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A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Lithium Therapy among B.Sc. Nursing 3rd Year Students in Selected Nursing Colleges, Dehradun

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ABSTRACT

Lithium has a narrow therapeutic index, and many factors can upset the balance between lithium concentration that are well tolerated and therapeutic and those that produce side effects or toxicity and also stigma related to lithium among patients is leading to them receiving the wrong treatment and ending up admitted to hospital unnecessarily because their condition is not as well controlled as it could be. It is thus imperative that person taking lithium be educated about signs and symptoms of toxicity, and so it is the responsibility of the nurses to make the patients and their relatives understand the benefits and effectiveness related to lithium therapy, since lithium is a potent agent for the control of psychiatric disorder, it is safe and effective if monitored carefully, drug side effects usually dose related and management of acute intoxication is done with gastric lavage, sodium replacement and haemodialysis. Upgraded and improve knowledge lead to better compliance or adherence to this drug and helps in prevention of relapse among patient. The aim of the study was to assess the effectiveness of planned teaching programme on knowledge regarding lithium therapy. A pre-experimental one group pre-test post-test design was used to assess the effectiveness of planned teaching programme on knowledge regarding lithium therapy among basic B.Sc. Nursing third year students of State College of Nursing, Dehradun, Uttarakhand. A total 50 students of basic B.Sc. nursing third year were selected through convenience non-probability sampling technique. The data was collected through self-structured questionnaire on components of lithium therapy. The tool was developed in two parts, the first part deal with the 5 questions of demographic variable and the part two consist of 34 knowledge questions on varicose veins. Results show that out of 50 samples, majority of students 32 (64%) was having inadequate knowledge, 18 (36%) had moderate knowledge and no one have adequate knowledge. Pre-test mean score was 12.96 with 3.84 SD. After administering planned teaching programme 27 (54%) samples had adequate knowledge, 23 (46%) had moderate knowledge and no one had inadequate knowledge the post test mean score was 24.26 with 4.20 SD with a mean difference of 11.3 evident from paired "t" value of 13.86 at 49 df at 0.05 level of significance. The chi- square depicts that previous information about lithium therapy is associated with the pre test knowledge score. The study concluded that planned teaching programme was effective in increasing the knowledge regarding lithium therapy among basic B.Sc. nursing third year students. On the basis of the finding, it is recommended that educational programmes regarding lithium therapy should be organized for students at the time of commencement of their training and before sending them to clinical area and regular teaching materials can be provided to all the health care staff with specifying the aspects related to lithium toxicity management.

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INTRODUCTION

Medicines are nothing in themselves, if not properly used, but the very hands of the gods, if employed with reason and prudence". Herophilus

Health is defined as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity by "World Health organization" (WHO) in 1948. Mental wellbeing is a fundamental component of WHO's definition of health. Mental health enables people to realize their potential, cope with the normal stresses of life, work productively, and contribute to their communities by "Dr. Margaret Chan"(Director- General of the World Health Organization).

Any disregulation in mental health leads to maladaptive responses which arises various mental illnesses. Mental illnesses or mental disorder refer to as a syndrome characterized by clinically significant disturbance in an individual's cognitions, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or development processes underlying mental functioning as recognized by the American Psychiatric Association (APA,2013), in its Diagnostic and Statistical Manual of Mental Disorder, Fifth Edition (DSM-V).[1]

Mood disorders are among the most pervasive of all mental disorders or more frequent serious mental disorders characterized by disturbance in mood, accompanied by a full or partial manic or depressive syndrome.[2] The terms used for the bipolar extremes, 'melancholy' (depression) and 'mania' both have their origins in Ancient Greek. Melancholy derives from 'melas' black and chole bile 'mania' both have their origins in Ancient Greek. 'Melancholy' derives from *melas* 'black' and *chole* 'bile'.[3]

"Depression–Let's talk" is the slogan for World Health Day 2017. Depression is an extremely common illness affecting people of all ages, genders, different socioeconomic groups and religions in India and all over the world. Globally, an estimated 322 million people were affected by depression in 2015. India is home to an estimated 57 million people (18% of the global estimate) affected by depression. With India witnessing significant changes (including globalization, urbanization, migration, and modernization) that is coupled with rapid socio demographic transition, depression is likely to increase in the coming years. [4]

Bipolar disorder Statistics from the world Health organization (WHO), indicate bipolar disorder is the 6th leading cause of disability in the world. Around 60 million people suffer from bipolar disorder around the world, so it is very important to help raise awareness of the condition by the International Bipolar Foundation (IBPF), and the International Society For Bipolar Disorders (ISBD. The prevalence rate for bipolar disorder is approximately 1.1% of the population over the age of 18 or, in other words, at any one time as many as 51 million people worldwide suffer from bipolar disorder, including; 12 million people in China, 8.7 million people in India, 2.2 million people in USA, 285,000 people in Australia, over 280,000 people in Canada, and over 250,000 diagnosed cases in Britain.[5,6]

Previously, the patient having bipolar mood disorders was treated by confining them into cells without food and water. Not only bipolar mood disorder but the treatment of all psychiatric disorder in past had often constituted of merely institutionalization (i.e. admission in an asylum or mental hospital). The advent of Psychopharmacology in the last six decades has brought treatment of Psychiatric disorders within the realm of scientific medicine.[7]

Psychopharmacology has revolutionized the understanding and treatment of major mental disorders. With the help of psychopharmacological agents, not only is the neurobiology of various psychiatric disorders being understood, but effective treatments have improved relapse rates, symptom free period, significantly improved the quality of life of patients and have reduced the burden experienced by patients and their families.[8] The drug use for the treatment of psychiatric disorder are called **psychotropic** or **psychoactive** drugs having significant affect on higher mental processes. According to classification of psychotropic drugs Mood stabilizer is a class of psychotropic drug used in the treatment of mood disorder. Most commonly used mood stabilizing agent includes **Lithium**, **Valproate**, **Carbamazipine** and **Lamotrigine.**

Lithium was first discovered and defined as a monovalent element (atomic no=**3** and Atomic weight=**7**) by **Johan August Arfwedson (1792-1841), a Swedish chemist** in **1817**. It is the smallest Alkali ion. Since then, it has been used for the treatment of Gout and salt replacement in cardiac disease but because of fatal toxicity its use was abondoned. The appearance in **1949** in the Medical Journal Of Australia of a paper entitled lithium salts in the treatment of psychotic excitement by **Dr. John Frederick Joseph Cade (1912-1980)** was an unspectacular entry into a new era of psychiatry. Hence it was rediscovered by **Dr .J.F.J.Cade** an **Australian psychiatrist** in **1949** for use in treatment

of Mania. **Mogen schou (1918-2005)** a **Danish Psychiatrist** populatized lithium use in mania. The application of lithium in manic illness was approved by the **United States Food and Drug Administration** in **1970.**[7]

Lithium has been used in medicine for at least 150 years (Amidisen, 1987). Amongst various mood stabilizers now available in India, lithium has been the most researched drug of all. After its introduction **in India** in the late **1960s**, lithium aroused with a lot of research in the 1970s and 80s, with most of the research revolving around open trials to its usefulness in various disorders (mainly mood disorders) and its side effect. The mood stabilizing property of lithium has led Indian researchers to see its effects in affective disorders. In their earliest work on role of lithium on mood disorders [9], in an uncontrolled trial of lithium in 20 hypomanic patients found that 95% patients showed significant improvement. There have been other studies to see the effectiveness of lithium in mood disorders. Most of these studies have been open label, non-controlled, with assessment period varying from one month to 10 years and have sparingly used assessment scales. Lithium has been found useful in treating acute episodes, reducing number of episodes, duration and intensity of episodes, behavior and suicidal ideation.[10]

Material and methods

Design

The research design used in this study was non-experimental Descriptive study design.

Sample

A total of 50 students of B.SC. nursing were selected through convenient sampling technique who met inclusion criteria. Subjects who were not willing to participate in study or with any known psychiatric or physical illness were excluded from the study.

Tools

Various tools used to collect the data were:

Self- structured questionnaire regarding knowledge and attitude

Total numbers of questions were 34.

Data collection schedule and procedure

Ethical permission

Permission to conduct the study was taken from the Principal of State college of nursing Chander Nagar Dehradun, Uttarakhand.

Procedure of data collection

A separate class room was allotted to the researcher for making the atmosphere conducive for interviewing the participants. Participants were fulfilling the inclusion criteria were enrolled in the study. Participants were informed about the purpose of the study, possible risks, benefits and confidentiality of their information before conducting interview. Written informed consent was obtained from the study participants. After making participants comfortable, they were interviewed by using various tools i.e. socio-demographic profile, and Self-Structured Questionnaire.

Data analysis

Analysis of data was done in accordance with the objectives laid down for the study using descriptive and inferential statistics in SPSS software version 20.0, chi square test for association, and spearman Brown Prophecy Formula, split half methods were used for assess the reliability of tools and analyze the data.

Result:

Findings of the study revealed that-

- The study shows that, 45 (90%) of the basic b.sc nursing 3rd year students belong to the age group of 20-22 years, and 5 (10%) of the students belong to the age group of 2325 years.
- 44 (88%) of the students were females and 6 (12%) of the students were male.
- 5 (10%) of the students belongs to medical family background while rest of the 45 (90%) of the students belongs to non-medical family background.
- Majority of the students 37 (74%) had previous knowledge regarding lithium therapy 13 (26%) of the student had no information regarding lithium therapy.
- The study depicts that 15 (30%) of the students had attended the class teaching related to lithium, 18 (36%) of the students receive the knowledge from books and journals, others 4 (8%) of the students gain the knowledge through other sources.
- The findings in relation to the knowledge of basic b.sc nursing 3rd year students regarding lithium therapy reveals that in pre test majority of the students 32 (64%) had inadequate knowledge, 18 (36%) of the students had moderate knowledge and no one among them had adequate knowledge. Whereas in post test none of the student had inadequate knowledge, 23 (46%) of the students had moderate knowledge and majority of the students i.e. 27 (54%) possess adequate knowledge.
- The findings in relation to aspect wise distribution of scores during the pre test and post test shows that in pre test, the highest 58.66 mean percentage knowledge score was obtained on introduction to lithium, 34.88 mean percentage knowledge score

on side effects, contraindications and drug interaction. 29.6 mean percentage knowledge score on use and mechanism of action, followed by 26.75 mean percentage knowledge score on management of side effects, toxicity and poisoning. However, the overall pre test mean was found to be 12.96 and standard deviation as 3.84 among the students. In post test, the highest 90.33 mean percentage knowledge score was obtained in introduction of lithium, 81 mean percentage knowledge score on doses, route, and lithium concentration, 73.2 mean percentage knowledge score on use and mechanism of action, 69.33% mean percentage knowledge score on side effects, contraindications and drug interaction, followed by 51 mean percentage knowledge score on management of side effects, toxicity and poisoning. However, the overall post test mean was found to be 24.26 and standard deviation as 4.20 among the students.

- The findings in relation to aspect wise comparison between pre-test and post test knowledge score shows that the highest enhancement of knowledge 43.6 percent was seen in the use and mechanism of action with pre test and post test mean of 1.48 and 3.66. In aspect of doses, route, and lithium concentration 36.4 percentage of enhancement was seen with 2.66 pre test mean and 4.86 as post test mean. In aspect of side effects, contraindications, and drug interaction 34.45 percentage of enhancement was seen with 3.14 as pre test mean and 6.24 as post test mean, in aspect of introduction of lithium 31.67 percentage of enhancement was seen with 3.52 as pre test mean and 5.42 as post test mean and in aspect of management of side effects, toxicity and poisoning 24.25 percentage of enhancement was seen with 2.14 as pre test mean and 4.08 as post test mean.
- The finding in relation to pretest mean was 12.96 with 3.84 SD and the post test mean was 24.26 with 4.20 SD. The paired "t" test was used to find out the comparison between total pre-test score and post-test score, the value was found to be 13.86 at 0.05 significance level. As the calculated value is greater than the tabulated value with 49 degree of freedom, so it shows that there was statistically significant difference between the pretest and post test knowledge score. The research finding showed that the planned teaching programme was highly effective in improving knowledge of basic B.sc. nursing 3rdyear students.
- To determine the association between the pretest knowledge score and demographic variables "Chi-square" test was used. The result findings exhibited that previous information regarding lithium therapy at 0.05 level of significance had statistical significant association with the pre test knowledge score. There was no significant association with other variables such as age, gender, religion and family background.

DISCUSSION AND CONCLUSION

Nursing can be described as both an art and science: a heart and mind. At its heart, lies a fundamental respect for human dignity and an intuition for a patient's need. This is supported by the mind, in the form of rigorous core learning. The present study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding Lithium Therapy among B.SC. Nursing 3rd year students in a selected college of nursing in Dehradun, following conclusion was drawn from the present study.

- The study reveals that the majority 90% of students belong to age group of 20 – 22 years, 88% of students were female, 90% of students belong to non-medical family, 74% of students state that they had prior knowledge regarding lithium therapy and 36% of the students states that they gain knowledge from books and journals.
- The study describes that the majority of the students 64% had inadequate knowledge in pre test whereas 54% of the students had adequate knowledge in post test regarding lithium therapy.
- The study elicits that the majority of student 58.66% had highest mean percentage in questions related to introduction of lithium therapy in pre test and also 90.33% of highest mean percentage is in questions related to introduction of lithium therapy in post test.
- The study explains that there was a significant difference in the pre test and post test knowledge score.
- The study also depicts that there was a significant association between knowledge score with selected demographic variable such as previous information of lithium therapy.
- The findings show that the planned teaching programme was effective in improving knowledge of basic B.Sc. nursing 3rd year students regarding lithium therapy. Hence the curriculum needs to include more planned educational programme with regards to psychopharmacology for nurses to achieve the ultimate objective. The benefit of this study is that, by participating in the study, the students become aware of their existing knowledge regarding lithium therapy.

Table No: 1- Frequency and percentage distribution of socio demographic characteristics of basic b.sc nursing 3rd year students.

N=50

S. No	Demographic Variable		Frequency (F)	Percentage (%)
1	AGE	20-22 years	45	90%
		23-25 years	5	10%
2	GENDER	Female	44	88%
		Male	6	12%
		Transgender	0	0%
3	RELIGION	Hindu	47	94%
		Muslim	2	4%
		Sikh	1	2%
		Christian	0	0%
		Others	0	0%
4	FAMILY BACKGROUND	Medical	5	10%
		Non-medical	45	90%
5	PREVIOUS INFORMATION	Yes	37	74%
		No	13	26%
6	SOURCE OF INFORMATION	Class teaching	15	30%
		Books and Journals	18	36%
		Others	4	8%

According to the age the table reveals that 45(90%) basic B.Sc. nursing 3rd year students belongs to age group of 20 to 22 years, the majority of 44 (88%) students were female, According to the religion, table depicts that the majority of 47 (94%) students were Hindu, 90% belongs to non-medical family and 74% are having previous knowledge regarding Lithium Therapy.

Table no. 2– Findings related to the pretest and post test knowledge score regarding lithium therapy among Basic B.Sc. Nursing 3rdyear students.

Table no. – Frequency and percentage distribution of pre test and post test knowledge score.

N=50

Knowledge Score	Inadequate (0-12)		Moderate (13-23)		Adequate (24-34)	
	Frequency	%	Frequency	%	Frequency	%
Pre test	32	64%	18	36%	0	0%
Post test	0	0%	23	46%	27	54%

The above table shows the frequency and percentage (%) distribution of pre test and post test knowledge score of basic b.sc nursing 3rd year students regarding lithium therapy. The table depicts that in pre test 32 (64%) of the students had inadequate knowledge, 18 (36%) of the students had moderate knowledge and 0 (0%) of the students posses adequate knowledge.

In post test none of the student had inadequate knowledge, 23 (46%) students had moderate knowledge and majority of the students i.e. 27 (54%) possess adequate knowledge regarding lithium therapy.

Table No. 3 - Frequency distribution of Mean and Standard deviation (SD) of pre test and post test knowledge score.

N=50

Knoeledge Score	Minimum Score	Maximum Score	Mean	SD
Pre test	7	21	12.96	3.84
Post test	32	15	24.26	4.20

The table shows that the mean and SD distribution of pre test and post test knowledge score of the samples. The table reveals that in pre test the minimum score of the basic b.sc nursing 3rd year student was 7 and the maximum score was 21. The pre test mean was 12.96 with 3.84 SD. In the post test the minimum score was 15 and the maximum score was 32. The post test mean was 24.26 with 4.20 SD.

Table no. 4:- Aspect wise enhancement of knowledge scores on lithium therapy.

N = 50

Knowledge Aspect	Pre Test			Post Test			Percentage of Enhancement
	Mean	Mean %	SD	Mean	Mean %	SD	
Questionnaire on Introduction	3.52	58.66%	2.43	5.42	90.33%	1.609	31.67%
Questionnaire on use and mechanism of action	1.48	29.6%	1.902	3.66	73.2%	1.898	43.6%
Questionnaire on doses, route and lithium concentration	2.66	44.66%	2.854	4.86	81%	1.711	36.4%
Questionnaire on side effects, Contraindication and drug interaction	3.14	34.88%	4.235	6.24	69.33%	4.096	34.45%
Management of side effects, toxicity and poisoning	2.14	26.75%	3.486	4.08	51%	3.846	24.25%

The above table shows the assessment of knowledge among basic B.Sc. nursing 3rd year students regarding lithium therapy. In questionnaire regarding introduction the mean score is 3.52 with 2.43 SD in pre test and mean score is 5.42 with 1.609 SD in post test, questions related to use and mechanism of action, the mean score is 1.48 with 1.902 SD in pre test and mean score is 3.66 with 1.898 SD in post test, questions related to dosage, route, and lithium concentration, the mean score is 2.68 with 2.854 SD in pre test and mean score is 4.86 with 1.711 SD in post test, questions related to side effects, contraindications and drug interactions, the mean score is 3.14 with 4.235 SD in pre test and the mean score is 6.24 with 4.096 SD in post test, and questions related to management of side effects, toxicity and poisoning, the mean score is 2.14 with 3.486 SD in pre-test and mean score is 4.08 with 3.846 SD in post test.

Table No. 5 – Analysis of pre test and post test knowledge score of the basic B.Sc. nursing 3rd year students regarding lithium therapy.

N=50

Knowledge Score	Mean	Sd	Mean Difference	df	't' value
Pre test	12.96	3.84			
Post test	24.26	4.190	11.3	49	13.86*

*Significant association as p<0.05

The table shows the comparison of the pre test and post tests knowledge score. The paired 't' test was used to find out the comparison between pre test and post test knowledge score. The mean difference was 11.3. The 't' value was 13.86 at df 49.

H1- There will be a significant difference between pre test and post test knowledge score of basic B.Sc. nursing 3rd year students regarding lithium therapy.

Table No.6 – Association of pre test knowledge score with Age of basic B.Sc. nursing 3rd year students

Demographic Variable	Level of Knowledge						df	Calculated value	Table value	P value
	Adequate		Moderate		Inadequate					
	F	%	F	%	F	%				
AGE:-										
20-22 years	0	0%	17	34%	28	56%	1	0.6167	3.84	0.432
23-25 years	0	0%	1	2%	4	8%				
Note:- Chi-square value is not significant (NS) at 5% level (p>0.05)										

According to the age, the above table shows that in 20-22 years there was 28 students having inadequate knowledge, 17 students had moderate knowledge and none of the student possess adequate knowledge, in age group 23-25 years 4 students were having inadequate knowledge, 1 students were having moderate knowledge and none of the students possess adequate knowledge. Chi-square calculated value is 0.6167 at df = 1, and table value is 3.84 at 0.05 level of significance. Hence the tabulated value is higher than the calculated value, so null hypothesis was accepted. P value was 0.432 it was greater than 0.05 which inferred that there is no significant association between the pre test level of knowledge and the age of the basic b.sc. nursing 3rd year students.

Table No.7 – Association of pre test knowledge score with Gender of basic b.sc nursing 3rd year student

Demographic Variable	Level of Knowledge						df	Calculated value	Table value	P value
	Adequate		Moderate		Inadequate					
	F	%	F	%	F	%				
GENDER:-										
Female	0	0%	15	30%	29	58%				
Male	0	0%	3	6%	3	6%	1	0.579	3.84	0.446
Transgender	0	0%	0	0%	0	0%				
Note:- Chi-square value is not significant (NS) at 5% level (p>0.05)										

According to the gender, the table depicts that in female students 29 students were having inadequate knowledge, 15 students were having moderate knowledge and none of the students possess adequate knowledge, in male students 3 students were having inadequate knowledge, and 3 students were having moderate knowledge and there is no student in transgender category. Chi-square calculated value is 0.579 at df = 1 and table value is 3.84 at 0.05 level of significance. Hence the tabulated value is higher than the calculated value, so null hypothesis was accepted, p value was 0.446 it was greater than 0.05 which inferred that there is no significant association between the pre test level of knowledge and the gender of the basic b.sc. nursing 3rd year students.

Table No.8 – Association of pre test knowledge score with Relegion of basic b.sc Nursing 3rd year students

Demographic Variable	Level of Knowledge						df	Calculated value	Table value	P value
	Adequate		Moderate		Inadequate					
	F	%	F	%	F	%				
Hindu	0	0%	17	34%	30	60%				
Muslim	0	0%	1	2%	1	2%				
Sikh	0	0%	0	0%	1	2%	4	0.73	9.49	0.693
Christian	0	0%	0	0%	0	0%				
Other	0	0%	0	0%	0	0%				
Note:- Chi-square value is not significant (NS) at 5% level (p>0.05)										

According to Religion, the table depicts that students having inadequate knowledge, 3 students were having moderate knowledge and none of the students possess adequate knowledge, in students with no family history of varicose veins 37 students were having inadequate knowledge, 8 students were having moderate knowledge and none of the student possess adequate knowledge. Chi-square calculated value is 0.73 at df = 4 and table value is 9.49 at 0.05 level of significance. The calculated value is higher than the tabulated value so null hypothesis was rejected, P value was 0.693 it was lesser than 0.05 which inferred that there was no significant association between the pre test level of knowledge and the religion regarding lithium therapy among basic B.Sc. nursing 3rd year students.

Table No. 9 – Association of pre test knowledge score with Family Background of basic b.sc nursing 3rdyear students.

Demographic Variable	Level of Knowledge						df	Calculated value	Table value	P value
	Adequate		Moderate		Inadequate					
	F	%	F	%	F	%				
FAMILY BACKGROUND:-										
Medical	0	0%	3	6%	2	4%				
Non- Medical	0	0%	15	30%	30	60%	1	1.388	3.84	0.239
Note: - Chi-square value is not significant (NS) at 5% level (p>0.05)										

According to the family background, the table shows that the students which belongs to medical family, 2 of them were having inadequate knowledge, 3 students were having moderate knowledge and none of the students possess adequate knowledge, whereas the students who belongs to non-medical family, 30 of them were in inadequate category, 15 of them in moderate category and none of the student fall in adequate category. Chi-square calculated value is 1.388 at df = 1 and table value is 3.84 at 0.05 level of significance. Hence the tabulated value is higher than the calculated value so null hypothesis was accepted, the p value is it was greater than 0.05 which inferred that there was no significant association between the pre test level of knowledge and the family background of the basic b.sc. nursing 3rd year students.

Table No.10 – Association of pre test knowledge score with Previous information of lithium therapy among basic b.sc nursing 3rdyear students.

Demographic Variable	Level of Knowledge						df	Calculated value	Table value	P value
	Adequate		Moderate		Inadequate					
	F	%	F	%	F	%				
Book and Journals	0	0%	11	29.729%	7	18.918%	2	2.459	5.99	0.292
Class Teaching	0	0%	6	16.216%	9	24.324%				
Other	0	0%	1	2.702%	3	8.108%				

Note:- Chi-square value is not significant (S) at 5% level (p>0.05)

According to the previous knowledge the above table shows that the students who had prior knowledge 25 of them were having inadequate knowledge, 11 students were having moderate knowledge and none of the students possess adequate knowledge and those who does not have prior knowledge 14 of them were in inadequate category and none of the them in moderate and adequate category. Chi-square calculated value is 2.459 at df = 2 and table value is 5.99 at 0.05 level of significance. Hence the calculated value is less than the tabulated value so null hypothesis is accepted, the p value was 0.292 it was greater than 0.05 which inferred that there is no significant association between the pre test level of knowledge score and the previous information regarding lithium therapy among the basic b.sc. nursing 3rd year students.

Demographic Variable	Level of Knowledge						df	Calculated value	Table value	P value
	Adequate		Moderate		Inadequate					
	F	%	F	%	F	%				
Previous Information							1	9.88	3.84	0.002
Yes	0	0%	18	36%	19	38%				
No	0	0%	0	0%	13	26%				

According to the previous information, the table shows that the students which has previous knowledge as 'Yes', 19 of them were having inadequate knowledge, 18 students were having moderate knowledge and none of the students possess adequate knowledge, whereas the students who belongs to 'No' as previous information, 13 of them were in inadequate category, and none of the student fall in moderate as well as adequate category. Chi-square calculated value is 9.88 at df = 1 and table value is 3.84 at 0.05 level of significance.

Testing of Hypothesis

H2 : - There will be a significant association between the knowledge score regarding lithium therapy among basic b.sc nursing 3rd year students with selected demographic variable.

The result of chi square analysis presented indicates that only one demographic variable such as previous information shows statistically significant association with the pre test knowledge score and there was no significant association of other demographic variables with pre test knowledge score.

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