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To assess the knowledge on risk factors of protein energy malnutrition among under five mothers in Kondancheri

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Abstract

Protein energy malnutrition (PEM) is the term given to a group of clinical conditions which occur due to inadequate protein and calorie intake, especially in children. Protein energy malnutrition is a grave problem in developing countries as pregnant mothers do not eat enough nutrition and healthy food, which puts the baby at a disadvantage even before he/she is born. PEM has been classified in many ways, two important types are; Kwashiorkor and, Marasmus. The term malnutrition generally refers both to under nutrition and over nutrition, but in this guide we use the term to refer solely to a deficiency of nutrition, many factors can cause malnutrition, most of which relate to poor diet or severe and repeated infections, particularly in underprivileged populations. The state of the world's children National Family Health Survey 1993 states that the effects of Protein-Energy Malnutrition are; multi dimensional, which includes reduced activity, reduced growth, increased susceptibility to infection, reduced intellectual capability and performance, reduced work efficiency and increased mortality. A quantitative descriptive research design was conducted. A total of 30 samples were selected by convenient sampling technique. The purpose of the study was explained to the mothers and the level of knowledge was assessed using the semi structured questionnaire. The data were collected and analyzed. The result clearly infers that most of them 46(76.67%) had moderately adequate knowledge and 14(23.33%) had inadequate knowledge about risk factors of protein energy malnutrition among under five mothers. This reveals there is a need for the proper education to the mother that will help in proper growth and development of the children.

Keywords: Knowledge, protein energy malnutrition, risk factors

Introduction

Protein energy malnutrition (PEM) is the term given to a group of clinical conditions which occur due to inadequate protein and calorie intake, especially in children. Protein energy malnutrition is a grave problem in developing countries as pregnant mothers do not eat enough nutrition and healthy food, which puts the baby at a disadvantage even before he/she is born. PEM has been classified in many ways, two important types are; Kwashiorkor and, Marasmus^[1, 2].

The term malnutrition generally refers both to under nutrition and over nutrition, but in this guide we use the term to refer solely to a deficiency of nutrition, many factors can cause malnutrition, most of which relate to poor diet or severe and repeated infections, particularly in underprivileged populations^[3, 4].

Kwashiorkor is a form of malnutrition most often found in children. It is caused by not eating enough protein, despite a reasonable intake of calories. It is common in areas of drought and famine. Symptoms may include irritability and fatigue followed by slowed growth, weight loss and muscle wasting, generalized swelling, skin change, enlargement of liver and abdomen and weakening of the immune system, leading to frequent infection^[4, 5].

Marasmus is a severe form of malnutrition that consists of the chronic wasting away of fat, muscle, and other tissues in the body. Marasmus symptoms will vary depending on the severity and whether associated infections or other conditions are present. General symptoms of Marasmus include chronic diarrhea, dizziness, fatigue and rapid weight loss. Marasmus is caused by inadequate amount of both protein and calories that are consumed, resulting in an energy deficit in the body. Treatment is based on nutritious, well balanced diet with lots of fresh fruits and vegetables, grains and protein^[5, 7].

Mother is the one who take care of the child, it is very important that she should need to have

knowledge regarding care of under five and nutrition which they need, under fives are “age in-between 0-5 years of child”. Healthy eating and physical activity are essential for growth and development in childhood. To help children develop healthy eating patterns from an early age, it is important that the food and eating patterns to which they are exposed - both at home and outside the home - are those which promote positive attitudes to good nutrition [8, 10].

Throughout the world, approximately 9% of children from below five years of age are suffering from wasting, stunting and are at risk of several impairment in growth, psychological development and health. World Health Organization (WHO) estimated that by the year 2014, the prevalence of protein energy malnutrition will have decreased to 17.6% globally [11, 12].

PEM was more common among children from the lower social class (69.4%) and those predominantly breast fed for three months or less (48.6%) compared to exclusively breast fed children (18.9%). The reason for this may not be unconnected to the fact that poor families have low purchasing power for adequate nutritious foods for their families. Illiteracy on the other hand, may influence feeding practices. The low rate of exclusive breast feeding noted in this review despite the Baby Friendly Initiatives is also very worrisome. Poverty and illiteracy as risk factors for PEM [13].

Kumar et al., 2002, Malnutrition is a major health and social problem from which many people are suffering, particularly children. It affects almost 800 million people, 20% of all in the developing countries. It is associated with about half of all children death worldwide.

The purpose of the study is [1] To Assess the level of knowledge about risk factors of protein energy malnutrition among under five mothers [2]. To find the association of level of knowledge with selected demographic variables.

Methods and Materials

A quantitative descriptive research design was conducted to assess the knowledge on risk factors of protein energy malnutrition among under five mothers in Kondancheri. A total of 30 mothers were selected by convenient sampling

technique. The inclusion criteria for the samples are mothers with Under five children and mothers willing to participate in the study. The exclusion criteria for the mothers who have already attended class on PEM, mothers with children with psychiatric diseases and mothers who are not willing to participate in the study. The formal permission was obtained from the authority of Kondancheri village in Tiruvallur district. The purpose of the study was explained to the mothers and the level of knowledge was assessed using the semi structured questionnaire. The sample characteristics and level of knowledge were described using frequency and percentage. Chi square was used to associate the level of knowledge about risk factors of protein energy malnutrition with the selected demographic variables.

Results and Discussion

Section A: Sample characteristics

The study finding shows that most of the under-five mothers, 18 (60%) were in the age group of 20 – 30 years, 16 (53.3%) had primary level of education, 16 (53.4%) were housewives, 16 (53.3%) had no monthly family income, 23 (76.7%) belonged to nuclear family, all 30 (100%) were non-vegetarian, 21 (70%) were Hindus, and 15 (50%) had moderate lifestyle pattern.

Section B: Assessment of level of knowledge regarding PEM among mothers with under 5 children

The level of knowledge of mothers regarding PEM shows, most of them 46(76.67%) had moderately adequate knowledge and 14(23.33%) had inadequate knowledge about risk factors of protein energy malnutrition among under five mothers (Table 1).

Table 1: Frequency and percentage distribution of level of knowledge regarding PEM among mothers with under 5 children
N = 30

Level of Knowledge	No.	%
Inadequate Knowledge (≤50%)	14	23.33
Moderately Adequate Knowledge (51 – 75%)	46	76.67
Adequate Knowledge (>75%)	0	0

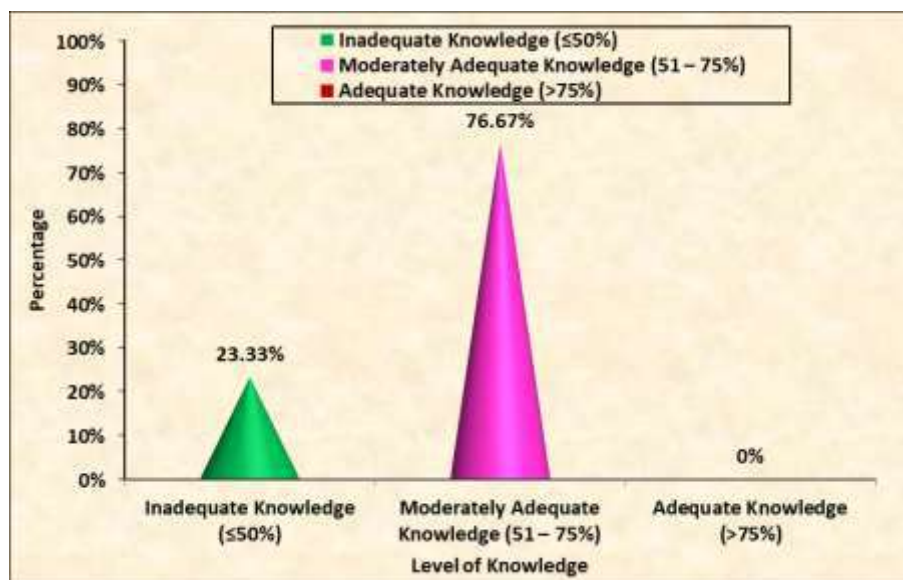


Fig 1: Percentage distribution of level of knowledge about risk factors of protein energy malnutrition among under five mothers

The present study is supported by Ms. Sonia Sonny, Malarvizhi M (2015) conducted a study on “Knowledge Regarding Protein Energy Malnutrition Among Mothers of Under Five Children” A descriptive approach was conducted among 100 mothers. And the results showed that 42% of mothers had an average level of knowledge about Protein Energy Malnutrition (PEM), 37% and 10% of them had poor and very poor level of knowledge and 11% of the mothers had good knowledge regarding PEM. Mothers had good knowledge regarding preventive aspects of Protein Energy Malnutrition ^[8].

Section C: To associate the demographic variables with the knowledge of under five mothers regarding risk factors of protein energy malnutrition

The demographic variable lifestyle had shown statistically significant association the level of knowledge about risk factors of protein energy malnutrition among under five mothers at $p < 0.05$ level the other demographic variables had shown statistically significant association with level of knowledge about risk factors of protein energy malnutrition among under five mothers.

The present study is supported by Sarika Yadav (2016) conducted a study on “Knowledge and Practices regarding Prevention of Protein Energy Malnutrition among Mothers of under Five Children” A Descriptive among 100 mothers of under five children at the selected area of Gajipur, New Delhi. The Results showed that majority, 45.36 percent of mothers had knowledge related to general information of PEM, followed by 43.44 percent of the mothers who knew about causes, signs and symptoms of PEM. Majority 46.3 percent of the respondents had the right Dietary practice and 42 percent had the good practice of management of diarrhea. There is significant association observed between knowledge and educational status of the mother. Overall findings showed that, the existing, knowledge and practice is found 45.52% and 41.66% on prevention of protein energy malnutrition ^[9].

Conclusion

This indicates that mothers have moderate or inadequate knowledge on risk factor of protein energy malnutrition. Proper education to the mother will help in proper growth and development of the children.

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Authors Contribution

All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

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