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## **A study to assess the knowledge on vitamin D among under five mothers at selected rural area**

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### **Abstract**

Vitamin are substances essential for the maintenance of normal metabolic functions they are required for the metabolism of carbohydrates, fats and proteins. Vitamins are widely used as dietary supplements. Even through vitamin supplements are of no demonstrated value for healthy infants, child adolescents or adult who is consuming an adequate and varied diet. More than 254 million children suffer from vitamin deficiency worldwide in each year. World health organization estimates that 100 to 140 million children under the age of five may be living with dangerously low vitamin D. The need for the study was to assess the knowledge on vitamin D among under five mothers at rural areas.

**Objectives:** To assess the demographic variables of under-five mothers at selected rural area. To find out the level of knowledge on vitamin D among under five mothers at selected rural area. To associate the level of knowledge of under-five mothers with the selected demographic variables.

**Methodology:** Research approach is quantitative approach, Research design: univariant descriptive design, 100 samples by Non-probability convenient sampling technique.

**Results:** 88 mothers (88%) had inadequate knowledge, 12 mothers (12%) had moderately adequate knowledge and none of them had adequate knowledge about vitamin D residing at the rural village.

**Keywords:** vitamin D, mothers, rural area

### **Introduction**

Health care of under five children has been markedly changed in developed countries. There is a change in the view of children from, "Miniature adults" to "Unique individual" with special need and qualities, the under five children has prime importance, as the mortality and morbidity are higher in this group, due to vitamin deficiency disorders. In 1984 world health day rightly spotlighted the basic truth indicating that must all safeguard the healthy minds and bodies of the family, external joy to the parents, thrill of the society and hope the nation, their well being is the basic concern of the nation.

The word "vitamin" means life. Vitamin are substances essential for the maintenance of normal metabolic functions they are required for the metabolism of carbohydrates, fats and proteins. Vitamins are widely used as dietary supplements. Even through vitamin supplements are of no demonstrated value for healthy infants, child adolescents or adult who is consuming an adequate and varied diet.

More than 254 million children suffer from vitamin deficiency worldwide in each year, World health organization estimates that 100 to 140 million children under the age of five may be living with dangerously low vitamin-stores. Vitamin deficiency disease, which are mainly seen in under five children is due to vitamin-A and D deficiency.

Vitamin D insufficiency affects almost 50% of the population worldwide. An estimated 1 billion people worldwide, across all ethnicities and age groups, have a vitamin D deficiency (VDD). This pandemic of hypovitaminosis D can mainly be attributed to lifestyle (for example, reduced outdoor activities) and environmental (for example, air pollution) factors that reduce exposure to sunlight, which is required for ultraviolet-B (UVB)-induced vitamin D production in the skin. High prevalence of vitamin D insufficiency is a particularly important public health issue because hypovitaminosis D is an independent risk factor for total mortality in the general population.

The vitamin-D "Rickets" in under five children. It reduces calcification of bones which affect growth of bones and causes deformity of bones, such as- Curved legs, Pigeon chest, Rickets rosary, deformed pelvis. There is delayed teething, Standing and Walking.

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### Need for study

It has been estimated that one million children worldwide have vitamin-D deficiency. One study found the prevalence of rickets in under five children to be 1.6% and the UK, The prevalence of vitamin-D insufficiency in under five children is 14.5%. 76% pregnant mother are severely vitamin-D deficient, causing widespread vitamin-D deficiencies in their unborn children which predisposes them to type one-Diabetes, Arthritis, Multiple-sclerosis and Schizophrenia later in life 81% of children born to these mothers were deficient.

Rickets is a public health problem in Bangladesh during past two decades. Up to eight percent of children clinically affected in some areas, Insufficiency of dietary calcium is thought to be the underlying cause and treatment is calcium is curative. Effective preventive measures that can feasibly reach entire communities are needed and these may differ between various affected regions.

In India, rickets still exists. The age incidence of vitamin-D deficiency rickets is higher and the most response to vitamin-D is satisfactory. Most hospitalized children with frank vitamin-D deficiency rickets in the tropical countries are between the age of two and four years and constitutes nearly two-third of the total cases. A nutritional survey conducted by the national Institute of nutrition Hyderabad has placed the incidence of rickets at the five percent among the deficiency disease while a higher rate of prevalence of diseases has been observed in Maharashtra.

Vitamin-D deficiency rickets and osteomalacia caused by inadequate exposure of sunlight, dietary calcium deficiency and fluoride interaction syndromes, were commonest disorders responsible for bone disease and deformities,

besides caused by endemic skeletal flurosis as a single entity in endemic flurosis villages. Vitamin-D deficiency rickets in children and osteomalacia in the mothers are commonest disorders prevalent in the rural population of India

### Statement of the problem

A Study to Assess the Knowledge on Vitamin D among Under Five Mothers at Selected Rural Area.

### Objectives

- To find out the level of knowledge on vitamin D among under five mothers at selected rural area.
- To associate the level of knowledge of under five mothers with the selected demographic variables.

### Materials and Methods Used

The research approach used in the study was quantitative approach using univariant descriptive research design. The study was conducted at selected rural areas for 100 samples using non- probability convenient sampling technique. The tool used for the study was demographic variable and structured vitamin D questionnaire to assess the level of knowledge of under five mothers regarding vitamin D. Informed consent was obtained and the data was analyzed using descriptive statistics and inferential statistics.

### Result

- The results shows that 88 mothers (88%) had inadequate knowledge, 12 mothers (12%) had moderately adequate knowledge and none of them had adequate knowledge about vitamin D residing at the rural village.

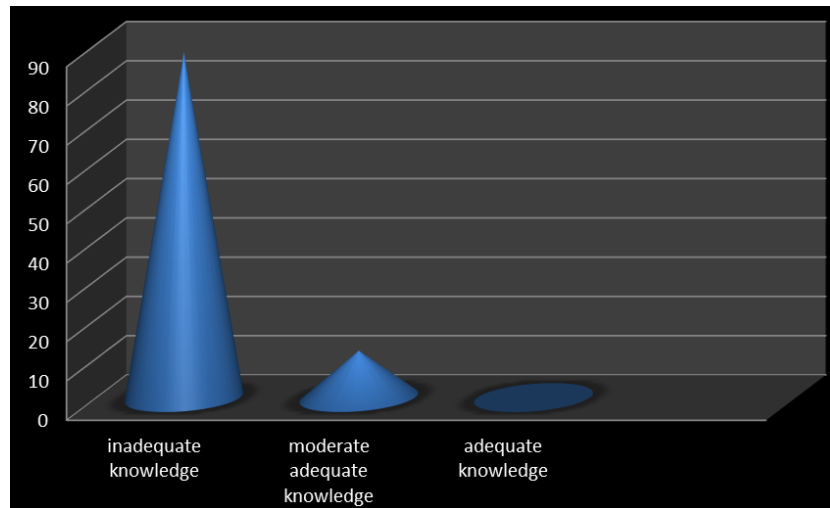


Fig 1: Level of Knowledge

- The result shows that there is no significant association between the selected demographic variable with the level of knowledge of under five mothers residing at selected rural villages.

### Conclusion

The study concludes that majority of the mothers are unaware of the importance of vitamin D. The vitamin D which plays a major role for the development of under five children, hence it is important to create the awareness about the vitamin D, its importance and about the deficiency.

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