

Health Needs and Problems Related to
Food Hygiene Practices Among Primary
School Children

Thesis

Submitted for the partial fulfillment of Master degree
of Nursing (Community Health Nursing)

By

Sabreen Gaber Abdel Aziz Helal

(B.S.C. Nursing)

**Faculty of Nursing
Ain Shams University
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List of abbreviations

U.S	United States
CDC	Center for Disease Control & Prevention
PTA	Parent Teacher Association
PTO	Parent Teacher Organization
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization
HACCP	Hazard Analysis and Critical Control Point
USDA	United States Department of Agriculture
SHN	School Health Nutrition

ABSTRACT

Food hygiene is the action taken to ensure that food is handled, stored, prepared and served in such a way to prevent the contamination of food.. **Aim of study:** This study aimed to assess health needs & problems related to food hygiene practices through assessment of knowledge and practices of primary school children. **Sampling: Type:** Multistage **Size:** 503 students **Criteria** at 6th grade. **setting:** 14 primary schools in El Mehalla Elkoubra. **Tools:** three tools were used to collect the data: self administered questionnaire sheet, student's Physical assessment sheet, Observation check list for school environment. **Results:** Minority of students reported good practices. Students need education about food hygiene practices, sanitary school environment and collaboration with teachers and parent. Basic health problems were deficit in knowledge and practices. Knowledge, factors positively affecting the student's practices were knowledge & school environment . **Conclusion:** The primary school children need education about food hygiene, sanitary school environment, frequent guidance and role model from school staff to follow healthful practices . Their health problems including knowledge deficit, practices deficit, and unsanitary school environment **Recommendations:** Health education for children about healthy food hygiene practices with provision of sanitary school environment and involving parents and teachers to act as a model for healthy habits.

Key words: food hygiene practices, knowledge, school children, school environment.

INTRODUCTION

INTRODUCTION

Children are future parents and what they learn is likely to be applied in the rest of their lives. They have important roles in the household, taking care of younger brothers and sisters. They can become changing agents within their families and a stimulus to community development., They will take care of their own health and the health of others.(**Dolf JH,TE Lintelo, 2009**).

Schools are a stimulating learning environment for children and stimulate or initiate change. If sanitary facilities in schools are available, they can act as a model, and teachers can function as role models. Schools can also influence communities through outreach activities, If sanitation and hygiene facilities are absent, or are badly maintained and used, schools become risky places where diseases are transmitted. (**Nam-E Kang,et al,2010**)

Food hygiene practices focus on limiting the presence of naturally occurring contaminants and those acquired from cross-contamination. and preventing growth of organisms resulting from time and temperature rules not being followed. The primary school children need education about the principals of food hygiene practices to control over cause of contamination (**Notification of The National Committee on Agricultural Commodity and Food Standards, 2007**).

Food contamination can be resulted from five points, namely; poor hygiene, unsanitary conditions (contaminated water of irrigation & unpasteurized items), cross contamination (from cutting boards& kitchen tools), unsafe preparation (improperly canned food) and inadequate storage (defect in temperature control). (**Julian Parfitt, et al,2010**).

Contamination of food can occur during growing, harvesting, processing, storing, shipping, or final preparation. Sources of produce contamination are varied as these foods are grown in soil and can become contaminated during

growth or through processing and distribution. Contamination may also occur during food preparation in a restaurant or a home kitchen. When food is cooked and left out for more than 2 hours at room temperature, bacteria can multiply quickly. The microbes can become reactivated when the food is thawed after freezing. **(U.S. Department of Agriculture, 2006).**

It was pointed out that poor food hygiene may cause many problems including: food poisoning outbreaks and eventually loss of lives, food contamination, and infestation by pests like flies, rats, cockroaches and ants. Poor food hygiene may also lead to waste food due to spoilage, loss of production and efficiency and eventually lead to customers complaining about the situation. **(Kumiko Takanashi, et al, 2009).**

Parents, guardians, and families play a key role in food safety because they are ultimately responsible for their child's behavior and care. Families can also teach their child appropriate behavior by modeling, enforcing good food safety practices, advocate for the health, safety, and well-being of their student in school through avenues such as the parent teacher association (PTA) and parent- teachers organization (PTO), and by meeting with health care providers. **(SF Bloomfield, et al, 2006).**

A school nurse's knowledge and skills can be critical to the food-safe school team in promoting prevention strategies; identifying a potential food borne illness or outbreak; reinforcing key food safety and hand washing policies or procedures; - monitoring infection control; assessing and managing care of ill students; and communicating with other health professionals, school administrators, and parents. **(American Academy of Pediatrics, 2007).**

Ensuring food safety in schools affects many individuals and groups: administrators and office staff, food service managers and workers, classroom teachers and aides, facilities managers and employees, health services staff,

health care providers, policymakers, students, families, health departments and other community agencies. **(J. Pommier, et al, 2009)**

This research was utilized to assess health needs and problems related to food hygiene practices among primary school children, identify contributing factors to food hygiene practices which help to find suitable recommendations to overcome this problems & provision of needs in order to improve pupil's practices and control food borne diseases.

Justification of the problem

Ministry of Health and population of Egypt reported that 12% of the Egyptians suffer from chronic hepatic disorders caused by food & water contamination. in addition to Typhoid fever which occur as a result of food contamination. **(Egyptian Health Journal, 2008)**

Millions of people fall ill and many of these suffer from serious disorders, long-term complications, or die as a result of eating unsafe food. It is estimated that nearly 5 500 persons die each day from bacteria in food. Unsafe food remains a widespread public health problem in all parts of the world. Surveys in New Zealand, Europe, and North America suggest that each year up to 10% of the population suffer from diseases caused by unsafe food. **(UNESCO, 2008).**

Estimated from CDC place the annual incidence of food borne diseases at approximately 76 million cases, 325.000 hospitalizations and 5.200 deaths. **(CDC ,2009).** Improper food safety practices cause numerous illnesses and cost Americans billions of dollars each year.**(Byrd-Bredbenner C,2007)**

It is estimated that 5.4 million Australians get sick annually from eating contaminated food and that up to 20% of this illness results from food handling behavior**(Barbara A. Mullan,and Cara L. Wong, 2006)**

Historical background : In developing countries, a polluted environment, lack of a safe water supply and poor sanitation increase the likelihood of food contamination.and there are average 10.000 – 20.000 persons per1000.000 suffer from food born diseases yearly. **(Nertheland S' Emerging Infectious Disease, 2001 and Tuckler NA, 2003)**

AIM OF THE STUDY

Aim of Study

The study aims at Assessing Health needs and problems related to food hygiene practices among primary school children through:

1. Assessment of their knowledge about food hygiene.
2. Investigating their food hygiene practices.
3. studying the relation between their knowledge and practices.
4. Identifying of health needs and problems related to food hygiene practices.
5. Studying the relation between food hygiene practices and their health.
6. Studying the factors affecting food hygiene practices.

Research questions:

- 1- Are the primary school children knowledgeable about food hygiene?
- 2- Are their food hygiene practices healthy ?
- 3- Is there relation between knowledge and practices about food hygiene?
- 4- What are the needs of primary school children related to food hygiene practices?
- 5-Is there relation between food hygiene practices and health of primary school children?
- 6- What are the factors affecting food hygiene practices?
- 7- Are there previous problems caused by unhygienic food practices?