# Effect of Nutritional Habits on Growth of Primary School Children

## Thesis

Submitted for Fulfillment of the Master Degree

in Community Health Nursing

Presented by

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**Faculty of Nursing**

**Ain Shams University**

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بسم الله الرحمن الرحيم

# قالوا

## سبحانك لا علم لنا
## إلا ما علمتنا إنك أنت
## العليم الحكيم

صدق الله العظيم

سورة البقرة الآية: ٣٢

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*Ahmed Ragab Mohamed Sayed*

# Dedication

***This work is dedicated to …***

*My Father,*

to whom I owe everything I ever did in my life

*My mother,*

for always being there for me.

*My wife Shimaa, my lovely kids Yassin & Yahia, my brothers specially Belal, my sisters and my relatives,*

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# List of Abbreviations

| Abbrev. | Full-term |
|---|---|
| **BMI** | Body Mass Index. |
| **CDC** | Centers for Disease Control and Prevention. |
| **CI** | Crowding Index. |
| **CINDI** | Countrywide Integrated Non-communicable Disease Intervention. |
| **EDHS** | Egyptian Demographic and Health Survey. |
| **HS** | High Significance. |
| **NASN's** | National association of school nurses. |
| **NCD** | Non Communicable diseases. |
| **NS** | No Significance. |
| **S** | Significance. |
| **SPSS** | Statistical Program for Social Science. |
| **U.S.** | United States. |
| **UNICEF** | United Nations International Children's Emergency Fund. |
| **WHO** | World Health Organization. |

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# Effect of Nutritional Habits on Growth of Primary School Children

## ABSTRACT

By
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Primary school age is the active growing phase of childhood. Poor nutritional status in primary school-age children are among the most common causes of low school enrolment, high absenteeism **Aim:** Assess the effect of nutritional habits on growth of primary school children. **Research design:** A descriptive study design was used. **Sample**: 300 students were chosen as multi stage from governmental and non-governmental primary schools in Bani Mazar city. **Tools:** First tool, An Interviewing Questionnaire: a) socio-demographic data, b) Parental knowledge about nutrition, c) Dietary habits of parents and their school children, d) Child health problems and needs. Observational check list to assess school safety. Second tool:- Medical record analysis. **Results:** mean age of studied children was 11.84 ± .38. More than half of studied children (56.7%) were females. The majority of them live in Urban. More than quarter of children spent their pocket money in buying sweets and slightly more than one fourth 27.2% out of them respectively spent it in buying food Most of the studied parent (71%) of primary school children had unhealthy eating habits and only 29% of them had healthy eating habits. there is statistically significant relation between unhealthy Children's nutritional habits and their socio-demographic data about gender at p-value <0.05 **Conclusion:** There is high statistically significant relation between unhealthy Parent's nutritional habits and their children Body Mass Index (**BMI**) and there is statistically significant relation between unhealthy Parent's nutritional habits and their unhealthy children's habits. **Recommendations:** Further research studies are needed for ongoing assessment of students nutrition including large sample for generalization of results.

***Keywords:*** Nutritional Habits - Primary school children

# Introduction

School age is the active growing phase of childhood; it represents a dynamic period of physical growth as well as of mental development of the child. Children are particularly vulnerable to undernutrition as the priority in nutrition interventions is often to prevent malnutrition during fetal development and the first years of life. In developing countries it is postulated that poverty and ignorance are primary casual factors of malnutrition **(Abdelaziz et al., 2015).**

Overpopulation, more commonly seen in developing countries, can reduce food adequacy, leading to inadequate food intake or intake of foods of poor nutritional quality and quantity. Research completed in recent years by The Egyptian National Nutrition Institute and other research centers showed that malnutrition was still a major health problem in Egyptian community among different age groups and socio-economic classes **(Adegun et al., 2013)**.

Physical Growth: As they approach age 6 years, children begin to lose their deciduous teeth. Permanent teeth usually start to erupt in the early school years. From the time children enter school, a slow, steady period of growth begins. School-aged children gain about 2.3 to 3.2 kg and grow about 6.4 cm (2.52 inches) a year until puberty (sexual maturity), at which time they experience a growth spurt.

From age 6 or 7 years until puberty, identifying an average growth rate becomes difficult because of the wide variations among normal **(Taylor et al., 2014)**.

Psychosocial Development: During the school years, the significant person for children changes from the family to people from the school or neighborhood, such as teachers, schoolmates, or best friends. Independence is important. Learning to produce things (schoolwork, projects) takes precedence. These children explore their ever-expanding world and begin to collect pets, dolls, rocks, baseball cards, video games, books, and other objects **(Koop, 2015)**.

Developing a sense of industry is the major psychosocial challenge; if school-aged children do not attain this sense, a feeling of inferiority results. School-aged children need recognition for their accomplishments, such as school achievements, cooperative participation in groups, sports teams and band or orchestra. This recognition leads to a sense of belonging, and feelings of competence and self-worth, the virtues of this developmental stage **(Taylor et al., 2014)**.

Cognitive and Motor Development: Because school occupies so many waking hours, events there play a large part in the lives of school-aged children. As they explore this new world beyond home, children become increasingly independent. Fitting in is very important to school success.

Family is often ousted from first place. The saving grace is an eagerness to try new situations and an enthusiasm for learning and adventure. Additionally, children begin to learn that they must abide by rules, not only at home but in school and other outside settings as well. Encourage families to recognize that self-development and reaching out from the family are big steps forward **(Koop, 2015)**.

During the early school years, many children express the desire for a retreat of their own. Boys and girls of this age are aware of each other, but typically prefer not to play together. In fact, they are usually antagonistic and may fight and call each other unkind names. Classrooms of children may break up into several distinct play groups. Friends begin to occupy an important place in children's lives. The members of the clique usually share secrets, including a favorite hangout. Boys and girls may fight openly at times **(Kolucki & Lemish, 2016)**.

Between the ages of 8 and 10 years, children learn to write in cursive. By age 9 years, most children spend much of their time with friends, clubs, and groups. Despite evidence of self-reliance, children may begin to worry and complain about tasks that involve responsibility, such as schoolwork and home chores. At the completion of this stage, well-adjusted 10-year-olds are friendly and realistic, accepting themselves and life as it comes **(Kolucki & Lemish, 2016)**.

The main causes of malnutrition in childhood are unsafe water, inadequate sanitation or insufficient hygiene, factors related to society and poverty, diseases, maternal factors, gender issues and – overall – poverty (**Prüss-Üstün et al., 2014)**.

There are some physical health problems which due to bad nutrition habits such as diarrhea and other infection diseases can cause malnutrition through decreased nutrient absorption, decreased intake of food, increased metabolic requirements, and direct nutrient loss. Parasite infections, in particular intestinal worm infections (helminthiasis), can also lead to malnutrition. A leading cause of diarrhea and intestinal worm infections in children in developing countries is lack of sanitation and hygiene. Other diseases that cause chronic intestinal inflammation may lead to malnutrition, such as some cases of untreated celiac disease and inflammatory bowel disease **(Newnham, 2017).**

## Significance of the study

Nutritional disorders affect more than 35% of school children in Egypt. Inadequate nutrition intake has important implication because malnutrition has been shown to negatively affect cognitive development of primary school children, and affects children's interaction with school teachers and their ability to excel in their studies. Prevalence of child malnutrition in Egypt was 29 percent, which makes