

A Descriptive Study to Assess the Knowledge Regarding Malnutrition, It's Prevention and Control Among Mothers of Under-Five Children's in Selected Areas of Masur

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Abstract—STATEMENT OF PROBLEM: " A Descriptive Study to Assess the Knowledge regarding Malnutrition, it's Prevention and Control among Mothers of under-Five Children's in Selected Areas of Masur".

OBJECTIVES: → To assess the knowledge regarding malnutrition it's prevention and control among mothers of under-five children's.

→ To determine the association between the knowledge score with the selected socio-demographic variable.

BACKGROUND: Malnutrition means more than feeling hungry or having enough food to eat, inadequate intake of protein, carbohydrate, and other nutrients make up different types of malnutrition, poor nutrition occurs in developing countries and in prosperous areas of the world. As many as 800 million children worldwide are affected by malnutrition. More than half of the childhood deaths in developing countries are related to malnutrition. Protein-Energy Malnutrition is a major public health problem in India, affecting the growth and development of young children, findings are reported from a study investigating that the impact of housing, hygiene, socioeconomic and demographic variables act upon acute malnutrition in children aged 1– 5 years. It has been said that the role of the mother as a provider of health and nutritional care seemed undervalued, for this reason, and particularly in malnourished communities, there is an urgent need to step up nutritional education to mothers. Gwalior is a backward area with poor socio-economic status and the majority of mothers were labourers, illiterates and ignorant upon feeding practices which may lead to Protein-Energy Malnutrition in children. Since no systematic study was done in the study area. The Investigator felt the need to conduct the study and develop health education module, which can be kept at sub centres and other health canters which acts as a guide to enrich the knowledge of primary health care, especially to mothers. Health professionals can utilize

health education module in their awareness campaign to enrich the knowledge of the public in general and specific focus to mothers.

MATERIALAND METHODOLOGY: This study was a cross sectional, community area-based study conducted among mothers of under-five children to assess knowledge of mothers regarding malnutrition. The data were collected with the help of performed and pre-structured questionaries which a total 60 sample were enrolled in this study. The data were tabulated and analysed using MS Excel and inferential statistics. **RESULT:** A total 60 rural area mothers of under-five children, most of mothers assess knowledge regarding malnutrition. Among 60 mothers, most of them 60 (%) mothers assess knowledge, knowledge about malnutrition among their under-five children. It was inferred that, total mothers in rural area mother knowledge regarding malnutrition

COCLUSION: The main conclusion of present study of all mothers has assess knowledge regarding malnutrition, under-five children.

I. INTRODUCTION

Malnutrition is defined as "a state of nutrition in which a deficiency of energy, protein and other nutrients causes measurable adverse effects on tissue and body form (body shape, size and composition) and function and clinical outcome" Protein-energy malnutrition in particular, is common, costly and increases with age, resulting in significant personal, social and economic burden. Of most concern, it is an increasing health problem, mainly due to changes in worldwide population demographics .1 Child malnutrition remains a major challenge for public health, affecting nearly 207 million children worldwide and

contributing to about 45% of deaths among children under 5 years old. According to the WHO, malnutrition in an individual is the imbalance between the nutrients received through diet and their energy needs. 2 Malnutrition is one of the most important but neglected health problems in the world and the main cause of morbidity and mortality among children under 5 years of age in developing countries. It is associated with approximately half of all child deaths worldwide. Globally, approximately 60 million and 13 million children suffer from moderate and severe acute malnutrition, respectively, and 21.9%, 13.4%, and 7.3% of children under five are reported to be stunted, underweight, and wasted, respectively. 3 Good nutrition requires a satisfactory diet, which is capable of supporting the individual consuming it; it is a state of good health by providing the desired nutrients in required amounts. It must provide the right amount to fuel to execute normal physical activity. If the total nutrients provided in the diet is insufficient, a state of under nutrition will develop. 4 Across the globe, an estimated 16 million children under the age of 5 are affected by severe acute malnutrition. Children with severe acute malnutrition are nine times more likely to die than well-nourished children. In Ethiopia, 7% of children under five are wasted, and 1% of these are severely wasted. Prolonged hospital stay increases the incidence of hospital-acquired infections. The aim of this study was to assess the time to recovery and its predictors among children 6–59 months old with severe acute malnutrition admitted to therapeutic feeding units of selected general and referral hospitals in Tigray, Ethiopia. 5 Mother's responsibility to care for herself during pregnancy and her child through the most vulnerable stages of his/her life has significant effects on child nutritional status. Education helps Mother's knowledge affects child's nutrition through her choices and health seeking skills related to nutrition, mothers gain additional knowledge about the adequate intake of food for their children in terms of correct quantity, quality and frequency. Therefore, the knowledge of caregivers on children nutrition would have significant effect on children's nutritional status. A community-based study which is an essential part of health monitoring at the community level is needed to assess and compare nutritional status among the rural and urban pupils in order to determine how much gap presently exists. Knowing the nutritional status of the school children and the level of caregivers' knowledge

on malnutrition will assist in planning needed interventional programme. 6

II. NEED FOR STUDY

Malnutrition means more than feeling hungry or having enough food to eat, inadequate intake of protein, carbohydrate, and other nutrients make up different types of malnutrition, poor nutrition occurs in developing countries and in prosperous areas of the world. As many as 800 million children worldwide are affected by malnutrition. More than half of the childhood deaths in developing countries are related to malnutrition. Protein-Energy Malnutrition is a major public health problem in India, affecting the growth and development of young children, findings are reported from a study investigating that the impact of housing, hygiene, socioeconomic and demographic variables act upon acute malnutrition in children aged 1–5 years. It has been said that the role of the mother as a provider of health and nutritional care seemed undervalued, for this reason, and particularly in malnourished communities, there is an urgent need to step up nutritional education to mothers. Gwalior is a backward area with poor socio-economic status and the majority of mothers were labourers, illiterates and ignorant upon feeding practices which may lead to Protein-Energy Malnutrition in children. Since no systematic study was done in the study area. The Investigator felt the need to conduct the study and develop health education module, which can be kept at sub centres and other health canter which acts as a guide to enrich the knowledge of primary health care, especially to mothers. Health professionals can utilize health education module in their awareness campaign to enrich the knowledge of the public in general and specific focus to mothers. 7 Worm infestation is the major problem in our country. Under five children can be easily affected by worm infestation. Mother has the responsibility in taking care of the children, so the knowledge of the mothers is necessary to reduce the risk of getting infection among under five children. The majority worm infestation caused for the children under five is eating of raw meats, unhealthy habits, touching of the soil and so on. 8

PROBLEM STATEMENT: " A Descriptive Study to Assess the Knowledge regarding Malnutrition, it's Prevention and Control among Mothers of under-Five Children's in Selected Areas of Masur ". AIM: To

Assess the Knowledge regarding malnutrition it's prevention and control among mothers of under-five children's.

OBJECTIVES: → To assess the knowledge regarding malnutrition it's prevention and control among mothers of under-five children'

→ To determine the association between the knowledge score with the selected socio-demographic variable.

OPERATIONAL DEFINITION: ASSESS λ According to oxford dictionary Assess means to evaluate or estimate the nature or quality about something or somebody. λ In this study: to estimate about knowledge of mother regarding malnutrition among their under-five children's.

KNOWLEDGE λ According to oxford dictionary: knowledge is the fact, information and skills acquired through experience or education. λ In this study: It refers to the existing information obtained by mother by giving correct response to structured questionnaires developed by investigator regarding malnutrition among their under-five children.

MALNUTRITION λ According to standard reference populations: This condition like underweight, stunting, or wasting in children under five, as low weight-for-age. λ In this study: It refers to the malnutrition in under-five children and mother knowledge regarding malnutrition. → Criteria for selection of sample Inclusive criteria: ∪ Selected mothers in rural areas. ∪ Mothers who are willing to participate. ∪ Mother who will understand Marathi and English.

DELIMITATIONS: A study is to mother in selected rural areas of Masur. Ethical consideration's ∅ Approval from research committee and ethical committee. ∅ Permission will take from college. ∅ Informed consent will take from all mothers who are participating in this study.

SUMMARY: This chapter of introduction deals with a descriptive study to assess the knowledge regarding malnutrition, it's prevention and control among mothers of under-five children's in selected areas of

Masur. And descriptions of need for study and background of study, including problem statement, objective, operational definition, criteria sample, ethical consideration. for selection

III. REVIEW OF LITERATURE

1. A descriptive study was conducted to assess the effectiveness of nutritional education for improving the feeding patterns of malnourished children in a Community area. They had selected 60 mothers by simple random sampling and used a questionnaire to collect the data. Significant difference was indicated in pretest mean score ($t = 11.79$) and posttest mean score ($t = 20.50$). This indicated that nutritional education was effective to improve the feeding patterns of mothers. A longitudinal study was conducted to assess the community based nutritional intervention for reducing Protein-Energy Malnutrition among under-five children in Community areas. They selected mothers by simple random sampling technique and instruction was given on feeding method, deworming, environment sanitation and growth monitoring program as a route of intervention. Indices were assessed after one year. Results indicated that nutritional awareness had grown among mothers and the incidence of malnutrition had dropped to 6.5% to 1.8%. A descriptive study was conducted to assess the knowledge and perception of mothers towards Marasmus in selected Community area. They selected 60 mothers of under-five children, by simple random sampling and used interview method. Results showed that the majority of the mothers had inadequate knowledge about Marasmus (85%) and they were perceiving that diarrhea was the common cause of Marasmus. A descriptive study was conducted to assess the mothers' knowledge about malnutrition in some regions of Hindu, 41 mothers of well-nourished children were selected by purposive sampling and used open-ended questionnaire to collect the data. The study result revealed that all mothers recognized a malnourished child as being sick. More percentage of mothers believed that general or specific lack of food to be the cause for malnutrition (80%) 9.

2. In India it is observed from various nutrition surveys that the nutritional status of pregnant and lactating mothers and infants is not satisfactory, this is probably due to lack of basic knowledge regarding proper nutrition and wrong customs prevalent in the community besides non-availability and low intake of food. In order to bring about changes in the knowledge in the mothers regarding nutrition, an attempt was made to assess mothers' knowledge and hence to improve it based on their learning needs through an instructional module. Children are future of society and mothers are guardian of that future (WHO2005). Hence to ensure sound foundation and secure future of any society health and nutrition of their children need protection. Children below five years of age require most attention, as this is the period of rapid growth and development, which makes them highly vulnerable to malnutrition. Malnutrition in this stage has far reaching consequences on child's future by severely effecting child's physical and mental development (WHO 2005). Yet malnutrition among children is widely prevalent in South EastAsia region (Smith and Haddad 2000) more so in India. As per available data about half of children in this age group suffer from different grade of malnutrition (UNICEF 2006). Malnutrition in turns weakens the immune system of the child, thereby contributes to more than 50 % of deaths associated with infectious diseases among this age group (WHO 2005) 10

IV. RESEARCH METHODOLOGY

Research methodology is a systematic way to solve a s research problem. It may be understood as a scientific way of doing research, it deals with defining the problem formulation of hypothesis method adopted for data collection and statistical techniques used for data with logical reason behind it. The research methodology describes techniques and procedures used to identify and analyses information regarding a specific research process. It involves qualitative research method, quantitative research method and mixed method of research methodology. This chapter deals with the discription of research methodology and different steps, which were under taken for gathering and organizing data for the

investigator. It includes description of research approach, research design, setting of the study. Population and sample and joy sampling technique development and description of tool, testing of tools, procedure for data collection, plan for data analysis. RESEARCHAPPROACH: The approach of research study depends on several factors, but primarily on natural phenomenon under the study. Research approach involve the description of the plan to investigate the phenomenon under study in a structured (quantitative), unstructured (qualitative) or a combination of methods (quantitative qualitative integrated approach.) Therefore the helps to decide about the presence and absence as well as manipulation and enter variable. The approach of research study depends on several factors but primarily on the nature of phenomenon under study. Qualitative approach was considered an appropriate one, In this study qualitative research approach is used. RESEARCH DESIGN: Research design can be defined as a blue print to conduct a research study. A researchers overall plan for obtaining answers to the questions for researcher hypothesis is referred to as the "research design spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable. It is a master plan of specifying the methods and procedures for collecting and analyzing the needed information in a research study. Research design is a plan of how, when, where data to be collected In The present study survey design was used to assess the knowledge of mothers regarding malnutrition. Close ended list of questions aimed at extracting specific data from a particular group of under-five children's.

VARIABLES: Variables are qualities, properties or characteristics of person, thing situation that change. or vary, means a characteristic of an individual or object that differs among the individual or object that are being studied. Variables are classified based on their nature, action, and effects on the variable. The dependent and independent variables that are interrelated and mainly observed in correlational, interventional, pre-experimental, quasi-experimental and experimental research studies. The variables for the present study is dependent variable, demographic variable and independent variables is questionnaire.

DEPENDANT VARIABLES: The dependent variable usually is that the researcher is interested in understanding. Explaining or predicting. It means the change in the dependent variables that is effect that influenced by the independent variable. It is presumed outcome or response due to the effect of independent variables, which researcher wants to predict and explain. In this study dependent variable is knowledge regarding malnutrition among their under-five children's. λ

DEMOGRAPHIC VARIABLES: In most research study, researcher make the attempt to study sample characteristics and present them in a research findings. Sometimes researcher ever try to establish relation of demographic Variable with the research variable. Demographic data in different variables such as Age, Baby weight, Religion, Residence, Type of family, Dietary pattern of under-five children's and mother's Occupational status of mother. Have you ever participated in malnutrition project.

SETTING OF THE STUDY: Settings is the more specific places where data collection will occur. Setting refers to area where the study is conducted. Settings is the physical location and condition in which data collection takes place in a study. The study was conducted at selected rural area masur. Permission must be obtained The rationale for the selection of this setting was that adequate no of samples are available. Investigator had an easy access to this setting. λ

POPULATION: Population the entire aggregation of cases that meet a designed set of criteria. The population refers to a total category of person of objects that the criteria for the study established by the researcher, any set of person objects or measurements having observable characteristics in common "The accessible population is the population of subjects which can be enumerated and studied. The target population is the total group of subjects abo which the investigator's interested to make generalization population for the present study is under-five children's." λ

SAMPLE AND SAMPLE SIZE: Research is a systematic way of approaching a problem to find answer to the questions. The research problem needs to be broken into a set of questions that will extract the

desired answers from the chosen unit of population. Sample size should be adequate to represent the population. A small and nonrandom sample is used in qualitative studies. Qualitative researchers are also concerned to obtain a representative sample, so that measurement obtained from study sample accurately reflects the population and thus result can be generalized to the population. Sample consists of a subset of a population selected to participate in research study. In the present study under-five children's who met the inclusion criteria were selected as samples. The sample size for the present study is 60. λ

SAMPLING TECHNIQUE: Sampling is the process of selecting representative part of the population. Sampling technique is the procedure, which the researcher adopts in selecting the sample for the study, simple random sampling technique is used for the present study.

SAMPLING CRITERIA: Sampling criteria specifies the characteristics that the sample in the population must process. The following criteria are used in the present study to select sample. Inclusive criteria: λ Malnutrition. λ Malnutrition's who will be present during data collection. λ Malnutrition's who are willing to participate. λ Malnutrition's who will understand Marathi and English.

DEVELOPMENT OF TOOLS: Data collection tools are the procedure or instrument used by the researcher observe and measure the key variables in the research problem. A semi-structured questionnaire was prepared to assess the level of knowledge of mother regarding Malnutrition among their under-five childrens. The following steps were adopted in the development of tools. λ Conclusion and discussion with research guide λ Opinion from expert and discussion with experts **SELECTION OF THE TOOLS:** A semi-structured questionnaire selected on the basis of the objective of the study. Semi structured questionnaire was prepared in the basis of review of literature and in consultation with experts in the field of child health nursing, as is considered as the most appropriate instruments to elicit response from the participants. **DESCRIPTION OF THE TOOLS:** The researcher developed a semi-structure questionnaire to assess level of knowledge of mother regarding

Malnutrition among their under-five children which consisted of following aspects. Section A: Demographic data of mothers. Part 1: Demographic data of the subjects which includes age, baby weight, religion, family type, residence, dietary pattern, occupation of mother, sources of information. Section B: Semi-structured questionnaire knowledge of mother regarding malnutrition among their under-five children's. Part 2: This consists of knowledge about the malnutrition. It consists of 21 questions regarding malnutrition.

TESTING OF THE TOOL: The tool prepared for the data collection was tested for its content validity from the expert. CONTENT VALIDITY- According to polite and hunger. Validity refers to the degree to which an instrument measure what it supposed to measure content validity refers to the "degree to which the items in an instrument adequately represents the universe of content." To ensure the content validity the instrument was given to experts along with objectives, operational definition, scoring key, need of the study, requisition letter from validation were submitted to 5 experts. The experts were requested to give their opinion and suggestions regarding the relevance adequate and appropriateness of the tools. Demographic data consists of 7 items. Semi-structured questionnaire consist of 21 items for malnutrition of under-five children's. There was 90% agreement for all items, but suggestions were given to modify certain item. and modifications were made in the tool.

RELIABILITY OF TOOLS The reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring. "It refers to the extent to which the same results are obtained on repeated administration of the instrument. A reliability test was done to establish the reliability and to determine the language clarity and feasibility of the tool.

V. DISCUSSION AND SUMMARY

DISCUSSION This chapter deals with discussion of result based on objective. "A Descriptive Study to Assess the Knowledge regarding Malnutrition, its Prevention and Control among Mothers of under-Five Children's in Selected Areas of Masur". The research design was cross sectional study intended to determine knowledge of mothers regarding malnutrition among

their under-five children in rural area of masur. The sample size was 60 mothers of under-five children in rural area.

THE OBJECTIVE WAS: → To assess the knowledge regarding malnutrition its prevention and control among mothers of under five children's. → To determine the association between the knowledge score with the selected socio-demographic variable.

MAJOR FINDINGS OF DEMOGRAPHIC VARIABLES: With regard mother age, 15% mother were in age group below 30 years, 85 % mothers were in age group above 30 years. With regard baby weight 98.66% below 5kg, 1.33% above 5kg weight baby. With regard Religion, 65% mothers were Hindu 23.33% mothers were Muslim 11.66% of mothers were from other religion. With regard mother Residence 100% from Rural area. With regard type of family, 21.66% mothers were from nuclear family, 28.33% mothers were from joint family, 50% mothers were from Mixed family. With regard Dietary pattern, 3.33 % mothers were Vegetarian, 14% mothers were from non-vegetarian ,83.33% Mothers were from Mixed. With regard mother occupation 85% mothers were Housewife, 11.66 % mothers were from private job, 6.66% mother were from government job.

FINDINGS RELATED TO KNOWLEDGE SCORES: During the survey majority of 60% of assess mothers' knowledge regarding malnutrition among their under-five children's.

FINDING RELATED TO ASSOCIATION BETWEEN: DEMOGRAPHIC VARIABLES AND ASSESS KNOWLEDGE There was no significant association found between assess level of knowledge demographic variables.

SUMMARY, NURSING IMPLEMENTATION, RECOMMENDATION AND LIMITATION SUMMARY In rural area most of mothers have assess knowledge regarding malnutrition, among their under-five childrens.

THE OBJECTIVE OF THE STUDY: → To assess the knowledge regarding malnutrition its prevention and control among mothers of under five children's. → To determine the association between the

knowledge score with the selected socio-demographable.

METHODOLOGY OF SUMMARY This study was a cross sectional, community area-based study conducted among the mothers of under-five children to assess knowledge of mothers regarding malnutrition among their under-five children. The data were collected with simple random sampling technique with help of pre structured questionnaire which a total 60 sample were enrolled in the study. The data were tabulated and analyzed by MS Excel and inferential statistics. **RESULT:** A total 60 rural area mothers of under-five children, most of mothers assess knowledge regarding malnutrition. Among 60 mothers, most of them 60 (%) mothers assess knowledge, knowledge about malnutrition among their under-five children. It was inferred that, total mothers in rural area mother knowledge regarding malnutrition.

CONCLUSION: The main conclusion of present study of all mothers has assess knowledge regarding malnutrition, under-five childrens.

NURSING IMPLEMENTATION: Nursing is a service-oriented profession and it must advance and keep pace with the advancing technology, newer problems, and growing demands of consumers. The findings of the study have implications for nursing practice, nursing education, nursing administration, and nursing research, and its implication is not only in the field of nursing but also in other areas like community health, preventive medicine and school health. The present study findings will be helpful for such future studies. In this framework the findings of the study has valuable implications to nursing education, administration and research.

NURSING EDUCATION: Education is the key to the development of excellent nursing practice. Education faces tremendous challenges in keeping pace with changes in nursing practice to maintain its high quality. Nurses must be lifelong learners and they should be given an opportunity for continuing education. Nurses with higher education deliver cost effective care, a) An awareness need to be created among mothers of under-five childrens regarding Malnutrition. b) Nurse educators need to organize regular short-term training programmers, workshops

etc., with support of nursing administrator for the mothers about malnutrition among under-five children. Nursing education programme should also give importance to equip the mothers with adequate skill to provide health education to the individuals, guide other family members in perceiving threat of malnutrition and other deficiency diseases because of lack of nutrition.

NURSING PRACTICE: Mothers need to have adequate knowledge regarding developmental milestone among school going and how much it is important for children's growth and development. The findings imply that there is a need for regular health education programmes to be carried out by nurses. Counselling centers may be recognized by nurses in colleges to provide counselling and educate mothers on nutrition. Nurse can also identify family members in the same family who have lack of knowledge regarding nutrition and help them to understand the importance and effects of growth and development of child, it helps them to adjust with the reasons for why they should start giving proper attention. Nurses should try to fill these lacunae by participating in the preparation of learning resource materials and disseminating these materials through mass media and other ways. Nurses should also involve themselves in counselling mothers to bring changes in their knowledge regarding developmental milestone among school going children.

NURSING RESEARCH: Research plays a vital role in nursing. There is need for extended and intensive research in the area of educating the staff nurses about malnutrition among under-five. Research can help and increase the body of nursing knowledge, which improves the care provided. Although actual performance is important, use of observation to explore nurse performance is limited in clinical setting. "The potential of observation in research in this nature has yet to be fully exploited".

RECOMMENDATIONS: Keeping in view the findings of the present study, the following recommendation were made: a) A comparative study on the effectiveness of the currently advocated malnutrition should be under taken with a view to develop problem specific protocols. b) A study on the knowledge of nursing personnel regarding

malnutrition may help to the students. c) A study on the attitude and willingness of slum people regarding nutrition may be helpful for the community. d) A qualitative study on the effectiveness of nursing measures to improve the quality of life of persons living with protein energy malnutrition should be conducted. e) A comparative study to assess the knowledge of rural areas mothers regarding malnutrition among their under-five children.

VI. LIMITATION OF STUDY

The study was limited to rural area mothers of under-five children. The study was limited for nursing study to assess knowledge of mothers regarding malnutrition among their under-five children in rural area of masur.

REFERENCES

- [1] O'Keeffe M, Kelly M, O'Herlihy E, O'Toole PW, Kearney PM, Timmons S, O'Shea E, Stanton C, Hickson M, Rolland Y, Rossé CS. Potentially modifiable determinants of malnutrition in older adults: A systematic review. *Clinical Nutrition*. 2019 Dec 1;38(6):2477-98...
- [2] Vissoh AC, Klotoé JR, Fah L, Agbodjento E, Koudokpon H, Togbe E, Saïdou S, Dougnon V. Knowledge and practices of traditional management of child malnutrition and associated pathologies in Benin. *Journal of Ethnobiology and Ethnomedicine*. 2024 May 2;20(1):47. (1)
- [3] Tedla M, Malede A, Berhan Z. Prevalence and associated factors of malnutrition among under-five children living in slum areas of Bahir Dar Town, Ethiopia. *The Pan African Medical Journal*. 2024 Apr 9;47(176). (2)
- [4] Thaisha MF, Anil MH, Saju MI, Noufal MM, Naik S. A Study To Assess The Knowledge On Child Nutrition Among Mothers Of Under-Five Children At Selected Hospital, Mangaluru. *Journal of Pharmaceutical Negative Results*. 2023 Jan 15:636-9. (3)
- [5] Kidane GF, Zereabruk K, Aberhe W, Hailay A, Mebrahtom G, Gebremeskel GG, Haile TG, Teklemichael DM. Time to recovery from severe acute malnutrition and its predictors among under five children admitted to therapeutic feeding units of general and referral hospitals in Tigray, Ethiopia, 2020: a prospective cohort study. *BMC pediatrics*. 2023 Jun 26;23(1):325. (4)
- [6] Sanni TA, Elegbede OE, Adewoye KR, Durowade KA, Ipinnimo TM, Alabi AK, Ojo JO, Agbana RD, Raji MM, Aderinwale OA, Adeosun MO. Nutritional status of primary school children and their caregiver's knowledge on malnutrition in rural and urban communities of Ekiti State, Southwest Nigeria. *Plos one*. 2024 May 13;19(5):e0303492.
- [7] Surabi Sinha Mathur, *Malnutrition among children*. Vikas Adhayan Kendra: Times of India: 2004
- [8] Patali CS. A descriptive study to assess the knowledge of mothers regarding the nutrition for under five children in selected areas of Bagalkot with a view to develop a self-instructional module. *JOJ Nurse Health Care*. 2018;7(3):555713.
- [9] Nandaprakash P. Assessment of knowledge and practices among mothers of under five children regarding prevention of protein energy malnutrition at selected area of gavipuram guttahalli, bangalore, with a view to develop an information guide sheet for mothers (Master's thesis, Rajiv Gandhi University of Health Sciences (India)).
- [10] Sharma HK, Deep MG. A study to assess knowledge, attitude and practices of mothers of under five children regarding prevention of Protein Energy Malnutrition. 11. Maragatham S, Bhuvaneshwari G, Parimala L, Suganya M, Jerin R. Knowledge and Self-Reported Practice about Prevention of Worm Infestation among the mothers of 3 to 10 Years Old Children having Worm Infestation.