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"A Study To Evaluate The Effectiveness Of Awareness Intervention Programme On Knowledge And Attitude Regarding Over The Counter (OTC) Drug Among Adult Peoples Living In Selected Area Of Kanpur, U.P. "

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ABSTRACT

Background of the study: Over-the-counter (OTC)medicines ,also known as non-prescription medicines, refer to medications that can be purchased without a prescription and are safe and effective when used according to the directions on the label, and as directed by a health care professional (Food and Drug Administration, 2018). Self-medication is becoming increasingly popular around the world. According to studies, the global prevalence of self-medication ranges from 11.2 to 93.7%, depending on the target population and country.

OBJECTIVES OF THE STUDY

- To assess the existing knowledge and attitude of adult people regarding over-the-counter(OTC) drugs.
- Toassessthe knowledgeandattitudeofadultpeopleregardingover-the-counter(OTC)drugs after the intervention.
- To evaluate the effectiveness of the awareness intervention programme regarding over-the-counter (OTC)drugs.
- To determine the correlationbetweenpost-knowledgeandattituderegardingover-the-counter(OTC)drugs.
- To find out the association between post-test knowledge with their selected socio-demographic variable.
- To find out the association between post-test attitude with their selected socio-demographic variable.

METHODS

Quantitative Research Approach was adopted; along with pre-experimental (one group pre-test post-test) research design was used. The non-probability convenient sampling technique was selected to collected data from 60 adult people. Data was collected from selected rural area of Kanpur, Uttar Pradesh by self-reporting method with the socio-demographic data of adult people along with structured tool made by researcher (structured knowledge questionnaire and 5 point Likert scale) was used to collect the data. As data was analysed by using descriptive and inferential statistics.

RESULT

- In pre-test, out of 60 adult people 48(80%) had poor knowledge, 12(20%) had average knowledge and none of adult people had good knowledge. 2(3.33%) had unfavourable attitude, 57(95%) had moderately favourable attitude, and 1(1.67%) had favourable attitude.
- In post-test, out of 60 adult people 10(17%) had poor knowledge, 37(61.50%) had average knowledge and 13(21.50%) had good knowledge. 34(56.66%) had moderately favourable attitude, 26(43.34%) had favourable attitude and none of adult people had unfavourable attitude.
- Enhancement was computed by using paired "t" test at 0.05 level of significance, it was found to be11.60 in knowledge and 10.009 in attitude, indicating that there is a significant improvement in the knowledge and attitude of adult people.

CONCLUSION:

The findings of this study support the need for adult people to understand regarding the various aspects of over the counter (OTC) drugs. The study has proved that the adult people have a remarkable increase in the knowledge and attitude regarding over the counter (OTC) drugs when compared to their previous knowledge and attitude, prior to the implementation of the awareness programme. Thus, for the future outlook there is a need to improve their knowledge and attitude by conducting the awareness programme, STP and demonstration programme on over the counter (OTC) drug.

KEY WORDS: *Awareness programme, effectiveness, knowledge, attitude, over-the-counter (OTC) drugs.*

Self-medication is becoming increasingly popular around the world. According to studies, the global prevalence of self-medication ranges from 11.2 to 93.7%, depending on the target population and country.[1]
Various reports indicate that the global OTC drug market has been growing at a notable rate and is expected to continue to do so in the coming years. For example, a report from Fortune Business Insights estimated that the global OTC drugs market was worth USD 151.89 billion in 2019 and is projected to growat a CAGR of about 4.6% during the forecast period 2020–2027.[2]
OTC medicines allow greater access to treatment of people at large at lower cost for minor or self-limiting illnesses. Moreover, General Practitioners (GPs) do not have to write prescriptions for minor ailments and in turn have more time for dealing with serious health problems. This is extremely useful for countries like India where the doctor to patient ratio is less (1:1800) than other countries. For ensuring optimum use of OTC medicines, pharmacists can provide a valuable interface by using their professional knowledge to guidepatients.[6]
As In many parts of the world, OTC drugs may be the most accessible form of healthcare. Research can help tailor these products to meet the unique needs and challenges of global health.[3]

The Research Question :
What are the effectiveness of awareness intervention programme on knowledge and attitude regarding over the counter (OTC) drug among adult peoples living in selected area?

Materials and Method
Design:
Pre-experimental one group pre-test post-test design was adopted for the study. Here only one group was observed twice, before and after introducing the independent variable
Research Team :
The researchers were Final year B.sc 4th year students of Regency institute of Nursing undergraduate student, two researchers were working as research Guide faculty members (Dr. Sheikh Javed) of a nursing faculty in the department of community health nursing. And (Nursing Tutor Ms. Arpita Bali) of a nursing faculty in the department of mental health nursing Two of them have worked as supervisors The researchers were also acquainted with all of the participants
Setting and Time
The sample selected for the study comprise of 60 adult people of selected rural area of Kanpur, U.P., and the data collection was done in the month of January
Sample:
The sample selected for the study comprise of 60 adult people of selected rural area of Kanpur, U.P. that is 60 only

Data Collection Tools
The tool consists of structured knowledge questionnaire with three sections partI, Part II and Part III as follows:
SectionA: Socio-demographic variables - Demographic data consisting of 8 items seeking information about the baseline data such as age, gender, educational status, occupational status, Type of family, Monthly family income, religion, source of information
Section B: Knowledge questionnaire - Consisted 30 items in general information about over the counter (OTC) drugs like general information, indications, practice, and side effects of OTC drugs. A score of one was given for correct answer and zero for wrong answers. Thus the maximum score was 30 and the minimum score was zero. The scoring was just done by counting the correct responses and according to the total score obtained.
Section C: Attitude scale - Attitude scale consists of 15 questions with responses strongly agree (SA), agree (A), uncertain (UN), disagree (D), strongly disagree (SD). The positive statements had the scoring of 5,4,3,2,1 whereas the negative item had 1,2,3,4,5.
A structured statement with 15items was constructed to assess the attitude of adult people regarding over the counter drugs.

Data Analysis
The present research data was processed and analysed, as a systematic fashion, so that the trends and patterns of relationship can depict well. As statistical analysis is a method of ordering, categorizing, manipulating, and summarizing data obtain from the answers to the research question. In order to interpret the data in logical order both “descriptive and inferential statistics” were used. The collected data was organized and computed for statistical analysis according to the objectives, data distribution, and the number of participants as well as all the data were transferred with coding to the master data sheet for analyses using SPSS (statistical package trial version 20)

Trustworthiness
Trustworthiness was achieved through “credibility,” “transferability,” “dependability,” and “confirmability.” Credibility was achieved by the participants’ opportunity to provide information freely, confirm their statements, meet with the researchers frequently, describe the phenomenon in detail, and compare them with the literature. To ensure transferability,

the study duration, sample, environment, data collection, and research process were presented clearly. The participants' statements were quoted by verbatim to ensure dependability. The research activities and processes were examined by an authority who was not involved in the study. To ensure confirmability, the researchers provided comments that reflected the phenomenon under study, and multiple researchers coded the data.

Ethical Issues

The research was approved by the Ethics Committee of Regency Institute of Nursing. The participants were told that they would be involved in this study at their home. They were also informed about the use of a recorded data during data collection will be kept confidential and it is their right to stop participating in the study at any time, that the information would be used purely for research and publication, and that their personal information would be kept confidential. At the end of the study, the recorded data will be destroyed.

Result

The collected data were edited, tabulated analysed, interpreted and findings obtained were presented were presented in the form of tables and diagrams which were represented under the following sections.

Section I: Distribution of subjects according to socio-demographical variables.
Section II: Assessment of pre-testlevelofknowledgeandattitudeofadultpeopleregardingover-the- counter drugs.
Section III: Assessment of-post-testlevelofknowledgeandattitudeofadultpeopleregardingover-the- counter drugs.
Section IV: Comparison of pre and post-test knowledge and attitude scores of adult people regarding over- the-counter drugs.
Section V: Relationship of post-test knowledge and attitude scores regarding over the counter drugs among adult people.
Section VI: Association between post-test knowledge with their selected demographic variable.
Section VII: Association between post-test attitude with their selected demographic variable.

SECTION-1

Distribution of frequency and percentages based on demographic variables.

TABLE: 3 DISTRIBUTION OF THE SUBJECTS ACCORDING TO SOCIO- DEMOGRAPHIC VARIABLES N=60

S.N0	DEMOGRAPHICVARIABLES		FREQUENCY	PERCENTAGE
1	AGE	18-26	26	43%
		27-34	19	32%
		35-42	9	15%
		43-50	6	10%
2	GENDER	Male	31	52%
		Female	29	48%
3	EDUCATIONAL STATUS	Non formal education	5	8%
		Primary education	26	43%
		High school	12	20%
		Graduation	17	28%
4	OCCUPATIONAL STATUS	Housewife	21	35%
		Service	1	2%
		Business	16	27%
		Agriculture	7	11%
		Any other	15	25%
5	TYPE OF FAMILY	Nuclear	46	77%
		Joint	14	23%

6	**MONTHLYFAMILY INCOME (RS)**	**<10,000**	34	57%
		10,001-20,000	18	30%
		20,001-30,000	6	10%
		>30,001	2	3%
7	**RELIGION**	**Hindu**	56	93%
		Muslim	4	7%
		Christian	0	0%
		Others	0	0%
8	**SOURCEOF**	**Newspaper**	5	8%
	INFORMATIONABOUT OTC DRUGS	**Consulting family member**	32	53%
		Social network/media/internet	13	22%
		Previous prescription	10	17%

SECTION-2
ASSESSMENT OF THE PRE-TEST LEVEL OF KNOWLEDGE AND ATTITUDE OF ADULT PEOPLE REGARDING OVER THE COUNTER (OTC) DRUGS.

TABLE4: PRE-TEST KNOWLEDGE SCORE 0F ADULT PEOPLE REGARDING OVER-THE- COUNTER DRUG.

LEVEL OF KNOWLEDGE	GRADING	NO.	PERCENTAGE
POOR	1-15	48	80%
AVERAGE	16-22	12	20%
GOOD	23-30	0	0%
TOTAL	30	60	100%

The table 4 depicts the distribution of pre-test level of knowledge on over the counter drugs. Out of 60 subjects, 48(80%) had poor knowledge and 12(20%) had average knowledge and none of subjects had good knowledge.

TABLE6: PRE-TEST OVER ALL KNOWLEDGE SCORE ON OVER THE COUNTER DRUGS.

Questions	No. of questions	Mean	Mean%	SD
Over all pre- test knowledge.	30	12.08	40%	2.75

Table6 shows the pre-test over all knowledge score of adult people on over the counter drugs. They are having 40% of knowledge before the organization of awareness programme.

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TABLE7: PRE-TEST ATTITUDE SCORE ON DIFFERENT ASPECTS OF OVER THE COUNTER DRUG.

Statements	No. of questions	Min-max Score	Pre-test Attitude		SD
			Mean score	Mean Percentage	
Positive statements	11	11-55	36.08	66%	3.96
Negative statements	04	4-20	11.45	57%	2.45
OVER ALL	**15**	**15-75**	**47.53**	**63%**	**4.53**

Table-7 shows, adult people percentage of attitude in each aspect of over the counter drugs before administration of awareness programme. Inpositivestatementswithameanscoreof36.08andSD3.96and mean percentage 66%. In negative statements with a mean score of 11.45, SD 2.45 and mean percentage 57%. Subjects were having average attitude on both aspects.

TABLE8: PRE-TEST LEVEL OF ATTITUDE AMONG ADULT PEOPLE TOWARDS OVER THE COUNTER DRUGS (N=60)

Level of attitude	Attitude score	Number of study participants	Percentage of frequency
Un-favourable attitude	15-37	2	3.33%
Moderately favourable attitude	38-56	57	95%
Favourable attitude	57-75	1	1.67%
Total		60	100%

Table8 demonstrates the adult people pre-test attitude-on overt the counter(OTC)drugs before the awareness program. In the pre-test, 1.67 % of the subject are having favourable attitude, 95% were having moderately favourable attitude and 3.33% were having un-favourable attitude.

SECTION-III
ASSESSMENT OF POST-TEST LEVEL OF KNOWLEDGE AND ATTITUDE OF ADULT PEOPLE REGARDING OVER-THE-COUNTER DRUGS.

Objective2-To assess the knowledge and attitude of adult people regarding over-the-counter(OTC) drugs after the intervention.

TABLE9: POST TEST LEVEL OF KNOWLEDGE SCORE OF ADULT PEOPLE REGARDING OVER THE COUNTER DRUGS

LEVEL OF KNOWLEDGE	GRADING	NO.	PERCENTAGE
POOR	1-15	10	17%
AVERAGE	16-22	37	61.50%
GOOD	23-30	13	21.50%
TOTAL	30	60	100%

POOR=1-15(<50%) , AVERAGE=16-22(>51-75%) , GOOD=23-30(>76-100%)

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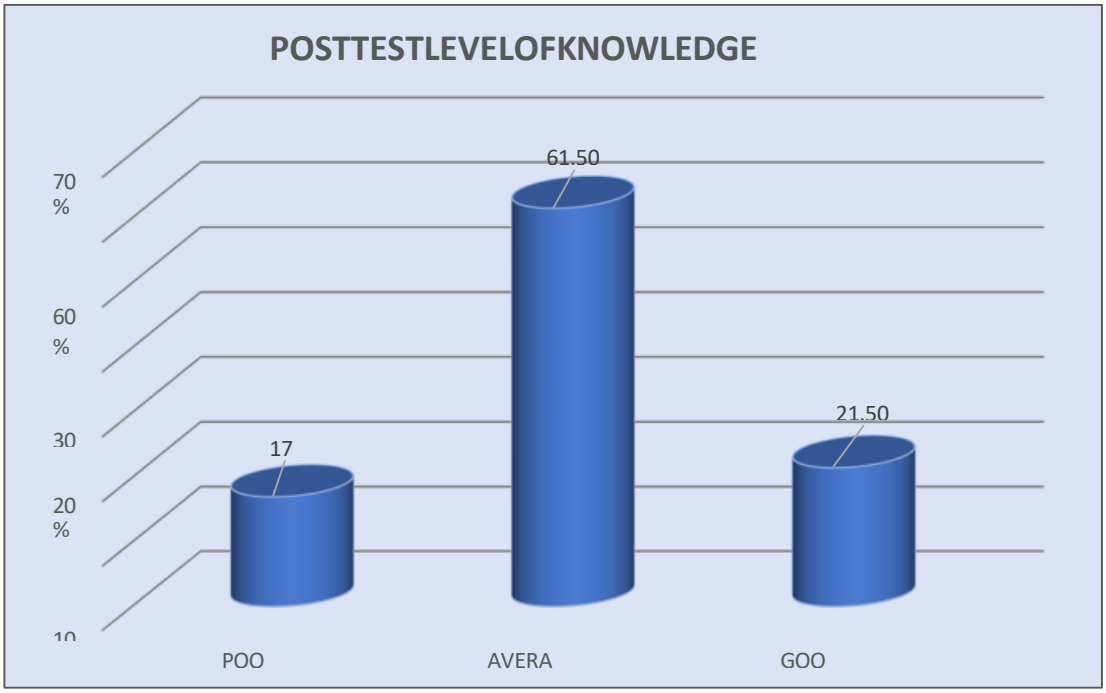

FIGURE16: CYLINDRICAL DIGRAM SHOWING THE POST-TEST LEVEL OF KNOWLEDGE AMONG ADULT PEOPLE REGARDING OVER THE COUNTER DRUGS.

The table-9 and fig16 depicts the distribution of pre-test level of knowledge on over the counter drugs. Out of 60 subjects, 10(17%) had poor knowledge and 37(61.5%) had average knowledge and 13(21.5%) of subjects had good knowledge.

TABLE11: POST-TEST OVER ALL KNOWLEDGE SCORE ON OVER THE COUNTER DRUGS.

Questions	No. of questions	Mean	Mean%	SD
Overall post-test knowledge.	30	19.32	64%	3.79

Table11 shows the post-test over all knowledge score of adult people on over the counter drugs. They are having 64% of knowledge before the organization of awareness programme.

TABLE12: POST-TEST ATTITUDE SCORE ON DIFFERENT ASPECTS OF OVER THE COUNTER

Statements	No. of questions	Min-max Score	Post-testAttitude		SD
			Mean score	Mean Percentage	
Positive statements	11	11-55	42.26	77%	3.33
Negative statements	4	4-20	13.46	67%	2.64
OVER ALL	**15**	**15-75**	**55.73**	**74%**	**4.56**

Table-12shows, adult people percentage of attitude in each aspect of over the counter drugs after administration of awareness programme. Inpositivestatementswithameanscoreof42.26 andSD3.33 and mean percentage 77%. In negative statements with a mean score of 13.46, SD 2.64 and mean percentage 67%. Subjects were having average attitude on both aspects.

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TABLE13: POST-TESTLEVEL OF ATTITUDE AMONG ADULT PEOPLE TOWARDS OVER THE COUNTER DRUGS

Level of attitude	**Number of study participants**	**Percentage of frequency**
Un-favourable attitude	0	0
Moderately favourable attitude	34	56.66%
Favourable attitude	26	43.34%
Total	**60**	**100%**

Table13demonstratestheadultpeoplepost-testattitudeonoverthecounter(OTC)drugsafter the awareness program. In the post-test, 43.34% of the subject are having favourable attitude, 56.66% were having moderately favourable attitude and 0% were having un-favourable attitude.

TABLE14:ATTITUDE GAIN AFTER AWRENESS PROGRAMME

Attitude assessment	**%of pre-test attitude**	**%of post-test attitude**	**% of attitude gain**
Positive statement	66%	77%	11%
Negative statement	57%	67%	10%
OVERALL	63%	74%	11%

Table no 14 show that adult people percentage of attitude gain on over the counter drug after awareness programme. Inpost-test,11% of attitude gain a positive statement, 10% of attitude gain in a negative statement. 11% overall attitude gain after awareness programme.

TABLE15: DETERMINATION OF OVER ALL MEAN KNOWLEDGE SCORE BEFORE AND AFTER AWARENESS PROGRAMME

	Max. score	**Pre-test**	**Post-test**	**PAIRED**
		Mean-+SD	**Mean-+SD**	**T-TEST**
OVERALL KNOWLEDGE SCORE	30	12.08 ± 2.75	19.32 ± 3.79	**11.60** **df =59 p<0.05**

Table no. 15 shows the adult people pre-test and post-test in general learning on over the counter drugs. Mean pre-test information score is 12.08 and mean post-test learning score is 19.32. The variation identified before and after knowledge score t-11.60 (df-59) at **p<0.05**. So after statistical analysis, this difference seems to be high and it is statistically significant.

SECTION IV
COMPARISON OF PRE AND POST-TEST KNOWLEDGE AND ATTITUDES CORES OFADULT PEOPLE REGARDING OVER-THE-COUNTER DRUGS.

OBJECTIVE-3: To evaluate the effectiveness of the awareness program regarding over-the-counter (OTC) drugs.

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TABLE 16: COMPARISON BETWEEN PRETEST AND POST TEST LEVELS OF KNOWLEDGE AMONG ADULT PEOPLE REGARDING OVER THE COUNTER DRUGS. (N=60)

Level of Knowledge	Grading	No. of study participants.		Percentage of frequency	
		PRE-TEST	POST TEST	PRE-TEST	POSTTEST
POOR	1-15	48	10	80%	17%
AVERAGE	16-22	12	37	20%	61.50%
GOOD	23-30	0	13	0%	21.50%
TOTAL	30	60	60	100%	100%

Table No-16 and Fig No. 21 engraves the accompanying in pre-test 80% adult people with poor knowledge, 20% Adult people had average knowledge, no one having the good knowledge. In post-test 61.50% of the Adults are having the exceptionally very average knowledge, 21.50% of the Adults having good information, 17% of the Adults having very poor learning.

HYPOTHESIS TESTING

H01- There is no significant difference between pre and post-test knowledge score regarding Over-the- counter (OTC) drugs among adult.

H1- There is a significant difference between pre and post-test knowledge score regarding Over-the-counter (OTC) drugs among adult.

The above table no. 17 shows the comparison of knowledge on over the counter drugs before & after the Awareness Programme. In every aspect, adult people upgraded their insight after the association of an organized instructing program. Subjects grabbed the greatest information in Steps to Items on introduction with the level of 39% and least knowledge of Items on side-effect with 15.00 %. When all is said in done 24% of information, the addition is the net advantage of this examination, which demonstrates the adequacy of an organized educating program. The difference between pre-test and post knowledge was calculated by using student paired t-test and the value is t=11.60 with the degree of freedom df =59 at $p<0.05$ level of significance. So statistically the obtained value t=11.60 is found to be significant at 0.05, so null hypothesis H_{01} is rejected and automatically research hypothesis H_1 is accepted. So we can say statistically there is a significant difference between the before and after-test Knowledge scores of adult people in regards to over the counter drugs.

TABLE18: COMPARISON BETWEEN PRE TEST AND POST TEST LEVELS OF ATTITUDE AMONG ADULT PEOPLE REGARDING OVER THECOUNTER DRUGS. (N=60)

Level of attitude	Attitude scores	No. of study participants.		Percentage of frequency	
		Pre-test	Posttest	Pre-test	Posttest
Favourable attitude	57-75	1	26	1.67%	43.34%
Moderately favourable attitude	38-56	57	34	95%	56.66%
Un-favourable attitude	15-37	2	0	3.33%	0.0%

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90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%

95%

43.34%

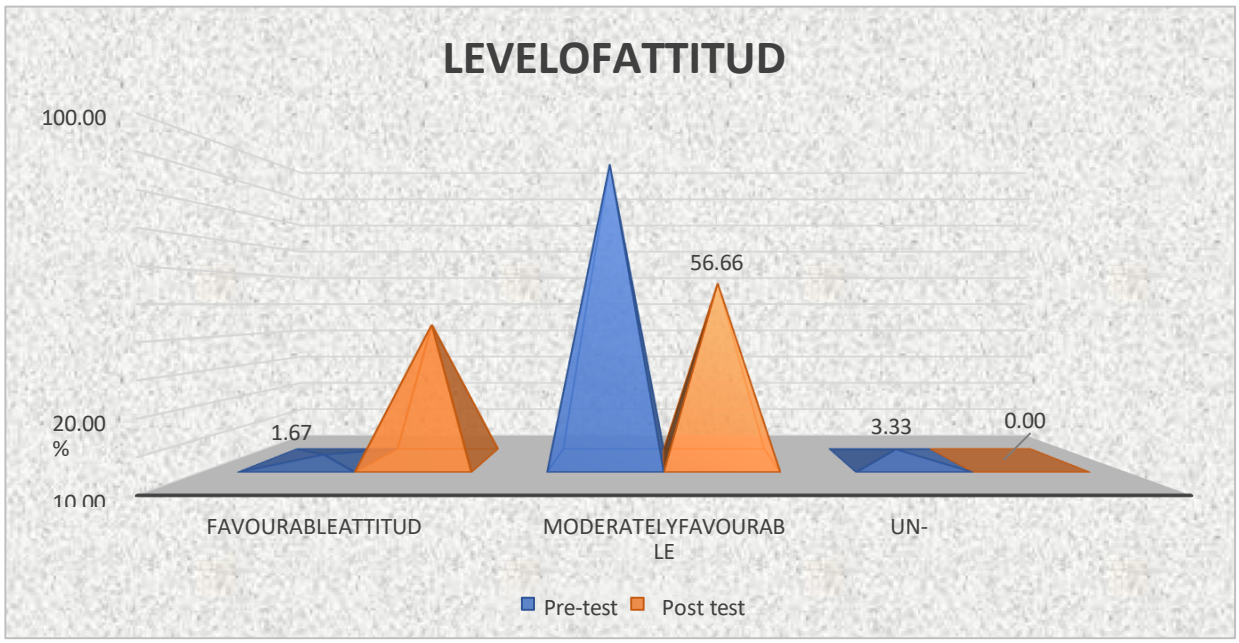

FIGURE.23: CONE DIAGRAM SHOWING PRE AND POST-TEST ATTITUDE LEVEL AMONG ADULT PEOPLE REGARDING OVER THE COUNTER DRUGS.

Table-18 and Figure-23 show that before the test level of attitude of over the counter drugs before awareness programme. Adults showed that 1.67% of subjects had favourable attitude in the pre-test and 95.0% of them have a moderately favourable Attitude and 3.33% has an Un-favourable attitude. In the post-test, 43.33% of subjects had an adequate favourable attitude, and 56.66% of them had a moderately favourable attitude and none of them have an unfavourable attitude

TABLE19: PRE AND POST TEST LEVEL OF ATTITUDE AMONG ADULT PEOPLE REGARDING OVER THE COUNTER DRUGS.(N=60)

Aspects	Mean			Mean%			Calculated paired t-test value
	Pre-test	Post test	Enhanc-ement	Pre-test	Post test	Enhanc ement	
Positive statements	36.08	42.26	6.18	66%	77%	11%	9.31(S) df=59
Negative statements	11.45	13.46	2.01	57%	67%	10%	4.31 (S) df=59
Attitude scorefrom wholetest	47.53	55.73	8.20	63%	74%	11%	10.009 (S) df=59

(S)=SIGNIFICANT AT0.05LEVEL

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Table no 19 shows the comparison of attitude on over the counter drugs before & after the Awareness Programme. Altogether the aspects, Adults improved their attitude when the organization of an organized instructing program. The accuracy between attitude score before and after the test is lower and it's significant. Statistical significance turned into determined by way of utilizing a paired 't' test.

HYPOTHESIS TESTING

H_2: There will be a significant difference between the pre and post-test Attitude scores regarding Over-the- counter (OTC) drugs among adult.

Table no 19 demonstrates the comparison of attitude on over the counter drugs before & after the Awareness Programme. In every one of the viewpoints, adult people enhanced their attitude after the organization of awareness programme. The difference between the attitude score before and after the test is smaller and significant. The contrast between pre-test and post-test attitude was computed by utilizing student paired t- test and the value is t=10.009 with the degree of freedom df =59 at $p<0.05$ level of significance. So statistically the acquired value t=10.009 is observed to be significant at 0.05, so null hypothesis H_{02} is rejected and naturally, research hypothesis H_2 is accepted. So we can state statistically there is a significant distinction between adult people prognosis and post-test scores in the over the counter drugs.

SECTION-V

RELATIONSHIP OF POST-TESTKNOWLEDGEANDATTITUDESCORESREGARDING OVER THE COUNTER DRUGS AMONG ADULT PEOPLE.

Objective4-To determine the correlation between-post-knowledge and attitude.

TABLE20:Correlation between post-Test knowledge and Attitude.
(N=60)

CATEGORIES	**PEARSON CORRELATION COEFFICIENT**
CORRELATIONBETWEENPOSTTEST KNOWLEDGE ANDATTITUDESCORES	-0.178(NS)

NS= NOT SIGNIFICANT

TABLE:-21RELATIONSHIP BETWEEN POST TEST KNOWLEDGE AND ATTITUDE SCORE REGARDING OVER THE COUNTER DRUG.
(N=60)

Area	**Mean**		**Mean%**		**Pearson Correlation**
	Knowledge	**Attitude**	**Knowledge**	**Attitude**	**Coefficient**
Post-test	**19.32**	**55.73**	**64%**	**74%**	**-0.178. (NS)**

NS= NOT SIGNIFICANT

HYPOTHESIS TESTING

H_3: There is a positive relationship between post-test knowledge and attitude scores of Adult people regarding over the counter drugs.

Correlation between post-test knowledge and attitude is (r=**-0.178**)poor positive correlation. It means when knowledge increases their attitude also increases poorly. These correlations are tested with Karl Pearson correlation coefficient test and results are statistically non-significant. By reading the above results, it gives rise to retention to Null hypothesis and rejecting Research Hypothesis. Finally, there is no relationship between knowledge after the test and attitude scores of adult people regarding over the counter drugs.

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SECTION-VI

ASSOCIATION BETWEEN POST-TEST KNOWLEDGE WITH THEIR SELECTED DEMOGRAPHIC VARIABLE

Objective-5: To find out the association between the post-test knowledge with their selected socio- demographic variables.

TABLE 22: ASSOCIATION BETWEEN POST TEST KNOWLEDGE REGARDING OVER THE COUNTER DRUGS AMONG ADULT PEOPLE WITH THEIR SELECTED SOCIO DEMOGRAPHIC VARIABLES

(N=60)

S.N0	DEMOGRAPHIC VARIABLES		Post-testlevelof knowledge			calculat ed c2 value	Df
			POOR	AVERAGE	GOOD		
1	AGE	18-26	5	16	5	10.86 (NS)	6
		27-34	1	12	6		
		35-42	3	5	1		
		43-50	1	4	1		
2	GENDER	MALE	7	16	8	2.88 (NS)	2
		FEMALE	3	21	5		
3	EDUCATIONAL STATUS	Nonformal education	0	5	0	6.56 (NS)	6
		Primaryeducation	5	13	8		
		High school	3	8	1		
		Graduation	2	11	4		
4	OCCUPATIONAL STATUS	Housewife	2	15	4	3.64 (NS)	8
		Service	0	1	0		
		Business	4	9	3		
		Agriculture	1	4	2		
		Any other	3	8	4		
5	TYPEOF FAMILY	Nuclear	7	28	11	0.704 (NS)	2
		Joint	3	9	2		
6	MONTHLY FAMILY INCOME(RS)	<10,000	7	20	7	4.943 (NS)	6
		10,001-20,000	2	10	6		
		20,001-30,000	1	5	0		
		>30,001	0	2	0		
7	RELIGION	Hindu	10	35	11	2.39 (NS)	2
		Muslim	0	2	2		
		Christian	0	0	0		
		Others	0	0	0		
8	SOURCE OF INFORMATION ABOUT OTC DRUGS	Newspaper	0	2	3	9.57 (NS)	6
		Consulting family member	4	23	5		
		social network/media/internet	3	8	2		

		Previous prescription	3	4	3		

(NS)=NOTSIGNIFICANT

- **NS: Not significant at level of0.05** **S: Significant at level of 0.05**
- **df :degrees of freedom** **F:Frequency**
- **% : Percentage** c^2 **: Chi square.**

1. Age in years: -Table No.22 shows the association between post-test knowledge score with age. It shows that the obtained c^2 value 10.86 is not significant at 0.05 levels. So there was no significant association between knowledge and age after the test. Hence the null hypothesis is retained.

2. Gender: - Table No.22 shows the association between post-test knowledge score with gender. It shows that the obtained c^2 value 2.88 is not significant at 0.05 levels. So there was no significant association between knowledge and gender after the test. Hence the null hypothesis is retained.

3. Educational status: **-** Table No.22 shows the association between post-test knowledge score with educational status. It shows that the obtained c^2 value 2.88 is not significant at 0.05 levels. So there was no significant association between knowledge and educational status after the test. Hence the null hypothesis is retained.

4. Occupational status: **-** Table No.22 shows the association between post-test knowledge score with occupational status. It shows that the obtained c^2value3.64is not significant at 0.05 levels. So there was no significant association between knowledge and occupational status after the test .Hence the null hypothesis is retained.

5. Type of family: **-** Table No.22 shows the association between post-test knowledge score with type of family. It shows that the obtained c^2 value 0.704 is not significant at 0.05 levels. So there was no significant association between knowledge and type of family after the test. Hence the null hypothesis is retained.

6. Monthly family income: **-** Table No.22 shows the association between post-test knowledge score with monthly family income. It shows that the obtained c^2 value 4.943 is not significant at 0.05 levels. So there was no significant association between knowledge and monthly family income after the test. Hence the null hypothesis is retained.

7. Religion: **-** Table No.22 shows the association between post-test knowledge score with religion. It shows that the obtained c^2 value 2.39 is not significant at 0.05 levels. So there was no significant association between knowledge and religion after the test. Hence the null hypothesis is retained.

8. Source of information about OTC drugs: **-** Table No.22 shows the association between post-test knowledge score with source of information about OTC drugs. It shows that the obtained c^2value2.39isnot significant at 0.05 levels. So there was no significant association between knowledge and source of information about OTC drugs after the test. Hence the null hypothesis is retained.

HYPOTHESISTESTING

Null Hypothesis

H04: There is no significant association between the selected socio-demographic variables (age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs) with the after test Knowledge of adult people regarding over the counter drugs.

Research Hypothesis

H4: There is a significant association between the selected socio demographic variables (age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs) with the after test Knowledge of adult people regarding over the counter drugs.

Table no 22 demonstrates the association between the selected socio demographic variables. There is no significant association between the selected socio-demographic variables (age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs) with the after test Knowledge of adult people regarding over the counter drugs, so , research hypothesis $H_4$is rejected and naturally, null hypothesis $H_{04}$is accepted. So we can state statistically there is no significance association between post-test knowledge score with their selected socio demographic variables.

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SECTION-VII ASSOCIATION BETWEEN POST-TEST ATTITUDE WITH THEIR SELECTED DEMOGRAPHIC VARIABLE

Objective-6: To find out the association between post-test attitude with their selected socio-demographic variable.

TABLE 23: ASSOCIATION BETWEEN POST TEST ATTITUDE REGARDING OVER THE COUNTER DRUGS AMONG ADULT PEOPLE WITH THEIR SELECTED SOCIO DEMOGRAPHIC VARIABLES (N=60)

S.N0	DEMOGRAPHIC VARIABLES		Post-test level of attitude		calculated c2 value	Df
			Moderately favourable	Favourable		
1	AGE	18-26	16	10	2.50 (NS)	3
		27-34	9	10		
		35-42	6	3		
		43-50	2	4		
2	GENDER	MALE	15	16	1.12 (NS)	1
		FEMALE	18	11		
3	EDUCATIONAL STATUS	Nonformal education	1	4	7.48 (NS)	3
		Primary education	13	13		
		High school	10	2		
		Graduation	9	8		
4	OCCUPATIONAL STATUS	Housewife	12	9	1.32 (NS)	4
		Service	1	0		
		Business	9	7		
		Agriculture	3	4		
		Any other	8	7		
5	TYPEOF FAMILY	Nuclear	25	21	0.1 (NS)	1
		Joint	8	6		
6	MONTHLY FAMILYINCOME (RS)	<10,000	17	17	2.1 (NS)	3
		10,001-20,000	10	8		
		20,001-30,000	5	1		
		>30,001	1	1		
7	RELIGION	Hindu	31	25	0.04 (NS)	1
		Muslim	2	2		
		Christian	0	0		
		Others	0	0		
		Newspaper	4	1		

8	**SOURCE OF INFORMATION ABOUT OTC DRUGS**	**Consulting family member**	18	13	3.204 (NS)	3
		social network/media/ internet	8	5		
		Previous prescription	3	7		

- **NS: Not significant at level of0.05** **S:Significant at level of 0.05**
- **df: degrees of freedom** **F: Frequency**
- **%: Percentage** **c^2: Chi square**

1. Age in years: -Table No.23 shows the association between post-test attitude score with age. It shows that the obtained c^2 value 2.50 is not significant at 0.05 levels. So there was no significant association between attitude and age after the test. Hence the null hypothesis is retained.

2. Gender: - Table No.23 shows the association between post-test attitude score with gender. It shows that the obtained c^2 value 1.12 is not significant at 0.05 levels. So there was no significant association between attitude and gender after the test. Hence the null hypothesis is retained.

3. Educational status: **-** Table No.23 shows the association between post-test attitude score with educational status. It shows that the obtained c^2 value 7.48 is not significant at 0.05 levels. So there was no significant association between attitude and educational status after the test. Hence the null hypothesis is retained.

4. Occupational status: **-** Table No.23 shows the association between post-test attitude score with occupational status. It shows that the obtained c^2 value 1.324 is not significant at 0.05 levels. So there was no significant association between attitude and occupational status after the test. Hence the null hypothesis is retained.

5. Type of family: **-** Table No.23 shows the association between post-test attitude score with type of family. It shows that the obtained c^2 value 0.1 is not significant at 0.05 levels. So there was no significant association between attitude and type of family after the test. Hence the null hypothesis is retained.

6. Monthly family income:-TableNo.23showstheassociationbetweenpost-testattitudescorewith
Monthly family income. It shows that the obtained c^2value2. 1 is not significant at 0.05 levels. So there was no significant association between attitude and monthly family income after the test. Hence the null hypothesis is retained.

7. Religion: **-** Table No.23 shows the association between post-test attitude score with religion. It shows that the obtained c^2 value 0.042 is not significant at 0.05 levels. So there was no significant association between attitude and religion after the test. Hence the null hypothesis is retained.

8. Source of information about OTC drugs:-TableNo.23showstheassociationbetweenpost-testattitude score with source of information about OTC drugs. It shows that the obtained c^2 value 3.204 is not significant at 0.05 levels. So there was no significant association between attitude and source of information about OTC drugs after the test. Hence the null hypothesis is retained.

HYPOTHESISTESTING

Null Hypothesis

H_{05}: There is no significant association between the selected socio-demographic variables (age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs) with the after test attitude of adult people regarding over the counter drugs.

Research Hypothesis

H_5: There is a significant association between the selected socio demographic variables(age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs) with the after test attitude of adult people regarding over the counter drugs.

Table no 21 demonstrates the association between the selected socio-demographic variables. There is no significant association between post-test attitude with their selected socio-demographic variables (age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs) with the after test attitude of adult people regarding over the counter drugs, so
, research hypothesis H_5 is rejected and naturally, null hypothesis H_{05} is accepted. So we can state statistically there is no significance association between post-test attitude score with their selected socio demographic variables.

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DISCUSSION

Objective–1 To assess the existing knowledge and attitude of adult people regarding over-the-counter (OTC) drugs.

The above findings of the first objective are supported by - A pre-experimental study was conducted to assess knowledge among 70 adolescents regarding side effects of self medication. Sample were selected by Non probability convenient sampling technique and the research design applied was one group pre-test and post-test research design. Data were collected by demographic data and a structured knowledge questionnaire. Result shows that Majority of the subjects were in the age group of 17 years and were females. Pre-test mean score was 10.91 and post-test mean score was 19.03. The effectiveness of the self- instructional modules on the knowledge regarding side-effects of self-medication was statistically significant (p=0.034).[50]

Objective –2. To assess the knowledge and attitude of adult people regarding over-the-counter (OTC) drugs after the intervention.

Based on the objectives of the study, the findings of the post-test knowledge score of the adult people regarding over the counter (OTC) drugs shows that they were able to answer the questions to some extent. The study shows that the adult people are having over all 64% knowledge regarding over the counter drugs.

Inpre-test 17% of adult people are having poor knowledge, 61.50% of them having average knowledge and 21.50% are having good knowledge. By the above findings researcher considered the aspects that adult people are having average knowledge on over the counter drugs.

Based on the objectives of the study, the findings of the post-test attitude score of the adult people regarding over the counter (OTC) drugs shows that they were able to answer the questions to some extent. The study shows that the adult people are having over all 74% attitude score regarding over the counter drugs. In pre- test 56.66% of adult people are having moderately favourable attitude and 43.34% of them having favourable attitude. By the above findings researcher considered the aspects that adult people are having moderately favourable attitude on over the counter drugs.

The above findings of the second objectives are supported by A descriptive cross-sectional study was conducted to evaluate knowledge, attitude and practices regarding administration of OTC drugs for treatment of diarrhea in children 90 pharmacies were selected by random sampling technique. Data were collected by structured questionnaire. Result shows that an average consultation time by female pharmacists was considerably more than male pharmacists ($P < 0.001$). Before intervention, only 37.8% of pharmacists performed appropriately by prescribing the proper medicine while this increased to 58.44% after intervention. The average score of pharmacists' knowledge was statistically increased ($P < 0.001$) and the pharmacists' performance was significantly improved ($P < 0.001$) after the educational intervention.[51]

Objective –3. To evaluate the effectiveness of the awareness program regarding over-the-counter (OTC) drugs.

This data has been collected by the post-test which was taken after 1 week from adult people after giving a planned teaching. In the post test, mean knowledge score calculated was 19.32 and standard deviation was 3.79, mean attitude score calculated was 55.73 and standard deviation was 4.56. After doing paired t-test the calculated t-value of knowledge score was 11.60 and the calculated t-value of attitude score was 10.009 on degree of freedom 59 and the tabulated t-value was 1.671. Hence, increase in the post test knowledge score was significant.

The above findings of the third objectives are supported by A true experimental study was conducted to assess knowledge and attitude regarding OTC drug by applying repeated measures design. 100 adults were selected by basedon inclusive criteria (experimentalgroup-50and control group-50) through probability two stage cluster sampling technique. Data were collected by structured interview schedule. Result shows 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.[52]

The above findings of the third objectives are supported by a true experimental basic pre-test - post-test study was conducted to assess knowledge and attitude regarding OTC drugs. 400 adults were selected by pre and post-test design with multistage sampling. Data were collected by structured questionnaire. Result shows that there is a significant improvement (Plt0.05 level) in knowledge and attitude of adults after the administration of IEC package in experimental group than the control group.[53]

Objective–4. To determine the correlation between post-knowledge and attitude.

Based on the objectives of the study, the Correlation between post-test knowledge and attitude is (r=**- 0.178**) poor positive correlation. It means when knowledge increases their attitude also increases poorly. These correlations are tested with Karl Pearson correlation coefficient test and results are statistically non- significant. By reading the above results, it gives rise to retention to Null hypothesis and rejecting Research Hypothesis. Finally, there is no relationship between knowledge after the test and attitude scores of adult people regarding over the counter drugs.

The above findings of the fourth objectives are supported by A true experimental basic pre-test - post-test was conducted to assess knowledge and attitude regarding OTC drugs. 400 adults were selected by pre and post-test design with

multistage sampling. Data were collected by structured questionnaire. Result shows that in experimental group, the post-test mean score of knowledge was 23.8±3.03 and the post-test mean score of attitude was 37.57±3.36. It was observed that the calculated Spearman correlation value r=0.842 shows a strong positive correlation which was found to be statistically significant at p<0.05level and in control group, the post-test mean score of knowledge was 11.33±2.21 and the post-test mean score ofattitude was 17.11±4.44 and the calculated spearman correlation value r=0.421 shows a weak positive correlation between knowledge and attitude. These finding clearly infers that when the knowledge regarding OTC drugs among adults increases their attitude towards it also increases.[53]

The above findings of the fourth objectives are supported by A descriptive analytic research study was conducted to assess attitude and behaviour regarding diarrhea self medication among parents with children aged 5 years in Parangjoro, Grogol, Sukoharjo, Central Java, Indonesia. 90 mothers were selected by accidental sampling technique. Data were collected by questionnaire and the result shows that parents of children under five in Parangjoro, Grogol, Sukoharjo, Central Java, Indonesia had a moderate level of knowledge (73.3%), moderate attitudes (55.6%), and good behavior (73.3%). The level of knowledge implied a correlation to attitudes of 0.596 with a p-value of< 0.05. All things considered, there was a correlation between the level of knowledge, attitude, and behavior of self-medication for diarrhea among parents of toddlers in Parangjoro, Grogol, Sukoharjo, Central Java, Indonesia in 2021.[54]

Objective –5. To find out the association between post-test knowledge with their selected socio- demographic variable.

Chi square test was computed to determine the association between the level of knowledge score with their selected demographic variables. None of the demographic variables were found significant in increasing post-test knowledge of adult people. There was no association of post-test knowledge scores of adult people and selected demographic variables: age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs, was found.

The above findings of the fifth objectives are supported by A descriptive study conducted to assess knowledge regarding adverse effects of sel medication .60 Nursing students were selected by Non probability convenience sampling technique. Data were collected by structured knowledge questionnaire. Result shows thatthemajority35 (58.4%) of Nursing students had average knowledge, 22 (36.6%) had poor knowledge and only 3 (5%) had good knowledge regarding adverse effects of self-medication. The mean knowledge score regarding adverse effects of self-medication is 7.5 with the SD of ± 1.4 ranged from 3-17. The findings also showed that, there is a significant association between level of knowledge with variables such as religion and previous source of information.[55]

Objective –6. To find out the association between post-test attitude with their selected socio- demographic variable.

Chi square test was computed to determine the association between the level of attitude score with their selected demographic variables. None of the demographic variables were found significant in increasing post-test attitude of adult people. There was no association of post-test attitude scores of adult people and selected demographic variables: age, gender, educational status, Occupational status, monthly family Income, Type of family, religion, Source of information about OTC drugs, was found.

The above findings of the sixth objectives are supported by a true experimental – repeated measures study was conducted to assess knowledge and attitude regarding OTC drugs. 100 adults were selected by based on inclusive criteria (experimental group-50 and control group-50) through probability two stage cluster sampling technique. Data were collected by structured interview schedule. Result show that 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.[52]

CONCLUSION

The study was conducted to assess the effectiveness of awareness intervention programme regarding over-the counter (OTC) drugs among adult people. On basis of the findings and results, a conclusion was drawn. The knowledge and attitude level of the adult people was not satisfactory in dealing with the-over the counter (OTC) drugs. Awareness programme can increase the knowledge and attitude level of adult people regarding over the counter (OTC) drugs.

DECLARTION

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