Journal of Research in Medical and Dental Science
2021, Volume 9, Issue 9, Page No: 181-185

Available Online at: www.jrmds.in
eISSN No.2347-2367: pISSN No.2347-2545

A Life-Cycle Approach to Food and Nutrition Related Knowledge Challenges of Post-Harvest Handling in India

AR Bharathi*

Department of Nursing, Bharath Institute of Higher Education and Research, Selaiyur, Chennai, Tamil Nadu, India

ABSTRACT

Once considered a disease of affluence and industrialized nations, PEM is currently emerging as global health problem which is increasing nearly in every country throughout the world, leading to considerable co-morbidity and increased mortality. In 2015, just two out of every four stunted children lived in south Asia and one in three in sub-Sahara Africa. Globally stunting, declined from two in five to just under one in four between 1990 and 2015, the number of stunted children under-five worldwide declined from 255 million to 156 million. In Tamilanadu the state, despite high education, has a prominent child malnutrition problem. A national family health survey reveals that 23% of children here are underweight, while 25% of Chennai children show moderately stunted growth. Protein malnutrition is determined at any point in file but prenatally has been shown to have significant lifelong effects. During pregnancy, one should aim for a diet that consist at least 20% protein for the health of the foetus. The result of the study can be communicated to community health nurses to create awareness to the public.

Key words: Marasmus, Kwashiorkor, Malnutrition, Protein

HOW TO CITE THIS ARTICLE: AR Bharathi,A Life-Cycle Approach to Food and Nutrition Related Knowledge Challenges of Post-Harvest Handling in India, J Res Med Dent Sci, 2021, 9(9): 181-185

Corresponding author: AR Bharathi
e-mail ✉ :bharathiar.75@gmail.com
Received: 17/07/2021
Accepted: 15/09/2021

INTRODUCTION

The World Health Organization (WHO, .2.002) defines malnutrition as the cellular imbalance between the supply of nutrient and the body demand for them to ensure growth maintenance and specific function. Under than five Parents may or may not have knowledge on the causes, prevention and management of protein energy malnutrition. The level of knowledge on the causes, prevention and management of protein energy malnutrition among the under-five parents it may vary [1,2]. The results of the study will help the nurses to know the level of knowledge of the mothers regarding causes, prevention and management of protein energy malnutrition in under five children and emphasis on specific areas of health education to the parents. The result of the study can be communicated to community health nurses to create awareness to the public. According to Jelliffe, et al. protein energy malnutrition applies to a group of related disorders that include marasmus, kwashiorkor and intermediate states of marasmus-kwashiorkor. Jelliffe discovered this condition in the early 1920's in most developing countries with increased frequency in hospitalization and chronically in children. Mark, et al. sees protein-energy malnutrition as a syndrome characterized by its progressive o set and a series of symptoms and signs that encompass a continuum, ranging from clinically undetected manifestations to full blown clinical pictures of marasmus or kwashiorkor [3-5]. It is the most common form of nutritional deficiency among patients who are hospitalized in India. Ellis and Mitchell (2000), defines PEM as severe malnutrition resulting from dietary inadequacy of protein or calories or both. It is considered a range of pathological conditions arising from conceit and calories. In 1998, UNICEF estimated that over a 3rd of the world's children suffer some degree of malnutrition and therefore described malnutrition as the commonest worldwide problem affecting i children [6].

In the developing countries, infection occurring with malnutrition is a major cause of morbidity in all age groups and is responsible for two-third of all death under-five years of age. A similar research was also carried out in Benue state, Nigeria on the prevalence of PEM among children 0-5 years and it was noted that 41.6% of children were found to have low weight for height while 54.8% of the malnourished children belong: to mothers who were illiterate. Approximately 50% of 10 million deaths each year in developing countries occur because of malnutrition in children younger than 5 years. Inkwashiorkor, mortality rate trends to decrease within increase in age. Using child growth and malnutrition revealed that about 95% of the total population of children under age 5 were malnourished. The prevalence of PEM

was 20.5% whereas the prevalence of underweight, wasting and stunting using the WHO/National centre for health statistics standers were 23.1%, 9% and 26.7%. The study which includes the classifications of degree of malnutrition as per IAP showed that majority of the subjects (66%) were underweight [7-9].

Waterlows classification revealed that majority of these pre-schooler were wasted (30%) and stunted (42%). Preventing malnutrition in developing countries is a complicated and changeling problem of protein energy malnutrition. Ashworth a, 2006 described in his study that cost effectiveness of ready to use therapeutic foods (RUTF) versus family foods [10]. The rehabilitation phase of treatment of severe malnutrition should take place in the community rather than in the hospitals. An improvement in social infrastructure, better maternal education and nutrition are needed to prevent the child malnutrition issue. A cross-sectional study, in which group were classified into three groups according to their weight for age percentiles, underweight children, borderline malnourished children and normal weight children. Lisa A study about estimation of prevalence of protein energy malnutrition with various anthropometric indices and examine its correlates in a large sample of poor rural minority children among 200 children less than 5 years of age [10]. The result of this study was prevalence of moderate and severe protein energy malnutrition was 15.8% and 3.1% for underweight children, 31.8 and 19.2% for stunting and 0.9 and 0.5% for wasting.

MATERIALS AND METHODOLOGY

This chapter explains the methodology adopted by the researcher study to assess knowledge of protein energy malnutrition among the under-five parents in and around community, Chennai.

It deals with the research approach, research design, variables under the study, setting of the study, population, sample size, sampling technique, and criteria for the Selection of sample, development and description of tool for data collection, content validity, method of data collection and statistical analysis. A descriptive research approach was used to a study to assess the knowledge of protein energy malnutrition among the under-five parents in Alandur community, Chennai

The term “Research Design” refers to the plan or organization of a scientific investigation. Designing a research study involves the development of a plan or strategy that will guide the collection and analysis of data.

The research design applied for the study was descriptive research design. Dependent Variable: Knowledge of under-five parents regarding protein energy malnutrition.

Extraneous Variable: The extraneous variable of the study was age, gender and educational status, occupations.

Setting of the study

The study was conducted among fewer than five parents in selected community at Chennai. The selected community are Alandur.

Population of the study

It comprised of parents with the group of who are all having under five children the age between 0-5 years from Alandur community at Chennai.

Sample size

Total sample of the study consist of 30 under five parents from Alandur community at Chennai.

Inclusion criteria

Parents who are all having children between 0 to 5 years. Parents who knows Tamil and English, parents who are willing to participate in study.

Exclusion criteria

Those who are not present during the time of data collection.

Development and description of tool for data collection

The tool for the present study was developed for purpose of obtaining data from the subjects. The tool was developed by the researcher on reviewing literature and in consultation with nursing experts.

Procedure for data collection

Before data collection, the researcher got formal permission from Secretary of Hindu mission hospital and Alandur primary health canter by submitting an application giving assurance to abide by the rules and regulations. The data collection period was 1 week. The investigator selected the subjects who were fulfilled the inclusion criteria. Brief explanation was given about the purpose of study. Assurance was given that the data collected from the under-five parents will be utilized only for the purpose of study.

The investigator introduced her to the subjects and collected demographic variables. The investigator used structured interview questionnaire method to collect the data from subjects to assess the level of knowledge by using modified questionnaire. The duration of interview for each subject was about 15 to 20 minutes. Each day around 5 to 10 subjects were interviewed.

Statistical analysis

Collected data was analysed by descriptive statistics. The descriptive statistics included mean percentage to assess the level of knowledge among under five parents. Chi-square was used to find out the association between knowledge of protein energy malnutrition among the under-five mothers with selected demographic variables.

RESULTS

The collected data regarding level of knowledge on protein energy malnutrition among under- five mothers were organized, analysed and interpreted as follows, Distribution of subjects according to the demographic variables.

Table 1 shows the distribution of 30 subjects according to the demographic variables. On the basis of age group 9 (30%) belongs to 22-25 years of age, 11 (37%) were 26-29 years of age and 10 (33%) were 30-33 years of age. With regard to educational status of subjects 4(13%) were illiterate, 4 (13%) were completed primary education, 14 (47%) were completed secondary education and 8 (27%) were completed degree holders. In relation to occupation 18 (60%) were employers, 12 (40%) were unemployed. On the basis of socio economic status 3 (10%) they were belongs to high socio economic status, 23(77%) they were belongs to middle socio economic status and 4 (13%) they were belongs to low socio economic status (Figures 1 to Figure 4).

Table 1: Distribution of subjects according to the demographic variables.

Demographic variable	n	%
Age		
22-25	9	30
26-29	11	37
30-33	10	33
Education		
Illiterate	4	13
Primary	4	13
Secondary	14	47
Degree & etc.	8	27
Occupation		
Employee	18	60
Unemployed	12	40
Socio economic status		
High socio economic status	3	10
Middle socio economic status	23	77
Low socio economic status	4	13

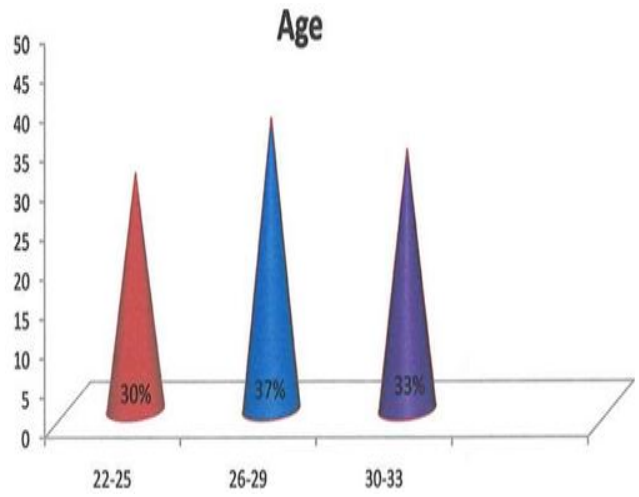

Figure 1: distribution of subjects according to the age.

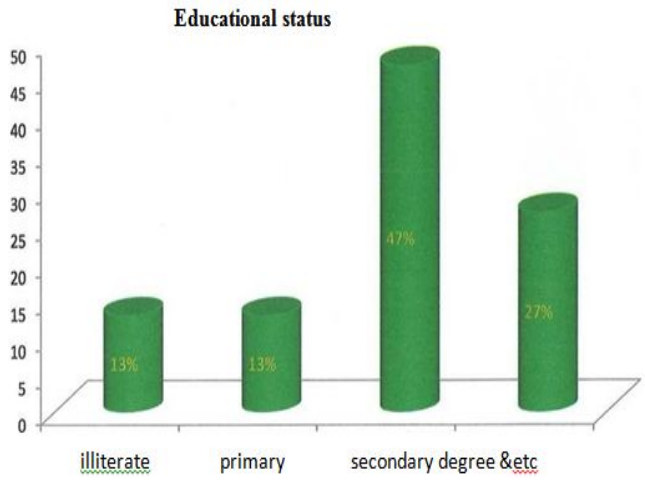

Figure 2: Distribution of subjects according to the educational status.

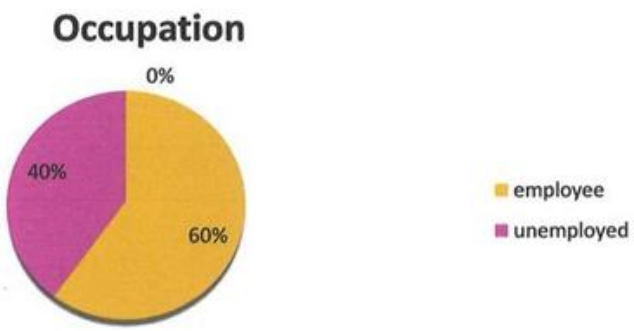

Figure 3: Distribution of subjects according to the occupation.

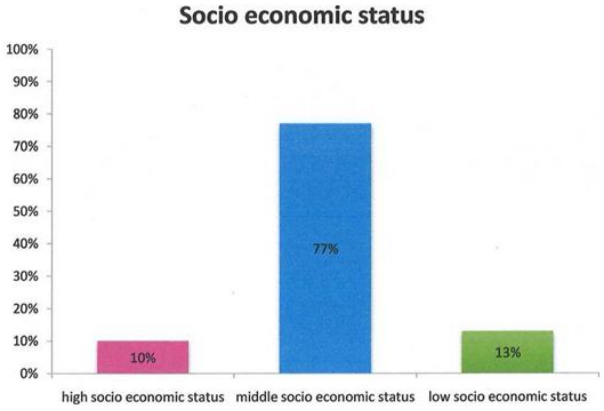

Figure 4: Distribution of subjects according to the socio economic status.

Table 2 describes the knowledge level of parents. On the basis of knowledge score 2(7%) had inadequate knowledge, 16(53%) had moderately adequate knowledge and 12(40%) had adequate knowledge.

DISSCUSSION

Nutrition is a science of food, the nutrients and others substance within food their actions and interactions and balance in relation to health and disease. The focus of the study was to assess the knowledge of regarding protein energy malnutrition in Alandur community, Chennai. Among 30 subjects, On the basis of knowledge score 2(7%) had inadequate knowledge, 16(53%) had moderately adequate knowledge and 12(40%) had adequate knowledge. The chi-square was used to associate the knowledge score with age, education, occupation and socio economic status [11]. The study revealed that there was an association between knowledge of under-five mothers with selected demographic variables like occupation and there was no association between knowledge of under-five mothers with selected demographic variables like age, education and socio economic status [12].

The findings was supported by Frederick J. Zimmerman, who described in his study that age, education, occupation and socio economic status were all found statistically affect the subject knowledge. The aim of the study was to assess knowledge regarding protein energy malnutrition among under-five mothers, for which the following objectives were formulated, to assess knowledge regarding protein energy malnutrition among under-five mothers. Find out an association between knowledge scores and selected demographic variable of under-five mothers [13-15]. To prepare an information booklet on protein energy malnutrition of under-five children's. Nurses can improve the knowledge of under-five mothers on protein energy malnutrition by giving information booklet. The present study has several implications in community nursing practice, community nursing education; community nursing administration & community nursing [16].

The study creates awareness among under-five mothers in reducing protein energy malnutrition. The study can provide a medium for all the protein energy malnutrition measures to practice in community settings. The study can enhance the knowledge of under-five mothers in applying day to day life. Community Nurse Administrator can conduct program for community health personnel to update their knowledge. Community Nurse Administrator may motivate and allocate resources for further studies. Community Nurse Administrator can plan & organize the in-service education. This study provides scope for further research. Utilization of findings & discrimination of knowledge in the field of nursing practice. Extensive research must be conducted to identify the beneficial outcome in reducing morbidity [17].

The research design applied for the study was descriptive research design. From selected community 30under-five mothers were selected by purposive sampling. The tool used for data collection consists of demographic variable and modified questionnaire to assess the knowledge regarding protein energy malnutrition among under-five mothers [18]. The data was collected for a period of 2 weeks. Descriptive statistics was used in statistical analysis, to assess the knowledge of under-five mothers. Chi-square was used to find out the association between demographic variable with level of knowledge.

CONCLUSION

Knowledge of under-five mothers helps to identify protein energy malnutrition among under-five children earlier & it may reduce the occurrence of complications. The nurse can alleviate the problems of under-five children; Nurses play an important role in guiding under-five mothers to gain knowledge on protein energy malnutrition & to achieve maximum level of health & wealthy life.

FUNDING

No funding sources.

ETHICAL APPROVAL

The study was approved by the Institutional Ethics Committee.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGMENTS

The encouragement and support from Bharath University, Chennai, is gratefully acknowledged. For provided the laboratory facilities to carry out the research work.

REFERENCES

1. Lisa Hosti. Prevalence of protein-energy malnutrition with various anthropometric indices. Oxford University Press.
2. https://www.ifpri.org/
3. Halle C, Dowd T, Fowler C, et al. Supporting fathers in the transition to parenthood. Contemporary Nurse 2008; 31:57-70.
4. https://www.unicef.org/reports/state-of-worlds-children
5. Gulani KK. Community health nursing. Nursing J India 2004; 95:176.
6. Rao TB. Textbook of community medicine. Paras Medical Publisher 2006.
7. https://www.unicef.org/media/84796/file/SOWC-2004.pdf
8. Falkner FT, World Health Organization. Prevention in childhood of health problems in adult life. World Health Organization 1980.
9. Maxwell S, Smith M. Household food security: A conceptual review. Household food security: Concepts Indicators Measurements 1992; 1:1-72.
10. Maxwell S, Frankenberger T. Household food security: Concepts, indicators, measurements. A Technical. 1992.
11. Morón C, Viteri FE. Update on common indicators of nutritional status: food access, food consumption, and biochemical measures of iron and anemia. Nutrition Rev 2009; 67:31-35.
12. Mernies J. Measurement of food deprivation. FAO Statistics Division 2003.
13. Wagstaff A, O'Donnell O, Van Doorslaer E, et al. Analyzing health equity using household survey data: A guide to techniques and their implementation. World Bank Publications 2007..
14. Olusanya BO. State of the world's children: life beyond survival. Arch Dis Childhood 2005; 90:317-8.
15. Pelletier D. Beyond partial analysis. In Nutrition and health in developing countries. Humana Press 2008; 887-914.
16. Pinstrup-Andersen P. The African food system and human health and nutrition: A conceptual and empirical overview. The African Food System and Its Interaction with Human Health and Nutrition, Cornell University Press, Ithaca. 2010.
17. Popkin BM, Adair LS, Ng SW. Global nutrition transition and the pandemic of obesity in developing countries. Nutrition Rev 2012; 70:3-21.
18. Qaim M, Stein AJ, Meenakshi JV. Economics of biofortification. Agricul Economics 2007; 37:119-33.