



RESEARCH ARTICLE

EFFECTIVENESS OF INFORMATION, EDUCATION AND COMMUNICATION (IEC) PACKAGE ON KNOWLEDGE AND ATTITUDE REGARDING OVER THE COUNTER (OTC) DRUGS AMONG ADULTS

Mrs. R. Jayalakshmi¹ and Dr. S. Ani Grace Kalaimathi²

1. Professor, Vignesh Nursing College, Tiruvannamalai.
2. Registrar, Tamilnadu Nurses & Midwives Council, Chennai-4.

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Abstract

Self medication is one of the major reasons for the irrational use of medicines. Globally, self medication practices are more frequently observed for the Over The Counter (OTC) medicines (WHO, 1998). OTC drugs are drugs that do NOT require a doctor's prescription, bought off-the-shelf in stores and regulated by FDA through OTC Drug monographs (FDA, 2018). The research design used for this study was True experimental – repeated measures design. 100 adults were selected based on inclusive criteria (experimental group-50 and control group-50) through probability Two stage cluster sampling technique. The pretest was conducted with the help of structured interview schedule to assess the knowledge and attitude in both groups. After pretest IEC package on awareness of OTC drugs was provided in experimental group through Lecture cum discussion for 10 persons in each group followed by post test was conducted. The result showed that the effect of IEC package on level of knowledge in experimental group was $F(2, 147) = 261.24, p = .000$ and in control group was $F(2, 147) = 1.02, p = .360$ and level of attitude in experimental group was $F(2, 147) = 551.21, p = .000$ and in control group was $F(2, 147) = 2.76, p = .066$. There was significant difference between the pretest & posttest level of knowledge and attitude among adults in the experimental and control group. The study concluded that a significant number of adults are unaware of the adverse effects of the medication that they themselves take and suggest to others. Potential problems of inappropriate use of OTC drugs should be emphasized by using IEC package to minimize the risk.

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Introduction:-

Let food be thy medicine and not medicine be thy food” –Hippocrates:

The non-prescription drugs or over-the-counter drugs (OTCs) are the drugs that are purchased without prescription of a Registered Medical Practitioner¹. In India, though the phrase ‘over the counter drugs’ has no legal recognition, so all the drugs not included in the list of ‘prescription drugs’ are considered as OTC drugs. Medicines for self-medication are often called ‘nonprescription’ or ‘over the counter’ (OTC) and are available without a doctor’s prescription through pharmacies².

Corresponding Author:- Mrs. R. Jayalakshmi

Address:- Professor, Vignesh Nursing College, Tiruvannamalai.

In 2009, the global OTC pharmaceutical market generated revenues of more than USD 60 billion. Total OTC revenues will exceed USD 70 billion by 2015. The OTC pharmaceutical market is growing significantly from 2010 onwards. Currently India ranks 11th in the global OTC market size. It is expected that it will reach 9th position within five years. Currently the Indian OTC market (i.e. advertised non-prescription medicines) is estimated to represent approximately USD 1793 million with annual growth rate of 23%. India's OTC drug sale has grown around 10% in the last two year, leaving the U.S. and China much behind, where OTC drug sale is estimated at 4% to 5% respectively³.

Perhaps, the poor economic status and busy lifestyle of an individual makes him rely on the OTC drugs. In India prevalence of self-medication was found 37% in urban and 17% in rural population, it has been shown that 76% literate people more likely to self medicate OTC drugs than 0.5% of illiterate people⁴. Trend of using OTC drugs/self-medication is high in India. Studies revealed that there is an increase in trends of self medications particularly among the youth and adults.

In several studies it has been shown that due to uncontrolled use of OTC drugs, signs and symptoms of underlying diseases are suppressed hence incidence of delayed diagnosis, complications, treatment failure and drug resistance are increasing. In India, it is possible to buy prescribed and non-prescribed drugs with or without prescriptions from a wide variety of sources. These drugs, if not fully used, may be kept for future use. In order to have a better understanding of the use of OTC drugs among public, a study will be carried out.

Therefore the study was taken up to analyze the population at risk, rate of OTC drug practices and awareness of the adverse effects among the participants.

Statement of the problem:

A Study to Evaluate the Effectiveness of Information, Education and Communication (IEC) Package on Knowledge and Attitude regarding Over The Counter (OTC) Drugs among Adults.

Objectives:-

1. To assess pre and posttest level of knowledge and attitude among adults in experimental and control group.
2. To compare the pre and posttest level of knowledge and attitude among adults within experimental and control group.
3. To compare the pre and posttest level of knowledge and attitude among adults between experimental and control group.
4. To associate the mean improvement knowledge and attitude score with selected demographic variables in experimental and control group.

Research Hypothesis:

1. There is a significant difference between the pre & posttest level of knowledge and attitude among adults within the experimental and control group.
2. There is a significant difference in pre & posttest level of knowledge and attitude among adults between the experimental and control group.
3. There is a significant association in the mean improvement knowledge and attitude score with selected demographic variables in experimental and control group.

Material and Methods:-

The data was done over a period of one month. After obtaining permission from Chairman of Tiruvannamalai Municipality, the study was conducted in Urban Community, Tiruvannamalai. The research design used for this study was True experimental – repeated measures design. 100 adults were selected based on inclusive criteria (experimental group-50 and control group-50) through probability Two stage cluster sampling technique. Rapport was established with selected subjects & a brief introduction about the research purpose was given. Written consent for participation in the study was obtained. The pretest was conducted with the help of structured interview schedule to assess the knowledge. The attitude was assessed through four point likert's scale by using interview method. For the purpose of the study, certain terms were explained to the samples if they could not understand. After pretest IEC package on awareness of OTC drugs was provided through Lecture cum discussion for 10 persons in each group. Pamphlets, slide show and posters were used as Audio Visual aids. Duration of each session was around 45 minutes.

A posttest (1) was conducted on 7th day and posttest (2) was conducted on completion of 21st day after the IEC package to assess the retention of memory. Collected data were entered in excel sheet and analyzed with proper statistical method.

Results:-

In the present study a total of 50 subjects were enrolled in experimental and control group respectively. The demographic variables assessed and described samples with higher frequency and percentage scores in experimental group are more than half 27(54%) of the subjects were in the age group of 30-39years and 26(52%) of them were male. With regard to religion majority 40(80%) of the subjects belongs to Hindu and 41(82%) were married. Regarding educational status 48(96%) of the subjects can able to read and write, 34(68%) of them employed and 40(80%) of the subjects family income is above Rs.10, 001/month.

In control group demographic variables revealed that 20(40%) of the subjects were in the age group of 30-39years and 28(56%) of them were male. Majority 38(76%) of the subjects were belongs to Hindu and 38(76%) were married. About educational status 47(94%) of the subjects can able to read and write, 33(66%) of them employed and 38(76%) of the subjects family income is above Rs.10, 001/month.

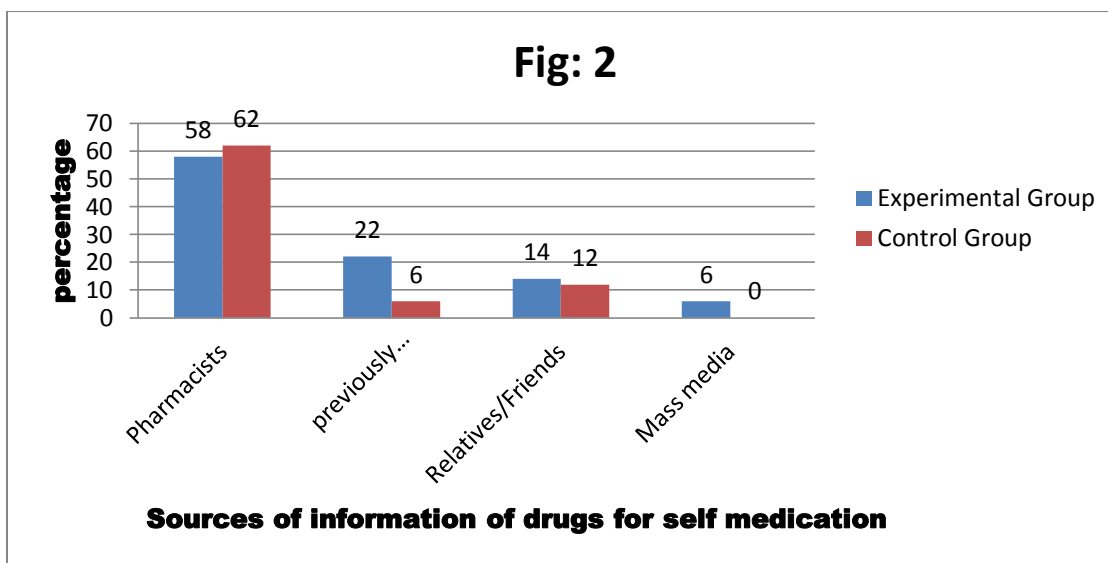
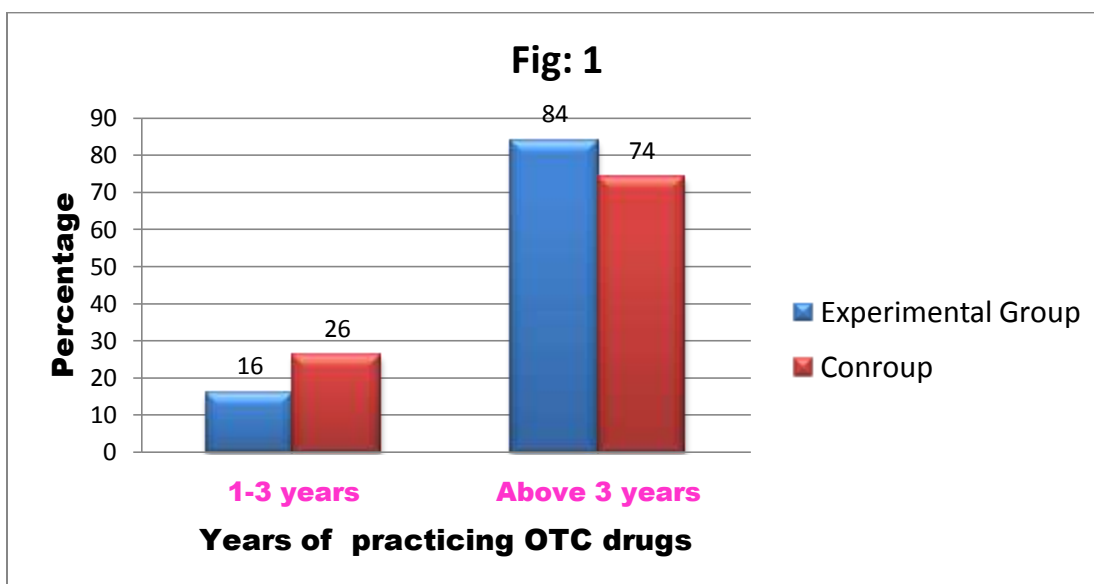


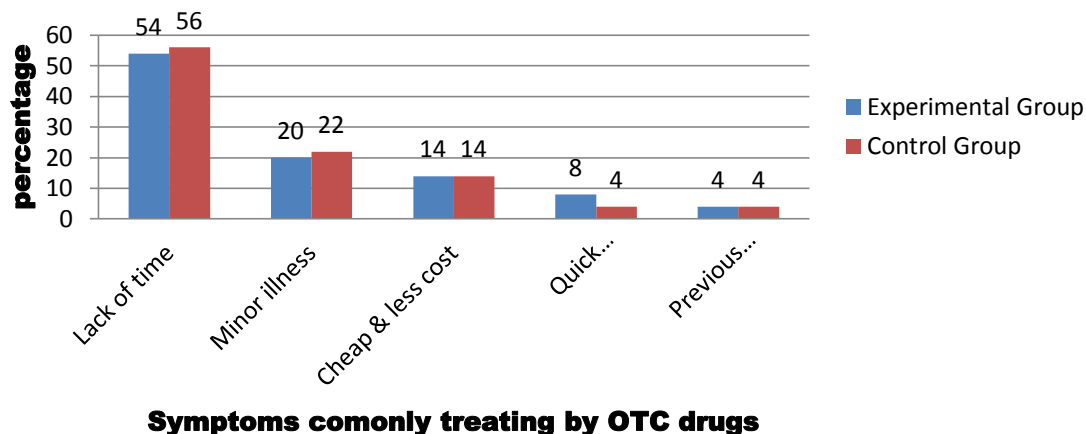
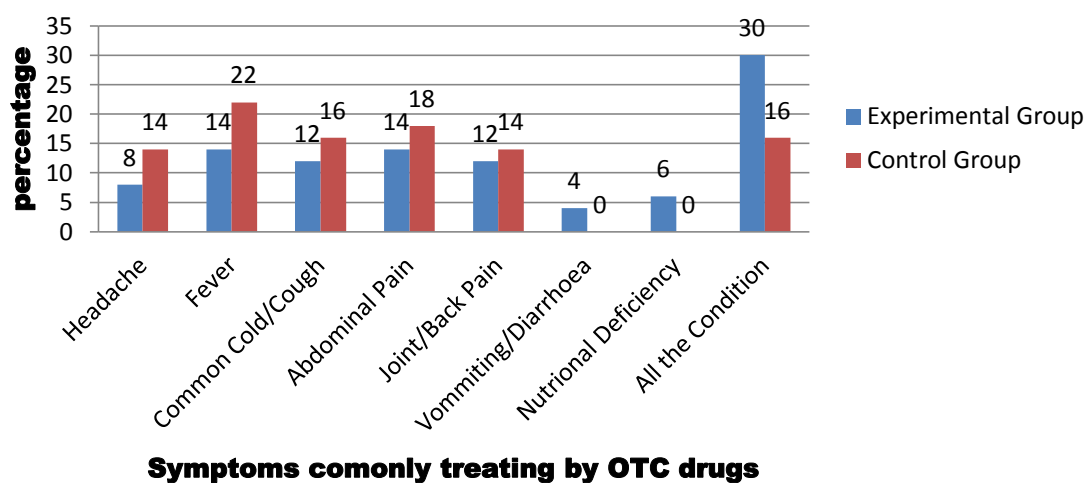
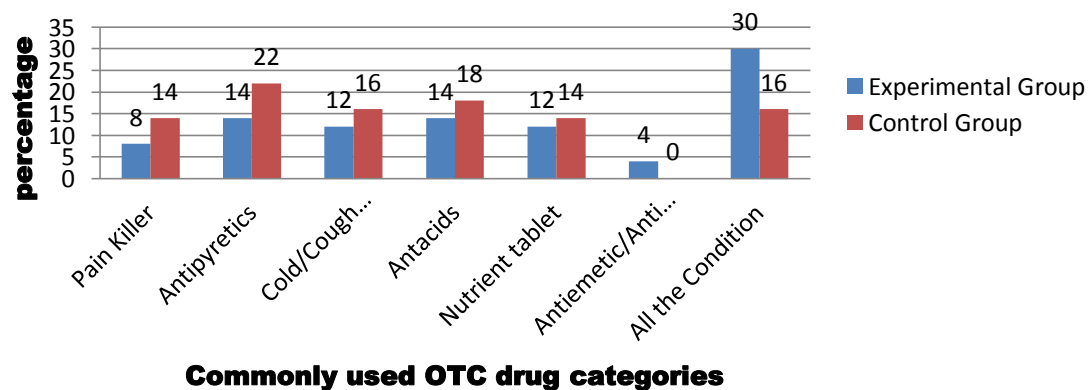
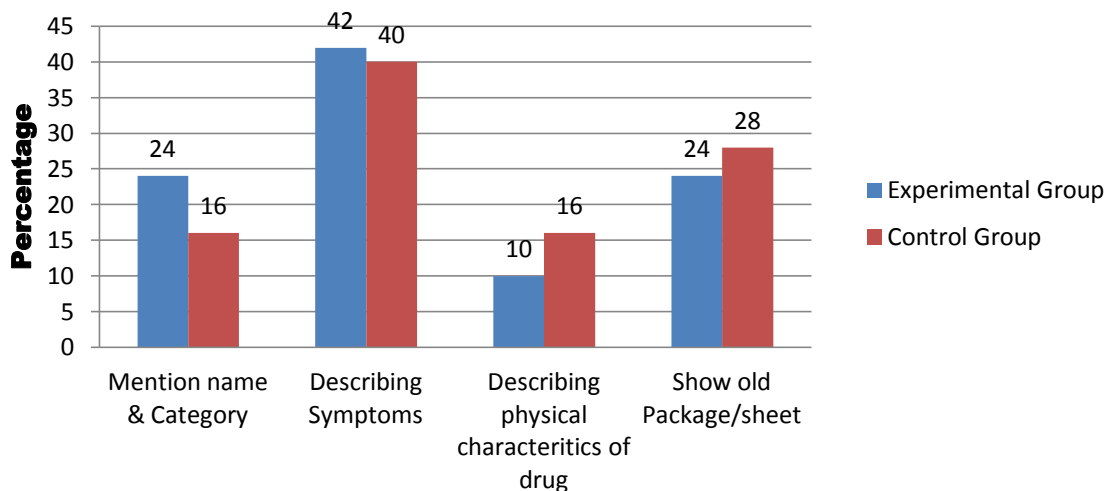
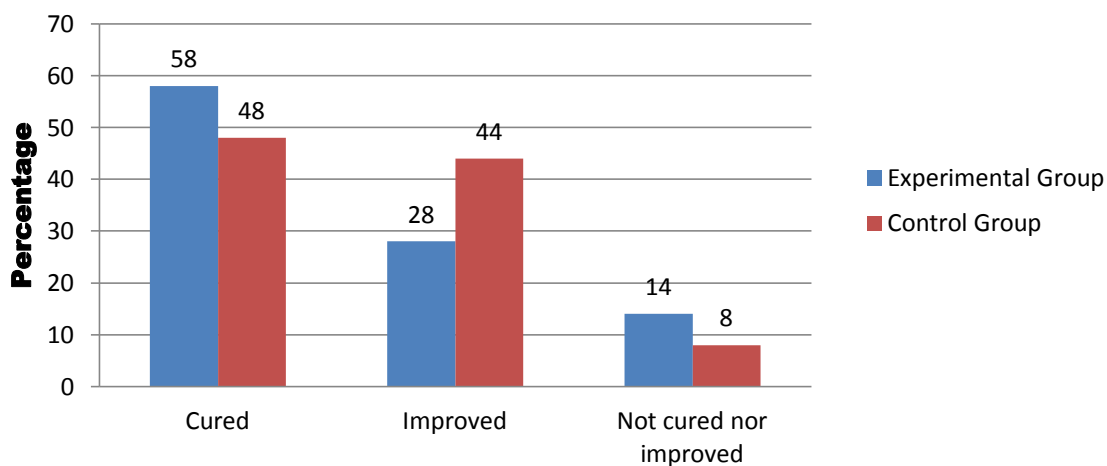
Fig: 3**Fig: 4****Fig: 5**

Fig: 6**Type of request for getting OTC drugs at medical store/ shop****Fig: 7****End result of previous experience of OTC drugs****Assessment of pre and posttest level of knowledge on OTC drugs:**

Level of knowledge	Total score	Experimental Group						Control Group					
		Pretest		Posttest		Posttest		Pretest		Posttest		Posttest	
		f	%	f	%	f	%	f	%	f	%	f	%
Adequate Knowledge (75-100%)	30	-	-	25	50	20	40	-	-	-	-	-	-
Moderately Adequate Knowledge (50-74%)	30	10	20	25	50	30	60	09	18	10	20	09	18

Inadequate Knowledge (0-49%)	30	40	80	-	-	-	-	41	82	40	80	41	82
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The result showed that the effect of IEC package on level of knowledge in experimental group was $F(2, 147) = 261.24$, $p = 0.000$ and in control group was $F(2, 147) = 1.02$, $p = 0.360$, hence the formulated hypothesis was accepted. There was significant difference between the pretest & posttest level of knowledge among adults in the experimental and control group.

In pretest level of knowledge between experimental and control the calculated unpaired 't' value group was $t=0.15$ found to be statistically not significant, where as in posttest (1&2) the calculated unpaired 't' value is 21.7 & 21.9 was found to be statistically significant at $p < 0.001$ level, hence the formulated hypothesis was accepted. There was significant difference in pretest & posttest level of knowledge among adults between the experimental and control group.

Assessment of pre and posttest level of attitude on OTC drugs:

Level of knowledge	Total score	Experimental Group						Control Group					
		Pretest		Posttest		Posttest		Pretest		Posttest		Posttest	
		f	%	f	%	f	%	f	%	f	%	f	%
Favourable Attitude	45	-	-	50	100	49	98	01	02	01	02	01	02
Moderately Favourable Attitude	45	17	34	-	-	01	02	14	28	17	34	22	44
Unfavourable Attitude	45	33	66	-	-	-	-	35	70	32	64	27	54

The result showed that the effect of IEC package on level of attitude in experimental group was $F(2, 147) = 551.21$, $p = 0.000$ and in control group was $F(2, 147) = 2.76$, $p = 0.066$, hence the formulated hypothesis was accepted. There was significant difference between the pretest & posttest level of attitude among adults in the experimental and control group.

In pretest level of attitude between experimental and control the calculated unpaired 't' value group was $t=0.31$ found to be statistically not significant, where as in posttest (1&2) the calculated unpaired 't' value is 23.57 & 21.87 was found to be statistically significant at $p < 0.001$ level, hence the formulated hypothesis was accepted. There was significant difference in pretest & posttest level of knowledge among adults between the experimental and control group.

Association in the mean improvement knowledge and attitude score with selected demographic variables in experimental and control group

In experimental group the demographic variables like age in years ($\chi^2 = 4.67$), education ($\chi^2 = 7.11$) and employment status ($\chi^2 = 3.9$) has shown statistically significant association with level of knowledge at $p < 0.05$ level and there is no statistical significant association in control group. Hence the formulated hypothesis was accepted in experimental group and rejected in control group. There is a no significant association in the mean difference attitude score regarding OTC Drugs with selected demographic variables in experimental and control group at $p < 0.05$ level, hence formulated hypothesis is rejected.

Conclusion:-

This study was done to determine the effectiveness of IEC package on knowledge and attitude of adults regarding OTC drugs. This study has found that use of OTC drugs is very common among adults, facilitated by the easy availability of drugs and sources of information from pharmacist. A significant number of adults are unaware of the adverse effects of the medication that they themselves take and suggest to others. Potential problems of inappropriate use of OTC drugs should be emphasized by using IEC package to minimize the risk. The result of this

study shows that there is a significant improvement in knowledge and attitude of adults after IEC package in experimental group than the control group.

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