“A Study to Assess the Effectiveness of Protein Energy Malnutrition Management kit on Knowledge of Anganwadi workers working in selected rural areas of District Shri Muktsar Sahib, Punjab.”

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ABSTRACT

Introduction: Proper nutrition is crucial for growth and development. So, there is an urgent need to institute supplementary feeding programmes. The study is aimed at protein energy malnutrition with view to assess the effectiveness on knowledge of anganwadi workers.

Material and methods: quasi experimental, non randomized control group design was used. Total 60 anganwadi workers i.e. 30 in experimental group and 30 in control group were selected by convenience sampling technique from block malout and block lambi district sri muktsar sahib respectively. Data collected by structured knowledge questionnaire and analysed by using descriptive and inferential statistics.

Results: statistically significant difference in the mean pre test and post test knowledge score of anganwadi workers on protein energy malnutrition management kit was found at 0.05 level of significance.

Conclusion: protein energy malnutrition management kit is effective in improving the knowledge of anganwadi workers. So there is need to update the knowledge of anganwadi workers through in-service training programmes and nutrition intervention programmes.

Keywords: protein energy malnutrition management kit, knowledge, anganwadi workers, rural areas

INTRODUCTION:

Today's children are the tomorrow's world. But children, all over the world are deprived of many facilities. Hunger and malnutrition make them worst sufferers.

Malnutrition is an iceberg; most people in developing countries live under the burden of malnutrition. Malnutrition is responsible for nearly half (45%) of deaths in children under five (Health Issues India). The effects of malnutrition are frequently more serious during formative years of life. Toddlers and preschool children are most vulnerable group for protein energy malnutrition.

Nutritional deficiency disorders affect vast majority numbers of population in India responsible for 55% of childhood death and considered as leading killers and significant cause of childhood mortality and morbidity. Protein energy malnutrition is the more lethal form of malnutrition /hunger which leads to growth failure.

Systemic study of the habitual diets of pre-school children indicated that the average energy deficit was found to be 300 kcal/day. Hence supplementary feeding is needed in preschool children.

A supplementary food based on a blend of whole wheat (40gm), Bengal gram (16gm), groundnut (10gm), jaggery (20gm) has been developed by National Institute of Nutrition also known as Hyderabad mix. It provides 11.3gram of protein and 330 kcal. Studies done by NIN, Hyderabad have shown that a daily supplement of 86 gram of Hyderabad mix food brings about significant improvement in the growth rate of pre-school children.

India, home to the largest child population in the world, formulated the National Policy on Children in August 1974 and in 1975 launched the Integrated Child Development Services. The principle worker in anganwadi center is anganwadi worker. The anganwadi worker is the most peripheral functionary who implements the programme services at the

village/community level. She plays a crucial role in promoting child growth and development, mobilizing community support for better care of young children. Although much of the researches have been done on the nutritional status of the beneficiaries of ICDS evaluation of nutrition and health services rendered by anganwadi centres but very less focus has been shifted over to knowledge and awareness among the anganwadi workers, whose knowledge and skills do have direct impact on the implementation of the programme

Thus, the present study has been taken up with the main objective of assessing and improving the knowledge of anganwadi workers regarding protein energy malnutrition management kit.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of protein energy malnutrition management kit on knowledge of anganwadi workers working in selected rural areas of district Sri Muktsar Sahib, Punjab.

OBJECTIVES OF THE STUDY

1. To assess the pre-test knowledge of anganwadi workers on protein energy malnutrition management in experimental and control group.
2. To develop and implement protein energy malnutrition management kit.
3. To assess the post-test knowledge of anganwadi workers on protein energy malnutrition management in experimental and control group.
4. To compare the pre-test and post-test knowledge of anganwadi workers regarding protein energy malnutrition management of experimental and control group.
5. To findout the association of pre-test and post-test knowledge scores with selected demographic variables.

MATERIAL & METHODS

Research approach and research design:

Quantitative research approach and a quasi experimental **non randomized control group design** was used.

Independent variables:

The independent variable is protein energy malnutrition management kit regarding protein energy malnutrition management.

Dependent variable:

The dependent variable is knowledge of anganwadi workers regarding protein energy malnutrition management.

Research setting

The setting for the present study was anganwadies situated in block Malout, Sri Muktsar Sahib, for the experimental group and anganwadies situated in block Lambi, Sri Muktsar Sahib, for the control group was selected by convenience sampling technique.

Target population

The target population consists of anganwadi workers working in selected rural areas of district Sri Muktsar Sahib.

Sample size and sampling technique

The sample size of the study comprises of 60 anganwadi workers out of which 30 in experimental group selected from block Malout and 30 in control group from block Lambi rural areas district Sri Muktsar Sahib. Non probability convenience sampling was used to select the samples. Anganwadi workers from block Malout i.e. Malout and village Danewala were selected for experiment group and from block Lambi i.e. village Abul Khurana, Channu, Lambi, Kheowali, Mehana and Badal are selected for control group.

Inclusion criteria

The study includes the anganwadi workers who are:-

- willing to participate in the study.
- present at the time of data collection.

Exclusion criteria

The study excludes the anganwadi workers who are:

- not able to understand punjabi language.
- on leave, sick or absent on the time of data collection.

Development of tool (s)

A structured knowledge questionnaire was prepared for assessing the knowledge of anganwadi workers regarding protein energy malnutrition management before and after the administration of protein energy malnutrition. management kit that includes teaching regarding protein energy malnutrition management, information booklet and demonstration regarding preparation supplementary food that is nutritious laddoo. The tool was developed

after extensive review of literature, seeking opinions of experts and guides, formal and informal discussion with the peer groups and the investigators professional experience into consideration

Description of tool(s)

Section A: Demographic data of the study participants

Section B: Structured questionnaire to assess the knowledge of anganwadi workers on protein energy malnutrition management which comprised of 26 knowledge questions which were multiple choice items.

Criterion measure for classification of level of knowledge

Level of knowledge	Range of score
Adequate	19-26
Moderately adequate	9-18
Inadequate	0-8

Data collection procedure

Formal administrative approval was obtained from the Child Development Project Officers of block Malout and block Lambi to conduct the study. Block Malout as experimental group and block Lambi as control group were assigned by convenience sampling technique.

On day one, pre-test of experimental group as well as control group was conducted by using structured knowledge questionnaire after obtaining the consent within 30 minutes. On the same day, the protein energy malnutrition management kit was administered to the experimental group only and its includes teaching regarding protein energy malnutrition management, distribution of information booklet and the demonstration regarding nutritious laddoo that is of total 1 hour. On day seven, post-test of both experimental and control group was conducted by using structured knowledge questionnaire to assess the knowledge of anganwadi workers.

RESULTS:

In experimental group, pre test knowledge score was 10.77 and post test knowledge score was 22.46. Statistically significant difference in the mean pre test and post test knowledge score of anganwadi workers on protein energy malnutrition management

kit was found at 0.05 level of significance. In the control group, pre test knowledge score was 9.77 and post test knowledge score was 10.03. The difference between pre test and post test knowledge score of anganwadi workers was found statistically non significant at 0.05 level of significance as shown in table 1.

Table1: Comparison of pre-test and post-test knowledge of anganwadi workers regarding protein energy malnutrition management in the experimental and control group

Observation → Group ↓	Pre -test Mean± Standard deviation	Post-test Mean± Standard deviation	Paired 't'- test
Experimental (n=30)	10.77 ± 1.69	22.46 ± 2.52	t = 34.68* df = 29
Control (n=30)	9.77 ± 2.37	10.03 ± 2.35	t= 1.24 ^{NS} df = 29
Unpaired 't' test	t = 1.87 ^{NS} df = 58	t = 20.04* df = 58	
*- significant, at 0.05 level of significance NS - non significant			

There is significant association of pre test knowledge score of experimental group with the religion of anganwadi workers as statistically analyzed by a **t value** of **2.918***, **df= 28**, type of family statistically associated with **F value** of **3.58*** and experience statistically associated with **F value** of **3.55*** at 0.05 level of significance and significant association of post test knowledge scores with religion of anganwadi workers as statistically analyzed by a **t value** of **2.40***, **df= 28** and type of family statistically associated with **F value** of **3.69*** at 0.05 level of significance.

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