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Assessment of Nutritional Status of Preschool Children (3 to 6 Years) and Self-Reported Nutritional Practices of Caretakers in Selected Villages of Hajo Block, Kamrup, Assam

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Abstract: ***Background: Pre-school children constitute the most vulnerable segment of any community. They are prone to nutritional deficiencies that may affect growth and development. Aim: The aim of the study is to find out the nutritional status of pre-school children (3-6 years) and self-reported nutritional practices of caretakers in selected villages of Hajo block, Kamrup, Assam. Methodology: In this study, non-experimental quantitative research approach and descriptive survey research design was adopted involving 80 preschool children and their caretaker in selected villages of Hajo block, Kamrup, Assam. Sample were collected using consecutive sampling technique. WHO 'BMI-for-age' was used to assess the nutritional status of pre-school children and self-structured checklist was used to assess the self-reported nutritional practice. The data was analyzed by descriptive and inferential statistics. Result: The study findings revealed that 71.2% pre-school children were normal, 16.2% were underweight, 10% were overweight and 2 % were obese. The level of self-reported nutritional practice of the caretaker has poor (0%), moderate (86.2%) and good (13.8%) practices. The age of pre- school children was found to be significant at p<0.05 with their nutritional status.***

Keywords: Nutritional status, Preschool children, WHO 'BMI-for-Age', Self-reported nutritional practices, Caretaker.

1. Introduction

"The food you eat can be either the safest and most powerful form of medicine or the slowest form of poison"
-Ann Wigmore

Nutrition is the science of food and its relationship to health. It plays an important role in growth, development, energy production, and maintenance of body functions. Adequate nutrition helps in preventing diseases, improving immunity, and promoting overall physical and mental wellbeing. Proper nutrition is essential at all stages of life, especially during pregnancy, childhood, and adolescence. It represents a critical, rapid growth phase where nutrition directly impacts physical and cognitive development, and poor intake leads to high rates of malnutrition.[1]

Nutritional status is the physiological state of an individual health resulting from the intact absorption, and utilization of nutrients acting as a crucial indicator of overall wellbeing.

The nutritional status of preschool children is a critical indicator of national health, as this formative period indicates future physical, mental, and cognitive development, with malnutrition posing major threats, often linked to poor feeding, sanitation and socioeconomic factors, necessitating focus intervention like India's ICDS program to ensure a healthy future.[1]

1.1 Background of the Study

"Investing in early childhood nutrition is a surefire strategy. The returns are incredibly high."
- ***Anne M. Mulcahy***

Childhood is a significant phase of life and deprivation during this period can have long term adverse impact on the well-being of children. Child health is a state of social, emotional, intellectual, mental health and absence of diseases or infirmity. The term nutrition refers to a process of attaining necessary food for proper health and growth of human being. Individual who forms the community; pre-school children constitute the most vulnerable segment of any community. Nutrition is a key determinant of good health and is critical for survival, good quality of life and well-being.[2]

A study was conducted by Dey B, Boruah U, Das M. (May 2025) on "Assessment of Nutritional status of pre-school children Attending Anganwadi centre of Bagchung Block of Jorhat District, Assam". The study revealed that 70% of the 2–5-year-old children were in the normal range of nutritional status while 30% were underweight.[3]

Pre- school year (3-6) of childhood is important as far as growth is concerned. This period is affected by nutrition and infectious disease prevalent during this period. Much attention is not given by parents towards nutritional needs. Therefore, nutritional disorder occurs frequently during this period.[2]

1.2 Need of the Study

Children are considered to be the backbone of any nation. India is home to the largest number of underweight and stunted children in the world.[1]

In Assam, India, 33% of children under the age of 5 are underweight, according to the National Family Health Survey-5 statistics.[4]

In India, only 56% preschool children (2-5 years) were

having normal nutrition among the tribal children; 44% preschool children were found to be malnutrition. Of them, 27.9% (29.2% boys and 26.8% girls) were severely underweight (<-3SD), and 15.7% (13.5% boys and 17.6% girls) were underweight (-3SD to -2SD). The age-appropriate nutrition was unsatisfactory due to delay in breastfeeding, nuclear family, child birth at home, mother education and non-availability of milk giving animal were the main reasons for malnutrition. Extended family, higher education of mothers and head of the household, hospital birth and breastfeeding immediately were significantly associated with normal nutrition.[5]

In 2025, global child nutritional status for children under 5 remains critical, with approx. 127-149 million stunted, 45 million wasted as per UNICEF.[6]

Thus, the researcher felt the need to conduct a study on nutritional status among preschool children (3-6 years) and self-reported nutritional practice of the caretakers, focusing in selected villages of Hajo block, Kamrup, Assam.

1.3 Statement of the Problem

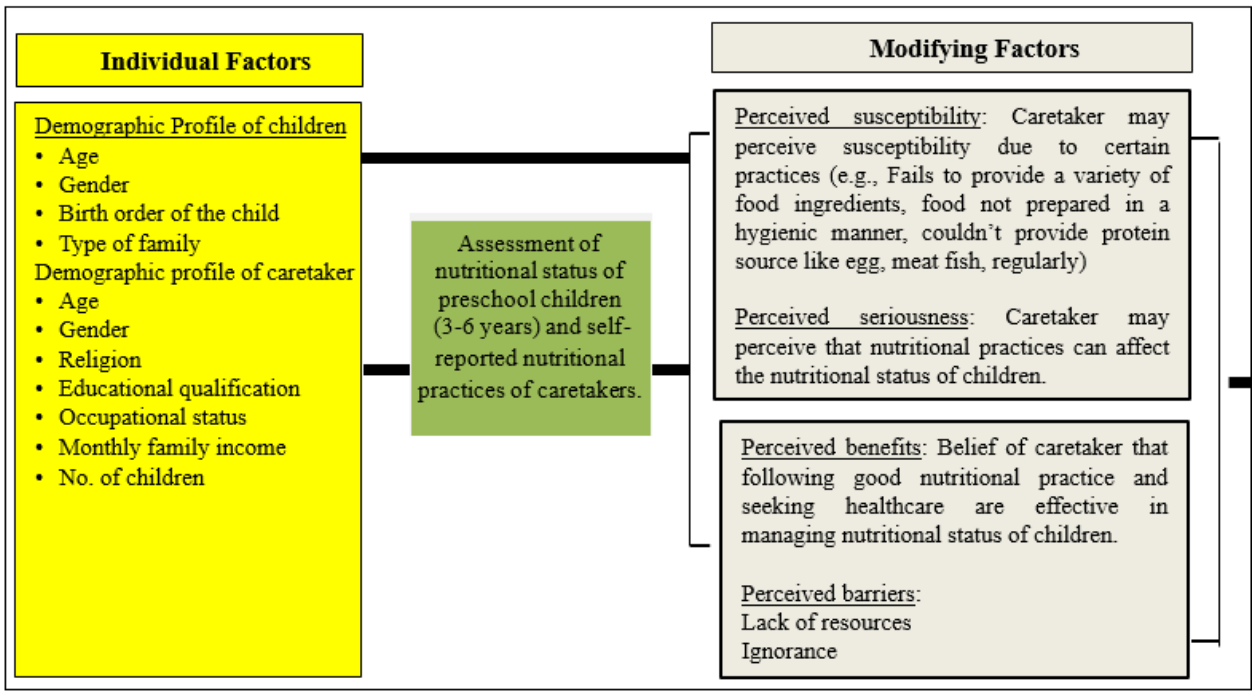
"Assessment of nutritional status of pre-school children (3-6 years) and self-reported nutritional practices of caretakers in selected villages of Hajo block, Kamrup, Assam."

1.4 Objectives of the Study

1) To assess the nutritional status of pre-school children (3-6 years) in selected villages of Hajo block, Kamrup, Assam.
2) To assess the self-reported nutritional practices of caretakers in selected villages of Hajo block, Kamrup, Assam.
3) To find out the association between nutritional status and demographic variables of preschool children in selected villages of Hajo block, Kamrup, Assam
4) Find out the association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker in selected villages of Hajo block, Kamrup, Assam.
5) To find out the association between self -reported nutritional practices of the caretaker in selected villages of Hajo block, Kamrup, Assam with the selected socio-demographic variable.

1.5 Conceptual Framework

A conceptual framework is a group of related ideas, statements or concepts. Conceptual framework deals with abstraction (concepts), which are assembled by virtue of their relevance to a common theme.



1.6 Operational Definition

- **Assess**: According to Oxford Dictionary, Assess means to make a judgement about the nature or quality of someone or something or to determine the amount or value of something.
  In this study, assess means to determine the nutritional status of preschool children and self-reported nutritional practices of the caretaker in selected villages in Hajo block, Kamrup, Assam.
- **Caretaker**: According to the Oxford Advanced Learner's Dictionary, the word "caretaker" can refer to a person's mother or father, or any other guardian.
  In this study, caretaker refers to the mother or father (guardian) who is taking care of and raising the pre-school child and is in select villages of Hajo block, Kamrup, Assam.
- **Nutritional status**: According to oxford Learner's Dictionary, nutritional status is the state of a person's health as it relates to their diet and nutrient intake.

In this study, nutritional status refers to the condition of the pre-school child according to height, weight and BMI as per age.

- **Pre-school children**: According to the Oxford Advanced Learners Dictionary, a pre-school child refers to a child between (3-6) years of age, characterized by rapid physical, cognitive, and social development, prior to primary schooling,
  In this study, pre-school children are young human beings from (3-6) years of age, who are in selected villages in Hajo block, Kamrup, Assam.
- **Nutritional practice:** According to Oxford Advanced Learners Dictionary, nutritional practice refers to the habits, behaviour and routines related to food section, preparation, and consumption followed by an individual or family to meet daily nutritional needs and maintain health.
  In this study, nutritional practice is the pattern of dietary habits adopted by the caretaker.

1.7 Assumption

a) Pre-school children may have poor nutritional status
b) Caretaker may report unsatisfactory nutritional practice.

1.8 Variables

1) **Demographic variables for pre-school children:** Age (3-6) years, Gender, Birth order of child, Type of food.
2) **Demographic variables of caretaker:** Age, Gender, Religion, Educational qualification, Occupational status Monthly family income, number of children.
3) **Research Variables**: Nutritional status of pre-school children and Self-reported nutritional practice among the caretaker in selected villages of Hajo block, Kamrup, Assam**.**

1.9 Hypothesis

Hypothesis is tested at 0.05 level of significance.
H1: There is significant relationship between nutritional status and demographic variables of preschool children.

H2: There is significant relationship between nutritional status of preschool children and the self-reported nutritional practice of the caretaker.
H3: There is significant relationship between self-reported nutritional practices of caretaker with the selected socio-demographic variable of the caretaker.

1.10 Delimitation

The study is delimited to the pre-school children i.e., 3 to 6 years and their caretaker, either mother or father, in selected villages of Hajo block, Kamrup, Assam.

1.11 Summary

The chapter deals with the background of the study need of the study, problem statement, objectives, conceptual framework, operational definition of the terms used in the study, assumption of the study, hypothesis and delimitation of the study.

2. Review of Literature

2.1 Review of literature related to nutritional status among pre –school children and self-reported nutritional practice of caretaker.

- Das N K, Begum A (June 2024) conducted a study on "Assessment of the nutritional knowledge of mother's and the nutritional status of children: A cross- sectional study among the tribal population of Kamrup (Rural) district, Assam. This study involved 56 tribal mothers with children aged 1-5 years from three villages in Boko block, Kamrup (Rural) district, Assam, aiming to evaluate their knowledge of child nutrition. It also examined the sources of their nutrition information. Data was collected via questionnaires and interviews. Results showed that only 21.43% of mothers had high nutritional knowledge, while 58.93% had average, and 19.64% had poor knowledge. Children of mothers with poor knowledge showed higher rates of wasting, stunting, and being underweight.[11]
- Ahmed S, et.al (2023) conducted "A cross sectional study on assessment of nutritional status and its determinants of preschool children of Lucknow district". The objective is to study the nutritional status of preschool children; the community base cross-sectional study was conducted in urban and rural area of Lucknow children of age group. 1-5 years were selected using multi-stage random sampling technique the most common form of malnutrition was stunting (48.8) followed by underweight (28.4). Significant association was observed between type of family, overcrowding and socioeconomic status of the mother with nutritional status of children.[8]
- Pathak J, Mahanta G T, Arora P, et. al. (2020) conducted a study on "Malnutrion and Household Food Insecurity in children Attending Anganwadi Centers in a district of North East India". The aim of this study is to assess household food insecurity and nutritional status in children attending Anganwadi centers (AWCs) of Dibrugarh district. Cross-sectional study among 510 randomly selected children attending AWCs in Dibrugarh was done. Data on nutritional status and food security were collected, and anthropometric measurements were recorded. The prevalence of stunting, wasting, and underweight was 39.8%, 26.1%, and 39.2%, respectively.[10]
- Sukla P., Borkar A. (May 2018) conducted a study on "Nutritional status of pre-school children [1-5 years] in Rural area of Chhattisgarh state". The aims and objectives of the study were to assess prevalence of underweight, stunting and wasting among pre-school children in rural area of Chhattisgarh state. A community-based, cross- sectional study was conducted among 400 pre-school children in rural area during January-May 2107.Out of 400 children studied, 36% were underweight, 35.5% were stunted and 28.5% were having wasting. More than 50% of girl children were underweight and stunted. Almost one third of pre-school children were underweight and stunted. Female children were more nutritionally deprived than males.[9]
- Lokesha. S., Williams S. (2017) conducted “A study to assess the nutritional status of preschool children 3 to 5

years in selected rural Anganwadi at Mysore with a view to develop information booklet." The objective was to base study is to assess the level of nutritional status of preschool children for anthropometric measurement and clinical examination. Observation and descriptive survey design was conducted among 50 preschool 3 to 5 years in selected rural Anganwadi at Mysore. Results reveals that 24 (48%) preschool children had first- and second-degree malnutrition, 30 (60%) preschool children were malnourished according to their clinical signs. the findings of the present study concluded that majority of the preschool children in selected rural Anganwadi were malnourished. health awareness should be created to improve the nutritional status.[7]

2.2 Summary

This chapter contains various research studies by different research on literature related to nutritional status of preschool children and self-reported nutritional practice of the caretaker. This chapter helped the investigator to get the idea about the importance of this study and also helped to establish the need of the study, to state the problem clearly, to select the data collection technique, to become aware of the various methodology and to achieve of objectives of the study.

3. Research Methodology

Research methodology is a way to systematically solve the research problem and may understand as science of studying how research is done scientifically.[12]

3.1 Research Approach

Research approach is an important element of research design. Research approach involves the description of the plan to investigate the phenomenon under study in a structured (quantitative), unstructured (qualitative) or a combination of two methods (quantitative- qualitative integrated approach). [12]

In this study, non-experimental quantitative research approach is used.

3.2 Research design

According to Kothari, "Research design is a plan, a roadmap and blueprint strategy of investigation conceived so as to obtain answer to research question."[12]

In this study, descriptive survey research design is used.

3.3 Variables

Variables are qualities properties or characteristics of person, things or situation that can change or vary.[12]

1) **Demographic variables for pre-school children** – Age (3-6) years, Gender, Birth order of child, Type of food.
   Demographic variables of caretaker – Age, Gender, Religion, Educational qualification, Occupational status Monthly family income, number of children.
2) **Research variables:** Nutritional status of pre–school children and self-reported nutritional practice of the caretakers in Hajo block, Kamrup, Assam.

3.4 Setting of the Study

Research setting is the physical location and condition in which the data collection takes place in a study. [12]

The present study is carried out in selected villages i.e., Fakirtola and Ganeshtola, of Hajo block, Kamrup, Assam.

3.5 Population

Population refers to the entire aggregation of cases that meets a design set of criteria or totality of the entire object, subject members of that confirm to a set of specification.[12]

The present study is done among pre-school children and their caretaker staying in Fakirtola and Ganeshtola village of Hajo block Kamrup, Assam.

3.6 Sampling size

Sampling is the process of a smaller, manageable version of a larger group. It is a subset containing the characteristics of a larger population.[12]

For collection of samples for the study,

a) The list of villages under 1no. Hajo is collected from DGHS, Amingaon. Total 10 villages are there under 1 no. Hajo.
b) Out of those villages, two villages are chosen using random method i.e. Fokirtola and Ganeshtola.
c) The population of preschool children (3-6 years) in selected village is –
d) Fakirtola – 45; Ganeshtola – 35 = 80.
e) All the students were included in the study i.e. 80

3.7 Inclusion criteria:

a) Preschool children age group i.e., 3 to 6 years of age.
b) The caretaker, either father or mother, of the children in Fakirtola and Ganeshtola in Hajo block Kamrup, Assam.

3.8 Exclusion criteria

Children who have any chronic medical condition.

3.9. Sampling technique

Sampling is the process of selecting a representative segment of the population under study.[12]

In this study, consecutive sampling technique is used to select the sample.

3.10. Development of the tool:

The following steps were undertaken to select and develop the tool for data collection-

a) Preparation of blueprint based on the objectives of the study.

b) Checklist was prepared and developed based on the problem statement and objectives.
c) Content validity was established and modifications were made as per advice and suggestions.
d) Reliability was computed.

3.11 Description of the tool:

The tool consists of three parts:

Tool - 1: Section A- Demographic profile of children.
Section B - Demographic profile of caretaker.

Tool - 2: 'BMI for Age' to assess the nutritional status of pre-school children.

Tool - 3: Checklist to assess self-reported nutritional practice of caretaker.

Tool-1: Section – A: Socio demographic profile of preschool children – It is prepared to gather the background information regarding the participants under study. It consists of age, gender, birth order of the child, type of family.
Section – B: Socio demographic profile of caretaker - It is prepared to gather the background information regarding the caretaker under study. It consists of age, gender, religion, educational qualification, occupational status, monthly family income, number of children

Tool -2: 'BMI for Age' by WHO - Tool 2 was used to collect information about children in order to assess the BMI according to their age.

Tool -3: Self-structured checklist - Tool 3 was prepared to assess the nutritional practice of caretaker related to the nutritional status of the children.

3.12 Content validity of the tools

The content validity of the tool concerns the degree to which an instrument has an appropriate sample of items for construct being measured and adequately covers the construct domain.[12]

The tool was validated by 3 physicians from pediatric department, and 1 clinical dietician, 2 nursing expert from Community Health Nursing department, and 1 Assistant professor Research and statistics department. They were requested to verify the items for its clarity, relatedness and meaningfulness and give their suggestions regarding the items of the tool. Suggestions were given by the experts to modify. The suggestion that was given by majority of the experts was regarding self-structured checklist. Accordingly, the schedule was modified. Likewise, all other suggestions were also incorporated in the tool.

3.13. Reliability of the Tool

The reliability is the degree of consistency and accuracy with which an instrument measures the attitude for which it is designed to measure.[12]

The reliability of the tool is 0.723 and it was established by Cronbach's Alpha.

3.14. Pilot Study

A pilot study is a small feasibility study designed to test various aspects of the methods planned for a larger, more rigorous, or confirmatory investigation. (Arian, Campbell, Cooper, and Lancaster, 2010).[12]

- Permission is taken from Joint Director of Health Services, Amingaon.
- Permission is taken from Hajo block PHC.
- Data is collected from 10% of main sample i.e., 8 samples (8% of 80) residing in Sunaritola, a village in Hajo 1 no. block.
- The tool was found to be effective and feasible to conduct the final study.
- Collected data was tabulated, analyzed and statistically calculated.

3.15. Data Collection Procedure

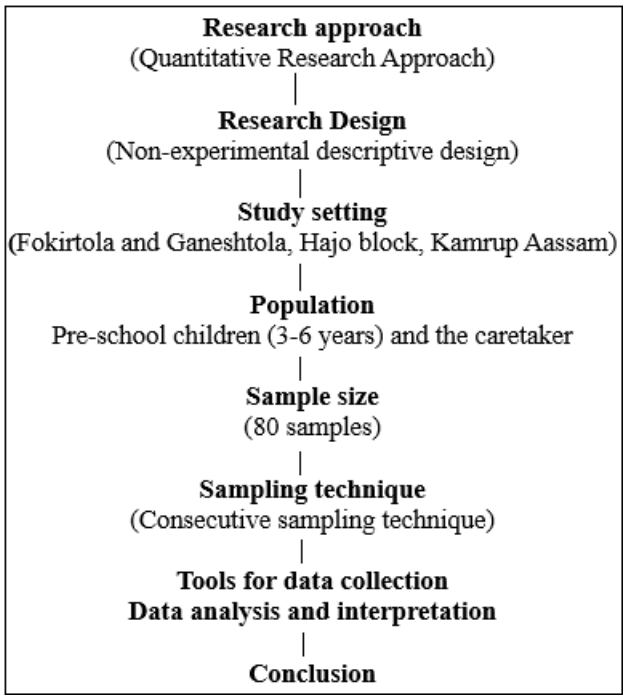
Phase-I
Formal permission was taken from Joint Director of Health Services, Amingaon and MO of Hajo BPHC, Hajo block Kamrup Assam.

Phase-II
The main research study was conducted from 14/11/2025 to 27/11/2025. The setting for main study was of 1.No. Hajo block (Fakirtola and Ganeshtola), Kamrup district, Assam. The study was carried out among 80 samples. Study samples were selected by consecutive sampling technique. From selected rural area of Hajo block i.e., Fakirtola and Ganeshtola, all the preschool children were selected for the study.

Phase-III
Self-introduction was given and good rapport was built up with the child and caretaker. Caretakers were explained about the purpose and significance of the study and were assured that confidentiality and anonymity will be maintained during the study. Informed consent was taken before the administration of the tool by keeping in mind the ethical aspects of research. Instruction was provided to the subjects beforehand and tick mark was done by the investigator according to the responses given by the samples.

3.16 Schematic Representation

(Assessment of nutritional status of pre-school children (3-6 years) and self-reported nutritional practices of caretakers in selected villages of Hajo block Kamrup, Assam)



Summary
This chapter deals with research methodology adopted for present study. It includes the methodology adopted for this study, research approach, research design, variables under study, setting of the study, population, sampling, data collection instrument and development of tool, description of setting, pilot study, main data collection procedure and plan for data analysis. Consecutive sampling technique is used to select the sample and sample size is 80 preschool children age group (3-6) years from selected rural area of Hajo block, Kamrup, Assam.

4. Data Analysis

4.1 Introduction

Analysis and interpretation of data is the most important phase of the research process, which involves the computation of the certain measures along with searching for patterns of relationship that exists among data group. Analysis is referred to as a method of organizing data in such a way that research questions can be answered and hypothesis can be tested.[12]

The obtained data is analyzed using both descriptive and inferential statistics based on the objectives and hypothesis of the study.

The analysis and interpretation of data is done based on the following objectives:

1) To assess the nutritional status of pre-school children (3-6 years) in selected villages of Hajo block, Kamrup, Assam
2) Assessment of the self-reported nutritional practice of the caretaker in selected villages of Hajo block, Kamrup, Assam.
3) To find out the association between nutritional status and demographic variables of preschool children in selected villages of Hajo block Kamrup, Assam.
4) Find out the association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker in selected villages of Hajo block Kamrup, Assam.
5) To find out the association between self -reported nutritional practices of the caretaker in selected villages of Hajo block Kamrup, Assam with the selected socio-demographic variable.

The analysis and interpretation of data is done based on the following hypothesis:
Hypothesis is tested at 0.05 level of significance-
H1: There is significant relationship between nutritional status of preschool children and the self-reported nutritional practice of the caretaker.

4.2. Organisation and Presentation of Data

Tool - I

Section A: Frequency and Percentage Distribution of Demographic Variables of Pre-school children (Table 1), N=80

S. No	Demographic Variables	Frequency	Percentage
1	Age in years		
	• 3.1 – 4	26	32.4
	• 4.1 – 5	12	15
	• 5.1 – 6	23	28.8
	• 6.1 - 7	19	23.8
2	Gender		
	• Male	41	51.2
	• Female	39	48.8
3	Birth order of child		
	• First	46	57.5
	• Second	30	37.5
	• Third	4	5
	• More than third	0	0
4	Type of family		
	• Nuclear	60	75
	• Joint	20	25

Section B: Frequency and Percentage Distribution of Demographic Variables of care taker (Table 2), N=80

S. No	Demographic Variables	Frequency	Percentage
1	Age in years		
	• 25-30	58	72.5
	• 31-35	20	25
	• 36-40	2	2.5
2	Gender		
	• Male	3	3.8
	• Female	77	96.2
3	Religion		
	• Islam	36	45
	• Hinduism	44	55
	• Christianity	0	0
	• Others	0	0
4	Educational qualification		
	• Primary	4	5
	• Middle school	2	2.5
	• Secondary	24	30
	• Higher secondary	48	60
	• Graduate and above	2	2.5
5	Occupational status		
	• Government employee	15	18.8
	• Private employee	17	21,2
	• Self employed	28	35

	• Agricultural worker	15	18,8
	• Unemployed	5	6.2
6	Monthly family income		
	• Rs 11,000 – 20,000	38	47.5
	• Rs 21,000 – 30,000	38	45
	• RS 31,000 – 50,000	6	7.5
	• Above Rs 50,000	0	0
7	Number of children		
	• One	44	55
	• Two	31	38.8
	• Three	5	6.2
	• More than three	0	0

Tool- II

Table 3: Distribution of level of nutritional status of pre-school children residing in selected villages in Hajo block, Kamrup, Assam, N=80

Nutritional status	f	%	Score range	Median	Mean	SD
Under weight	13	16.2	11-19 7	15	15.32	1.35
Normal	57	71.2				
Over weight	8	10				
Obese	2	2.6				

Tool-III

Table 4: Distribution of level of self-reported nutritional practice of the caretaker residing in selected villages in Hajo block Kamrup, Assam, N=80

Level of self-reported nutritional practice	F	%	Score range	Median	Mean	SD
Poor	0	0	25-51 26	34	34.47	5.92
Moderate	69	86.2				
Good	11	13.8				

Table 5: Association between nutritional status and selected socio-demographic variable of pre-school children residing in selected villages in Hajo block Kamrup, Assam, N=80

S. No	Demographic Variables	Nutritional status of pre-school children				χ2value	df	p value
		Under Weight	Normal	Over weight	Obese			
1	Age in years					17.78	9	0.038*
	• 3.1 – 4	2	18	5	1			
	• 4.1 – 5	6	6	0	0			
	• 5.1 – 6	4	17	2	0			
	• 6.1 - 7	1	16	1	1			
2	Gender					4.314	3	0.229NS
	• Male	4	31	4	2			
	• Female	9	26	4	0			
3	Birth order of child					3.469	6	0.748NS
	• First	8	32	4	2			
	• Second	5	21	4	0			
	• Third	0	4	0	0			
	• More than third	--	--	--	--			
4	Type of family					1.617	3	0.656NS
	• Nuclear	9	42	7	2			
	• Joint	4	15	1	0			

***p value < 0.05 level of significance**
NS-Non-significant

Table 5 depicts the association between nutritional status and selected socio-demographic variable of pre-school children residing in selected villages in Hajo block Kamrup, Assam which was tested by using chi square test. Result showed that age of pre-school children was found to be significant at $p<0.05$ with their nutritional status, but other demographic variables such as gender, Birth order of child and type of family were found to be non-significant at $p<0.05$ with nutritional status of pre-school children.

Table 6: Association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker residing in selected villages in Hajo block, Kamrup, Assam, N=80

S. No	Nutritional status	Self-reported nutritional practice		χ2 value	df	p value
		Moderate	Good			
1	Under weight	10	3	5.214	3	0.157NS
	Normal	52	5			
	Over weight	6	2			
	Obese	1	1			

Table 6 depicts the association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker residing in selected villages in Hajo block Kamrup, Assam which was tested by using chi square test. Result showed that nutritional status of pre-school children was found to be non-significant at $p<0.05$ with self-reported

nutritional practice of the caretaker residing in selected villages in Hajo block Kamrup, Assam.

Table 7: Association between self -reported nutritional practices of the caretaker residing in selected villages in Hajo block Kamrup, Assam with the selected socio-demographic variable, N=80

S. No	Demographic Variables	self -reported nutritional practices		χ2value	Df	p value
		Moderate	Good			
1	Age in years 25-30 31-35 36-40	 52 16 1	 6 4 1	3.442	2	0.179^{NS}
2	Gender Male Female	 2 67	 1 10	1.008	1	0.315^{NS}
3	Religion Islam Hinduism Christianity Others	 32 37 -- --	 4 7 -- --	0.384	1	0.535^{NS}
4	Educational qualification Primary Middle school Secondary Higher secondary Graduate and above	 3 2 21 42 1	 1 0 3 6 1	3.057	4	0.548^{NS}
5	Occupational status Government employee Private employee Self employed Agricultural worker Unemployed	 12 15 23 14 5	 3 2 5 1 0	2.381	4	0.666^{NS}
6	Monthly family income Rs 11,000 – 20,000 Rs 21,000 – 30,000 RS 31,000 – 50,000 Above Rs 50,000	 36 28 5 --	 2 8 1 --	4.530	2	0.104^{NS}
7	Number of children One Two Three More than three	 39 27 3 --	 5 4 2 --	3.135	2	0.209^{NS}

***p value < 0.05 level of significance NS-Non-significant**

Table 7 depicts the association between self -reported nutritional practices of the caretaker residing in selected villages in Hajo block, Kamrup, Assam with the selected socio-demographic variable which was tested by using chi square test. Result showed that demographic variables such as age, gender, religion, educational qualification, occupational status, monthly family, income, and number of children were found to be non-significant at p<0.05 with self -reported nutritional practices of the caretaker residing in selected villages in Hajo block Kamrup, Assam.

4.3 Summary

The study reveals that (71.2%) of preschool children have a normal nutritional status, while (16.2%) are classified as underweight. The study found that (86.2%) of caretaker have moderate nutritional practices while only (13.8%) have good practices. The result also showed that educational qualification, and occupational status of care taker were found to be non-significant with nutritional status of pre-school children. There is no significant association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker. The study also showed that demographic variables such as age, gender, religion, educational qualification, occupational status, monthly family, income, and number of children were found to be non-significant at p<0.05 with self -reported nutritional practices of the caretaker.

5. Discussion

The chapter deals with discussion in accordance with the objectives of the study.

The statement of the problem is "Assessment of nutritional status of pre-school children (3-6 years) and self-reported nutritional practices of caretakers in selected villages of Hajo block, Kamrup, Assam."

The first objective was to "Assess the nutritional status of preschool children (3-6 years) residing in selected villages of Hajo block Kamrup, Assam.

Present study concludes that nutritional status of preschool children (3-6 years) is 16.2% are under weight, 17.2% are normal, 10% are overweight, 2.6% are obese.

Ahmed s. (2023) conducted "A cross sectional study on assessment of nutritional status and its determinants of preschool children of Lucknow district". The objective is to study the nutritional status of preschool children; the community base cross-sectional study was conducted in urban and rural area of Lucknow children of age group. 1-5 years were selected using multi-stage random sampling technique the most common form of malnutrition was standing (48.8) followed by underweight (28.4). Significant association was observed between type of family, overcrowding and socioeconomic status of the mother with nutritional status of children.

The second objective was "Assessment of the self-reported of nutritional practices of the caretakers in selected villages of Hajo block Kamrup Assam.

Present study concludes that none of that caretaker had poor self-reported nutritional practice, 86.2% have moderate practice while 13.8% have good practice.

Sharma p (2022) conducted, "Across sectional quantitative study on assessment nutritional practices of the preschool aged children and associated factor among (3-6) old preschool age children from their primary caregivers by employing quantitative research method." The population of this study was 14358 primary caregivers of the preschool children aged between (3-6) years old from three local government. Unit the sample was selected through multistage random sampling less on the population proportionate sampling technique. Most of the preschool aged children the study area was found in low level of nutritional practices. This study found that the number of children parental education, occupation, caste and economical status were significantly associated with the nutritional practices of preschool children.

The third objective was to Find out the association between nutritional status and demographic variables of pre-school children residing in selected villages of Hajo block Kamrup, Assam.

Association findings depicts that association between nutritional status and selected socio-demographic variable of pre-school children residing in selected villages in Hajo block Kamrup, Assam which was tested by using chi square test. Result showed that age of pre-school children was found to be significant at $p<0.05$ with their nutritional status, but other demographic variables such as gender, Birth order of child and type of family were found to be non-significant at $p<0.05$ with nutritional status of pre-school children.

Pathak J, Mahanta G T, Arora P et. Al. conducted a study on "Malnutritional and Household Food Insecurity in children Attending Anganwadi Centers in a District of North East India." The aim of this study is to assess Household food insecurity and nutritional status in children attending Anganwadi centers of Dibrugarh district. Cross-sectional study among 510 randomly selected children attending AWCs in Dibrugarh was done data on nutritional status and food security were collected, and anthropometric measurements were recorded. The prevalence of stunting, wasting, underweight was 39.8%, 26.1% and 39.2% respectively.

The fourth objective was to Find out the association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker residing in selected villages of Hajo block Kamrup, Assam.

Association findings depict the association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker residing in selected villages in Hajo block Kamrup, Assam which was tested by using chi square test. Result showed that nutritional status of pre-school children was found to be non-significant at $p<0.05$ with self-reported nutritional practice of the caretaker residing in selected villages in Hajo block Kamrup, Assam.

Lokesha S., Williams S. (2017) conducted "A study to assess the nutritional status of preschool children 3 to 5 years in selected rural anganwadi at Mysore with a view to develop information booklet." The objective was to base study is to assess the level of nutritional status of preschool children for anthropometric measurement and clinical examination. Observation and descriptive survey design was conducted among 50 preschool 3 to 5 years in selected rural anganwadi at Mysore. Results revealed that 24 (48%) preschool children had first- and second-degree malnutrition, 30 (60%) preschool children were malnourished according to their clinical signs. The findings of the present study concluded that majority of the preschool children in selected rural anganwadi were malnourished and health awareness should be created to improve the nutritional status.

The fifth objective was to find out the association between self -reported nutritional practices of the caretaker residing in selected villages of Hajo block Kamrup, Assam with the selected socio-demographic variable.

The association depicts the association between self -reported nutritional practices of the caretaker residing in selected villages in Hajo block kamrup, Assam with the selected socio-demographic variable which was tested by using chi square test. Result showed that demographic variables such as age, gender, religion, educational qualification, occupational status, monthly family, income, and number of children were found to be non-significant at $p<0.05$ with self -reported nutritional practices of the caretaker residing in selected villages in Hajo block Kamrup, Assam.

Sukla P, Borkar A. (May 2018) conducted a study on "Nutritional status of pre-school children [1-5 years] in Rural area of Chhattisgarh state". The aims and objectives of the study were to assess prevalence of underweight, stunting and wasting among pre-school children in rural area of Chhattisgarh state. A community-based, cross- sectional study was conducted among 400 pre-school children in rural area during January-May 2107.Out of 400 children studied, 36% were underweight, 35.5% were stunted and 28.5% were having wasting. More than 50% of girl children were underweight and stunted. Almost one third of pre-school children were underweight and stunted. Female children were more nutritionally deprived than males.

Summary
This chapter deals with the discussion of the study findings and comparing with other related studies. The discussion was done in accordance with the objectives of the study.

6. Summary, Implication, Recommendations and Conclusion

This chapter deals with the summary of findings, conclusion and implication of the study in the field of nursing practice, education, administration and research. The limitation of the study has been stated and the recommendation for future research in different aspects has been presented in this chapter.

6.1 Summary

Statement of the problem
"Assessment of nutritional status of pre-school children (3-6) years and self-reported nutritional practices of caretakers residing in selected villages of Hajo block Kamrup, Assam."

Objectives of the Study
1) To assess the nutritional status of pre-school children (3-6 years) in selected villages of Hajo block, Kamrup, Assam
2) Assessment of the self-reported nutritional practice of caretakers in selected villages of Hajo block Kamrup, Assam.
3) Find out the association between nutritional status and demographic variables of preschool children in selected villages of Hajo block Kamrup, Assam
4) Find out the association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker in selected villages of Hajo block Kamrup, Assam.
5) To find out the association between self -reported nutritional practices of caretakers in selected villages of Hajo block Kamrup, Assam with the selected socio-demographic variable.

Hypothesis of the Study
Hypothesis is tested at 0.05 level of significance
H1: There is significant relationship between nutritional status and demographic variables of preschool children.

H2: There is significant relationship between nutritional status of preschool children and the self-reported nutritional practice of the caretaker
H3: There is significant relationship between self-reported nutritional practice of caretaker with the selected socio-demographic variable of the caretaker.

Findings of the study:

Association between nutritional status and demographic variables of pre-school children residing in selected villages of Hajo block Kamrup, Assam.
Association findings depicts that the age of pre-school children was found to be significant at $p<0.05$ with their nutritional status, but other demographic variables such as gender, Birth order of child and type of family were found to be non-significant at $p<0.05$ with nutritional status of pre-school children.

Association between nutritional status of pre-school children and self-reported nutritional practice of the caretaker with selected demographic variables.
Association findings depicts that the nutritional status of pre-school children were found to be non-significant at $p<0.05$ with self-reported nutritional practice of the caretaker residing in selected villages in Hajo block Kamrup, Assam.

Association between self -reported nutritional practices of the caretaker with selected demographic variables
Association finding depicts that the demographic variables such as age, gender, religion, educational qualification, occupational status, monthly family, income, and number of children were found to be non-significant at $p<0.05$ with self -reported nutritional practices of the caretaker residing in selected villages in Hajo block Kamrup, Assam.

6.2 Implications

The findings of the study have implications for nursing practice, nursing education, nursing administration and nursing research.

1) Nursing Practice
- The finding will help the nurses to identify the nutritional status of pre- school children and early stage and prevent malnutrition.
- The study helps nurses to educate caretakers regarding balanced diet growth monitoring and hygienic feeding practices.
- Nurses can promote regular BMI for age in preschool children

2) Nursing education
- The study provides evidence-based knowledge for nursing students regarding assessment of nutritional status among preschool children.
- The findings encourage nurse educator to conduct teaching programs on nutritional practices for caretaker.

3) Nursing Administration
- Nursing administrators can organize regular nutrition screening camps in community and anganwadi centres.
- Administrator can encourage in -service education programmes for staff nurses on child nutrition.

4) Nursing research
- Further research can be conducted on larger samples to generalize the findings.
- Comparative studies can be conducted between rural and urban pre-school children.

6.3 Recommendation

- Same study can be done in urban areas
- The same study can be conducted on a larger sample size to generalize the findings.
- Comparative study can be done between rural area and urban slum.

- Awareness program and nutrition education sessions can be organized for caretakers based on the findings of the study.
- A similar type of study can be conducted by using alternative sampling technique.
- A longitudinal study can be done to assess the long-term impact of improve nutritional practices on growth and development of preschool children.

6.4 Conclusion

"Let food be thy medicine and medicine be thy food."
- Hippocrates

The present study showed that 86.2% of caretakers had moderate nutritional practices and none of them had poor practice. Also, the study did not find a statistically significant association between nutritional status of preschool children and nutritional practices of their caregivers. This may be attributed to several factors. Firstly, the study population was drawn from a single block, leading to relative homogeneity in socioeconomic status, cultural beliefs, and feeding practices, thereby limiting variability. Secondly, the nutritional status of children is multifactorial and may be influenced by other determinants such recurrent infections, environmental sanitation, and utilization of supplementary nutrition services like govt schemes. Additionally, the sample size may have limited the statistical power to detect a significant association. Therefore, further studies with larger and more diverse populations are recommended.

References

[1] Park K. Park's Textbook of Preventive and social medicine. 27th ed. Banarsidas Bhanot Publishers, Delhi, 2021. Page no. 723-727.
[2] Dash B. A comprehensive textbook of community Health Nursing .1st ed. New Delhi: Jaypee brothers' medical publishers (p) Ltd; 2017.Page no.209-214.
[3] Dey B, Boruah U, Das M. (May 2025) conducted "Assessment of Nutritional status of pre-school children Attending Anganwadi centre of Bagchung Block of Jorhat District, Assam". Available on: https://www.researchgate.net/publication/393503247_A_Study_on_Assessment_of_Nutritional_Status_of_Pre-school_Children_Attending_Anganwadi_Centres_of_Bagchung_Block_of_JorhatDistrict_Assam
[4] Sonowal A, Chandak AO, Muraleedharan M. (2025) conducted "Assessing the impact of socioeconomic and environmental factors on the body mass index of children aged 3-6 years: A cross-sectional study in Assam, India. Indian J Community Med. 2025 Apr 17;50(Suppl1): S64-S69.
[5] Kumar, D., Saxena, N., Srivastava, S., & Haranahally Vasanthachar, M. (2024). Nutrition status and associated factors among tribal preschool children of 2-5 years in five districts: a cross-sectional study from three states of India. International Journal of Community Medicine and Public Health, 11(5),1973-1982.
[6] United Nations Children's Fund (UNICEF). Feeding Profit: How food environments are failing children. Child Nutrition Report 2025. New York: UNICEF; 2025. Available from: unicef.org
[7] Lokesha. S., Williams S. (2017) conducted "A study to assess the nutritional status of preschool children 3 to 5 years in selected rural anganwadi at Mysore with a view to develop information booklet. Available from-https://share.google/JYQjkD50XD8qJygvz
[8] Ahmed S, et.al (2023) conducted "A cross sectional study on assessment of nutritional status and its determinants of preschool children of Lucknow district available from-https://share.google/ibkNbTniIGL1vldaA
[9] Sukla P., Borkar A. (May 2018) conducted a study on "Nutritional status of pre-school children [1-5 years] in Rural area of Chhattisgarh state". Available from-http://dx.doi.org/10.18203/2394-6040.ijcmph20181730
[10] Pathak J, Mahanta G T, Arora P, et. al. (2020) conducted a study on "Malnutrion and Household Food Insecurity in children Attending Anganwadi Centers in a district of North East India "available from- https://share.google/k9WhoFXYtoXPo4dXb
[11] Das N K, Begum A (June 2024) conducted a study on "Assessment of the nutritional knowledge of mother's and the nutritional status of children: available from-https://share.google/ZpkKEMxAuvZDjurjx
[12] Sharma SK. Nursing research and statistics.4th ed. New Delhi: Elsevier;2022.
[13] Polit F Denies, Beck Cheryl T. Nursing Research Generating and assessing evidence for nursing practice, 8th edition 2nd Indian reprint 2008. New Delhi: Lippincott Williams and Wilkins