, Goni MA (2011) Malnutrition of Under-Five Children: Evidence from Bangladesh. *Asian Journal of Medical Sciences* 2: 113-118.