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Chitra N Nerurkar
MSc (N), Department of
Community Health Nursing,
Shreeya College of Nursing,
Opp. District Court, P.B.
Road, Dharwad, Karnataka,
India

Dr. Nagaraj Killelli
Professor and HOD,
Department of Community
Health Nursing, Shreeya
College of Nursing, Opp.
District Court, P.B. Road,
Dharwad, Karnataka, India

Rhoda Jesuraj
Principal, Department of
Community Health Nursing,
Shreeya College of Nursing,
Opp. District Court, P.B.
Road, Dharwad, Karnataka,
India

Sushmita G Hebballi
Assistant Professor,
Department of Community
Health Nursing, Shreeya
College of Nursing, Opp.
District Court, P.B. Road,
Dharwad, Karnataka, India

Kavita Shinde
Assistant Professor,
Department of Community
Health Nursing, Shreeya
College of Nursing, Opp.
District Court, P.B. Road,
Dharwad, Karnataka, India

Corresponding Author:
Chitra N Nerurkar
MSc (N), Department of
Community Health Nursing
Shreeya College of Nursing,
Opp. District Court, P.B.
Road, Dharwad, Karnataka,
India

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A study to evaluate the effectiveness of structured teaching programme on knowledge regarding the prevention and control of malnutrition among the mothers of under five children residing in rural community of Dharwad district

Chitra N Nerurkar, Dr. Nagaraj Killelli, Rhoda Jesuraj, Sushmita G Hebballi and Kavita Shinde

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Abstract

Background of the study: In the context of the Children's growth and development do not occur in a linear fashion, but are influenced by each child's environment, nutrition and parental care. Children are malnourished if their diet does not provide adequate nutrients for growth and maintenance or they are unable to fully utilize the food they eat due to illness (under nutrition). Malnutrition refers to deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. Mother's inadequate knowledge of nutrition leads to unsuitable feeding practices; this is further impeded by adherence to strict cultural beliefs/practices. To improve feeding practices, nutrition education should focus on changing current knowledge, attitudes and practices. This could improve the long-term health status of people in the community [5].

Aims: An evaluative study aimed to evaluate the effectiveness of structured teaching program on knowledge regarding prevention and control of malnutrition among the mothers of under five children residing in rural community of Dharwad district.

Conceptual Frame work: J. W. Kenny's Open System Model

Methodology: An evaluative and qualitative approach use with one group pretest-posttest design was adopted for the study. The samples from the rural community of Dharwad district were selected using non probability purposive sampling technique. The sample consisted of 60 mothers of under five children. The tools used for data collection was structured knowledge questionnaire and structured teaching program was developed. The data analysis was done by using both descriptive and inferential statistics.

Results: The findings reveal that the post-test mean knowledge scores was found higher [mean=23.73, SD of 3.76] when compared with pre-test mean knowledge score value which was 10.90 with SD of 2.91. The statistical paired 't' implies that the difference in the pretest and post-test value was found statistically significant at 5% level ($p < 0.05$) with a paired 't' value of 22.29. There exists a statistical significance in the difference of knowledge score indicating the positive impact of structured teaching program. The computed Chi-square value for association between level of knowledge of mothers of under five children regarding prevention and control of malnutrition and their selected demographic variables is not found to be statistically significant at 0.05 levels. There is significant association found between age, religion, educational status of mothers, monthly income, die pattern and previous knowledge of mothers of under five children.

Interpretation and Conclusion: The findings revealed that, Knowledge of mothers of under five children regarding prevention and control of malnutrition was inadequate before the administration of structured teaching program. The structured teaching programme was effective in increasing the knowledge of mothers of under five children regarding prevention and control of malnutrition. Since a very few studies have been conducted regarding this topic in India, so the nurse researcher can take further studies on the same topic.

Keywords: Malnutrition, knowledge, prevention

Introduction

A food is something that provides nutrients. Nutrients are substances that provide: energy for activity, growth, and all functions of the body such as breathing, digesting food, and keeping warm; materials for the growth and repair of the body, and for keeping the immune system healthy [1].

According to world health organization (WHO), malnutrition on is a gravest single threat to global public health. Malnutrition is a broad term which refers to both under nutrition and over nutrition. Individuals are malnourished, or suffer from under nutrition if their diet does not provide them with adequate calories and protein for maintenance and growth or they cannot fully utilize the food they eat due to illness. People are also malnourished or suffer from over nutrition if they consume too many calories.

It is estimated that malnutrition can decrease the economic growth of a nation by approximately 8% due to loss in productivity caused by reduced schooling and cognitive impairments. As one of the fastest growing economies in the world, India requires a strong and healthy workforce to sustain its growth levels [12].

Globally in 2020, 149 million children under 5 were estimated to be stunted (too short for age), 45 million were estimated to be wasted (too thin for height), and 38.9 million were overweight or obese. Around 45% of deaths among children under 5 years of age are linked to under nutrition. These mostly occur in low- and middle-income countries. At the same time, in these same countries, rates of childhood overweight and obesity are rising. In 2016, an estimated 155 million children under the age of 5 years were suffering from stunting, while 41 million were overweight or obese. Around 45% of deaths among children under 5 years of age are linked to under nutrition. These mostly occur in low- and middle-income countries. At the same time, in these same countries, rates of childhood overweight and obesity are rising. According to the World Health Organization (WHO), children under 5 years of age, 155 million are stunted, 52 million are wasted, 17 million are severely wasted and 41 million are overweight and/or obese. It is also observed that the malnutrition problem in India is a concentrated phenomenon that is, a relatively small number of states, districts, and villages account for a large share of the malnutrition burden - only 5 states and 50% of villages account for about 80% of the malnutrition burden. Each year approximately 2.3 million deaths among 6-60 months aged children in developing countries are associated with malnutrition, which is about 41% of the total deaths in this age group [13].

It was reported that under-weight among under-five children ranged from 39% to 75%, stunting from 15.4% to 74% and wasting from 10.6% to 42.3% in different parts of the country. Globally, an estimated 165 million children under-five years of age, or 26%, were stunted (i.e., height-for-age below -2 SD) in 2011- a 35% decrease from an estimated 253 million in 1990. High prevalence levels of stunting among children under-five years of age in Africa (36% in 2011) and Asia (27% in 2011) remain a public health problem, one which often goes unrecognized. More than 90% of the world's stunted children live in Africa and Asia. Underweight.

National Family Health Survey-4 (NFHS-4, 2015-16) reported that the prevalence of underweight, stunting, and wasted among under-five is 36%, 38%, and 28.5%, respectively at the national level and 31.5%, 32.6%, 24.8%, and 9.7%, respectively, in Karnataka State. The disparity in prevalence of malnutrition is also noted in Karnataka. A study conducted in rural Bengaluru reported that 70% of children under five are malnourished. Prevalence of underweight is 37% among under-five children using the

WHO growth standards reported in a study done in Belgaum. From June 2019 to August, the department had conducted a survey of children suffering from malnutrition, and nearly 20.05% of children are malnourished in Dharwad district. Of the five taluks in the district, Kalghatgi has the highest rate of malnutrition. Of the five taluks in the district, Kalghatgi has the highest rate of malnutrition of 26% while Dharwad taluka has 24%, Hubballi 22%, Navalgund 25%, and Hubballi-Dharwad [15].

Title of the Project

"A study to evaluate the effectiveness of structured teaching programme on knowledge regarding the prevention and control of malnutrition among the mothers of under five children residing in rural community of Dharwad district."

Aims of the study

1. To assess the knowledge regarding prevention and control of malnutrition among mothers of under five children residing in rural community.
2. To evaluate the effectiveness of structured teaching programme on knowledge regarding prevention and control of malnutrition among mothers of under five children residing in rural community.
3. To find out association between post- test knowledge regarding among the mothers of under five children with selected socio-demographical variables regarding prevention and control of malnutrition.

Hypotheses

The following hypotheses are formulated for the study and will be used at 0.05 level of significance.

H₀: There will be no significant difference between the mean pre- test and post-test knowledge score among mothers of under five children.

H₁: The mean score post-test of knowledge regarding prevention and control of malnutrition will be higher than mean score pre-test.

H₂: There will be a significant co-relation between knowledge scores on prevention and control of malnutrition among mothers of under-five children with selected socio-demographic variables.

Conceptual/Theoretical Framework

A conceptual framework is a visual diagram by which the researcher explains the specific area of interest. It is overall purpose is to make research findings meaningful and generalizable.

The conceptual framework for this study was derived from 'J. W. Kenny's Open System Model (19990)' interrelated parts in which parts have a function and system as a whole has its own function all living system are open in which there is a continuous exchange of matter, energy and information provides input for the system. This theory includes 3 important components i.e., Input, Process, and Output. In this conceptual framework, in this study, input includes the pre-test which is done to assess the knowledge of under-five mothers on knowledge regarding malnutrition and its prevention and control. Throughput or the process focuses on primarily upon actually delivery of the structured teaching programme. Output refers to an information, once passed on to the sample, are reassessed by a post-test and released in an altered state. Output usually focuses upon the learning outcome of the participants.

Methodology**Research Approach:** Evaluative Approach**Research Design:** Pre -experimental one group pretest posttest research design**Samples:** Mothers of under five children**Sampling Technique:** Non -Probability Purposive sampling technique**Sample Size:** 60 students.**Plan for Data Analysis**

Descriptive statistics (frequency, percentage, mean, median and standard deviation) and inferential statistics were used for analysis and interpretation of data.

Setting of the Study

Kotur rural community of Dharwad district

The rationale for selecting this setting was as follows:

- Familiarity with this setting
- Availability of study samples
- Expected co-operation from the mothers of under five children

Sampling Criteria

Sampling criteria involves selecting sample that meets some predetermined criteria of importance. ⁴⁸The criteria for selection of sample were mainly depicted under two headings, which includes the inclusion criteria and exclusion criteria.

Inclusion criteria

- Mothers of under five children who can understand and respond in Karnataka and English.
- Mothers of under five children residing in rural community of Dharwad district.

Exclusion Criteria

- Mothers of under five children who are willing to participate in the study.
- Mothers of under five children who will not be present at the time of data collection.

Content validity

Content validity of the tool was ensured by 10 experts in the field. The suggestions were considered and modified.

Reliability of the tool

In order to establish the reliability of the tool split-half method was used. The tool was administered to 06 subjects who admitted in Primary Health Centre, Kotur and the test was first divided into two equivalent halves and correlation of the half test was found by using Karl Pearson correlation co-efficient formulae and the significance of the correlation was tested by using probable error. The reliability coefficient of the whole test was then estimated by

Spearman's Brown Prophecy formulae. Reliability of the questionnaire was 0.88, so the tool was found to be highly reliable for the data collection. After pilot study tool was finalized for main study.

Data collection Instrument

Section I: Socio-demographic data: This study consists of 8 numbers of questions those will help in obtaining information about the selected background factors such as age, religion, educational status of mothers, monthly income, diet pattern, working status of mother, previous knowledge about prevention and control of malnutrition, source of previous knowledge.

Section II: Structured knowledge questionnaire on Prevention and control of Malnutrition: It consists 30 items of multiple-choice questions on knowledge regarding prevention and control of malnutrition among mothers of under five children on the aspects such as introduction, sign and symptoms, prevention and control of malnutrition.

Process of data collection was as follows

- Selection of the subjects was done after applying the predetermined inclusion criteria.
- Written consent was obtained from subjects to participate in the study
- Samples are selected by Non-Probability purposive sampling technique.
- On day 1 the pretest was conducted, later structured teaching program was administered to the participant and post test was conducted on day 8.
- Data analysis was done using descriptive and inferential statistics.

Results**Organization of findings**

The analysis of the data is organized and presented under following sections;

Section 1: Findings related to distribution of socio-demographic data of the mothers of under- five children.

Section 2: Findings related to pre-test knowledge scores of the mothers of under-five children.

Section 3: Findings related to effectiveness of structured teaching program on knowledge regarding prevention and control of malnutrition.

Section 4: Findings related to association between post-test knowledge scores of the mothers of under-five children with selected socio-demographic variables

Section I: Socio-demographic profile

Study comprised of 60 participants. The socio demographic scores of participants were tabulated and frequency and percentage were calculated. The findings are presented in following table and graphs.

Table 1: Socio-demographic profile

Sr. No	Variable	f	%
1	Age of child		
	Below 1 Year	18	30.00
	Complete 1 Year	12	20.00

	Complete 2 Year	12	20.00
	Complete 3 Year	10	16.67
	Complete 4 Year	8	13.33
	Total	60	100
	Religion		
2	Hindu	37	61.67
	Muslim	10	16.67
	Christian	11	18.33
	Others	2	3.33
	Total	60	100
	Educational status of mothers		
3	Illiterate	5	8.33
	Primary	17	28.33
	Secondary	14	23.33
	Graduate and above	24	40.00
	Total	60	100
	Monthly income		
4	< Rs. 5000	16	26.67
	Rs. 5,001– Rs. 10,000	12	20.00
	Rs. 10,001 – Rs. 15,000	21	35.00
	Rs. 15,000 <	11	18.33
	Total	60	100
	Diet pattern		
5	Vegetarian	16	26.67
	Mixed type	44	73.33
	Total	60	100
	Working status of mother		
6	Housewife	12	20.00
	Private sector	16	26.67
	Public sector	16	26.67
	Business	16	26.67
	Total	60	100
	Previous knowledge about prevention and control of malnutrition		
7	Yes	49	81.67
	No	11	18.33
	Total	60	100
	Source of previous knowledge		
8	Friend	9	15.00
	Family	13	21.67
	Mass media	12	20.00
	Health professionals	15	25.00
	Total	49	81.67

Section 2: Findings related to pre-test knowledge scores of the mothers of under-five children regarding prevention and control of malnutrition.

Table 2: Mean, median, mode, standard deviation and range of pretest knowledge scores of mothers of under-five children regarding prevention and control of malnutrition. n = 60

Area of Knowledge	Number of Items	Mean	Median	Mode	Standard deviation	Range
Pre-test scores	60	10.90	10	09	2.91	16

Table 2 Reveals pre- test knowledge score of mothers of under five children -In pretest knowledge score, respondents mean was 10.90, median was 10, mode was 09 with standard deviation 2.91and score range was 16.

Table 3: Knowledge score of mothers of under five children regarding prevention and control of malnutrition.

Sr. No	Range	Category	f	%
1	0 to 10	Poor	32	53.33
2	11 to 20	Average	26	43.33
3	21 to 30	Good	2	3.33

The data presented in Table No. 3 shows that, majority 32 (53.33%) of mothers of under-five children had poor knowledge, 26 (43.33%) of them had average knowledge &

only 2 (3.33%) of mothers of under-five children were having good knowledge regarding prevention and control of malnutrition.

Section 3: Findings related to effectiveness of structured teaching program on knowledge regarding prevention and control of malnutrition.

This section deals with the comparison of Pre-test and Post-test knowledge scores in terms of Mean, Median, Mode, Standard Deviation and Range. Also, testing of H1 for the finding effectiveness of the structured teaching program on prevention and control of malnutrition. This finding will confirm the usage of this structured teaching program in future for enhancing the knowledge of mothers of under-five children.

H1: The mean post-test score of mothers of under five children of knowledge regarding prevention and control of malnutrition will be higher than mean pre-test score.

Table 4: Comparison of comparison of Pre-test and Post-test knowledge scores in terms of Mean, Median, Mode, Standard Deviation and Range

Sr. No.	Parameter	Pre-test	Post-test
1	Mean	10.90	23.73
2	Median	10	25
3	Mode	9	26
4	SD	2.91	3.76
5	Range	16	19

Above table shows that mean pre-test knowledge score is 10.90 and mean post-test knowledge score is 23.73. The mean post-test knowledge score is higher than the mean pre-test knowledge score. Hence, the structured teaching program is effective and can be used in enhancing the

knowledge of mothers of under-five regarding prevention and control of malnutrition.

In paired 't' test for two mean samples, it is found that the calculated 't' vale is -22.29. Hence, H1 is accepted.

Section 4: Findings related to association between post-test knowledge scores of the mothers of under-five children with selected socio-demographic variables.

This section deals with the finding association between post-test knowledge scores of the mothers of under-five children with selected socio-demographic variables such as Age, Religion, Educational status, Monthly income, Diet pattern, Working status of mother, previous knowledge and source of previous knowledge.

For that a statistical method known as Chi-square test will be used to determine the association which will clear the relation between the post-test knowledge scores of the mothers of under- five children with selected socio-demographic variables.

Table 5: Chi-square values between levels of knowledge of mothers of under five children regarding prevention and control of malnutrition and their selected demographic variables. n = 60

Sr. No.	Variables	Poor	Average	Good	dF	χ ² Tab.	χ ² Cal.	Inf.
Age of child								
1	Below 1 Year	0	2	16	8	15.51	16.99	S
	Complete 1 Year	0	2	10				
	Complete 2 Year	0	2	10				
	Complete 3 Year	0	6	4				
	Complete 4 Year	1	3	4				
Religion								
2	Hindu	0	4	33	6	12.59	19.22	S
	Muslim	1	4	5				
	Christian	0	5	6				
	Others	0	2	0				
Educational status of mothers								
3	Illiterate	1	1	3	6	12.59	13.86	S
	Primary	0	2	15				
	Secondary	0	5	9				
	Graduate and above	0	7	17				
Monthly income								
4	< Rs. 5000	0	8	8	6	12.59	14.43	S
	Rs. 5,001– Rs. 10,000	1	0	11				
	Rs. 10,001 – Rs. 15,000	0	6	15				
	Rs. 15,000 <	0	1	10				
Diet Pattern								
5	Vegetarian	0	8	8	2	5.99	7.43	S
	Mixed type	1	7	36				
Working status of mother								
6	Housewife	1	0	11	6	12.59	10.44	NS
	Private sector	0	4	12				
	Public sector	0	4	12				
	Business	0	7	9				
Previous knowledge about prevention and control of malnutrition								
7	Yes	0	10	39	2	5.99	8.13	S
	No	1	5	5				
Source of previous knowledge								
8	Friend	0	0	9	6	12.59	6.98	NS
	Family	0	3	10				
	Mass media	0	1	11				
	Health professionals	0	6	9				

H2: There will be a significant association between post-test knowledge scores on prevention and control of malnutrition among mothers of under-five children with selected socio-demographic variables.

Discussion: The findings of the study were discussed under following headings.

1. Findings related to distribution of socio-demographic data of the mothers of under-five children.
2. Findings related to pre-test knowledge scores of the

- mothers of under-five children.
- Findings related to effectiveness of structured teaching programme on knowledge regarding prevention and control of malnutrition.
 - Findings related to association between post-test knowledge scores of the mothers of under-five children with selected socio-demographic variables.

Findings related to socio-demographic variables of the mothers of infants

Majority, 18 (30%) of mothers of under-five children have age of their child below 1 Year. About religion, maximum 37 (61.67%) were from Hindu religion.

It is observed that, maximum 24 (40%) of mothers of under-five children were graduated. Majority 21 (35%) of the mothers of under five children having monthly income of Rs. 10,001-Rs. 15,000. Out of 60 mothers, 44 (73.33%) prefer to take mixed type of diet. 16 (26.67%) are mothers doing their own business, working in private and public sector each. Majority 49 (81.67%) of mothers of under-five children having previous knowledge regarding prevention and control of malnutrition.

Maximum 15 (25%), 13 (21.67%), 12 (20%) and 9 (15%) out of 49 (81.67%) mothers of under-five children got information regarding prevention and control of malnutrition from Health professionals, family, mass media and friend respectively.

Findings related to pre-test knowledge scores of the mothers of under-five children

In the present study, with regard to pre-test knowledge scores majority 32 (53.33%) of mothers of under-five children had poor knowledge, 26 (43.33%) of them had average knowledge & only 2 (3.33%) of mothers of under-five children were having good knowledge regarding prevention and control of malnutrition.

The mean score of knowledge is 10.90. The score between 11-20 is categorized as average knowledge. The mean score of knowledge 10.90 which is between 11-20. Hence, it shows that mothers of under-five children have average knowledge regarding prevention and control of malnutrition.

Findings related to effectiveness of structured teaching program on knowledge regarding prevention and control of malnutrition

Mean pre-test knowledge score is 10.90 and mean post-test knowledge score is 23.73. The mean post-test knowledge score is higher than the mean pre-test knowledge score. Hence, the structured teaching program is effective and can be used in enhancing the knowledge of mothers of under-five regarding prevention and control of malnutrition.

In paired 't' test for two mean samples, it is found that the calculated 't' value is -22.29. Hence, H_1 is accepted.

Findings related to association between post-test knowledge scores of the mothers of under-five children with selected socio-demographic variables

In this present study there is a significant association between knowledge scores and selected socio-demographic variables like Age [$\chi^2_{cal} = 16.99$, [$\chi^2_{tab} = 15.51$ at $df(8)$], Religion [$\chi^2_{cal} = 19.22$, [$\chi^2_{tab} = 12.59$ at $df(6)$], Educational status [$\chi^2_{cal} = 13.86$, [$\chi^2_{tab} = 12.59$ at $df(6)$], Monthly income [$\chi^2_{cal} = 14.43$, [$\chi^2_{tab} = 12.59$ at $df(6)$], Diet Pattern [$\chi^2_{cal} = 7.43$, [$\chi^2_{tab} = 5.99$ at $df(2)$], and Previous knowledge

[$\chi^2_{cal} = 8.13$, [$\chi^2_{tab} = 5.99$ at $df(2)$].

In all variables the calculated Chi-square (χ^2_{cal}) value was higher than tabulated value at 0.05 level of significance, except working status of mothers [$\chi^2_{cal} = 10.44$, [$\chi^2 = 12.59$ at $df(6)$] and source of Previous knowledge about growth and development [$\chi^2_{cal} = 6.98$, [$\chi^2_{tab} = 12.59$ at $df(6)$].

There is significant association between knowledge scores of mothers of under-five children regarding prevention and control of malnutrition and socio-demographic variables. Hence, H_2 is accepted.

Conclusion

The findings revealed that Knowledge of mothers of under-five children regarding prevention and control of malnutrition during pre-test was average and is increased as good after structured teaching program. Structured teaching program was effective to enhance knowledge of mothers of under-five children regarding prevention and control of malnutrition. The study found that there is significant association between knowledge scores with their selected socio demographic variables like age, religion, education, monthly income, diet pattern and previous knowledge.

Ethical clearance: Study was approved by the Institutional Ethical Committee, Shreeya College of Nursing, Dharwad. Formal administrative permission was obtained

Conflict of Interest: Nil

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Reference

- Importance of Food [Internet]. The Family Nutrition Guide. [cited 2021Jul4]. Available from: <http://www.fao.org/3/y5740e/y5740e04.htm#:~:text=A%20food%20is%20something%20that,keeping%20the%20immune%20system%20healthy.>
- Malnutrition [Internet]. Cambridge Dictionary. [cited 2021Jul4]. Available from: <https://dictionary.cambridge.org/dictionary/english/malnutrition>
- Malnutrition [Internet]. Malnutrition | Lab Tests Online. [cited 2021 Jul 4]. Available from: <https://labtestsonline.org/conditions/malnutrition>
- Malnutrition [Internet]. Encyclopædia Britannica. Encyclopædia Britannica, inc.; [cited 2021 Jul 4]. Available from: <https://www.britannica.com/science/malnutrition>
- Yadav S. Knowledge and Practices regarding Prevention of Protein Energy Malnutrition among Mothers of under Five Children [Internet]. Available from: <https://ajner.com/HTMLPaper.aspx?Journal=Asian%20Journal%20of%20Nursing%20Education%20and%20Research;PID=2016-6-1-20>
- Signs and Symptoms [Internet]. Malnutrition | Lab Tests Online. [cited 2021 Jul 4]. Available from: <https://labtestsonline.org/conditions/malnutrition>
- Diagnostic Tests [Internet]. Malnutrition | Lab Tests Online. [cited 2021 Jul 4]. Available from: <https://labtestsonline.org/conditions/malnutrition>
- Treatment [Internet]. Malnutrition | Lab Tests Online. [cited 2021 Jul 4]. Available from: <https://labtestsonline.org/conditions/malnutrition>

9. Risks of Malnutrition [Internet]. NHS Choices. NHS; [cited 2021 Jul 4]. Available from: <https://www.nhs.uk/conditions/malnutrition/>
10. Prevention of Malnutrition [Internet]. NHS Choices. NHS; [cited 2021 Jul 4]. Available from: <https://www.nhs.uk/conditions/malnutrition/>
11. Strategies to prevent Malnutrition [Internet]. English. [cited 2021 Jul 4]. Available from: <https://vikaspedia.in/health/nutrition/malnutrition/strategies-to-prevent-malnutrition-and-improve-nutrition>
12. Oommen C, Kurian and Malancha Chakrabarty and Priyanka Shah and Tanoubi Ngangom and Priyanka Shah. Impact of Malnutrition on nation [Internet]. ORF. 2017 [cited 2021 Jul 4]. Available from: <https://www.orfonline.org/research/stunting-malnutrition-impact-on-india-workforce/#:~:text=It%20is%20estimated%20that%20malnutrition,reduced%20schooling%20and%20cognitive%20impairments.&text=As%20one%20of%20the%20fastest,to%20sustain%20its%20growth%20levels>.
13. Sahu SK, Kumar SG, Bhat BV, Premarajan KC, Sarkar S, Roy G, *et al.* Malnutrition among under-five children in India and strategies for control [Internet]. Journal of natural science, biology, and medicine. Medknow Publications & Media Pvt Ltd; c2015 [cited 2021 Jul 3]. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4367032/>
14. Onis M, Brown D, Blossner M, Borghi E. Levels & Trends in Child Malnutrition [Internet]. Available from: https://www.who.int/nutgrowthdb/jme_unicef_who_wb.pdf
15. RS. 20% kids malnourished in Dharwad dist [Internet]. Deccan Herald. DH News Service; c2019 [cited 2021 Jul 3]. Available from: <https://www.deccanherald.com/state/karnataka-districts/20-kids-malnourished-in-dharwad-dist-761244.html>

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