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RESEARCH ARTICLE

EFFECTIVENESS OF 'PLANNED TEACHING PROGRAMME' (PTP) ON THE KNOWLEDGE AND PRACTICE OF INFORMAL CAREGIVERS OF UNDER-FIVE CHILDREN REGARDING PREVENTION OF NUTRITIONAL ANAEMIA.

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Abstract

A pre-experimental study was conducted to assess the effectiveness of Planned Teaching Programme on knowledge and practice of informal caregivers of under-five children regarding Prevention of Nutritional Anaemia in Guniawala village of Uttarakhand. Total **55** informal caregivers who met inclusion criteria were selected purposively for the study. The pre-test was taken by using structured knowledge questionnaire and self report practice checklist designed by researcher and validated by various experts in specific field followed by Planned Teaching Programme and after 7 days post-test was taken. The mean post test knowledge score (17.14 ± 1.70) was higher than the mean pretest knowledge score (10.29 ± 2.10) and 't' value was 18.75. The mean post test practice score (23.87 ± 1.36) was slightly higher than the mean pretest practice score (23.78 ± 1.54) and 't' value was 0.32. This shows that the planned teaching programme was found to be effective in increasing knowledge whereas continuous reinforcement was necessary to bring about significant change in the practice of informal caregivers.

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Introduction:-

Anaemia is a major nutritional global problem of immense public health significance.¹ There are over 400 types of Anaemia, among the most prevalent is Iron deficiency Anaemia (IDA).

According to UNICEF report 40-50% of under-five children are having iron deficiency Anaemia.² In India the prevalence of iron deficiency Anaemia is far more common than other deficiencies in the infants, toddlers and preschoolers.³ Anaemia is especially prevalent among rural children and the majority of India's population is rural.⁴

For addressing the problem the National Nutritional Anaemia Prophylaxis Programme (NNAPP) was initiated in 1970 with the aim to reduce the prevalence of Nutritional Anaemia to 25 percent. However, despite recent economic development and the existence of Anaemia-Control Program, the prevalence of Anaemia in India increased in children aged six to 36 months. The complementary programmes and extensive iron supplementation schemes success rate was way lower than the expected outcome.³

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Need Of The Study:-

In India practices like prolong breast feeding (exclusive), delayed introduction of complementary feeding which are often of poor quality and feeding inappropriately small amounts of food to children, dietary inadequacies may result as a combination of factors including lack of education, unfolded cultural beliefs and most importantly inappropriate methods of cooking foods leading to wastage of nutrients makes the role of the informal caregivers important in growing incidences of Nutritional Anaemia.⁵

As stated in a recent study done in Uttarakhand 2011, by BB Singh, women of Uttarakhand had less knowledge on Nutritional Anaemia and its prevention. Hence it was recommended by the researcher that interventions like health education and more of information, education, and communication activities should be promoted.⁶

Statement Of Problem:-

A pre-experimental study to assess the effectiveness of a Planned Teaching Programme regarding 'Prevention of Nutritional Anaemia' on the knowledge and practice of informal caregivers of under-five children in selected rural area of Uttarakhand.

Objectives:-

1. To determine the effectiveness of the Planned Teaching Programme (PTP) on knowledge and practice of the informal caregivers of under-five children in terms of gain in their knowledge and practice scores.
2. To find relationship between the knowledge and practice scores of informal caregivers of under-five children on Nutritional Anaemia.
3. To find association between the pretest knowledge and practice scores of informal caregivers of under-five children on Nutritional Anaemia with socio-demographic variables.

Hypothesis:-

The hypothesis were tested at $p < 0.05$ level of significance-

1. H_1 - The mean post test knowledge score of informal caregivers on prevention of Nutritional Anaemia will be significantly higher than that of their mean pre test score.
2. H_1 - The mean post test practice score of informal caregivers on prevention of Nutritional Anaemia will be significantly higher than that of their mean pretest score.
3. H_1 - There will be significant relationship between the knowledge score and practice score of the informal caregivers regarding Nutritional Anaemia.
4. H_1 - There will be significant association of pre test knowledge and practice score of informal caregivers of under-five children with socio-demographic data.

Delimitation :-

The study was delimited to the informal caregivers of under-five children: whose practice was assessed through self report practice checklist.

Material And Methods:-

The research design used in this study was pre- experimental in nature. The study was conducted in Guniawala village, Doiwala, Uttarakhand. Fifty five informal caregivers were selected on the basis of inclusion and exclusion criteria. Non probability purposive sampling technique was used for this study. The tools used for the study were structured knowledge questionnaire and self report practice checklist consisting of Section I (Socio- demographic variables such as age of the caregiver, caregivers relation with under-five children, type of family, educational status, occupation, family income per month, dietary habits, any family member suffering from nutritional Anaemia and sources of information, Section II (consisting of consisting of 20 questions related to Knowledge regarding Prevention of Nutritional Anaemia related to four aspects i.e. sign and symptoms of Nutritional Anaemia, sources of iron, folic acid and Vitamin B12 and prevention of Nutritional Anaemia, Section III (Self reported practice checklist consists of 15 items related to the practice of the caregivers regarding prevention of nutritional Anaemia related to general preparation before cooking, storage, preparation and way of cooking, consumption of food and prevention of Nutritional Anaemia). The content validity of the tools were ensured by submitting the tools to the experts in the field of Nutrition, Pediatrician, Child Health Nursing, and Medical Surgical Nursing. Pilot study was conducted on five samples in Chandmari, Doiwala, Uttarakhand. The reliability of the knowledge questionnaire and self report

practice checklist were established by Karl Pearson followed by Spearman's Brown Formula which was found $r=0.92$ and $r=0.98$ respectively.

Results And Findings:-

Findings related to socio-demographic variables of samples:-

Most of the informal caregivers of under-five children were parents (76.4%) in the age group of 28 – 37 years of age (41.8%). Majority of informal caregivers were from nuclear family (80%) and (63.6%) have studied till secondary level. Data under family income revealed that (56.4%) informal caregivers had income between Rs 2001 – Rs 4000 and (70.9%) were having skilled occupation. Out of 55 informal caregivers (63.6%) informal caregivers were non vegetarians and (83.6%) reported that no one in their family was suffering from Nutritional Anaemia. Majority of the informal caregivers (85.5%), the health information was provided by health personnel.

Findings related to comparing the knowledge and practice of informal caregivers at pre and post– test level:-

The grading of knowledge score at pretest and post-test level. In pretest 31 (56.4%) informal caregivers had average knowledge whereas, most of the informal caregivers 45 (45.4%) had good knowledge in posttest whereas the mean percentage posttest scores in all the areas of Nutritional Anaemia were higher than that of mean pretest knowledge score.

There was a slight shift of informal caregivers from poor practice to average and good practice in the posttest as compared to pretest. The mean percentage posttest scores in all the area of Nutritional Anaemia were slightly higher than that of mean pretest practice score.

Table No 1:- Comparison between pretest and posttest knowledge scores.

N = 55

	Knowledge scores	Range	Mean \pm SD	Mean μ	't' value
	Pretest	5 - 15	10.29 \pm 2.10		
	Posttest	13 – 20	17.14 \pm 1.70	6.85	18.75

't' ₍₅₄₎ = 2.00, $p < 0.05$

The data presented in Table No 1 shows that the mean posttest knowledge score (17.14) was apparently higher than mean pretest knowledge score (10.29). The obtained 't' value was 18.75, which was statistically significant at $p < 0.05$ level. This shows that the planned teaching programme was found to be effective in increasing the knowledge of the informal caregivers.

Table No 2:- Comparison between pretest and post test practice scores.

N = 55

	Practice scores	Range	Mean \pm SD	Mean μ	't' value
	Pretest	20 - 27	23.78 \pm 1.54		
	Posttest	21 – 27	23.87 \pm 1.36	0.09	0.32

't' ₍₅₄₎ = 2.00, $p < 0.05$

The data presented in Table No 2 show the mean posttest practice score (23.87) was slightly higher than mean pretest practice score (23.78). The obtained 't' value was 0.32, which was statistically not significant at $p < 0.05$ level. From above data, it can be inferred that continuous reinforcement was necessary to bring about significant change in the practice of the informal caregivers.

Findings related to relationship between pretest and posttest knowledge and practice scores:-

There was no significant relationship ($r = 0.12$ at $p < 0.05$) between the pretest as well as posttest ($r = -0.03$ at $p < 0.05$) knowledge and practice of the informal caregivers of under-five children therefore it can be inferred that pretest and posttest knowledge and practice were independent of each other.

Findings related to association between pretest knowledge and practice scores with selected socio demographic variables:-

In order to find out the association between pretest knowledge and practice score with socio-demographic variables Chi square and Yates correction value were calculated. The knowledge and practice scores were classified as at and

above median and below median. There was no significant association between pretest knowledge and practice with age, caregiver's relation to the under-five, type of family and educational status, occupation, family income per month, dietary habits, any family member suffering from Nutritional Anaemia and sources of information.. But the value obtained for family income per month ($\chi^2 = 8.10$ at $p < 0.05$) had statistically significant association with pretest practice. From these findings it was evident that the families' knowledge of Prevention of nutritional Anaemia was influenced by the economic status.

Discussion:-

Similar studies were conducted on the effectiveness of educational interventions to improve the knowledge and practice of the informal caregivers. To quote a few **Ling Shi (2011)**,⁷ **Charlotte Adams (2009)**,⁸ **Marianna Hakobyan (2003)**,⁹ **Hassan A E (2005)**,¹⁰ **Hotz (2005)**¹¹ and **Patrice L Engle (2000)**¹² supports the study findings as it was observed in these studies that the educational programmes were effective in improving the knowledge of their subjects.

In present study no relationship could be found between knowledge and practice scores both in pretest as well as in the posttest. Whereas studies done by **Patricia Kakunted (2008)**¹² and **Yearul Kabir (2010)**¹⁰ contradicted the study findings as positive relation between knowledge and practice was seen.

The present study had identified only one variable i.e. family income per month having influence on the practice scores of the informal caregivers regarding nutritional Anaemia, but no statistically significant association could be seen with the socio-demographic data and the knowledge scores of the informal caregivers regarding prevention of nutritional Anaemia.

The study findings were contradicted by the study conducted by **Natalya Belinko (2001)**¹¹ in which it was found that there was association between knowledge and the socioeconomic status.

Conclusion:-

The overall findings of the study clearly showed that the Planned Teaching Programme was significantly effective in improving the knowledge and practice of informal caregivers of under-five children on prevention of Nutritional Anaemia and not only attainment of knowledge but also continuous reinforcement and time is necessary to change one's health practices and lifestyle.

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