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A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE REGARDING MALNUTRITION ASSESSMENT AMONG ANGANWADI WORKERS IN AHMEDABAD DISTRICT

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Abstract—Malnutrition in early childhood is a major public health concern, and timely identification depends on accurate growth monitoring and anthropometric assessment. This study assessed knowledge and practice regarding malnutrition assessment among Anganwadi Workers in selected Anganwadis of Ahmedabad District, Gujarat. A descriptive survey design was used among 150 Anganwadi Workers selected through convenience sampling. Data were collected using a 25-item structured knowledge questionnaire and a 24-item observational checklist covering mid-upper arm circumference, height and weight measurement. Data were analysed using descriptive statistics, Karl Pearson's correlation coefficient and chi-square tests. The study revealed that 48 % samples had average knowledge level and 52 % samples had good knowledge level and 0 % sample have poor knowledge level regarding Malnutrition Assessment. While 35.33 % samples had average practice and 64.67 % samples had good practice and 0 % poor practice regarding Malnutrition Assessment. It indicates moderately positive correlation between knowledge and practice. The chi square test of association reveals that there was no significant association between knowledge with selected demographic variables such as Age, Educational Qualification, Years of Experience. There was no significant association between practice with selected demographic variables such as Age, Educational Qualification, Years of Experience.

Keywords— Knowledge, Practice, Malnutrition Assessment, Anganwadi Workers, Anganwadi.

I. INTRODUCTION

Childhood malnutrition affects growth, development and health. Undernutrition may manifest as wasting, stunting or underweight, and its identification requires regular growth monitoring, accurate anthropometric measurements and appropriate interpretation. The World Health Organization (WHO) Child Growth Standards provide reference measures for assessing growth in infants and young children [1].

In India, Anganwadi centres provide a community platform for nutrition and early childhood services. Anganwadi Workers are frontline personnel who interact regularly with children and caregivers and contribute to growth monitoring and identification of children who may need further assessment. Their knowledge and practical skills are therefore important to the quality of community-based nutrition services. State-level child nutrition indicators are also documented in the National Family Health Survey-5 [3].

Malnutrition assessment may include measurement of weight, length or height and mid-upper arm circumference (MUAC). Correct technique, recording and interpretation are important to reduce measurement errors and support timely referral. National guidance on facility-based care for severe acute malnutrition describes assessment and management processes for children requiring additional care [2].

The present study assessed knowledge and practice regarding malnutrition assessment among Anganwadi Workers working in selected Anganwadis of Ahmedabad District. It also examined the relationship between knowledge and practice and their associations with selected demographic variables.

II. OBJECTIVES

1. To assess knowledge regarding malnutrition assessment among Anganwadi Workers.
2. To assess practice regarding malnutrition assessment among Anganwadi Workers.
3. To determine the correlation between knowledge and practice.
4. To examine associations between knowledge and selected demographic variables.
5. To examine associations between practice and selected demographic variables.

III. MATERIALS AND METHODS

A. Research Design and Setting

A descriptive survey design was used. The study was conducted in selected Anganwadis of Ahmedabad District, Gujarat. Ahmedabad District was divided into five zones. The South Zone was selected for the pilot study, and the remaining four zones were included in the main data collection.

B. Sample and Sampling Technique

The sample consisted of 150 Anganwadi Workers working in selected Anganwadis of Ahmedabad District. The dissertation describes the final participant selection as convenience sampling. Participants were included if they were working in the selected Anganwadis, available during data collection and willing to participate.

C. Data Collection Tools

Two tools were used: (1) a 25-item structured questionnaire to assess knowledge, covering introduction to malnutrition, malnutrition assessment, and severe acute malnutrition and its management; and (2) a 24-item observational checklist to assess practice in measuring MUAC with a MUAC tape, height with a stadiometer and weight with a weighing scale. The tools were reviewed by seven experts. Test–retest reliability of the knowledge questionnaire was reported as 0.8.

D. Data Collection Procedure

A pilot study involving 15 Anganwadi Workers was conducted in the South Zone on 22 February 2022. Main data collection was carried out from 23 February to 2 March 2022. The researcher explained the purpose of the study and obtained written informed consent. The questionnaire and observational checklist were administered by the researcher.

E. Data Analysis

Frequencies, percentages and mean scores were used for descriptive analysis. Karl Pearson's correlation coefficient was used to assess the relationship between knowledge and practice scores. Chi-square tests were used to examine associations between selected demographic variables and knowledge or practice categories. The dissertation reports a 0.05 level of significance. Statistical software and its version were not specified in the source dissertation.

IV. RESULTS

A. Demographic Characteristics

The sample included 150 Anganwadi Workers.

Sr. No	Demographic variables	Frequency	Percentage (%)
1	**Age:**		
	a) ≤ 25 Years	16	10.67
	b) 26-35 Years	30	20.00
	c) 36-45 Years	39	26.00
	d) Above 45 Years	65	43.33
2	**Educational Qualification:**		
	a) Primary Education	13	8.66
	b) Secondary Education	33	22.00
	c) Higher Secondary Education	46	30.67
	d) Other	58	38.67
3	**Years of Experience:**		
	a) ≤ 5 years	28	18.66
	b) 6-10 years	24	16.00
	c) 11-15 years	40	26.67
	d) Above 15 years	58	38.67

B. Knowledge Regarding Malnutrition Assessment

Out of 150 samples 0 % samples had poor Knowledge, 48 % samples had average knowledge level and 52 % samples had good knowledge level regarding Malnutrition Assessment.

el of Knowledge	Classification of score	Frequency	Percentage %
Poor	0-8	0	0
Average	9-16	72	48
Good	17-25	78	52
Total		150	100

C. Practice Regarding Malnutrition Assessment

In criteria of Measuring Mid Upper Arm Circumference with MUAC tape obtained score was 973 and mean score was 6.49 with 64.9 %. In criteria of Measuring Height with Stadiometer obtained score was 759 and mean score was 5.06 with 72.28 %. In criteria of Measuring Weight with Weighting Scale obtained score was 862 and mean score was 5.74 with 82 %.

Sr. No	Criteria	No. of Items	Max. Score	Obtained Score	Mean Score	Mean %
1	Measuring Mid Upper Arm Circumference with MUAC tape	10	1500	973	6.49	64.9
2	Measuring Height with Stadiometer	7	1050	759	5.06	72.28
3	Measuring weight with Weighting scale	7	1050	862	5.74	82
TOTAL		24	3600	2594	17.29	

D. Correlation Between Knowledge and Practice

The dissertation reported a moderately positive correlation between knowledge and practice scores (Pearson's r=0.33), described as statistically significant at the 0.05 level. An exact p-value and confidence interval were not provided in the reported table.

E. Association With Demographic Variables

TABLE IV. CHI-SQUARE TESTS OF ASSOCIATION (DF=3; α=0.05)

Association tested	Calculated χ^2	Critical χ^2	Interpretation
Knowledge with age	1.01	7.82	Not significant
Knowledge with education	2.82	7.82	Not significant
Knowledge with experience	2.59	7.82	Not significant
Practice with age	6.78	7.82	Not significant
Practice with education	5.87	7.82	Not significant
Practice with experience	5.81	7.82	Not significant

V. DISCUSSION

The study assessed both knowledge and observed practice among 150 Anganwadi Workers in selected Anganwadis of Ahmedabad District. The dissertation's overall results classified 52% of participants as having good knowledge and 64.67% as having good practice.

The lowest knowledge domain score was for severe acute malnutrition and its management (64.50%). This suggests that refresher education could place greater emphasis on recognition of children requiring further assessment, appropriate documentation and referral in accordance with current programme guidance. National guidance on facility-based care for severe acute malnutrition provides a framework for assessment, management [2].

MUAC measurement had the lowest practice score (64.90%), compared with height measurement (72.28%) and weight measurement (82%). Practical demonstration and return-demonstration may be useful to reinforce correct MUAC measurement technique, including identification of the measurement site, tape placement, reading and recording. Growth assessment should be conducted using standardised methods and interpreted against appropriate growth references [1].

The reported positive correlation (r=0.33) indicates that higher knowledge scores tended to occur with higher practice scores.

No statistically significant associations were reported between knowledge or practice and age, educational qualification or years of experience. These findings should be interpreted in the context of the descriptive design and convenience sampling.

VI. LIMITATIONS

The study was limited to 150 Anganwadi Workers from selected Anganwadis in one district and used convenience sampling for participant recruitment.

VII. CONCLUSION

Among the 150 Anganwadi Workers studied, 52% were classified as having good knowledge and 64.67% as having good practice regarding malnutrition assessment. Knowledge and practice showed a reported moderately positive correlation (r=0.33). The lower scores in knowledge related to severe acute malnutrition and its management and in MUAC measurement practice identify areas for focused refresher training, practical demonstrations and supportive supervision.

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REFERENCES

BOOKS

1. Basvanthappa B.T. "Community Health Nursing", 2nd Edition; New Delhi, Jaypee Brother Medical Publishers (p) Ltd, 2008.
2. Gulani K.K., "Community Health Nursing (Principles & Practice)", 2nd Edition, Kumar Publishing House (p) Ltd, 2017.
3. I. Clement, "Manual of Community Health Nursing", 1st edition, Jaypee Brothers Medical publishers; 2012.
4. Kamalam S, "Essentials in Community Health Nursing Practice", 2nd Edition. New Delhi: Jaypee brothers' medical publishers; 2012.
5. Mosby's "Pocket Dictionary of Medicine, Nursing & Health Professions",5th Edition: New Delhi, Elsevier Publication, 2007.
6. Park K. "Park's Textbook of Preventive and Social Medicine". 25th Edition; Jabalpur, Banarasidas Bhanot Publications (p) Ltd, 2019.
7. Parul Dutta, "Text book of Pediatric Nursing", 1st edition, New Delhi, Jaypee Brothers Publication, 2007.
8. Polite D.F., Hungler B.P., "Essential of Nursing Research Methods, appraisal and Utilization", 2nd Edition; Philadelphia, J. B. Lippincott co. 1989.
9. Sharma S.K. "Nursing Research and Statistics". 2 Edition: New Delhi, Reed Elsevier India (p) Ltd, 2014.
10. Shyamala D Manivannan, "Textbook of Community Health Nursing-1", 1st Edition, New Delhi, CBS Publishers and distributors Pvt. Ltd, 2017.

REPORTS

1. Alec Kurtz, long-term effects of malnutrition on severity of COVID-19, scientific reports, (2021) 11:14974, https://doi.org/10.1038/s41598-02194138-z
2. Gov. of India, Ministry of health and Family Welfare, New Delhi. Annual Report, 2017-18, 65
3. Gov. of India. Ministry of health and Family Welfare, New Delhi, Annual Report, 2015-16.
4. International Pediatric Association Endorsement. The New WHO Growth Standards for Infants and Young Children. 2006. Available at: http://www. who.int/child growth/Endorsement_IPA.pdf
5. Ministry of Health and Family Welfare Government of India, 2013, Manual - Facility Based Care of Severe Acute Malnutrition
6. National Family Health Survey-5, 2019-2020
7. UNICEF/WHO/World Bank Group – Joint Child Malnutrition Estimates 2019 edition WHO. Child growth standards. Arm circumference for age.
8. WHO Multicenter Growth Reference Study: WHO Child Growth Standards: Length/ height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. Geneva, World Health Organization, 2006.

WEBSITES

1. https://apps.who.int/.../10665/95584/9789241506328_eng.pdf
2. https://chdsw.gov.in/index.php/scheme/ICDS
3. https://data.unicef.org/topic/nutrition/malnutrition/
4. https://data.unicef.org/resources/data-collection-analysis-reporting-on
5. anthropometric-indicators-in-children-under-5/
6. https://data.unicef.org/resources/jme-2021-country-consultations/
7. https://datatopics.worldbank.org/child-malnutrition/
8. https://globalnutritionreport.org/reports/2020-global-nutrition-report/
9. https://icds.gujarat.gov.in/initiativedetailsid=103
10. https://icds-wcd.nic.in/login.aspx
11. https://icds-wcd.nic.in/icds-worldbank/ICDS Consultation Report.pdf
12. https://main.mohfw.gov.in/sites/default/files/NFHS-5_Phase-II_0.pdf
13. https://mohfw.gov.in/basicpage/annual-report-departmenthealth-and family-welfare-2017-18.
14. https://www.fao.org/3/a0333e/a0333e01_.pdf
15. https://www.unicef.org/topics/malnutrition
16. SDGs for Children | UNICEF Data