Effectiveness of Video-Assisted Teaching program among Tribal Women for Under-5 age children Malnutrition Prevention

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Abstract - The Sahariya tribe is part of the particularly vulnerable tribal groups(PVTGs) of Madhya Pradesh, India. Malnutrition, pulmonary TB, and other morbidities are common in this tribal group. A study was done to improve mothers' knowledge, attitudes, and actions about the prevention of malnutrition in their children under the age of 5. In this pre-experimental investigation, during the pretest an interview of 100 women was conducted to assess their knowledge, attitudes, and practices for preventing under nutrition in children under the age of 5. Following the interview, a video-assisted education program was implemented, and knowledge, attitude and practice score were evaluated again. Data indicated that a high mean knowledge score shift from pretest 10.8 to 37. 3 following the intervention of a video instruction program. Mothers' attitudes and practices show a significant proportionate improvement. A substantial association was established between the frequency with which the mother attended the NRC, Checkup preferences for children, Mother's age when she gave birth to her first child, information sharing for growth and development, Health checkup preference for children, Type of family, Mothers' Educational Status and occupation. This study found that video assisted teaching programs effectively improve the knowledge, attitude and practice of tribal women in preventing malnutrition among children under the age of five.

Keywords - Malnutrition; under 5 age children; Sahariya tribe; mothers; indigenous population.

1. INTRODUCTION

Due to food shortages and poverty, malnutrition is the most common childhood illness (Ghosh-Jerath, 2017). Malnutrition occurs when energy and nutrient intake is inadequate, excessive, or imbalanced. The term malnutrition covers two groups of diseases. Stunting, wasting, underweight, and micronutrient deficiencies or insufficiencies are examples of "under nutrition." The other is obesity, overweight, and diet-related non communicable diseases like cancer, diabetes, heart disease and stroke (Ghosh-Jerath,

2017). SDG 2, goal acknowledges that efforts to combat hunger and malnutrition have advanced significantly since 2000. The National Family Health Survey-4 for India revealed that 7.5 percent of all children under-five years of age are severely wasted (weight-for-height) and it was analyzed that with appropriate nutritional and clinical management, many of such deaths can be prevented. The prevalence of stunting among children in Madhya Pradesh witnessed a fall from 42 percent in NFHS-4 to 36 percent in NFHS-5. Similarly, the number of children experiencing wasting, indicating being underweight for their height, decreased from 26 percent in NFHS-4 to 19 percent in NFHS-5. Nevertheless, a significant proportion of youngsters (aged 6-59 months) in the state, almost 73 percent, exhibited symptoms of anemia (National Family Health Survey, 2019-21). Sahariya tribe live primarily in Sheopur and Shivpuri districts of Madhya Pradesh. Recent National family health survey -5 report revealed that MP is the state in which highest number of people use public health facility for child birth services, on the other hand tuberculosis, viral hepatitis are commonly found in Sahariya tribe people (Parul Gupta, 2023).It was observed that the sahariya people are dependent on farming, and making things from forest plants which plays an important role in forming their economic structure. In the history they traditionally practiced shifting cultivation, hunting, and sometimes also adopted nomadic life but in present time, most of the Sahariya people have become daily wage labor. Lack of adequate food items, lack of sanitation, low living standard can be the cause of their morbidity status. Early menarche and poor nutrition status among women are risk factors related to Sahariya tribe (Ranjan Kumar Biswas, 2004;Monika Monika, 2018;Mamta Sharma, 2023).

2. REVIEW OF LITERATURE

Suparna Ghosh-Jerath, Aruna Bhattacharya et. al. conducted an extensive study in 2013 to overview of assessment and initial management of under nutrition in children under 5 years age belongs sahariya tribe. Chronic energy deficiency among 49% and anemia among 90% sahariya mother was observed and malnutrition in form of underweight and stunting was among more than 50% of under 5 age children (Ghosh-Jerath, Singh, Ray, Yunus, & Zodpey, 2013). Atal Bihari Vajpayee Institute of Good Governance & Policy Analysis report in 2018 analyzed that overall, the under -6 aged children from the sahariya tribe had almost double the incidence of malnutrition as compared to other non-Sahariya people.(Richa Sharma, 2018). Mallikharjun Rao Kodavanti et. al in 2005 revealed that vitamin A deficiency and other nutrition problems are high in this tribe. High prevalence of viral hepatitis cases, pulmonary tuberculosis is routinely reported in many studies of Sahariya tribe. Monalisha Sahu, Biswadip Chattopadhyay,Ranjan Das et. al. highlighted in their systematic review related to indigenous people and climate change that Maternal and child health problems are also caused by prenatal exposure to the effects of climate change, such as food insecurity (Monalisha Sahu, 2022).Chetan S Patali conducted an exploratory study to assess theknowledge level of mothers regarding the nutrition for Under 5 children in selected areas of Bagalkot and recommended that Educational program should be administered to provide adequate nutritional knowledge to prevent nutritional deficiencies (P., 2018).

3. METHODOLOGY

In this study using quantitative approach 100 mothers were interviewed for assessment of their knowledge regarding prevention of malnutrition among under 5 age children in the year 2021. Data was collected for a period of 7 days. Study design and approach: pre experimental design was adopted to identify factor responsible for causing high malnutrition prevalence in under 5 age group children of Sahariya tribe. **Sample and Sampling:** Nonprobability purposive sampling estimated size 100. Inclusion criteria:
1. Women who were ready to participate in interview during study period. 2. Mothers of Under 5 age children. 3. Mothers whose children had reported history of admission in NRC (Nutrition Rehabilitation

Center) due to malnutrition. Exclusion criteria: 1. Women who were having no children. 2. Women more than 45 years of age were not included in the study. Settings: selected rural areas of Sheopur district, Madhya Pradesh in year 2021. **Method of Data collection:** A pre validated KAP tool was administered for assessment of knowledge related to concepts of malnutrition, breast feeding, weaning, anemia prevention, vitamin A deficiency, Iodine deficiency, prevention of malnutrition among under 5 age children. Socio demographic variables selected in this study are explored to understand their social life and relationship with prevalent health problems. Data was collected with the help of field worker who can also translate questions in their local language. Technique of data collection was face to face interview with close ended questions and responses were recorded as score of 1 for each correct response. **Tool reliability:** tool used in the present study was based on the tool used by food and agriculture organization of United Nations for malnutrition survey (FAO, The Food and Agriculture Organization, UN).After necessary modification Tool was validated by three subject experts. Reliability of tool was found to be 0.86. Video assisted teaching program with video recordings , graphics and group discussion education program related to prevention of malnutrition, breast feeding, complimentary food ,basic malnutrition problems such as anemia, iodine deficiency were discussed and taught among living areas of mothers in small groups of 6-8 person at a time and discussion session thereafter. **Ethical consideration:** permission was taken from local governmental body Panchayat for conduction of study and institutional ethical committee. Subjects were introduced about the research and its objective one week prior to conduction of study. Participant who were willing to participate in the study were interviewed.

4. RESULTS & ANALYSIS

Socio-demographic data analysis showed 60% of subjects were mother between the age group 15-20 years. Only 12% mothers were primary passed and rest were illiterate. More than half proportion 63% of children weighted between 2-2.5 kg at birth. Prevalence of malnutrition was more prevalent in the age group 12-36 months, so more care needs to be taken for understanding weaning and food hygiene practice at this age in earlier. Almost all (90%) mothers were below 18 years age at the time of first childbirth. 36% mothers were taking treatment by physician at health centers. A few 23% prefer to see doctors which reflect major problem associate with malnutrition management in Sahariya tribe. Nearly half (36%) mothers were having 1-2 children and rest were having more than 3-5 children. Age, education, weight of the child at birth, type of family, occupation, mother's age at 1st child birth, total number of live birth, health status, information sharing for growth & development, source of health information about malnutrition, health checkup preference for children, and frequency of mother's NRC visits were found to be correlated with mother's knowledge score and analyzed in pretest (10.8±3.028) and posttest (37.3±6.729) (Figure 1). Area wise mean knowledge in pre-test and posttest showed that Sahariya mother was having inadequate knowledge in pretest related to prevention of malnutrition, iodine deficiency, anemia prevention and fair level of knowledge related to basic concept of nutrition, breast feeding weaning and complimentary food (Figure 1). Knowledge among sahariya mother had improved and after video teaching program in posttest they were having good score related to concept of malnutrition, breast feeding and prevention of malnutrition, anemia management where as fair knowledge in iodine deficiency management and complimentary feeding and weaning. Highest mean of posttest score was related to knowledge of concept of malnutrition. Analysis of Practices were assessed by food hygiene practices such pre cooking, during cooking and storage practices, practices related to choice of food for prevention of malnutrition among children and result showed that no one was in good level of practice in pretest and 71% of sample were at poor practice level regrding prevention of malnutrition.In post test 23% mothers were having good practice level and 69% were having fair practice level. Analysis of Attitude: Attitude was assessed on 3 point rating

scale regarding prevention of malnutrition among under 5 age children (Table 1). Limitation of the study was more sample size can be interviewed to draw out clear level of knowledge, attitude, and practices for prevention of malnutrition in this tribe.

	Unfavourable	**Moderately Favourable**	**Favourable**
Pre test	77%	23%	0
Post test	20%	54%	26%

Table 1: Attitude Score of Mothers in sahariya tribe regarding Prevention of Malnutrition among under 5 Age Children.

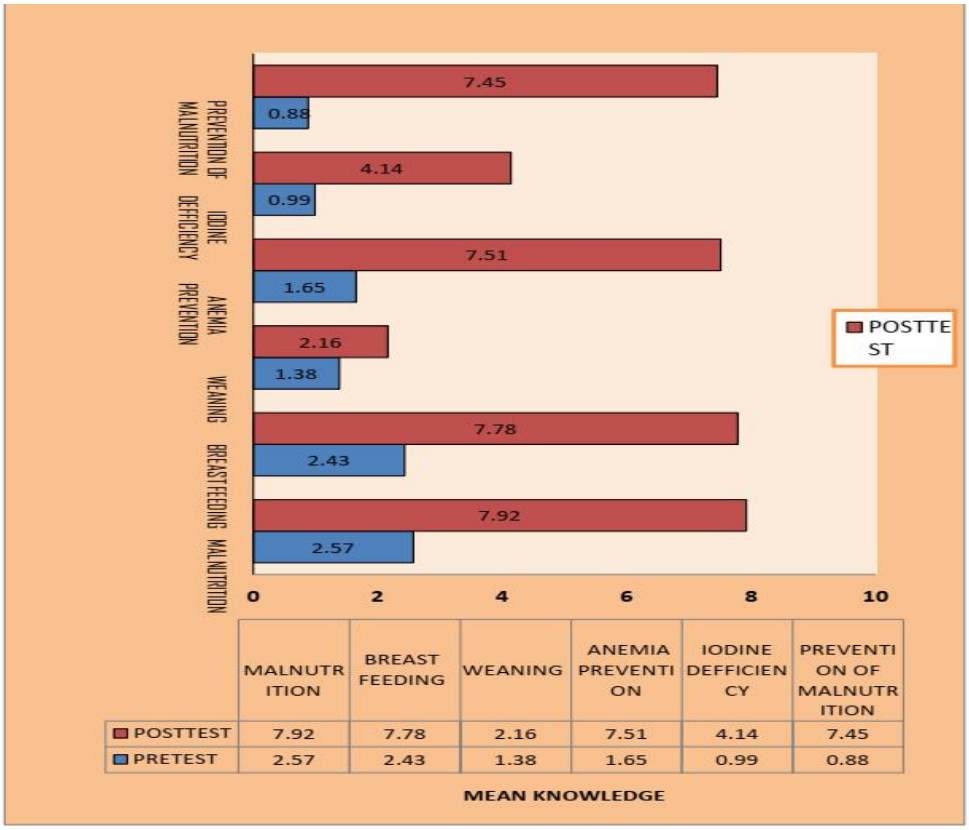

Figure 1: area wise knowledge score of mothers in sahariya tribe in pretest and posttest regarding Prevention of Malnutrition among under 5 age Children.

5. FUTURE SCOPE OF THE STUDY

This study provide evidence for effectiveness of video assisted teaching program and Nursing professionals and other health care providers and educators at the health centers can use video assisted health education programs to raise knowledge about malnutrition prevention while working for tribal people. The study found that IEC programs can address nutritional issues in under-5 mothers' knowledge, attitudes, and practices. The study suggests that tribal people need to communicate with health personnel for health information in their local language thus reducing communication barrier. Gatherings, camps, awareness meetings can be arranged with tribal people for mass education using video assisted teaching programs. Further research an action research can be undertaken with community people by training leaders in tribal community and then through them training of mothers can be done to address inadequate knowledge level, unfavorable attitude and poor practices for prevention of malnutrition need to be strictly overlook and community health promotion is highly needed so that burden of malnutrition can be decreased among tribal children.

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