Evaluation of a Structured Learning Approach to Enhance Knowledge on Nutritional Needs of Under-Five Children AmongAnganwadi Workers in a Specific Urban Area of Indore (M.P.)

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Abstract :-Sufficient and well-balanced nourishment is essential for optimal growth and development during the early years of life. Since childhood is the most delicate stage in human life, dietary deficiencies during this period can lead to hindrance in physical development.TheAnganwadi worker in the Integrated Child Development Services (ICDS) program plays a crucial role in the Anganwadi center due to her consistent and close engagement with the community. Given her position, she has greater opportunities to communicate with the community about the nutritional needs of children under five.

NEED OF THE STUDY :-The well-being and advancement of children stand at the forefront of the nation's developmental priorities—not only because they are the most vulnerable but also because they embody the nation's most valuable resource and future workforce. As highlighted in the Tenth Five-Year Plan (2002-2007), India's destiny is closely linked to the well-being of its younger generation. A popular adage states, "Good health is the foundation of a fulfilling life." Every child holds an inherent right to health, and proper nutrition is fundamental for their growth and development. Without age-appropriate nourishment, children face the risk of malnutrition, which can hinder physical development, compromise immunity, and result in various nutritional deficiencies.

Anganwadi workers (AWWs) serve as crucial facilitators in enhancing the health and nutritional well-being of women and children at the grassroots level. However, recent research suggests that their ability to deliver essential Maternal and Child Health (MCH) services to disadvantaged communities remains inadequate (Davey &Datta, 2004; Thakare et al., 2001). Despite substantial governmental investment in the Integrated Child Development Services (ICDS) scheme, its effectiveness continues to be constrained.

OBJECTIVIESOFTHESTUDY

- To evaluate the baseline knowledge of Anganwadi workers on the nutritional needs of toddlers.

- Toidentify structured teaching solution on knowledge of social welfare colleagues.

- To measure post-test knowledge of staff concerning the nutritional needs below five.

- To analyze correlationof primary knowledge and post factors related to nutritional requirements among children less than five years.

REVIEW OF LITERATURE

FarzanaAlim and FarhatJahan (2012) conducted a study to assess the nutritional status of children aged 0-3 years across 16 Anganwadi centers in five villages of Aligarh, Uttar Pradesh (U.P.), registered under the ICDS program. A self-structured, predesigned interview questionnaire was employed for data collection. To gain qualitative insights, anthropometric assessments, including height and weight measurements, were carried out to evaluate the children's nutritional status.

A stepwise analysis was performed using two key indicators—height-for-age and weight-for-age—following Waterlow's and Gomez's classification systems. The Chi-square test was applied to explore the correlation between children's nutritional status and various influencing factors.

VeenaAlgur,M.C. Yadavannavar, Shailaja S. Patil (2012): A cross-sectional study was carried out in a rural practice area, focusing on children under five years of age, a priority group due to their significant population size. In India, this age group accounts for approximately 13% of the total population. They are also considered a high-risk demographic, as they are susceptible to various challenges related to growth, development, and survival.

Nearly 50% of deaths among children in developing nations, including India, occur within the first five years of life. Malnutrition is regarded as the most prevalent condition affecting the health and well-being of under-five children. Approximately 47% of Indian children in this age bracket are underweight, while one in three adult women in India is underweight, increasing the risk of low birth weight babies.

METHODOLOGY: The research was conducted in a specified region of Indore, adhering to predefined inclusion and exclusion criteria. Before data collection, informed

consent was obtained from all participants. The gathered data were examined using both descriptive and inferential statistical techniques, including the paired 't' test, Chi-square test, and Karl Pearson's correlation analysis.

Occurrence Rate and Proportional Segmentation of the Study Sample (N=60)

1. **Age Group (Years)**
   - **20-25** → 2 (3.3%)
   - **26-30** → 9 (15%)
   - **31-35** → 24 (40.1%)
   - **36 & Above** → 25 (41.7%)
2. **Sex Distribution**
   - **Female** → 60 (100%)
3. **Marital Status**
   - **Married** → 50 (83.3%)
   - **Unmarried** → 1 (1.7%)
   - **Widowed** → 9 (15%)
   - **Divorced** → 0 (0%)
4. **Religious Affiliation**
   - **Hindu** → 59 (98.3%)
   - **Muslim** → 0 (0%)
   - **Sikh** → 1 (1.7%)
   - **Christian** → 0 (0%)
   - **Other** → 0 (0%)
5. **Educational Qualification**
   - **Secondary Education** → 4 (6.7%)
   - **Higher Secondary Education** → 44 (73.3%)
   - **Graduate** → 11 (18.3%)
   - **Postgraduate** → 1 (1.7%)
6. **Monthly Household Income (INR)**
   - **₹1500-₹2000** → 0 (0%)
   - **₹2001-₹3000** → 0 (0%)
   - **₹3001-₹4000** → 20 (33.3%)
   - **₹4000 &Above** → 40 (66.7%)
7. **Years of Experience in Anganwadi Services**
   - **1-3 Years** → 11 (18.3%)
   - **4-6 Years** → 25 (41.7%)
   - **7-9 Years** → 22 (35.7%)
   - **10+ Years** → 2 (3.3%)

DEMOGRAPHIC VIEW

Thecategorization of Anganwadi workersbased on theirage groupreveals that2 workers (3.3%)belonged to the20-25 yearscategory,9 workers (15%)fell within the26-30 yearsrange,24 workers (40%)were aged31-35 years, and25 workers (41.7%)were36 years or older. Hence, themajorityof the Anganwadi workers wereabove 31 years of age**.**

Regarding their marital status**,** 50 workers (83.3%) were married**,** 1 worker (1.7%) was unmarried**,** and 9 workers (15%) were widowed.Considering their educational qualifications**,** 4 workers (6.7%) had completed secondary school**,** 44 workers (73.3%) had attained higher secondary education**,** 11 workers (18.3%) were graduates, and 1 worker (1.7%) had a postgraduate degree.

The classification based on family income per month indicated that 20 workers (33.3%) had a monthly family income between Rs. 3001 and Rs. 4000, while 40 workers (66.7%) earned Rs. 4000 or more**.**

Lastly, the distribution of Anganwadi workers based on their years of experience revealed that 11 workers (18.3%) had been in service for 1-3 years**,** 25 workers (41.7%) had worked for 4-6 years**,** 22 workers (35.7%) had 7-9 years of experience, and 2 workers (3.3%) had been employed for over decade.

INFERENCES

Assessment of Knowledge Levels Before and After the Structured Educational Intervention

S. No.	Knowledge Level	Before Implementation
1	Low (0-9)	40 (66.7%)
2	Moderate (10-18)	10 (16.7%)
3	High (19-27)	10 (16.7%)
Total	N = 60	100.0%

The questionnaire consisted of 27 questions, with each correct response awarded one mark. Consequently, the highest possible score was 27, while the lowest was 0. The scores were categorized into three groups: Poor (0-9), Average (10-18), and Good (19-27).

The table above presents the distribution of Anganwadi workers across these knowledge levels. Before the intervention, 40 participants (66.7%) fell into the poor category, 10 (16.7%) were in the average category, and 10 (16.7%) achieved a good score.

Statistical Comparison of Mean, Standard Deviation, Mean Difference, and 't' Test Results for Knowledge Scores Pre- and Post-Intervention

Cognitive Assessment Score	Average ($\bar{X}$)	Standard Deviation (SD)	Standard Error of Mean	Degrees of Freedom (DF)	t-Statistic	Significance Level
Pre-Intervention	10.65	4.62	0.525	59	14.675	P = 0.000
Post-Intervent	18.35	3.34	-	-	-	-

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Theabove tablepresents themean and standard deviationof knowledge scoresmeasured before and afterthe intervention. To assess theeffectivenessof the structuredteaching program, apaired 't' testwas applied. Thecomputed p-value (p = 0.000)signifies astatistically significantimprovement inpost-intervention knowledge levels**.**

IMPLICATIONS

The findings of this study hold significant implications for clinical healthcare.

Nursing Education

Nutrition is a fundamental human necessity, influencing both physiological well-being and psychosocial health. This study emphasizes the importance of educational programs, reinforcing the knowledge base of healthcare professionals and making them more proficient in their roles.

Nursing Practice

To ensure effective health promotion, nurses must integratenutritional education into their routine healthcare services across various medical settings and community healthcare programs. Collaborating with other healthcare providers, nurses play a pivotal role in educating Anganwadi workers about the nutritional needs of children under five.

Nursing Services

Nurses do not only offer curative services but also take on preventive, promotive, and rehabilitative roles. Additionally, they serve as mentors and guides to other health workers. Community nurses play aninstrumental role **in** enhancing the knowledge of Anganwadi workers, ensuring they can effectively fulfill the nutritional requirements of children enrolled in meal services under India's nutritional programs.

Nursing Administration

In a constantly evolving healthcare landscape, marked by emerging diseases, rapid technological advancements, and increasing demands, nursing administrators have a crucial responsibility to provide supervision, training, and guidance to Anganwadi workers and other health professionals. Through health awareness programs, nurses can empower individuals, communities, and the nation by ensuring updated knowledge on nutritional health for young children.

Nursing Research

This study identifiedaknowledge gap among Anganwadi workers regarding the nutritional requirements of children under five. The findings provide essential baseline data that can inform future research and contribute to enhancing child health across India's population.

DISCUSSION

The study outcomes revealed a remarkable enhancement in knowledge levels following the intervention. The mean post-test score of 18.35 was considerably higher than the pre-test mean score of 10.65. Consequently, the efficacy of the planned educational initiative was validated, as the knowledge improvement was found to be statistically significant at the 0.0000 level.

PROPOSED MEASURES

Based on the findings of this study, the following recommendations are suggested for future research:

1. Investigation can carried out on primary and secondary methodology.
2. Combine analysis to examine the differences in knowledge levels between Anganwadi workers in backward area settings.
3. To awareAnganwadi workers regarding the nutritional requirements of children attending Anganwadi centers.
4. An interventional research study can be designed to assess the impact of a nutrient-rich diet on the nutritional well-being of children, as understood by Anganwadi workers.

CONCLUSION

This study demonstrated that the majority of Anganwadi workers initially had limited knowledge of the nutritional needs of young children. However, after the implementation of the Planned Teaching Program, their understanding improved significantly.

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