

Assessment of Knowledge Regarding Food Hygiene among Mothers with Underfive Children in Maraimalai Nagar, Kancheepuram District

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Abstract

Food is an important and basic biological need of man. Food is the foundation of good health. it is a good culture medium and a potential carrier of infection, Cleanliness and care should be maintained in handling. There is need for mothers to understand the knowledge, attitudes, practices of on food safety. The objective of the study was to assess the level of knowledge regarding food hygiene among mothers with under five children in Maraimalai Nagar. Quantitative approach and descriptive survey design was adopted for the study. A total of 40 samples were selected using non probability purposive sampling technique in Maraimalai Nagar. The instrument used for the study comprises of 2 sections, section A was demographic data which includes age, religion, educational status, income per month, type of drinking water and section B was a structured questionnaire developed by the investigator which included 30 questions to assess the knowledge regarding food hygiene among mothers with under five children. The data was collected from the 40 samples and the analysis was done using descriptive and inferential statistic. The study findings concluded that among 40 mothers 18(45%) mothers had moderate knowledge and 17(42.5%) mothers had adequate knowledge on Food hygiene which implies that nurses should play a vital role in enhancing the knowledge on food hygiene among under five mothers.

Keywords: Food Safety; Mothers; Food Borne Illness; Food Hygiene; Children.

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Introduction

Food is an important and basic biological need of man. Food is the foundation of good health .it is a good culture medium and a potential carrier of infection. Young children have higher risk than adult of having foodborne illness due to their undeveloped immune system and lower body weight. Foodborne illness can result to long term health consequences and even death, especially in young

children. Approximately one half of reported foodborne illness occurs in children (Pew Health Group. Children, 2009) and an estimated one-third of all related costs (\$2.3 billion dollars per year) are due to illnesses in infants and children under the age of 10 (Buzby, 2001). The increased risk for foodborne illness (Albrecht and Nagy-Nero, 2009 and Gerba et al., 1996) among children is due to their under-developed immune system, lower body weight, and limited control over meal preparation (Buzby, 2001). Children are disproportionately affected by five foodborne microorganisms; Campylobacter, Escherichia coli O157:H7, Listeria, Salmonella, and Shigella (Pew Health Group, 2009). Infants (under one year of age) have the highest reported cases of salmonellosis and campylobacteriosis (CDC, 2005; Fullerton et al., 2007 and Jones et al., 2006) [1].

Number of survey has been conducted to determine food safety attitudes, knowledge and practice of mothers of infants and children indicate

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a need for food safety message (kwon et al 2008 and treпка et al 2007)[2]. In the world contaminated food contributes to 1.5 billion cases of diarrhea in children each year, resulting in more than three million premature deaths [3]. In South East Asia, approximately one million children under five years of age die each year from diarrheal diseases after consuming contaminated food and water [4].

Food safety is an increasingly important public health issue to prevent or control food borne illnesses. Food borne illnesses comprise a broad spectrum of diseases and are responsible for substantial morbidity and mortality worldwide. In response to the increasing number of food borne illnesses, Governments all over the world are intensifying their efforts to improve food safety

The mothers who prepare all the food in the household, should be aware and take vital role in reduce the number of illness caused by foodborne diseases among under five children. The purpose of this quantitative and descriptive design was to explore the food safety knowledge, in families with under five children. In order to prevent foodborne illness in children below five years of age, the mothers should maintain good cleanliness and adapt good cooking methods and serve methods of cooking. The cooking area should be kept clean and neat, and in order to maintain good health one should maintain good culture medium and prevent potential carrier of infection.

Materials and Methods

Quantitative approach and descriptive survey design was adopted for the study. The variables studied were- study variable and demographic variables. The study variable was knowledge of food hygiene among mothers whereas the demographic variables includes age, education, religion, income per month, type of drinking water facilities available at home. The study was conducted in Maraimalai Nagar, Kancheepuram district.. The setting was chosen on the basis of feasibility in terms of availability of adequate samples and co-operation extended by mothers in various houses. The accessible population includes the mothers with under five children in Maraimalai Nagar. Sample consisted of the mothers who fulfilled the inclusion criteria. The sample size for the study was 40. Non probability purposive sampling technique was adopted to select the samples for the study. The Inclusion criteria comprised of the mothers with under five children from 20 years to 40 years of age

, mothers with under five children who can able to read and understand Tamil. The exclusion criteria includes mothers who were not co-operative and not willing to participate in the study

Instruments

Instrument used for data collection was structured questionnaire developed by the investigators which consists of two sections

Section A: Questionnaire to assess the demographic variables of the samples.

Section B: Structured questionnaire to assess the knowledge on food hygiene among mothers with underfive children which includes 30 questions

The items of the instrument was established on the basis of opinion of nursing experts Suggestions were incorporated in the tool. The reliability of the tool was done by test retest method. The r value was 0.82 which indicated a positive co-relation to proceed for the main study. The proposed study was approved by the dissertation committee of SRM college of Nursing, SRM university, Kattankurathur, Kancheepuram district, Permission was obtained from the Dean, SRM college of Nursing and authorities of selected area. Informed consent was obtained from each participant for the study before starting data collection.

After obtaining formal approval from administration, Maraimalai Nagar ward counselor. The investigator explained the objectives and method of data collection. Data collection was done within given period of 2 weeks . The data collection was done during the day, self-introduction about the researcher and details about the study was explained to the samples and their consent was obtained. The knowledge of food hygiene was assessed among mothers with under five children using the tool. The confidentiality of the data and finding were assured to the participants, the participants took 20 min to complete the tool and their co-operation was imperative. Descriptive statistics such as frequency and percentage distribution was used to analyze the data collected. Inferential statistics - chi square was used to find out the association.

Results

Demographic Profile of Mothers

Considering age 32.5% of mothers were in the age group of less than 20years of age, 57.5% were in the age group of 21-40years of age. With regard to

religion 90% of mothers are Hindu's and 10% of mothers are Christians. Regarding Educational status of mothers 15% of mothers had no formal education, 27.5% of mothers had undergone primary education and 57.5% of mothers has undergone high school. 77.5% of mothers had monthly income of Rs 5000 and above, 7.5% mothers had monthly income of Rs.4000-5000 and 15% of mothers has monthly income of Rs 3000-4000. The mothers utilizes different types of drinking water, 37.5% takes tap water, 30% takes mineral water 30% takes bore well water.

Table 1 depicts that among 40 mothers, 18(45%) mothers had moderate knowledge and 17(42.5%) mothers had adequate knowledge and only 5 (12.5%) mothers had inadequate knowledge on Food hygiene

Table 2 highlights the Mean and Standard deviation of the knowledge of mothers regarding Food hygiene

Table 3 revealed that age and educational status of the mothers with underfive children had association with the knowledge score at P=0.05 level.

Table 1: Assessment of knowledge regarding food hygiene among mothers with underfive children n=40

| Level of knowledge | Frequency | Percentage |
|---------------------|-----------|------------|
| Adequate | 17 | 42.5 |
| Moderately adequate | 18 | 45 |
| Inadequate | 5 | 12.5 |

Table 2: Mean and standard deviation of knowledge regarding food hygiene among mothers with under five children N=40

| Total score of the Knowledge questionnaire | Mean | SD | Minimum | Maximum | Range |
|--|-------|------|---------|---------|-------|
| 30 | 18.73 | 5.51 | 7 | 28 | 21 |

Table 3: Association between knowledge score and demographic variables n=40

| Demographic Variables | N | Mean | SD | Oneway Anova F-test/t-test |
|---|---------------------|------|-------|----------------------------|
| Age | 18- 20 years | 13 | 16.07 | 5.15 |
| | 21 - 40 years | 23 | 20.09 | 4.40 |
| | 41-45 years | 4 | 20.55 | 5.49 |
| Religion | Hindu | 36 | 18.58 | 5.48 |
| | Christian | 4 | 20.00 | 6.48 |
| Education status | No formal education | 6 | 16.33 | 6.06 |
| | Primary education | 11 | 19.09 | 4.07 |
| | High school | 23 | 19.17 | 4.10 |
| Monthly income | Above Rs.5000 | 31 | 18.94 | 5.21 |
| | Rs.4001-5000 | 3 | 21.33 | 3.06 |
| | Rs.3000-4000 | 6 | 16.33 | 7.71 |
| Type of drinking water facilities available at home | Tap water | 15 | 18.87 | 5.82 |
| | Mineral water | 13 | 18.77 | 5.99 |
| | Bore well water | 12 | 18.50 | 5.05 |

Discussion

The increased risk and disproportionate prevalence of foodborne illness among young children requires safe food handling by main food preparers to reduce serious health consequences and associated costs. Another possibility of where minority populations may experience greater risks for foodborne illness is at the food retail or food service level. A growing body of public health research [5,6,7] has demonstrated that low income and minority populations have different patterns of access to food at the retail level. The purpose of the present study was to assess the knowledge on food hygiene among

mothers with underfive children . The study results revealed that majority 18(45%) mothers had moderate knowledge regarding food hygiene.

Avita A, Usfar, Dwi N, Iswarawanti, Devy Davelyna, Drupadi Dillon(2010) conducted qualitative study on Hygiene Perceptions and Practices among Caregivers whose Children Have Diarrhea: Tangerang, Indonesia. They concluded that most mothers associated the importance of food hygiene with disease prevention, contaminating agents, and health. Mothers perceived that the importance of personal hygiene was for maintaining health and cleanliness. The majority of mothers washed their hands without soap after performing housework and cooking [8].

Sudershan R.V, Subba G.M, Pratima Rao M. Vishnu Vardhana Rao(2008) conducted a case study on Food safety related perceptions and practices of mothers in Hyderabad, India. Results revealed that High incidence of food borne illnesses was reported in the families (21%) and the community (12%). Though 48% buy packed foods, a majority (78%) do not recognize symbols on food labels. Significant associations ($p < 0.05$) were found between standard of living/literacy and certain food safety practices. Qualitative data obtained from three focus group discussions, reiterated most of the observations made in the survey. Television is the preferred medium to seek information on food safety[9].

Conclusion

The study concludes that majority 18(45%) mothers had moderate knowledge and 17(42.5%) mothers had adequate knowledge and only 5 (12.5%) mothers had inadequate knowledge on Food hygiene which implies that knowledge on food hygiene among mothers can be addressed by conducting periodical awareness programs in the community to prevent food borne illnesses among the under five children.

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Conflicts of Interest

The author declares no conflict of interest.

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