International Journal of Health Sciences and Research
www.ijhsr.org ISSN: 2249-9571

Original Research Article

Effectiveness of Self Instructional Module on Knowledge Regarding Adverse Effects of Antipsychotic Drugs Among Care Givers of Psychiatric Patients

Ms. R. Lalkimi[1], Mrs. Nilima Rakshale[2], Mrs. Jaya Gawai[3]

[1]M.Sc. Nursing, Dept of Mental Health Nursing
[2]Asso. Professor, Dept of Mental Health Nursing
[3]Asso. Professor, Dept of Mental Health Nursing
Smt. Radhikabai Meghe Memorial College of Nursing, Datta Meghe Institute of Medical Sciences (Deemed to be University), Sawangi (M), Wardha, Maharashtra, India

Corresponding Author: Ms. R. Lalkimi

ABSTRACT

Background: Caregivers involvement in the treatment has been recognized as an integral component of mental health care. The increased emphasis on care giver participation has to some extent been driven by the shift away from hospitals towards primarily providing mental health treatment in the community, wherein care givers are more extensively engaged in supporting consumers.
Objectives: 1. To assess the existing knowledge regarding adverse effects of antipsychotic drugs among care givers of psychiatric patients. 2. To evaluate the effectiveness of self instructional module regarding adverse effects of antipsychotic medicine among care givers of psychiatric patients. 3. To find association between their knowledge score with selected demographic variables.
Materials and method: 100 samples of care giver of psychiatric patient were selected by purposive sampling technique and in this study one group pre test post test design was used.
Tool: Structured questionnaire and self instructional module. Results: Knowledge regarding adverse effects of anti psychotic drugs among care givers of psychiatric patients 94(94%) of them had poor level of knowledge score, 6(6%) of them had average level of knowledge score. The minimum score was 1 and the maximum score was 10. Assessment of post test knowledge regarding adverse effects of anti psychotic drugs among care givers of psychiatric patients 3(3%) have average knowledge score and 10(10%) have good level of knowledge score, 66(66%) of them had very good level of knowledge and 21(21%) had excellent level of knowledge score respectively. The calculated t-value was 48.41 and tabulated p-value was 0.05. Hence it is statistically interpreted that the self instructional module on knowledge regarding adverse effects of anti psychotic drugs was effective. Thus the H_1 was accepted and H_0 was rejected in this study.
Conclusion: The study concluded that self instructional module regarding adverse effect on antipsychotic drug is effective.

Keywords: Self Instructional Module, Anti-psychotic Drug, Effectiveness, Care-givers, Adverse effects.

INTRODUCTION

Antipsychotics also known as neuroleptics or major tranquilizers, [1] are a class of medication primarily use to manage psychosis including delusions, hallucinations, paranoia or disordered thought, principally in schizophrenia and bipolar disorder. They are increasingly being used in the management of non-psychotic disorders. Antipsychotics are usually effective in relieving symptoms of psychosis in the short term. The long-term use of antipsychotics is associated with side effects such as involuntary movement disorders, gynecomastia, and metabolic syndrome. They are also associated with increased mortality in elderly people with dementia. First-generation antipsychotics, known as typical antipsychotics, were discovered in the 1950s. Most second-generation drugs, known as atypical antipsychotics, have been developed more recently, although the first atypical antipsychotic, clozapine, was discovered in the 1960s and introduced clinically in the 1970s. [2] Both generations of medication tend to block receptors in the brain's dopamine pathways, but atypical tend to act on serotonin receptors as well. [3]

Current Australian mental health policy recommends that carers should be involved in the provision of mental health services. Care givers are the one who often provide intensive support to mental health patient and gain detailed insight into their lives. As such, care giver could make valuable contributions to well-informed decisions about mental health patient and use of antipsychotic medications. [4]

Care givers are the significant person who give care to the family member with psychiatric illness and it is important for the care giver to be able to know the sign and symptoms regarding adverse effects of antipsychotic drugs so that they will be able to provide prompt measures to detect earlier effects of adverse reactions and eventually help in early treatment and recovery. Psychiatric patient usually takes long term medication which the patient themselves are not able to know much about their medications, how it works and how the adverse effects occurs. So, it is very important to get the family members involved in the treatment process so as to help them in getting successful patient care and keeping the patient on the safe side from the adverse effects as much as possible.

Caregivers involvement in the treatment has been recognized as an integral component of mental health care. [2] The increased emphasis on care giver participation has to some extent been driven by the shift away from hospitals towards primarily providing mental health treatment in the community, wherein care givers are more extensively engaged in supporting consumers. [5] The development of antipsychotic medication and its subsequent use as the cornerstone of treatment for severe mental illness has been one of the factors behind the increase in delivering mental health care in the community. [6] Given their involvement in the recovery of mental health consumers, care giver may gain important insight into the effect of antipsychotic medication on consumers' lives and make a valuable contribution to well-informed decisions about the use of medication. The adverse effects of antipsychotic medication on mental health patients lives will also probably be a significant concern for their care givers, especially as the side-effects often impair physical and social functioning, and care giver therefore will have an important role in assisting patients with daily activities. [7-11]

MATERIALS AND METHODS

100 samples of care givers of psychiatric patients were selected by purposive sampling technique and in this study one group pre test post test design was used. Structured self instructional module and structured questionnaire. The inclusion criteria were 1) First degree care givers who are more than 18 years of age. 2) Care givers who were willing to participate. 3) Care givers who were available at the time

of the study. The exclusion criteria were 1) Care givers who have mental illness. 2) Care givers who had participated in this kind of study. 3) Those care givers who cannot read or understand Marathi.

RESULTS

Table No. I: Distribution of samples with regards to selected demographic variables

***n*=100**

Demographic Variables	Frequency	Percentage
Age (years)		
18 – 28 years	21	21%
29 – 39 years	46	46%
40 – 50 years	32	32%
>50 years	01	01%
Gender		
Male	48	48%
Female	52	52%
Transgender	00	00%
Marital Status		
Married	89	89%
Unmarried	10	10%
Separated	01	01%
Widow/Widower	00	00%
Divorced	00	00%
Residential Area		
Urban	32	32%
Rural	67	67%
Semi Urban	01	01%
Education		
Primary	45	45%
Secondary	32	32%
Higher Secondary	11	11%
Graduate and above	12	12%
Occupation		
Homemaker	46	46%
Farmer	29	29%
Laborer	03	03%
Private	18	18%
Government	04	04%
Relationship with the patient		
Parents	20	20%
Spouses	26	26%
Grandparents	01	01%
Children	36	36%
Siblings	17	17%
Duration of taking care of the patient		
<1 year	01	01%
1 year – 5 years	77	77%
5 years – 10 years	17	17%
>10 years	05	05%

The above table I shows percentage wise distribution of sample with regards to the age, gender, marital status, residence area, education, occupation, relationship with patient, duration of taking care of the client since the onset of mental illness. It indicates that 21(21%) were the age group of 18 – 28 years, 46 (46%) were between the age group of 29 – 39 years, 32 (32%) were between the age group of 40 – 50 years and 1 (1%) was above 50 years of age. Among gender 48 (48%) were male and 52(52%) were female. Majority of 89 (89%) were married, 10 (10%) were unmarried and 1(1%) separated. In residential area 67 (67%) lives in rural, 32 (32%) lives in urban area, 1(1%) lives in semi urban area. The educational level of 45 (45%) was primary, 32 (32%) were secondary, 11 (11%) were higher secondary and 12 (12%) were graduate and above. The occupation of 46 (46%) samples was homemaker, 29 (29%) were farmer, 03 (3%) farmer, 18 (18%) private and 04 (4%) were government employee. Their relationship with the patient were parents 20 (20%), spouses 26 (26%), grandparents 01 (1%), children 36 (36%) and siblings 17 (17%). Care givers duration of taking care of the patient were 1(1%) was <1 year, 77(77%) were 1 year – 5 years, 17 (17%) 5 years – 10 years, 05 (5%) were >10 years.

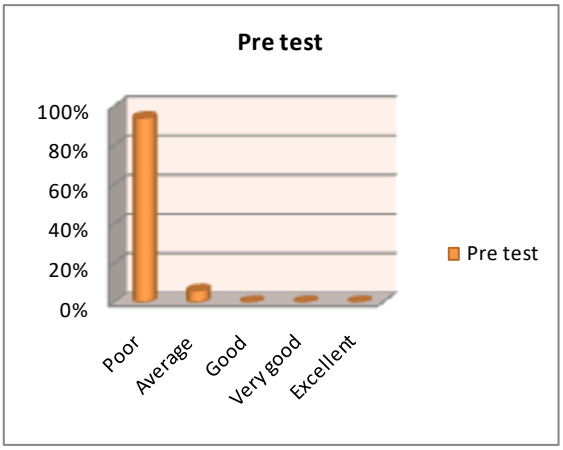

Figure No. 1: Pre test knowledge score regarding adverse effects of anti psychotic drugs among care givers of psychiatric patients

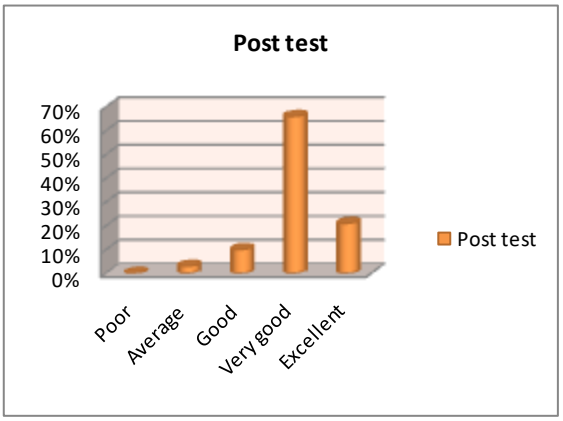

Figure No. 2: Post test knowledge score regarding in Post test adverse effects of anti psychotic drugs among care givers of psychiatric patient

The above figure shows that 94(94%) of them had poor level of knowledge score, 6(6%) of them had average level of knowledge score, none of them had good, very good and excellent level of knowledge score. The minimum score was 1 and the maximum score was 10, the mean score was 2.33± 21.954 with a mean percentage score of 7.76%.

The below figure shows that none of the samples had poor knowledge score, 3(3%) have average knowledge score and 10(10%) have good level of knowledge score, 66(66%) of them had very good level of knowledge and 21(21%) had excellent level of knowledge score respectively. The minimum score was 12 and the maximum score was 30, the mean score was 22.02± 4.043 with a mean percentage score of 76%
The above figure shows that there was a significant difference between pre test and post test knowledge scores interpreting self instructional module on knowledge regarding adverse effects of anti psychotic drugs. Mean value of pre test was 2.33 and post test was 22.02 and standard deviation values of pre test was 1.954 and post test was 4.043. The calculated t-value was 48.41 and tabulated p-value was 0.05. Hence it is statistically interpreted that the self instructional module on knowledge regarding adverse effects of anti psychotic drugs was effective. Thus the H_1 is accepted and H_0 is rejected in this study.

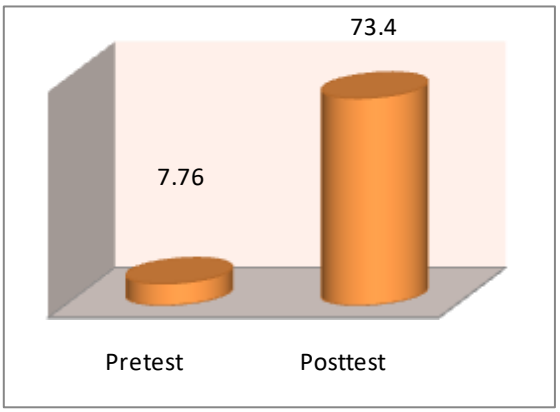

Figure no. 3: Percentage wise distribution of Effectiveness of self instructional module on knowledge regarding adverse effects of anti psychotic drugs among care givers of psychiatric patients.

Table 2: Effectiveness of self instructional module on knowledge regarding adverse effects of anti psychotic drugs among care givers of psychiatric patients ***n=100***

Test	Mean	SD	Paired 't' test	df	p- value	Significant
Pre test	2.33	1.954	48.41	99	0.02	0.02 < 0.05
Post Test	22.02	4.043				

*df = n-1, 100-1= 99

The above table no.2 shows that there was a significant difference between pre test and post test knowledge scores interpreting self instructional module on knowledge regarding adverse effects of anti psychotic drugs. Mean value of pre test was 2.33 and post test was 22.02 and standard deviation values of pre test was 1.954 and post test was 4.043. The calculated t-value was 48.41 and tabulated p-value was 0.05. Hence it is statistically interpreted that the self instructional module on knowledge regarding adverse effects of anti psychotic drugs was effective. Thus the H_1 is accepted and H_0 is rejected in this study.

ASSOCIATION OF KNOWLEDGE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES

Association of knowledge with regards to the age, gender, marital status, residence area, education, occupation, relationship with patient, duration of taking care of the client since the onset of mental illness are done. Among these residence area and duration of taking care of the client since the onset of mental illness have significant association.

Table. 3: Significance of association of knowledge in relation to residence area. ***n*=100**

Residence Area	Frequency	Mean knowledge score	F-value	P - value
Urban	32	23.69	6.828	0.002 S, p<0.05
Rural	67	21.36		
Semi Urban	1	13		

*df= 2,97 tabulated value = 3.09, S- Significant

The table no.3 shows that the association of knowledge scores with residence of the samples. The 'F' was calculated 6.828 at 5% level of significance with df 99. Also calculated 'p'= 0.002 which was less than the acceptable level of significance i.e. 'p'<0.05. Hence it is interpreted that residences of the samples were significantly associated with their knowledge scores.

Table.4: Significance of association of knowledge in relation to duration of taking care of the client since the onset of mental illness. *n*=100

Duration of taking care of the client	Frequency	Mean knowledge score	F-value	P - value
< 1 year	1	22.00	3.154	0.028
1year – 5 years	77	21.40		S, p<0.05
5years – 10 years	17	23.76		
> 10 years	5	25.60		

*df = 3, 96 tabulated value = 2.70, S-Significant

The table no.4 shows that the association of knowledge scores with the duration of taking care of the client since the onset of mental illness. The 'F' was calculated 3.154 at 5% level of significance with df 99. Also calculated 'p'= 0.028 which was less than the acceptable level of significance i.e. 'p'<0.05. Hence it is interpreted that duration of taking care of the client since the onset of mental illness is significantly associated with their knowledge scores.

DISCUSSION

The findings of the study were discussed with reference to the objectives stated in chapter I and with the findings of the other studies in this section. The present study undertaken is study to assess the effectiveness of self instructional module regarding adverse effects of antipsychotic drugs among care givers of psychiatric patients.

Distribution of care givers of psychiatric patients shows that 21 (21%) were having excellent knowledge, 66 (66%) having very good knowledge, 10 (10%) having good knowledge and 3% having average knowledge. The overall mean knowledge scores of pre-test and post-test of care giver of psychiatric patients which reveals that the post test mean score was higher 22.02 with SD of ± 4.043 when compared with the pre test mean knowledge score value which was 2.33 with SD of ± 1.954. The calculated t value is 48.41 and tabulated p value is 0.05. Hence it is statistically interpreted that the self instructional module regarding adverse effects of antipsychotic drug among care givers of psychiatric patients was effective. There is no significant association of knowledge with age, gender, marital status, occupation, education, relationship with the patient income and there is significant association of knowledge score with residence area and duration of taking care of the patients.

A study conducted in KLE's Dr. Prabhakar Kore Charitable Hospital, Belgaum, and Karnataka to assess the knowledge regarding adverse effects of selected antipsychotic drugs among the caregivers of patient receiving antipsychotic drugs. A non experimental descriptive design with descriptive survey approach was used for the study. Non Probability sampling by using convenient sampling technique was used to select 30 samples. Data was collected by means of a Standardized Structured Knowledge Questionnaire which was divided into 2 sections which consisted socio-demographic variables and variables to assess the knowledge regarding adverse effects of anti psychotic drugs. The study findings revealed that majority of caregivers 24 (80%) had average knowledge, 5 (16.66%) had good knowledge, 1 (3.33%) had poor knowledge about adverse effects of antipsychotic drugs. There is statistically significant association found between demographic variables with knowledge score regarding adverse effects of

antipsychotic drugs at the 0.05 level of significance. [3]

One of the studies has been conducted in Kasturba Hospital, Maharashtra knowledge regarding typical antipsychotics among primary care givers of psychiatric patients. To find out the association between level of knowledge among primary care givers of mentally ill client with their selected demographic variables. The study was conducted on quantitative approach is used in the study; the study sample size was 40 primary care giver of psychiatric patient who take typical antipsychotics. Knowledge questionnaire is used to gather information. The finding including of the study includes, the analysis and interpretation of data collected from the primary care givers in selected hospital. Among the total 40 sample of primary care givers out of 14(35%) in 29-38 years of age, most of samples were female 24 (60%), 12(50%) having secondary education, 26(65%) of subjects belonged to Hindu religion, 21(52.5%) of sample was on private job, 22(55%) sample having upto 10000, 22(55%) samples was from to urban area 26(65%) were having length of stay of more than 2 year. The frequency and percentage distribution of level of knowledge among primary care givers in pre-test. Among 40 samples the pre test score 3(7.5%) subjects were having poor knowledge (0-6) regarding the side effects antipsychotics, while 29(72.5%) had average knowledge (7-12), whereas 8(20%) subject had good knowledge (13-18) and none of the subjects had excellent knowledge about it. While in the post -test, 1(2.5%) of the subject had average knowledge, 19(47.5%) subject had good knowledge and 20(50%) subject had excellent knowledge regarding the side effects of antipsychotics. The comparison between the mean difference in pre-test and post test score was 8.2. The calculated't ' value was 13.71, whereas the tabulated't' value was 2.02, shows that the calculated't' value was much higher than the tabulated't' value. It shows that the planned teaching was effective in significant improving the knowledge of primary care givers of psychiatric patient regarding side effects of typical antipsychotics, so the null hypothesis H_0 is rejected and the research hypothesis H_1 is accepted. The analysis of the study revealed that there was a significant improvement in the knowledge of primary care givers. The planned teaching proved to be effective in improving the knowledge and attitude of the primary care givers of psychiatric patient in selected hospital. [4]

A Comparative study was done to measure caregiver attitudes to antipsychotic drugs and their adverse side effects and comparing these with the attitudes of the general population. Analysis and comparison of two representative samples were taken, one comprising 100 caregivers and the other 791 individuals randomly selected from the general population. The setting was on the German speaking cantons of Switzerland. Results showed significantly more positive attitudes towards anti-psychotic drugs than the general public. In particular the risk of dependency was assessed as 'low' by caregivers (80%), in contrast to only 18% of the general population sample. It was concluded that effective management of side effects play a vital aspect of patient career and caregivers need to be aware that their mentally ill patients are likely to be confronted with extremely negative public attitudes towards antipsychotic medication and with strong pressure to stop taking their medication in the event of side-effects. [2]

Another study was conducted on caregivers of patients receiving antipsychotic drugs. A cross-sectional descriptive study conducted at Katsina State Psychiatric Hospital. A total of 129 caregivers who presented consecutively. This was developed to assess caregiver burden in relatives of patients with chronic mental illnesses. The factors include the caregiver's health, psychological wellbeing, finances, social life, stigma details, and relations. The instrument has been used to assess caregiver burden not only in

dementia but also in schizophrenia. Results were found that a high level of caregiver burden was found in 61 (47.3%) respondents. A higher level of caregiver burden was significantly associated with place of residence and family size. Large proportions of respondents were experiencing a high level of burden; this was significantly associated with family size and place of resident. It was concluded that the relatives of patients with schizophrenia face enormous burdens, with financial, stigma and negative patient behaviour being more prominent. Efforts should therefore be made by the government to provide adequate financial and psychosocial support to caregivers of patients with schizophrenia. [9]

An experimental study was conducted on effect of a psycho-educational intervention for family members on caregiver burdens and psychiatric symptoms in patients with schizophrenia in Shiraz, Iran. The objectives of the study were to explore the effectiveness of family psycho-education in reducing patients' symptoms and on family caregiver burden. The sample was selected by researcher out off Seventy Iranian outpatients with a diagnosis of schizophrenia disorder and their caregivers were randomly allocated to the experimental (n = 35) or control groups (n = 35). Patients in the experimental group received antipsychotic drug treatment and a psycho-educational program was arranged for their caregivers. The psycho-educational program consisted of ten 90-min sessions held during five weeks (two sessions in each week). Each caregiver attended 10 sessions (in five weeks) at baseline, immediately after intervention, and one month later. Validated tools were used to assess patients' clinical status and caregiver burden. Researcher observed that by Compared with the control group, the case group showed significantly reduced symptom severity and caregiver burden both immediately after intervention and one month later. So researcher concluded that even need based short-term psycho-educational intervention for family members of Iranian patients with schizophrenic disorder may improve the outcomes of patients and their families. [12]

Regarding the result on the significant found in residential area and duration of taking care of the patient among care giver of psychiatric patient samples with their knowledge score, there is no equivalent or related literature found to support the findings of this study, so, this study is not strong enough alone to prove its significant respectively.

Recommendations

Recommendations for further study Based on the findings of the study the following recommendations could be made-

- A similar study on a large scale including more than one hospital can be carried out to assess the effectiveness of structured teaching on knowledge regarding adverse effects of antipsychotic drug.
- Comparative study can be conducted in urban and rural areas on knowledge regarding adverse effects of antipsychotic drugs.
- An experimental study among an experimental and control group in care givers of psychiatric patients to see the effectiveness of self instructional module regarding adverse effects of antipsychotic drugs.
- A study can be conducted to assess knowledge and attitude regarding adverse effects of antipsychotic drugs.
- Study can be conducted at hospital or community settings among the individuals having risk of developing adverse effects of antipsychotic drugs, health education can provide and follow up can be done to assess their practice which will give more effectiveness to the individuals and the society.
- A study can be conducted to assess effectiveness of planned teaching on knowledge regarding adverse effects of antipsychotic drugs.

- A follow up Study only related to practice can be done to motivate individuals for practice.
- The study recommends that academic institution should work on the promotion and enhancement of health education about adverse effects of antipsychotic drug.

CONCLUSION

Thus, it was concluded that self instructional module regarding adverse effects of antipsychotic drugs among care givers of psychiatric patients was found effective as a teaching strategy in this study. It is also necessary to conduct study regarding the care management of patient with psychiatric illness among families and improve their attitude towards it in order to prevent and improve the quality of living for person with psychiatric illness.

ACKNOWLEDGEMENT

We would like to thank all the participants and the authorities of the institutions for their cooperation throughout the study.

REFERENCES

1. Finkel RF, Clark MA, Cubeddu LX (2009). Pharmacology. Lippincott Williams & Wilkins. p. 151. ISBN 9780781771559. Archived fro m the original on 1 April 2017.
2. Commonwealth of Australia.: Fourth National Mental Health Plan- An agenda for collaborative government action in mental health 2009–2014 Barton ACT; 2009.
3. King C, Voruganti LN (May 2002). "What's in a name? The evolution of the nomenclature of antipsychotic drugs". Journal of Psychiatry & Neuroscience. 27 (3): 168–75.
4. J Stomski, Paul Morrison et al. Carers' involvement in decision making about antipsychotic medication: A qualitative study. Health Expectations, 2016 August 308-315.
5. Hayes L, Hawthorne G, Farhall J, O'Hanlon B, Harvey C. Quality of life and social isolation among caregivers of adults with schizophrenia: policy and outcomes. Community Ment Health J. 2015; 51: 591-597.
6. Askey R, Holmshaw J, Gamble C, Gray R. What do carers of people with psychosis need from mental health services? Exploring the views of carers, service users and professionals. J Family Ther. 2009;31:310-331.
7. Swartz MS, Perkins DO, Stroup TS, et al. Effects of antipsychotic medications on psychosocial functioning in patients with chronic schizophrenia: findings from the NIMH CATIE study. Am J Psychiatry. 2007;164:428-436.
8. Morrison P, Meehan T, Stomski NJ. Living with antipsychotic medication side-effects: the experience of Australian mental health consumers. Int J Mental Health Nurse. 2015;24:253-261.
9. Morrison P, Meehan T, Stomski NJ. Australian mental health staff response to antipsychotic medication side effects - the perceptions of consumers. Adv Mental Health. 2016;14:4-13.
10. Morrison P, Meehan T, Stomski NJ. Australian case managers' views about the impact of antipsychotic medication on mental health consumers. Int J Mental Health Nurse 2015;24:547-553.
11. Morrison P, Meehan T, Stomski NJ. Australian case managers' perceptions of mental health consumers use of antipsychotic medications and associated side-effects. Int J Ment Health Nurs. 2015; 24:104-111.
12. Cummins R, Hughes J, Tomyn A, Gibson A, Woerner J, Lai L. The Wellbeing of Australians: Carer Health and Wellbeing. Melbourne: Deakin University; 2007.

How to cite this article: Lalkimi R, Rakshale N. Gawai J. Effectiveness of self instructional module on knowledge regarding adverse effects of antipsychotic drugs among care givers of psychiatric patients. Int J Health Sci Res. 2019; 9(9):301-308.

******