

“A Study to Assess the Knowledge Regarding Warning Signs of Calcium Deficiency Among Parents of School Going Children in Selected Areas of Pune City.”

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Abstract

Introduction: - Most important minerals of the body is calcium. Contraction of muscle and clotting blood was role of calcium as well as stabilized nerve functions. Most of the calcium found in bones and the others is founding in muscles and as well as blood. The average nutritional requirements of groups of people are fixed and depend on such measurable characteristics as age, sex, height, weight, degree of activity and rate of growth. A recent National Survey indicates that 85 % of young adults do not consume the Recommended Daily Allowance of calcium. Title of the study: “A study to assess the knowledge regarding warning signs of calcium deficiency among parents of school going children in selected areas of Pune city.”

Material and methods: A non-experimental descriptive research design was undertaken . Quantitative Research approach was adopted for the study. Non-probability purposive sampling technique was used for sample selection. Sample size was 100 sample. The Study was done at selected areas of Pune city. Structured Knowledge questionnaire was used as a tool for collecting the data which include demographic questions and knowledge based questions. Data analysis was done by using descriptive inferential statistics

Results: Findings related to the level of knowledge regarding calcium deficiency among parents of school going children. 42% were having average and good knowledge respectively and 11% were having poor knowledge, 5% were having Excellent knowledge. The overall mean is 13.22 & SD was 4.42.

Conclusion: It shows that awareness of calcium deficiency among parents which will help the children to fight against calcium deficiency through the medium of health education.

Keywords: assess, calcium deficiency, Parents of school going children

Introduction

Calcium is the most abundant mineral in the human body. About 99% of the body's calcium is stored in the bones and teeth (National Research Council, 1989; Whitney et al, 1996) with the remaining 1 % in the soft tissues and watery parts of the body The recommended level of calcium for adult who are in the age group between 19 -30 years is 800 - 1000 mg per day Over the last three to four decades, the clinical implications of calcium deficiency are being recognized, the economic burden of osteoporosis increasing² Most important mineral of the body is calcium. Contraction of muscle and clotting blood was role of calcium as well as stabilized nerve functions. Most of the calcium found in bones and the others is founding in muscles and as well as blood.

Calcium performing the important roles in daily work. Two ways of calcium enters in the body. By eating calcium including foods and tablets, and the second way is by entering the calcium in the body. If the body did not eat

sufficient calcium including diet will that result of withdraw of the calcium in the bones and body.

Calcium, present in foods, dairy products as well as medicines. Calcium helping the body doing the flexible movements and strong structure of bones and teeth. calcium deficiency can also cause of rickets. Children who suffered rickets disease causes poor growth and pain in bone simply that affected the development of bone. Chronic calcium deficiency is caused by bone softening and disease like osteomalacia that occur in a children & adults. Rickets and osteomalacia prevented and treated by calcium intake such as eating foods that include calcium.

Need of the Study

Parathyroid hormones large part is regulated by calcium metabolism. Vit D deficiency states that bone metabolism that is results of reduce active calcium used & absorption. That to parathyroid hormones secretions changes in circulating ionic calcium. Integral component of the skeleton and the skeleton provides the calcium dependent functions. Third one is the process of bone formation resorption.

Breastfeed infants get their daily calcium needs through the breast milk. In the child age bone growth is on peak in the children when the bones increase in size & bone mass around doubles. Calcium intake diet or calcium balanced diet important because of it also includes phosphorous, magnesium and vit-D which help calcium absorption and stimulate bones grow and development. Globally, 800 million people are undernourished. More than 3.5 billion people are at risk of calcium deficiency and 90% of those at risk, are in Africa and Asia (101). In one of the longest (1963–2005) and largest study from India, nutritional bone disease constituted 52% of the population. The commonest disorders are rickets (7.6%), osteomalacia (35.3%), and osteoporosis due vitamin D deficiency, because of inadequate sunlight exposure and dietary calcium deficiency. The study can also help healthcare professionals and caregivers to identify the warning signs of calcium deficiency and provide appropriate care to the school going children. The study can also help in developing policies and guidelines for the prevention of calcium deficiency. The study is expected to contribute to the growing literature on calcium deficiency in India and provide insights into the knowledge and awareness of calcium deficiency among children.

Aim of the Study

The aim of the study is to assess the knowledge regarding warning signs of calcium deficiency among parents of school going children and to find out the association between knowledge findings and selected demographic variables.

Methodology

Quantitative Research approach was adopted for the study. A non-experimental descriptive research design was undertaken. Non-probability purposive sampling technique was used for sample selection. Sample size was 100 sample. The Study was done from parents of school going children at selected areas of Pune city. Structured Knowledge questionnaire was used as a tool for collecting the data which include demographic questions and knowledge questionnaire. Validation was received from 5 experts and necessary changes were made in the tool after discussion with guide as per the expert suggestions. Reliability was done by using Test-Retest method. The reliability calculated by Karl Pearson's correlation coefficient formula. The r value for knowledge Questionnaires tool is 0.9256. Thus the tools are found reliable for the study as r value was more than 0.7. Final tool was prepared for the study. In pilot study, there were no any major problem faced. Hence study is found feasible to conduct main study. Main data collection was collected from 100 Sample. Data analysis was done by using descriptive and inferential statistics.

Results

Section-I: Description of demographic data

Percentage wise distribution according to age in years. Majority 43% were from 26 to 30 year, 31% were from 20 to 25 years, 26% were from 30 years and above 9 of age group. Majority 50% were having joint family, 40% were having nuclear family and 10% were having extended family. Majority of 52% were having rural, 31% participants were having Semi urban, 17% were having urban area of residence. In term to Education of parent. Majority 28% were having Secondary education, 27% were having

Higher education, 17% were having Graduation, 14% were having primary and conforal education respectively. In Occupation of Parents. Majority 31% were having private sector, 28% were having private employee, 26% were having government sector and 15% were having business. Majority 28% were having family income between 10000 to 20000, 26% were having 20000 to 30000, 25% were having 30000 -40000 and 21% were having more than 40000. Majority 44% were having 2 Children, 36% were having 1 child and 20% were having more than 2 children. Majority 61% were having no knowledge regarding calcium deficiency and 39% were having knowledge regarding calcium deficiency.

Section II: Description related to level of knowledge regarding calcium deficiency among parents of school going children in selected area of Pune city.

Figure 1: Deals with the analysis of level of knowledge regarding calcium deficiency among parents of school going children.

N=100

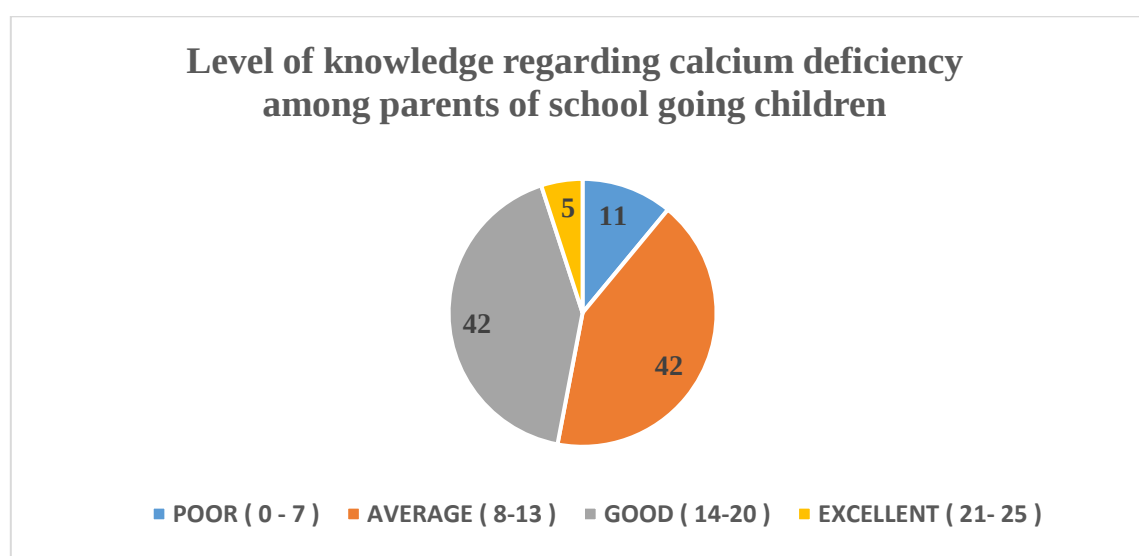


Figure 1: Pie chart depicts findings related to the level of knowledge regarding calcium deficiency among parents of school going children. 42% were having average and good knowledge respectively and 11% was having poor knowledge, 5% have Excellent knowledge.

N=100

LEVEL OF KNOWLEDGE	Mean	SD
POOR (0 - 7)	13.22	4.4285
AVERAGE (8-13)		
GOOD (14-20)		
EXCELLENT (21- 25)		

Table no. 1 depicts findings related to the level of knowledge regarding calcium deficiency among parents of school going children. The mean score is **13.22 with SD+-4.42**.

Figure 2: Deals with the item analysis of knowledge regarding calcium deficiency among parents of school going children.

N=100

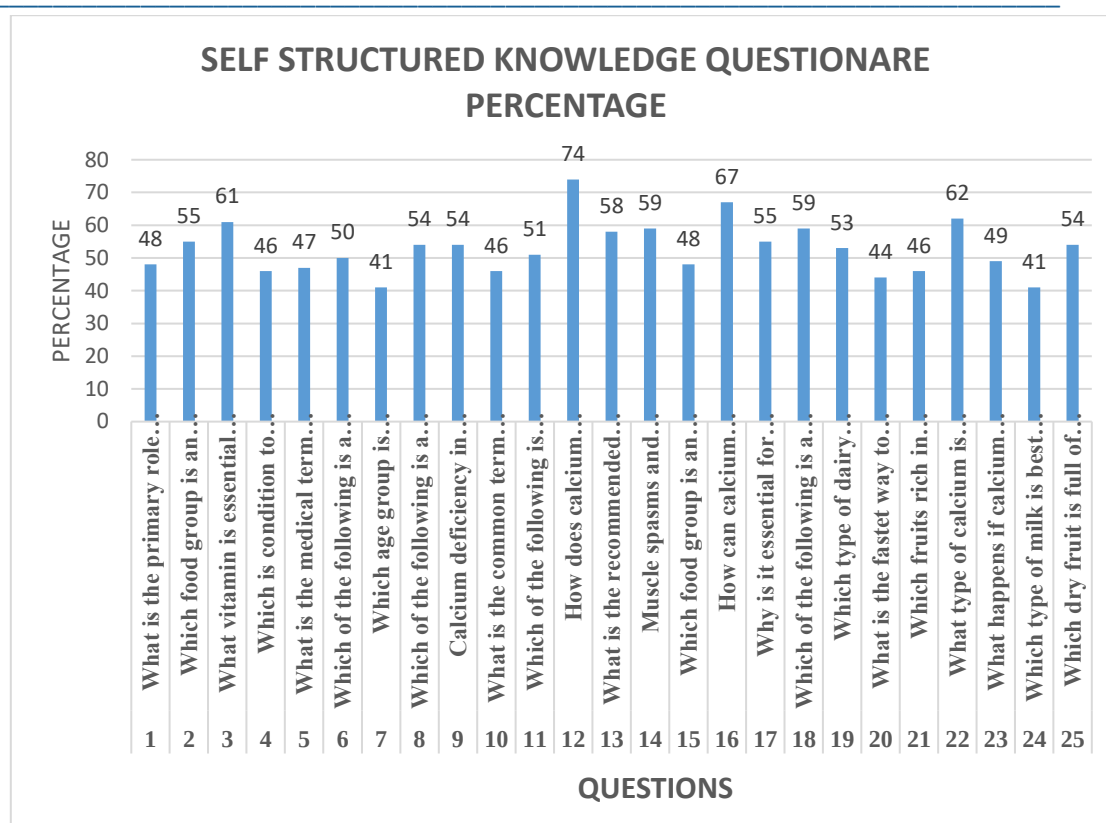


Figure no. 2 depicts item analysis findings related to the knowledge questionnaire responses regarding calcium deficiency among parents of school going children age between 7 to 12 years old in selected areas of Pune city. Total 100 samples were taken for the study. The highest number of respondents received was 74% from the question no.12.

Section-III: Analysis related to association between of knowledge and demographic variables.

There was no any association between selected demographic variables & knowledge regarding calcium deficiency among parents of school going children age between 7 to 12 years old in selected areas of Pune city. Demographic variables are Age, type of family, area of residence, occupation, family income, type of family, number of children and any knowledge regarding calcium deficiency are not associated with a significant level of 0.05.

Discussion

Findings related to the level of knowledge regarding calcium deficiency among parents of school going children. 42% were having average and good knowledge respectively and 11% was having poor knowledge, 5% have Excellent knowledge. The study was supported by Prevention of Calcium Deficiency Among children. Calcium intake of children of Asian or Indian is similarly to low in comparison to their Western children. So the study was motive to assess the information regarding avoidance of calcium deficiency diseases of children. Use to non-experimental descriptive design. Total no. of 100 samples were selected. The information level of the samples was analysis using a structured questionnaire. Study results shows that higher percentage of adult girls or children are taking inadequate information regarding anticipation of calcium deficiency there is also an important relationship of age, religion, working status of mother and their informative score at the level of $p < 0.005$.

Conducted a study on calcium deficiency. That group also received only diet modification. daily calcium intake decreased was observed in 50.68 percent of boys and 70.71 percent of girls. decreased level calcium and daily vitamin D absorption was found in 84.93 percent of boys and 96.97 percent of girls. 3 months' later observation and correction of normal calcium level was found in the hair of 10 students. Diet modification along with supplementation of calcium and vitamin D shows to be a much more effective method of increasing the level of calcium.

Conclusion

Demographic variable that majority of 43% were from 26 to 30 year. Majority 50% had joint family. 52% were from rural. Majority 28% were having Secondary education. Majority 31% had private sector job. Majority 28% had family income between 10000 to 20000. 44% had 2 Children. In present study shows that result revealed the 42% were having average, 42% were having good knowledge respectively and 11% was having poor information, 5% was having Excellent information. Overall mean 13.22 with SD+-4.42. There was no any association between selected demographic variables & knowledge regarding calcium deficiency among parents of school going children age between 7 to 12 years old in selected areas of Pune city. Demographic variables are Age, type of family, area of residence, occupation, family income, type of family, number of children and any knowledge regarding calcium deficiency are not associated with a significant level of 0.05. Thus, it shows that there is urgent of awareness of calcium deficiency among parents which will help the children to fight against calcium deficiency through the medium of health education.

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Conflict of Interest: The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper

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Ethical Approval: Ethical approval is given by Institutional research & recommendation committee, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Pune

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