



**STUDY TO ASSESS THE EFFECTIVENESS OF THE PLANNED TEACHING ON KNOWLEDGE REGARDING LITHIUM TOXICITY AMONG PRIMARY CAREGIVERS IN SELECTED PSYCHIATRIC HOSPITALS.**

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**Abstract**

Quantitative research approach was been used for the current study. The research was been conducted among primary caregivers in selected psychiatric hospitals of Sangli Miraj kupwad corporation area. Quasi experimental one group pre test and post test design was used for the study. Total 60 samples were selected. A structured knowledge questionnaire was to used collect data. Pre test was been conducted along with plan teaching and post test was administered on seventh day. The reliability 'r' was 0.81 . Before the planned teaching 35(58%) of caregivers was poor knowledge score and 25(42%) of caregivers was in average knowledge score. The post test showed that of caregivers 15(25%) of caregivers were under the knowledge score of average and about 45(75%) of caregivers were under the knowledge score of good. This suggests that there was significant in the post test knowledge, and the planned teaching was effective.

## **Introduction**

Mood disorders are emotional disturbances consisting of prolonged periods of excessive sadness, excessive joyousness, or both. Mood disorders are categorized as depressive or bipolar. Bipolar disorder also known as manic-depressive illness is a brain disorder that causes unusual shifts in mood, energy, activity levels, and the ability to carry out day-to-day tasks. The patient having bipolar disorder was treated by confining them into cells without food and water. Gradually trends have changed and they started giving them high dose of insulin to create a state of unconsciousness. But, as every coin has two sides, good and bad. Insulin also had bad effects apart from its positive benefits. Later, electric shock therapy came into existence, which was later modified by giving anesthetic drugs along with it to decrease its harmful effects. This therapy is still practiced in existing Indian context and found to be effective.<sup>1</sup> The family caregivers take care of the day-to-day needs of the patient, monitoring the mental state, identify the early signs of illness, relapse and deterioration, and help the patient in accessing services. The family caregivers also supervise treatment and provides emotional support to the patient.<sup>4</sup>

Lithium compounds, also known as lithium salts, are primarily used as a psychiatric medication. This includes in the treatment of major depressive disorder that does not improve following the use of other antidepressants and bipolar disorder. In these disorders, it reduces the risk of suicide<sup>2</sup>. Lithium is minimally protein bound (<10%) and has an apparent volume of distribution of 0.6-1 L/kg. The therapeutic dose is 300-2700mg/dl with desired serum levels of 0.6-1.2mEq/L.<sup>3</sup>

## **Need of the study**

Lithium intoxication can be avoided by conservative dosing, care in combining drug therapies, regular clinical observation, monitoring drug plasma concentrations, and educating care givers to recognize early signs of intoxication. Knowing about lithium intoxication and how to avoid it is most important for care givers who regularly treat patient receiving lithium. According to the World Health Organization (WHO) one in every four people or 25% per cent of individuals one or more mental disorders at some stage in life. Today, 450 million people globally suffer from mental disorders in both developed and developing countries. Of these, 154 million suffer from depression, 25 million forms Schizophrenia, 91 million form alcohol use disorder, and 15 million drug use disorder. About 7 to 14 %of children will

experience an episode major depression before the age of 15 years. Around 20 to 30 % of adult bipolar patients report having their episode before the age of 20. Out of 100000 adolescents, 2000 to 3000 will have mood disorders, of which 8-10 will commit suicide.<sup>6</sup> Lithium was the first mood-stabilizing medication approved by the U. S. Food and drug administration (FDA) in the 1970s for the treatment of mania. It is often very effective in controlling the symptoms of mania and preventing the recurrence of manic and depressive episodes. <sup>7</sup> In 2013, of the 3488 single exposures to lithium reported to the American association of poison control centers' national poison data system, 2722 (78%) were in patients aged 20 years old and 138 (4%) were in children younger than 6 years.<sup>8</sup> In sweden, 22% of intoxications were picked up only through routine monitoring of lithium levels, while 47% were due to intentional overdoses. The most common symptoms included tremor (21%), confusion (18%), ataxia (17%) and fatigue (13%), but most patients were relatively symptom free. Rigidity and muscle weakness occurred in 6% each. The investigator felt that lithium toxicity are very common among patients who are receiving lithium carbonate, because of the lack of knowledge of caregivers regarding the care of a patient receiving lithium carbonate that lead to lithium toxicity and other side effects. So the investigator felt t do structured teaching programme to overcome these issues.

### **Research Statement**

A study to assess the effectiveness of the planned teaching on knowledge regarding lithium toxicity among primary caregivers in selected psychiatric hospitals of Sangli Miraj kupwad corporation area.

### **Research Objectives**

- 1.To assess existing knowledge regarding lithium toxicity.
- 2.To assess the post test knowledge regarding lithium toxicity.
- 3.To compare the pre test and post test knowledge score.

### **Hypothesis:**

H0: There is no significant difference between pre-test and post-test knowledge score after planned teaching regarding lithium toxicity.

H1: There is significant difference between pre-test and post-test knowledge score after planned teaching regarding lithium toxicity.

### **Research Methodology**

It includes research approach which is Quantitative research approach. Research design is one group pretest post research design. Research setting is selected psychiatric hospitals. Target population is primary caregivers. Sample size is 60 as per power analysis. Purposive technique sampling.6,7

### **DESCRIPTION OF THE TOOL**

Section 1: Demographic variables:

Section2:Structured Knowledge questionnaire

**Table No. 1****Frequency and percentage wise distribution of demographical variables.**

n= 60

<b>Sr. No.</b>	<b>Demographical Variables</b>	<b>Frequency</b>	<b>Percentage</b>	
<b>1.</b>	<b>Age in years</b>	25-35	13	22%
		36-45	30	50%
		46-55	17	28%
		56 or above	0	0%
<b>2.</b>	<b>Gender</b>	Male	34	57%
		Female	26	43%
<b>3.</b>	<b>Type of family</b>	Nuclear	19	32%
		Joint	41	68%
<b>4.</b>	<b>Education</b>	No Formal Education	0	0%
		Primary	34	57%
		Secondary	11	18%
		Graduate or above	15	25%
<b>5.</b>	<b>Occupational Status</b>	Self-Employee	0	0%
		Private Employee	9	15%
		Government Employee	5	8%
		Daily Wages	21	35%
		Unemployed	25	42%
<b>6.</b>	<b>How long have been taking care of patients</b>	Less than 1 year	19	32%
		1-2 year	13	22%
		3-5 year	22	36%
		5 years or above	6	10%
<b>7.</b>	<b>Any source of information</b>	Mass Media	0	0%
		Friends or Relatives	4	7%
		Health Personnel	56	93%

**Table No. 2**

Frequency and percentage distribution of pre-test knowledge score.

Level of knowledge	Frequency	Percentage
(14 to 20) Good Knowledge	0	0%
(7 to 13) Average Knowledge	25	42%
(0 to 6) Poor Knowledge	35	58%

**Table No. 3**

**Table No. 3:** Frequency and percentage distribution of post-test knowledge score.

**n = 60**

Level of knowledge	Frequency	Percentage
(14 to 20) Good Knowledge	45	75%
(7 to 13) Average Knowledge	15	25%
(0 to 6) Poor Knowledge	0	0%

**Table No. 4 :** comparison between pre-test and post-test knowledge score.

**n= 60**

Aspects	Mean	d. f.	Paired t- test	p- value
Pre- test	6.68	59	16.0363	0.00001 < 0.05
Post- test	14.03			

## DISCUSSION

Since the test is statistically significant at  $p= 0.00001$ . It shows that highly significant difference is found between pre- test and post- test mean score of knowledge regarding lithium toxicity among primary care givers. This clearly shows that the planned teaching programme regarding lithium toxicity among primary care givers had significant

improvement in their level of knowledge in the post- test. This reveals the planned teaching programme on knowledge regarding lithium toxicity among primary care givers was effective.

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