A STUDY TO FIND THE ASSOCIATION BETWEEN POST-TEST KNOWLEDGE REGARDING ANTIPSYCHOTIC DRUGS AND CARE OF PATIENTS AMONG CAREGIVERS OF PSYCHIATRIC PATIENTS AND SELECTED SOCIODEMOGRAPHIC VARIABLES IN SELECTED HOSPITALS OF KARNATAKA.

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ABSTRACT

Psychiatry has always been characterized by a range of different models of and approaches to mental disorders, which have sometimes brought progress in clinical practice but have often also been accompanied by critique from within and without the field. Psychiatric nosology has been a particular focus of debate in recent decades; successive editions of the DSM and ICD have strongly influenced both psychiatric practice and research, but have also led to assertions that psychiatry is in crisis, and to advocacy for entirely new paradigms for diagnosis and assessment. When thinking about etiology, many researchers currently refer to a biopsychosocial model, but this approach has received significant critique, being considered by some observers overly eclectic and vague. The research approach adopted for this study is quantitative. The research design adopted for this study is pre-experimental. The study was conducted at selected hospitals of Karnataka. In this study target population consists of caregivers of psychiatric patients. The sample of the study consisted of caregivers. The sample size was 100. The sampling technique adopted in the present study was convenient sampling.

Key Words: Psychiatry, mental disorders, Psychiatric nosology, biopsychosocial model.

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INTRODUCTION

Antipsychotic medications are the first-line pharmacological intervention for severe mental illnesses (SMI) such as schizophrenia and other psychoses. However, they are also increasingly prescribed for the treatment of bipolar affective disorder. They are not routinely recommended for other mental health conditions such as depression, sleep disorders or obsessive-compulsive disorder (OCD). There is concern about rates of antipsychotic prescribing in dementia since they may be associated with increased rates of strokes and all-cause mortality. (Schneider LS 2005) Prescription of antipsychotics requires caution given their association with a range of serious adverse effects including extra-pyramidal side effects with first-generation agents, weight gain and lipid/glucose dysregulation with second-generation agents. International guidelines stress the importance of regular monitoring of body mass index (BMI), glucose and lipids in people receiving repeat prescriptions of these agents, given their propensity to affect these parameters. There is extensive data linking typical antipsychotics with an increased risk of sudden cardiac death. These medications block repolarizing potassium currents *in vitro* and prolong the QT interval, one important causal mechanism for ventricular tachyarrhythmia's that often lead to sudden cardiac death. There are numerous case reports of torsade de pointes and sudden death in conjunction with use of the typical antipsychotics. Controlled epidemiologic studies have demonstrated a dose-related increased risk of sudden cardiac death for these medications. Damkier P, Hansen LL, Brosen K.1999 Indeed, thioridazine, once one of the most frequently prescribed antipsychotics, now carries a black-box warning for increased risk of cardiac arrhythmias and sudden death. Breslow NE, Day NE.1980

Antipsychotic drugs are administered to control the symptoms of psychosis such as hallucinations and bizarre or paranoid behavior. These drugs calm without sedation or reduction in alertness. Several antipsychotic medications fall into two generations: first-generation drugs and second-generation drugs. Among the most important first-generation drugs are haloperidol, chlorpromazine, thioridazine, fluphenazine, and trifluoperazine.(Mary C 2014) In recent years the second-generation antipsychotic drugs are atypical antipsychotics drugs such as aripiprazole, risperidone, olanzapine, olanzapine, quetiapine, and ziprasidone have replaced the first-generation drug nearly completely. The side effects of first-generation drugs include weight gain, diabetes, high blood pressure, heart disease, and other complications. Side effects from second-generation antipsychotics vary among different agents, but weight gain has proven among most troublesome complications. These drugs tend to stimulate appetite, and the result is often significant weight gain.

Temporary withdrawal symptoms including insomnia, agitation, psychosis, and motor disorders may occur during dosage reduction of antipsychotics and can be mistaken for a return of the underlying condition. The development of new antipsychotics with fewer of these adverse effects and with greater relative effectiveness as compared to existing antipsychotics is an important ongoing field of research. The most appropriate drug for an individual patient requires careful consideration. (Varda Peller Backus et al 2000)

The outcome of patients with schizophrenia is markedly compromised by nonadherence to antipsychotic drugs. According to the results of a study conducted to assess the impact of adherence to oral antipsychotic drugs, nearly two-third of schizophrenia patients were classified under the category of poor adherence to antipsychotic drugs. Therefore, the health care utilization of those patients was increased including inpatient costs, mean number of visits to emergency room, number of claims to outpatient department and the total number of prescription claims [2]. Among the clients with psychotic disorders, nonadherence to pharmacological treatment is a known issue. It is also very important to adopt a "holistic approach" which implies the cooperation of patients, family and the community in the management. The experiences of patients with antipsychotic drugs describe that the drugs are helpful to them. Consequently, it also has negative experiences with the side effects. The need for more information and advice is required for solving the practical challenges. "Need for dialogue," needing someone to talk and express the difficulties and emotions is needed. Not having an opportunity to talk and express precipitates the pressure of emotions and thoughts and agitations [Lorem GF, Frafjord JS, Steffensen M, et al, 2014]. Since their introduction in the late 1980s, second generation antipsychotics (SGAs) have become increase, singly prescribed among clinicians, due to their lower rates of extrapyramidal symptoms including tardive dyskinesia

(Correll, Leucht, & Kane, 2004; Leucht, Pitschel-Walz, Abraham, & Kissling, 1999), their superiority in treating the negative symptoms of psychosis as well as their ability to produce improved cognition in psychosis (Davis, Chen, & Glick, 2003). However, there is mounting evidence in the adult population linking SGA use to weight

gain and associated metabolic dysregulation, including dyslipidemia insulin resistance. Furthermore, there is growing literature pointing to similar metabolic side effects in the pediatric population.

Recently published data from Ontario indicate that there is wide variation in the proportion of NH residents on antipsychotics.[Rochon PA, et al 2007] This prescribing variation may reflect differences in the patient case-mix and the prevalence of diagnoses of psychoses or dementia with severe behavior problems. Alternatively, antipsychotic use may also be driven by NHs' facility-level antipsychotic prescribing rates. Such prescribing patterns may be considered a "visible artifact of deeper cognitive processes shared by organizational members", and perhaps indicate an institutional prescribing culture.

REVIEW OF LITERATURE

Narayan Krishnaji Ghorpade, and Anandkumar C Jahgirdar, 2017 conducted a study on A Study To Assess The Effectiveness Of An Information Booklet(IB) Regarding Knowledge Of Caregivers Regarding The Care Of Patients Receiving Antipsychotic Drugs In Selected Hospitals Of Sangli, Miraj & Kupwad Corporation Area. Results: The study findings show the following distribution of demographic characteristics. In age 34% belonged to the age group of 30-39 years, 24% belonged to 40-49 years of age, 22% belonged to 50-59 years of age, and 10% were 60 and above of age. In gender of the family there were 66% male and 34% females. In education level 4% were illiterate, 48% were illiterate, 38% were 10-12 std, and 10% were postgraduate. In relationships with patients, 26% were fathers, 20% were mothers, 18% were spouses, 16% were siblings, and 20% were other. t 7.880 with 98 degrees of freedom: P = 0.000. There is a statistically significant increase in the post score.

Anandkumar C. Jahgirdar and Narayan K. Ghorpade 2017 conducted a study on a study to assess the effectiveness of an information booklet(ib) regarding knowledge of caregivers regarding the care of patients receiving antipsychotic drugs in selected hospitals of Sangli, Miraj& Kupwad Corporation area. Results show that the following distribution of demographic characteristics. In the age 34% belonged to the age group of 30-39 years, 24% belonged to 40-49 years of age, 22% belonged to 50-59 years of age, and 10% were 60 and above. In gender of the family there were 66% male and 34% females. In the education level, 4% were illiterate, 48% were illiterate, 38% were 10-12 std, 10% were postgraduate. In relationships with patients, 26% were fathers, 20% were mothers, 18% were spouses, 16% were siblings, and 20% were other. t 7.880 with 98 degrees of freedom: P = 0.000. There is a statistically significant increase in the post score.

Benedicta Jan et al 2017 conducted a study on Knowledge on Atypical Antipsychotic Drugs among Caregivers of Mentally Ill Patients. Results: The data were analyzed by using descriptive and inferential statistics. Results showed that 45% had good knowledge another 45% had an average knowledge, 6% had excellent knowledge and 4% had poor knowledge. The mean percentage of knowledge score was 63% in management, 42% in prevention, 52% general concept and 47% in the areas of side effects and precaution. There was a significant association between demographic variables such as monthly income ($\chi 2$=0.115; p=0.013), previous exposure to atypical antipsychotics ($\chi 2$=0.010; p=0.001), patient's diagnosis ($\chi 2$=0.177; p=0.022), age ($\chi 2$=0.641; p=0.014), education ($\chi 2$=0.001; p=0.001), occupation ($\chi 2$=0.01; p=0.002) and knowledge score at 0.05 level of significance.

Baandrup L **et al 2016 conducted a study on i**ncident users of antipsychotics: who are they and how do they fare? From 2007 to 2012, 154,351 Danish subjects-initiated treatment with antipsychotics. Among these, 71,254 (46 %) subjects had a psychiatric diagnosis recorded. The most frequent diagnoses were reaction to severe stress and adjustment disorders (10,106; 14 %), depressive episode (8876; 12 %), and recurrent depressive disorder (6810; 10 %). We found high antipsychotic discontinuation rates during the first few months (45 % in 4 months) and frequent antidepressant co-prescribing from treatment onset (47 %). Significantly greater likelihood of psychiatric hospitalization was observed for antipsychotic polypharmacy (HR 1.38; 95 % CI 1.32-1.45), whereas antipsychotic discontinuation was associated with decreased hospitalization risk in most off-label conditions.

Marston L, Nazareth I, Petersen I, Walters K, Osborn DP,2014 conducted a study on Prescribing of antipsychotics in UK primary care: a cohort study. We identified 47,724 individuals prescribed antipsychotic agents. 13,941 received first-generation agents and 27,966 received second-generation agents. The rates of prescribing were higher in females (incidence rate ratio (IRR) 1.092 (95% CI 1.088 to 1.095), older people (80+ vs 40-49; IRR 2.234 (2.222 to 2.246)) and in those from the most deprived areas (most deprived vs least deprived IRR 3.487 (3.567 to 3.606). Of those receiving first-generation antipsychotics, less than 50% had a diagnosis of psychosis/bipolar disorder. For the second-generation agents, the numbers ranged from 4824 (36%) for quetiapine to 7094 (62%) for olanzapine. In patients without psychosis/bipolar disorder, common diagnoses included anxiety, depression,

dementia, sleep and personality disorders. For example, in risperidone users, 14% had an anxiety code, 22% depression, 12% dementia, 11% sleep disorder and 4% personality disorder. The median daily doses and duration of treatment were greater in those with schizophrenia (e.g., risperidone median daily dose 4 mg; IQR 2-6: median duration 1.2 years) than in those with non-psychotic/bipolar disorders such as depression or anxiety (e.g., risperidone 1 mg; IQR 1-2: 0.6 years). A relatively large proportion (between 6% and 17%) of people receiving individual antipsychotics had none of the diagnoses stated above.

RESEARCH METHODOLOGY

The research approach adopted for this study is quantitative. The research design adopted for this study is pre-experimental. The study was conducted at selected hospitals of Karnataka. In this study target population consists of caregivers of psychiatric patients. The sample of the study consisted of caregivers. The sample size was 100. The sampling technique adopted in the present study was convenient sampling.

DATA ANALYSIS AND INTERPRETATION

Chi-Square Association Table (Post-Test Knowledge vs Sociodemographic Variables)

Sociodemographic Variable	Chi-Square (χ^2)	df	Critical χ^2 @ α=0.05	p-value	Result
Age	6.73	2	5.99	0.034	**Significant**
Gender	2.11	2	5.99	0.348	**Not Significant**
Relationship with Patient	7.81	2	5.99	0.020	**Significant**
Educational Qualification	4.16	2	5.99	0.125	**Not Significant**
Occupation	6.91	2	5.99	0.031	**Significant**
Monthly Family Income	3.87	2	5.99	0.144	**Not Significant**
Area of Residence	7.32	2	5.99	0.026	**Significant**
Type of Family	5.77	2	5.99	0.055	**Not Significant**
Duration of Patient's Illness	8.02	2	5.99	0.018	**Significant**
Mental Health Education Exposure	9.11	2	5.99	0.010	**Significant**

Analysis of Chi-Square Results:

1. Age of the caregiver showed a significant association with post-test knowledge, suggesting that age may influence receptiveness to educational interventions.
2. Gender showed no significant relationship, indicating both male and female caregivers benefited similarly from the teaching program.
3. Relationship with the patient was significantly associated with knowledge, implying that closer or more involved relationships (e.g., parent or spouse) might lead to better care understanding.
4. Educational qualification was not significantly associated, indicating the program was effective across educational levels.
5. Occupation had a significant association, possibly because employed individuals were better able to understand or retain structured content.
6. Monthly income did not show a significant impact, indicating knowledge gain was consistent across income levels.
7. Area of residence was significantly associated, perhaps due to better accessibility to health education or services in urban settings.
8. Type of family showed a borderline p-value but was considered not significant, suggesting family structure alone may not strongly influence knowledge outcomes.
9. Duration of illness showed a significant association—caregivers of long-term patients may be more attentive or responsive to such interventions.
10. Previous mental health education exposure had a highly significant association, indicating prior exposure enhanced the effectiveness of the structured teaching program.

DISCUSSION

To Find the Association Between Post-Test Knowledge Regarding Antipsychotic Drugs and Care of Patients Among Caregivers of Psychiatric Patients and Selected Sociodemographic Variables

In the present study, the association between caregivers' post-test knowledge and various sociodemographic variables was assessed using the Chi-square test. The results indicated significant associations with variables such as age, relationship with the patient, occupation, area of residence, duration of patient's illness, and

previous mental health education exposure. Conversely, variables like gender, educational qualification, monthly family income, and type of family did not show significant associations.

These findings are consistent with those reported by Chiao et al. (2015), who conducted a systematic review on caregiver burden for informal caregivers of patients with dementia. Their study highlighted that factors such as the caregiver's age, relationship to the patient, and living arrangements significantly influenced the caregiver's burden. Specifically, younger caregivers and those who were spouses or children of the patient experienced higher levels of burden, which could be attributed to increased responsibilities and emotional involvement. Additionally, caregivers residing in rural areas faced more challenges due to limited access to healthcare resources and support services. These factors align with our study's findings, where similar sociodemographic variables were significantly associated with caregivers' knowledge levels post-intervention

The congruence between our study and that of Chiao et al. (2015) underscores the importance of considering sociodemographic factors when designing educational interventions for caregivers. Tailoring programs to address the specific needs of different caregiver groups can enhance the effectiveness of such interventions, ultimately leading to improved patient care and caregiver well-being.

CONCLUSION

The Chi-square analysis revealed that certain socio-demographic factors such as age, relationship with patient, occupation, area of residence, duration of illness, and prior exposure to mental health education significantly influenced the post-test knowledge of caregivers. In contrast, gender, educational qualification, monthly income, and type of family were not significantly associated.

This implies that while structured teaching programs are broadly effective across all groups, caregivers' background characteristics play an important role in shaping the extent of knowledge gain. Tailoring educational interventions to these factors could further enhance the effectiveness of caregiver training programs.

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