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Study to assess the prevalence and factors associated with malnutrition among children

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Abstract
Introduction: Children are human resources of the future. Their development is in the interest of the total national development. Adequate nutrition is essential in early childhood to ensure healthy growth, proper organ formation and function, a strong immune system and neurological and cognitive development hence, the study was undertaken "An exploratory study to assess the prevalence and factors associated with malnutrition among children in selected Anganwadis of Pune city." Purpose-The purpose or the goal of the study to assess the malnutrition in the age group of 2 to 5 years and find out the factors associated with malnutrition.
Method and Material: The quantitative study approach Non-experimental (exploratory design) is a study design. Non probability sampling technique was used. Anthropometric measurements are taken for to detect nutritional status of the child semi structured tool was used to find out the factors which are responsible for malnutrition. Analysis was done by descriptive statistics (percentage, frequency).
Result: The prevalence rate of the malnutrition is 6.3% children are Underweight, Stunted and MAM (Moderate acute malnourished). 60% are the female and 40% are male.67% of children are having second birth order. 57% children are from nuclear family. The 98% families are having information source regarding dietary practice from family members/relatives/friends. The maternal factors, child related factors and nutritional factors are mainly responsible for the malnutrition in the age group of 2 to 5 years aged children. The majority of mothers that is 82.54% mothers are having less knowledge about the calories and protein requirement of her child and 57.14% mothers are having less knowledge regarding the sources of the calories and protein. The majority of children that is 68.25% children are having history of hospitalization and 50.79% children are not taken to hospital for growth monitoring. 71.43% mothers has not feed breast feed for their child more than 2 years. 55.56% children has not eat whole food which is in the bowl. 88.89% children has not ate food minimum six times in a day.
Conclusion: The prevalence of malnutrition is very high the government of India is provided meal for the anganwadi children there is need do the interventional study to prevent the malnutrition in the children.

Keywords: Study, assess, prevalence, factors associated, malnutrition among children

Introduction

As we know that children are human resources of the future and their development is the total national development. They should get adequate nutrition, children should be provide with proper nutrition, which results healthy growth, proper organ formation and function, also it helps to have a strong immune system and neurological and cognitive development. It is the future of our country is not feeded well than it would also affect our country. As it will affect our economic growth. Child malnutrition leads to unproductive lives. a malnourished person will have difficulty in enhancing skills. The death rate adds up to the count. Many children die because of malnutrition.

Proper food plays a very important role in children. It keeps them healthy. Improper intake of food may leads to increases in mortality. Malnutrition also increases susceptibility to infection like diarrhea and pneumonia in children. It acts in two ways to cause high mortality and morbidities in under five children.

It is called that food, health, and caring, the three strong "pillars of wellbeing". Malnutrition is not the only reason for ill health or mortality. There are few more reasons too like poverty, disturbed family structure, ignorance and despair among each other. All the developing countries suffers from malnutrition, hence it is a global problem. Specifically under nutrition is a major public health problem among under five children.

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Malnutrition is a main reason of deaths around 50% of under five years children. Further it does not lead to death, malnutrition, including micronutrient deficiencies, it often creates permanent loss, including impairment of mental development and physical growth. For example, iron, folic acid and iodine decencies can lead to brain damage, neural tube defects in the new-born and mental retardation.

The 2011 Global Hunger Index (GHI) Report ranked India 15th, amongst leading countries with hunger situation. It also places India amongst the three countries where the GHI between 1996 and 2011 went up from 22.9% to 23.7%, while 78 out of the 81 developing countries studied, including Nepal, Bangladesh, Pakistan, Kenya, Nigeria, Vietnam, Myanmar, Uganda, Malawi and Zimbabwe succeeded in improving hunger condition.

The researcher has experienced that the maximum children who are admitted in the hospital they are suffering from the malnutrition. When I was posted in the RPH posting that time I observed that the mothers are having lots of questions regarding child's diet. So many children are suffering from malnutrition, and some factors influence and because the prevalence of malnutrition the researcher found that it is necessary to find the prevalence factors association with malnutrition among children in selected Anganwadis of Pune city.

Materials and Methods
A non-experimental exploratory research design was adopted to conduct the study. Non probability purposive sampling technique was used to select 1000 Anganwadi children. Anthropometric measurements were taken to assess the nutritional status of the selected Anganwadi children. Semi structured tool used to assess the associated factors of malnutrition. Semi structured tool is divided in four sub points that is 1) Maternal factors related to malnutrition. 2) Factors related to child malnutrition. 3) Nutritional factors related to malnutrition. 4) Environmental factors related to malnutrition.

Research Objectives
1. To find the prevalence of malnutrition among children in selected Anganwadis.
2. To assess the risk factors of malnutrition among children in selected Anganwadis.

Result
The prevalence rate of malnutrition in 2 to 3 years of children is 6.3% (63). The 6.3% children are underweight, stunted, and MAM (Moderate acute malnourished).in this 60% are male children & 40% are female children.

Maternal factors related to malnutrition
The factors which are responsible for the malnutrition that is majority of mothers that is 82.54% mothers are having less knowledge about the calories and protein requirement of her child and 57.14% mothers are having less knowledge regarding the sources of the calories and protein this are the risk factors of malnutrition among the children in selected Anganwadis.

The factors which are helping to reduce the malnutrition that is 74.6% mothers are not having anemia during pregnancy. 82.54% mothers are having minimum two years of birth spacing between two children. 69.84% mothers are not

suffering from any disease during pregnancy, and 95.24% mothers are not suffering from any disease.

Factors related to child malnutrition
The majority of children that is 68.25% children are having history of hospitalization and 50.79% children are not taken to hospital for growth monitoring. So this are the factors responsible for child malnutrition among the children in selected Anganwadis.

The factors which are help to reduce the malnutrition that is 69.84% children are having birth weight was 2.5kg or more than that. 98.41% children are immunized as per immunization schedule. 82.54% children are not suffering from diarrhoea frequently. 92.06% children had not met any accident. 98.41% children are not having any congenital anomalies. 69.84% children are not having history of NICU stay. 84.13% children are not having behavioural disorders.

Nutritional factors related to malnutrition
A factor which is responsible for child malnutrition that is 71.43% mothers has not feed breast feed for their child more than 2 years. 55.56% children have not eaten whole food which is in the bowl. 88.89% children has not ate food minimum six times in a day. These nutritional factors are responsible for child malnutrition.

Factors which are helping to reduce the malnutrition50.79% mothers are child within one hour after delivery. 65.08% mothers are exclusively breast feed to the child up to 6 months of age. 95.24% mothers are started complimentary feed after 6 months of the age of the child. 98.41% mothers are given equal attention towards male and female child. 68.25% children are not having unusual craving (Mud, soil, chock, pencil). 100% mothers are supervised to the child while eating. 100% mothers are given adequate food when child is sick. 100% mothers are maintaining proper hygiene at the time of cooking.98.41% mothers are washing vegetables before cutting.100% mothers are preparing fresh food every time for child. 76.19%children are eat fruits daily.69.84% children are eat vegetables daily.88.89% mothers are using iodinated salt while cooking food.

Environmental factor related to malnutrition
There is no single factor is responsible for malnutrition among the children in selected Anganwadis. 100% mothers are washing hands before cooking food as well as washing child's hand after defecation, Providing safe drinking water to the child, Washing child's hands after playing and cutting child's nails regularly. 96.83% mothers are washing child's hands before 42 & after having lunch. 82.54% mothers are segregating waste. 100% families are using latrine facilities.

Discussion
To find the prevalence of malnutrition among children in selected Anganwadis
The prevalence rate of malnutrition in 2 to 3 years of children is 6.3% (63). The 6.3% children are underweight, stunted, and MAM (Moderate acute malnourished).in this 60% are male children & 40% are female children.

These findings are supported by the study conducted by Solomon Amsalu *et al*, on epidemiological study of malnutrition among under five children. The result was shown that is 41.3% children were found to be a server underweight female children are more nutritionally deprived then the male.

Factors responsible for malnutrition

Mother's education: Most of the mothers are not aware about the nutritional requirement of the child. There is need to educating mothers about the importance of the nutrition. There is need to teach the mothers about food preparation practices so the prepared food will not lose their nutritional status. There is need to provide the education to the mothers about maintaining child's nutritional status. There is also need to provide the education to the mothers about the importance of breast feed and the exclusively breast feeding up to six month.

This findings are supported by the study was conducted by Neima Endris on associate factors and prevalence of malnutrition and among children. Sample size was 3095 children. The anthropometric measurements taken for assessing the nutritional status. The result was found that the mother education and knowledge is independently associated with child malnutrition.

Environmental factor related to malnutrition

There is no single factor is responsible for malnutrition among the children in selected Anganwadis. Infection: The children who are having infections those children are more prone for the malnutrition. There is need to maintain proper personal hygiene These findings are supported by the study conducted by Bantamen *et al*, on to assess the risk factors for severe acute malnutrition in under five children.

The result was shown that: • Improper feeding practice in infant and young child were commonly seen in children with severe acute malnutrition. • Lack of exclusive breastfeeding, bottle-feeding and late initiation of complementary feed. • There was a significant difference between the parents/caregivers knowledge about feeding practices for infant and young child.

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