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EXPLORING PERSPECTIVES: KNOWLEDGE AND ATTITUDE REGARDING COPPER T INSERTION AMONG ELIGIBLE COUPLEIN A SELECTED COMMUNITY AREA

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RUNNING TITLE:

Assess the Prevalence of Malnutrition among Toddlers in Selected Village.

KEYWORDS
● Prevalence
● Malnutrition
● Toddlers

ABSTRACT

Background of study: Globally, malnutrition is a major contributor to under-five mortality. According to the World Health Organization (WHO), around **21.9%** of children under the age of five are stunted, **13.4%** are underweight, and **7.3%** are wasted. . **Objectives:** To assess the prevalence of malnutrition among toddlers, To find out the association between prevalence of malnutrition with their selected demographic variables. **Research Hypothesis:**H1: There is significant association between prevalence of malnutrition with their selected demographic variables of toddlers. **Methodology:** In the study was qualitative and research design was descriptive. The setting of the study was the selected area in Chennai, the population was the toddlers both boys and girls in the
age group between 1 to 3 years in selected area. who are fulfilled the inclusion criteria,50 toddlers Boys & Girls. purposive sampling technique was used in this study. **Result** shows that 34% of toddlers are severely undernourished,2%under-nutrition.32%, has normal nutrition,32% obese. Hypothesis **religion** ($p = 0.029$) and **type of family** ($p = 0.033$)
significance to prevalence of malnutrition among the toddlers.

Keywords: Prevalence , Malnutrition, Toddler

INTRODUCTION :

Adequate nutrition is vital for healthy growth and development during childhood. Malnutrition among children remains one of the most important causes of morbidity and mortality in the world. In India, malnutrition is one of the most serious public health problem and the biggest in the world. Malnourished child was labeled as malnourished if any of the nutritional assessment indices weight for height, weight for age, or height for age is abnormal.

Malnutrition is a major health problem that can be caused by a primary situation, such as poverty, due to lack of food, or by a secondary situation, resulting from disease. Malnutrition, or under nutrition, is defined as "a state resulting from lack of intake or uptake of nutrition that leads to altered body composition (decreased fat free mass) and body cell mass leading to diminished physical and mental function and impaired clinical outcome from disease". It can result from under nutrition.

Worldwide reports show that 21.9%, 13.4%, and 7.3% of under five years of age are stunted, underweight, and wasted, respectively. The WHO also estimated that about 5.4 million under-five children die each year with 2.7 million deaths occurred in Sub-Saharan African countries. Each year approximately 2.3 million deaths among 6-60 months aged children in developing countries are associated with malnutrition, which is about 41% of the total deaths in this age group. It is the most important risk factor for the burden of disease causing about 300,000 deaths per year directly or indirectly responsible for more than half of the all deaths in children. Globally, approximately 60 million and 13 million of children are affected with moderate and severe acute malnutrition, respective.

Ministry of Women and Child Development: Measures to address malnutrition among underfive children Posted On: 05 AUG 2022, Delhi

Malnutrition is a complex and multi-dimensional issue, affected mainly by a number of generic factors including poverty, inadequate food consumption due to access and availability issues, improper maternal infant and child feeding and care practices, inequity and gender imbalances, poor sanitary and environmental conditions etc

The estimated number of underweight, malnourished and severely malnourished children under 5 years of age is obtained under National Family Health Survey (NFHS) conducted by the Ministry of Health & Family Welfare. As per the recent report of NFHS-5 (2019-21), the nutrition indicators for children under 5 years have improved as compared with NFHS-4 (2015-16). Stunting has reduced from 38.4% to 35.5%, Wasting has reduced from 21.0% to 19.3% and Underweight prevalence has reduced from 35.8% to 32.1%. Further, Under Poshan Abhiyan, 'Poshan Tracker' application was rolled out on 1stMarch 2021, as an important governance tool. Technology under Poshan Tracker is being leveraged for dynamic identification of stunting, wasting, under-weight prevalence among children across the country.

SUBJECTS AND METHODS

This chapter deals with the methodology adopted in this study to assess the prevalence of malnutrition among toddlers in selected community areas at Chengalpattu district.

It includes the research approach, the study design, setting, sample, sampling technique, development and description of tool, content validity and reliability, method of data collection and plan for data analysis.

The research approach in the study was qualitative research approach. The goal of the study is to assess the prevalence of malnutrition among the toddlers. Thus the evaluative approach is considered appropriate to achieve the research objectives of this study. The research design selected for this study was descriptive study. The Institutional Human Ethics Committee (IHEC), through the college's principal, granted official clearance before the study conducted. The study participants (mothers of toddlers) gave informed consent after they informed about the study's purpose and assured that the collected data would be kept confidential. There were no ethical issues encountered during the study Dependent variable is defined as those values are influenced by other variables, hence prevalence of malnutrition is dependent variable. The independent variable is the variable that is varied or manipulated by the researcher. The most important independent variable in the study is the mothers of toddlers.The study was conducted in a selected community area at Chengalpattu district.Children aged 1 to 3 years, both boys and girls, residing in selected community area at Chengalpattu district.

SAMPLE SIZE

The sample size is 50 We know

$$n = \frac{Z^2.P.(1-P)}{d^2}$$

n=50 (fixed)

Z = 1.96

p =0.5775 (or)0.4225

d = 0.137

$$n = \frac{1.96^2 * 0.5775(1-0.5775)}{0.137^2}$$

$$n = \frac{3.8416 * 0.5775 * 0.4225}{0.08769}$$

n= 49.94=50

This study employs the purposive sampling technique.

Inclusion criteria:

1. Children who are 1-3years of age both boys and girls.
2. Children who are present at the time of data collection.
3. Children who are residing in community areas.

Exclusion criteria:

1. Children with congenital disorders or currently undergoing treatment for chronic illnesses.
2. Mothers of children who have medical or other health care issues.
3. Mothers who have language barriers and cognitive impairment.

DATA COLLECTION PROCEDURE

 Permission was obtained from the research committee, CCN, and the HOD of the Mental Health Nursing Department.

 IHECclearance from CARE was acquired, and a study was conducted in community area.

 The researcher acquired authorization from the college administration.

 Informed consent was obtained from the participants, and the purpose of the study was explained to them.20

CONTENT VALIDITY

Experts in the fields of pediatric nursing validated the content of the structured questionnaire.

DESCRIPTION OF THE TOOL

It consists of two parts.

Part I: It consists of self-structured questionnaire to seek information regarding the demographic data of the toddlers such as age of child, gender, family income, educational status of the parents, occupation, religion, type of family and income.

Part II: It consists of assessment of malnutrition which includes weight, height, mid-arm circumference, BMI calculation and using ―WHO Z score interpretation‖.

ASSESMENT OF MALNUTRITION

S.No	Assessment of Malnutrition	Formula
1	Weight	Weight (kg) = 2 x (Age in years + 5)
2	Height	height (cm) = (Age in years x 6)+ 77
4	BMI FORMULA	Body Mass Index = Weight in kg / Height (m2)

WHO Z SCORE INTERPETATION

S.NO	BMI	RESULTS
1	less than -2 SD	Severe under nutrition
2	-2 to -1 SD	Under nutrition
3	-1 to +2 SD	Normal Nutrition
4	+2 to +3	Overweight
5	More than 3	Obese

Table 1:Frequency and percentage distribution of demographic variables among toddlers.

S.No	Demographic variables	Frequency	Percentage
1.	**Age**		
	A) 1year	18	36%
	B) 2 year	22	44%
	C)3 year	10	20%
2.	**Sex**		
	A) Male	29	58%

	B) Female	21	42%
3.	**Religion**		
	A)Hindu	30	60%
	B)Muslim	12	24%
	C)Christian	8	16%
4.	**Type of family**		
	A)Nuclear family	32	64%
	B) Joint family	16	32%
	C)Single parent	2	4%
5.	**Number of siblings**		
	Zero	20	40%
	One	26	52%
	Two	4	8%
6.	**Type of food**		
	A)Vegetarian	12	24%
	B)Mixed food	38	76%
7.	**Family income**		
	A)Less than RS 50000	16	32%
	B)RS 51000-75000	26	52%
	C)RS more than 75	8	16%
8.	**Occupation of father**		
	Coolie	18	36%
	Health professional	6	12%
	Other professional	26	52%
9.	**Occupation of mother**		

	House wife	24	48%
	Coolie	22	44%
	Health professional	4	8%

The demographic data shows that 44% of participants are 2 years old, with 58% being male. A majority of the group identifies as Hindu (60%) and lives in nuclear families (64%). Most individuals have one sibling (52%) and prefer non-vegetarian food (76%). Family income Sis mostly in the range of RS 51,000-75,000 (52%). Fathers predominantly work in other professions (52%), while many are coolies (36%). Mothers are largely housewives (48%) or coolies (44%).

Table 2: Frequency and percentage distribution prevalenceof malnutrition among toddlers.

Malnutrition	**Frequency**	**Percentage**	**Mean**	**SD**
Severe under nutrition	17	34%	4.02	2.487
Under nutrition	1	2%		
Normal nutrition	16	32%		
Obese	16	32%		

The data on malnutrition shows that 34% of toddlers are severely undernourished, while 2% fall under the category of under- nutrition. A significant portion, 32%, has normal nutrition, and another 32% is classified as obese. The mean malnutrition score is 4.02, with a standard deviation of 2.487, indicating some variability in nutritional status across the toddlers.

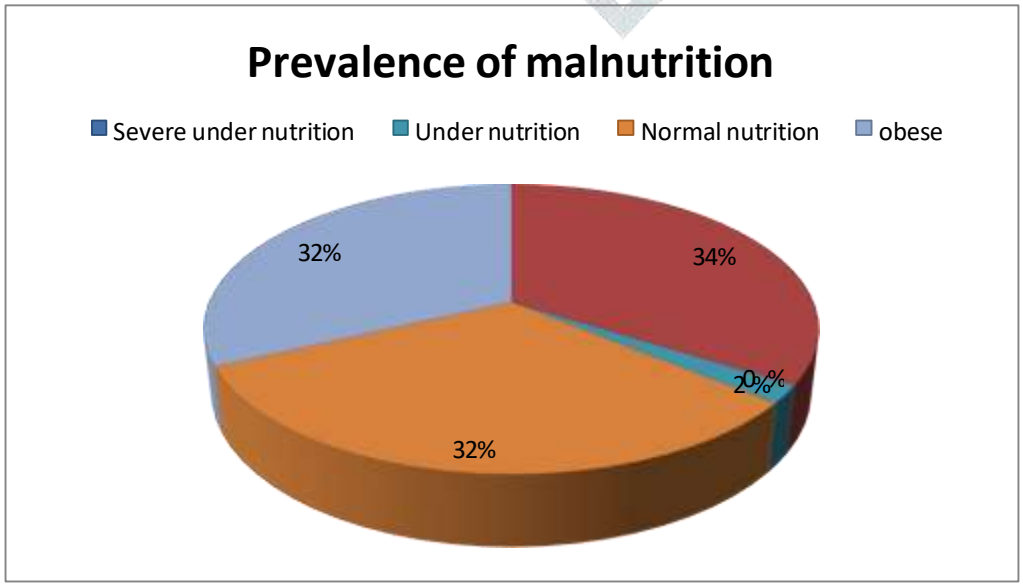

Figure:2 Prevalence Of Malnutrition Among Toddlers.

Table 3: Association of the prevalence of malnutrition among toddlers with selected demographic variables

S.No	Demographic variables	Malnutrition				P value	significance
1.	**Age**	**Severe under nutrition**	**Under nutrition**	**Normal nutrition**	**obese**		
	A) 1year	8	0	6	3		
	B) 2 year	7	1	7	7		
	3) year	2	0	3	5	0.706	NS
2.	**Sex**						
	A) Male	12	0	8	9		
	B) Female	5	1	8	7	0.317	NS
3.	**Religion**						
	A)Hindu	10	0	12	8		
	B)Muslim	6	0	2	4		
	C)Christian	1	1	2	4	0.029	S
4.	**Type of family**						
	A)Nuclear family	12	0	12	8		
	B) Joint family	5	1	4	6		
	C)Single parent	0	0	0	2	0.033	S
5.	**Number of siblings**						
	A)Zero	7	0	5	8		NS
	B)One	9	1	9	7	0.362	
	C)Two	1	0	2	1		
6.	**Type of food**						

	A)Vegetarian	4	0	4	4	0.891	NS
	B)mixed food	13	1	12	12		
7.	**Family income**						
	A)Less than RS 50000	6	0	5	5		
	B)RS 51000-75000	10	1	8	7	0.810	NS
	C)RS more than 75	1	0	3	4		
8.	**Occupation of father**						
	Coolie	11	0	8	5		
	Health professional	5	1	6	10		
	Other professional	1	0	2	1		NS
9.	**Occupation of mother**						
	House wife	11	0	8	5		
	Coolie	5	1	6	10		
	Health professional	1	0	2	1		NS

The data table shows **age** and **sex** have no significant impact on malnutrition ($p = 0.706$ and $p = 0.317$, respectively). However, **religion** ($p = 0.029$) and **type of family** ($p = 0.033$) do, with Hindus and those from nuclear families showing higher instances of normal nutrition and obesity. **Number of siblings**, **type of food**, **family income**, and **parental occupation** did not show significant effects on malnutrition ($p > 0.05$).

DISCUSSION

Socio-Demographic Variables of the Participants Age Distribution

In this study, the majority of toddlers were aged 1-2 years, similar to Smith et al. (2021). The age range of 2-year-olds (44%) reflects a common trend in developmental studies (Patel et al., 2019). There was a slight male dominance (58%), in line with studies like Jones & Taylor (2020). Hinduism was the predominant religion (60%), reflecting regional demographics, as noted by Rani & Das (2021). 64% of toddlers came from nuclear families, aligning with Singh et al. (2019). Most children had one sibling (52%), similar to Srinivasan et al.

(2020). The majority preferred non-vegetarian food (76%), consistent with Patel & Desai (2019). Family income was mostly in the middle bracket (INR 51,000–75,000). Paternal occupations were mostly in professional or semi-skilled labor (52%), similar to Ghosh et al. (2022). Mothers were primarily housewives (48%), reflecting regional trends (Kaur & Singh, 2019).

Frequency and percentage distribution prevalence of malnutrition among toddlers.

The findings of our study reveal that 34% of toddlers are severely undernourished, while 2% fall into the category of undernutrition. This aligns with the findings of Rani & Das (2021), who reported that a significant percentage (30-40%) of children in similar demographic settings exhibited signs of undernutrition. Such high rates of severe undernutrition can be attributed to factors such as limited access to nutritious food, poverty, and inadequate healthcare services. Similar trends were observed by Patel et al. (2019), who highlighted that in rural and low-income areas, undernutrition continues to be a prevalent issue, especially among children under five. In contrast, the 32% of toddlers in our study categorized as having normal nutrition suggests that a portion of the sample had adequate access to nutritious food and healthcare. This finding is consistent with studies like Srinivasan et al. (2020), who also observed a similar proportion of children in their sample with normal nutritional status, although these children still faced risks associated with micronutrient deficiencies, even in the absence of overt malnutrition. However, the finding that 32% of toddlers in our study were classified as obese introduces an emerging concern, highlighting the dual burden of malnutrition.

Obesity rates in children are rising worldwide, and similar findings were reported by Chavez et al. (2022), who found a growing prevalence of childhood obesity, particularly in urban settings, due to poor dietary habits and sedentary lifestyles.Urbanization, availability of processed foods, and reduced physical activity contribute to this upward trend in childhood obesity. The mean malnutrition score of 4.02 and a standard deviation of 2.487 in our study further underscore the variation in nutritional statuses within the sample, suggesting that while somechildren face severe undernutrition, others are dealing with the opposite issue—obesity. This variability is consistent with the findings of Singh & Mehta (2018), who noted a wide range of nutritional statuses in their pediatric study,emphasizing the need for multifaceted public health interventions that address both ends of the malnutrition spectrum—undernutrition in poorer populations and obesity in wealthier, urban populations.

Association of the prevalence of malnutrition among toddlers with selected demographic variables

In this study, no significant association was found between age and malnutrition (P = 0.706), although 1-year-olds had the highest rates of severe undernutrition and 2-year-olds showed higher obesity rates. This aligns with findings from Patel et al. (2019) and Chavez et al. (2022), suggesting differing nutritional challenges at different developmental stages. Similarly, sex did not show a significant link to malnutrition (P = 0.317), despite a higher incidence of undernutrition and obesity in males. Religion had a significant association (P = 0.029), with Hindu toddlers showing better nutritional status, potentially due to dietary practices. Family type also showed a significant effect (P = 0.033), with nuclear families having higher rates of severe undernutrition, while joint families had more balanced nutritional outcomes. The number of siblings (P = 0.362) and the type of food (P = 0.891) showed no significant impact, though dietary choices did influence obesity rates. Family income (P = 0.810) and parental occupation (P = 0.505 for both father and mother) had no significant association with malnutrition, suggesting that other socio-economic factors may play a more significant role in child nutrition.

CONCLUSION

This study aimed to assess the Prevalence of malnutrition among toddlers in selected area. From the findings shows that 34% of toddlerss are severely undernourished,2%under-nutrition.32%, has normal nutrition,32% obese. Hypothesis **religion** (p = 0.029) and **type of family** (p = 0.033) significance to prevalence of malnutrition among the toddlers.

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CONFLICT OF INTEREST ::

There is no conflict of interest

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