

Effectiveness of Planned Teaching Programme on Prevention of Dermatitis Among People Residing in a Selected Industrial Area, Manglore



Medical Science

KEYWORDS : Planned teaching programme, Prevention of Dermatitis, People residing in selected industrial area

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ABSTRACT

The fast growing modern industries highly influence the environment and the human community. Varieties of diseases emerge due to industrialization and modernization. Dermatitis is the skins way of reaction to the irritant substance or allergen. The overall aim of the study was to assess the effectiveness of planned teaching program in preventing dermatitis. A pre-experimental approach was used in the study with sample size of thirty from a selected industrial area. A structured knowledge questionnaire was used in determining pretest knowledge scores, followed by an intervention and posttest knowledge was assessed with the same knowledge questionnaire. The data was analyzed using descriptive and inferential statistics, which revealed, mean pre-test knowledge was 14.93 (51.47%) with SD ±2.72 and the mean of post- test knowledge was 29.23 (91.32%) with SD ±1.49, this suggests the effectiveness of the PTP in terms of gain in knowledge among people regarding prevention of dermatitis

INTRODUCTION

The fast growing modern industries highly influence the environment and the human mankind. New industries and processes have been introduced bringing hazards to the workers and the people residing in that area. The incidence of allergic irritant skin diseases is becoming higher in industrialized countries during recent years¹. Globally, occupational contact dermatitis ranks first of all occupational diseases in many countries. The incidence rate is believed to be around 0.5–1.9 cases per 1000 full-time workers per year.² This data reveals high need for prevention of dermatitis across the world. In India, the overall incidence of dermatitis is 0.38% of the total number of cases of skin diseases; of these, 38% had infantile atopic dermatitis.³ In Mangalore, infective disorders of skin were found in 42.68% and non infective in 41.58% of rural population.⁴

MATERIALS AND METHODOLOGY

Pre-experimental approach i.e., one group pre-test post-test design was adopted for the study. Purposive sampling was used to select thirty samples for the study. The data was collected by administering a structured knowledge questionnaire in pretest and the same tool was used to assess the post test knowledge after intervening the planned teaching programme. Frequency and percentage of data will be calculated to describe demographic variables. The statistical significance of the effectiveness of the teaching programme would be analyzed by using paired 't' test.

RESULTS

The findings of the study revealed that, demographically, highest percentages (36.7%) of the respondents were in the age group of 18-30years and least (10%) were in the age group above 50 years. Most (66.7%) of the respondents were males and remaining (33.3%) were females. Many (36.7%) of the respondents were coolie and industrial workers respectively, remaining (13.3%) had agriculture and other employment respectively. About (33.33%) of the respondents were having monthly income between rupees 3000- 5000. Most (46.7%) of the respondents had nuclear family. Majority (70%) of the respondents had no previous knowledge of skin diseases. Regarding the effectiveness of planned teaching programme on knowledge about prevention of dermatitis showed that, in pre-test, majority (80%) had average level of knowledge and few (20%) had good knowledge on prevention of dermatitis but in the post test 100% of them had adequate level of knowledge. This shows the efficacy of the intervention in improving the knowledge of the respondents significantly on prevention of dermatitis.

Table 1: Frequency and Percentage distribution of samples according to demographic variables of people residing in

the selected industrial area.

Sl no	Demographic variable	Frequency	Percentage (%)
1	Age (years)		
	a) 18-30	11	36.70
	b) 31- 40	10	33.30
	c) 41-50	06	20.00
2	Sex		
	a) Male	20	66.70
	b) female	10	33.30
	Occupation		
3	a. Coolie	11	36.70
	b. Industrial worker	11	36.70
	c. Agriculture	04	13.30
	d. Others	04	13.30
4	Monthly income		
	a) 3000-5000	10	33.33
	b) 5001-7000	5	16.67
	c) 7001-10000	7	23.33
5	d) 10001 and above	8	26.67
	Type of family		
	a) Nuclear	14	46.67
	b) Joint	10	33.33
6	c) Extended	06	20.00
	Family history of skin allergy		
	a) Yes	13	43.33
7	b) No	17	56.67
	Previous information on skin diseases		
	a) Yes	09	30.00
8	b) No	21	70.00
	Source of information		
	a) Newspaper	10	33.33
8	b) Radio	08	26.67
	c) Television	07	23.33
	d) Health worker	05	16.67

Table 2: Knowledge Score of Participants before and after intervention of Planned Teaching Programme

Level of knowledge	Range	Pretest		Post test	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Poor	0-8	-	-	-	-
Average	9-16	24	80	-	-
Good	17-26	6	20	-	-
Excellent	27-32	-	-	30	100
Total		30	100	30	100

Table 3: Area –wise mean percentage and mean gain of pre-test and post-test knowledge score.

Areas of knowledge	Mean % knowledge score		Mean actual gain	%of modified gain score
	Pre-test	Post-test		
Concept and cause	43.63	90.27	46.64	82.73
Clinical features and treatment	60.27	91.85	31.58	79.86
Prevention of dermatitis	50.42	91.85	41.43	83.56

The data presented in the table shows that the percentage of modified gain score was maximum (83.56%) in the area of prevention of dermatitis in contrast to that of minimum (41.43%) actual gain.

Table 4: The association between pre test knowledge score & selected demographic variables.

Sl no	Variables	F value	Inference
1	Age	0.04	significant
2	Gender	0.18	Not significant
3	occupation	0.035	significant
4	Income	0.14	Not significant
5	Type of family	0.08	Not significant
6	Family history of Skin allergy	0.30	Not significant
7	Previous information of skin disease	0.18	Not significant
8	Source of information	0.23	Not significant

The above table shows that there is significant association between the knowledge scores and selected demographic variables (age and occupation) of the respondents.

DISCUSSION

Many (36.7%) of the respondents were in the age group of 18-30years. Most (66.7%) of the respondents were male. About 36.7% of the respondents were coolie and industrial workers respectively. Majority (56.7%) of the respondents were having monthly income between rupees 3000- 5000 and about 46.7% of the respondents were from nuclear family. A similar study was conducted in Iran, the prevalence of dermatitis in 16-25 year-old of Sanandaj city in Iran was 14.5 percent. Another study, performed in Bushehr city in Iran, reported a prevalence of 7.9 percent among 13-14-year-old school children⁵. Another study conducted on Prevalence Of Atopic Eczema / Dermatitis Syndrome (AEDS) in Basrah Providence, Iraq, showed that a total of 484 patients suffering from atopic eczema /dermatitis syndrome (AEDS) were examined in the main hospitals of the Basrah providence, Iraq. It has been found that 211 (43.6%) of patients were

males, and 273 (56.4%) were females. Also females were highly infected with AEDS in stages (2, 3) in percentages (61.65 and 60.35) respectively (P< 0.001)⁵⁵.

The finding of the present study reveals that highest percentage (80%) of the participants had average knowledge regarding prevention of dermatitis, 20% had good knowledge on prevention of dermatitis. Whereas in a study conducted among the patients with skin diseases, the mean percentage of total knowledge scores of patients in the pre-test was 43.63% with mean ± SD of 1.46±0.36. Area-wise mean percentage of knowledge scores was highest (60.27 %) in the area of clinical features and treatment with a mean ±SD of 6.63± 12.86. In the area related to concept and cause the mean percentage was (43.63%) with an area-wise mean ±SD of 4.8± 9.93 and in the area of prevention of dermatitis the mean percentage was (50.42%) with an area wise mean±SD of 3.43±6.43. The findings reveal that the knowledge of the patients regarding prevention of dermatitis is poor in all the areas.

Area- wise effectiveness of planned teaching programme on Knowledge of the present study shows that the total mean knowledge score is 72.18% with mean ±SD of 29.23±29 after the administration of planned teaching programme. Comparison of the area wise mean and SD of the knowledge scores revealed that the effectiveness of planned teaching programme in the area of prevention of dermatitis, the mean percentage knowledge scores was increased by 41.43% with the mean and SD of 6.43± 0.55 and was observed with that of 50.42% in pretest and 91.85% in the post test. In the area of concept and cause was 46.64% increase in the mean percentage knowledge scores with the mean and SD of 4.8± 1.46 was observed with that of 43.63% in pretest and 90.27% in post test and in the area of clinical features and treatment was 39.73% increase in the mean percentage of knowledge scores with mean and SD of 6.63± 1.44.

Pre-test knowledge score of respondents regarding prevention of dermatitis was compared with demographic variables. Statistical significance of the association was tested using Chi-Square test/ Fisher Exact test. The calculated Fisher Exact value of age (0.04) and occupation (0.035), and were less than that of table value at 0.05 level of significance, hence the research hypothesis was accepted and concluded that there was a significant association between the pre-existing knowledge with these demographic variables. Fisher Exact values of gender (0.18), type of family (0.08), income (0.14) and family history of skin allergy (0.30) were greater than that of table value at 0.05 level of significance.

Thus, it can be concluded that there was no significant association between knowledge of respondents regarding prevention of dermatitis and demographic variables such as gender, income, and type of family and the family history of skin allergy. It was concluded that planned teaching programme was effective in improving the knowledge of the respondents regarding preven-

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