

Effectiveness of laptop assisted teaching on coping with side effects of antipsychotic drugs among patients with schizophrenia

¹Ms. Jacqueline Devasena, ^{*2}Dr.S.Santhi ³Mrs.G.J.Sara Sapharina,

1.Student, (MSN), College of Nursing, Sri Ramachandra University, Porur, Chennai, Tamilnadu, India. - 08892900891

2.Professor (MSN), Ph.D., Faculty of Nursing, Sri Ramachandra University, Porur, Chennai, Tamilnadu, India -9444278281

3. Lecturer (MSN), Faculty of Nursing, Sri Ramachandra University, Porur, Chennai, Tamilnadu, India- 9894279745

Abstract

Schizophrenia is one of the most important public health problems that confront the human society.

The initial line of psychiatric management for patient with schizophrenia is antipsychotic medication. These drugs are highly effective which will help to reduce the positive symptoms of psychosis. Most of the antipsychotics medications are to be taken around 7-14 days in order to have their main effect. Mostly that is 70% of people using antipsychotic medication for schizophrenia to improve their symptoms and also prevent relapses. OBJECTIVES: Assess the level of side effects of antipsychotic drugs among patients with schizophrenia. Estimate the level of coping with side effects of antipsychotic drugs among patients with schizophrenia. Determine the effectiveness of laptop assisted teaching on coping with side effects of antipsychotic drugs among patients with schizophrenia. METHODOLOGY: one group pre and post design used in this study. The Findings of the study is in the pretest, most of the patients 23(76.6%) had negative coping and seven (23.3%) had positive coping. In the posttest, 16(53.3%) of them had positive coping, 13 (43.3%) had highly positive coping and one (3.3%) had negative coping after the intervention. In the pretest, the coping mean value was 53.03 with SD of 8.82 and the posttest mean value coping was 84.20 with SD of 24.34. A statistically significant difference in the level of coping among patients with schizophrenia in the pretest and posttest at the level of $p < 0.001$. There was an association between the level of coping and type of family among patients with schizophrenia at the level of $p < 0.01$.

Key words: Glasgow antipsychotic side effects scale (GASS) world health organisation (WHO).

Introduction

The schizophrenia has been a source of bafflement and those who are suffering from the illness perceived in the history that possession of evil spirit, superstitious practice to treat this illness. world health organisation (2011) Schizophrenia in adults between the age group of 15-35 years the affects about 7 per thousand populations. Because of chronicity the incidence is low 3-10,000 but the prevalence is high. Schizophrenia affects for about 24 million people worldwide. Compliance to antipsychotic medication is essential for recovery from schizophrenia and also they need long-term emotional and economic support from their families.

Need for the study

Beebe, H. (2007) stated that the people with schizophrenia may failed to take medications has prescribed for several reasons. They may be disturbed by the side effects of medications, believe that they do not need the drugs, think that they do not have illness or believe that the medication is a poison. 80% of people with schizophrenia who stop taking their medication have a relapse within 1 year compared to 30% who continued with their regimen.

Philip, T. (2009) said that the Journal of psychosocial Nursing, the most common cause of relapse and re-hospitalization are non-adherence to medication due to the poor knowledge and attitude towards the antipsychotic drugs.

The investigator during her clinical experience in Psychiatric ward and outpatient department has observed that most of the patient with the complaints of side effects of drugs, many of them stopped taking medication due to various reason and poor knowledge on medication. Thus the researcher analyzed that there is a need for education on management of antipsychotic drugs. Based on the recent available technology, the researcher experimented the effectiveness of laptop assisted teaching on coping with side effects of antipsychotic drugs among patient with schizophrenia.

Objectives:

1. Assess the level of side effects of antipsychotic drugs among patients with schizophrenia.
2. Estimate the level of coping with side effects of antipsychotic drugs among patients with schizophrenia.
3. Determine the effectiveness of laptop assisted teaching on coping with side effects of antipsychotic drugs among patients with schizophrenia.
4. Associate the coping of side effects of antipsychotic drugs and selected demographic variables of patients with schizophrenia.

Hypothesis:

There is a significant difference in the level of coping with side effects of antipsychotic drugs among patients with schizophrenia before and after laptop assisted teaching.

Assumptions

1. Coping with side effects of antipsychotic drugs improves quality of life.
2. Health teaching help in management of adverse effects

Review Of Literature

Section A: Studies related to side-effects of antipsychotic drugs among patients with schizophrenia.

Section B: Studies related to coping with side effects of antipsychotic drugs.

Section C: Studies related to effectiveness of laptop assisted teaching.

Clark and Lu. (2004) conducted a study on subjective side effects of antipsychotics and medication adherence in people with schizophrenia. It is revealed that 50% of participants experienced one or more side effects. Sin and Gamble. (2010) identified that management of side-effects of antipsychotics to the most favourable on valuing a patient's experience. This article realized the need to integrate the knowledge and clinical skills of psychopharmacology in the role of psychiatric nurse to optimize the patient's concordance with medication using a medication-management of team approach. Philip, Burda, Timothy, and Starkey. (2000) conducted a study on computer-assisted psycho education for psychiatric inpatients. This study concluded that computer-assisted psycho education can be an effective way to provide psychiatric rehabilitation programs.

Conceptual Framework: The conceptual framework used for this study was derived from Ernestine Weidenbach's helping art of clinical theory (1964).

Methodology: one group pre and post design

Setting of the study:

The study was conducted in psychiatric outpatient department at Sri Ramachandra Hospital, Porur, Chennai. It is one of the biggest tertiary hospital in Tamil Nadu which comprises of 1740 beds with emergency service. Approximately 100 -130 patients visit psychiatric outpatient department every day and among them 15-20 patients are diagnosed with schizophrenia.

Population: The population of this study includes patients with schizophrenia who were attending psychiatric outpatient department at Sri Ramachandra Hospital.

Sample : The sample consists of patients with schizophrenia who met the inclusion criteria and attending psychiatric outpatient department at Sri Ramachandra Hospital.

Sample Size and technique: The sample size was 30 consisting of both male and female patients with schizophrenia. The samples were selected by using convenience sampling.

Criteria for sample selection

Inclusion criteria: Patients with Schizophrenia who were attending second and third follow up to the psychiatric OPD. Scored 5 and 6 as per Ahuja's insight scale, were in the age group of 21-50 yrs, could understand English or Tamil, were experiencing mild and moderate side effects.

Exclusion Criteria: Patient with schizophrenia who are not willing to participate and developed schizo affective disorder

Description of instrument**Part A: Demographic Variables**

The first section of the instrument includes demographic variables such as age, sex, residence, education, employment status, monthly income, marital status, religion, types of family, duration of illness and details about the caretaker of the patient.

Part B: Glasgow antipsychotic side effects scale (GASS)

Glasgow antipsychotic side effect scale was developed by L.Waddell and M. Taylor. The scale has 22 items self administered questionnaire to measure the side effects experienced by the patient. The items are rated on a 4 points Likert scale ranging from 0 to 3 for never, once, a few times and everyday respectively.

Score interpretation: The score was interpreted as 0 -21 =Mild side effects, 22-42= Moderate side effects and 43 and over = Severe side effects

Part C: Self Structured Questionnaire on Coping

The coping was assessed using Self Structured Questionnaire on coping. The tool was developed by the investigator. It is 4 points Likert scale with 30 questions. The four points indicates that, 1- Never, 2 – Occasional, 3 – Often, 4 – Always.

Score interpretation: ≤ 50% =Negative coping, 51-75%=Moderately Positive coping and >75 % =Highly positive coping

Validity And Reliability

The Glasgow antipsychotic side effect scale is a standardized tool and found to be reliable with r value of 0.72. The split half technique method was used to identify the reliability of Self Structured Questionnaire on coping which was 0.82. The tool was validated by the experts in the field of psychiatric, psychiatric nursing and clinical psychology.

Pilot Study

The pilot study was conducted from 20.04.2011 to 25.04.2011 to assess the practicability and feasibility of the study in psychiatric outpatient department. The investigator got permission from concerned authorities and the written consent was obtained from the patients. No changes were made after pilot study.

Data Collection Procedure

The investigator obtained permission through proper channel. The period of data collection extended from 14/6/11 to 10/7/11. The investigator established rapport with the patients and necessary information about the study was given to patients. The investigator assessed approximately 2-3 psychotic patients every day. Ahuja's insight scale was used to check the insight of the patients and those who scored V and VI were selected as samples for this study by using convenience sampling technique. The size of sample was 30 and oral consent was obtained from the patients. Pretest was conducted to the patients using Glasgow Antipsychotic Side effects Scale and their coping was evaluated by Self Structured Questionnaire. It took 40 minutes to assess each patient. After 15days, the posttest was conducted to assess the coping with side effects on antipsychotic drugs among patients with schizophrenia.

Plan For Data Analysis

The collected data were analyzed using descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (paired t test, independent t test, chi square).

Data Analysis and Interpretation

The frequency and percentage distribution of demographic variables among patients with schizophrenia. Regarding employment status of the patients, 22 (73.3%) were employed and 8 (26.7%) were unemployed. 26 (86.6%) had an income of Rs.5001-10000/ and only one (03.3%) had an income of Rs. 15001/ month. Considering the duration of illness among patients with schizophrenia, 16(53.4%) were above 3 years and 1(3.3%) was less than 1year. The relationship of the caretaker showed that 14 (46.7%) were cared by their spouse, 13 (43.3%) were cared by their parents, two (6.7%) were cared by their siblings and only one (3.3%) was cared by others.

Frequency and percentage distribution of the level of coping among patients with schizophrenia (N=30)

Figure 1 Frequency and percentage distribution of the level of coping among patients with schizophrenia (N=30)

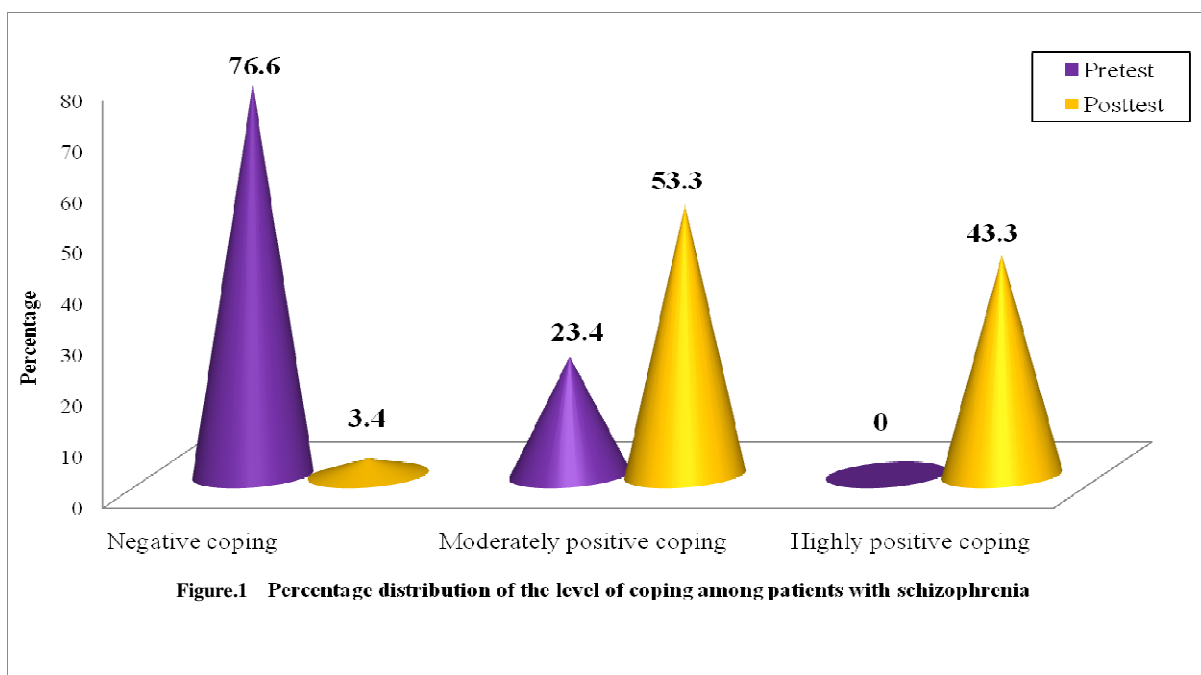


Figure.2 Mean value of coping with antipsychotic side effects among patients with schizophrenia in the pretest and the posttest (N=30)

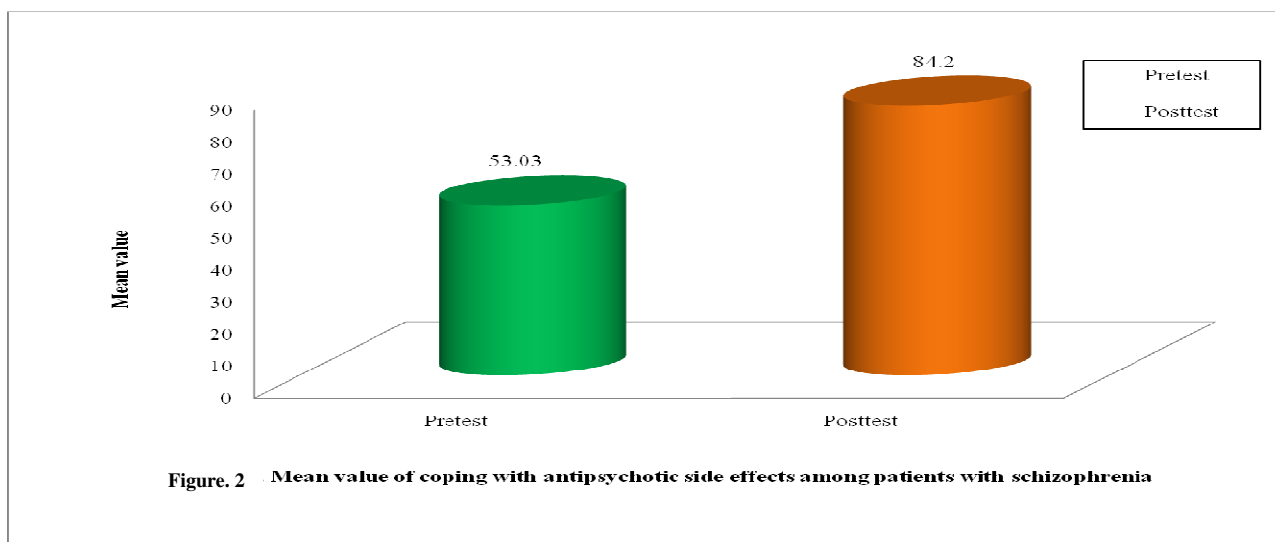


Table.1 Comparison of mean difference of the level of coping among patients with schizophrenia (N=30)

Assessment	Coping score		Paired 't' test	p value
	Mean	SD		
Effect of coping				

	31.17	27.44	t = 6.220	p=0.000 ***
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*** p<0.001 Level of Significant

Discussion

The first objective of the study was to assess the level of side effects of antipsychotic drugs among patients with schizophrenia.

The Glasgow antipsychotic side effects scale was used to assess the level of side effects of antipsychotic drugs among patients with schizophrenia. The overall mean value of assessment on antipsychotic side effects among patients with schizophrenia was 23.3 with a SD of 7.81.

Similarly, Chiang, KlaininYobas, Ignacio and Chng. (2011) conducted a study on the impact of antipsychotic side effects on attitude towards medication in people with schizophrenia and related disorders living in communities at Singapore. The study findings revealed that majority of the participants experienced extra pyramidal symptoms and weight gain, which may be related to high dose during their treatment.

The second objective of the study was to estimate the level of coping with side effects of antipsychotic drugs among patients with schizophrenia. The frequency and percentage distribution of the level of coping with side effect of antipsychotic drugs among patients with schizophrenia. In the pretest, seven (23.3%) of them had positive coping and 23(76.6%) of them had negative coping. In the posttest, only one (3.3%) had negative coping, 16(53.3%) of them had positive coping, 13 (43.3%) had highly positive coping after the intervention.

Alptekin, Akdede, Akvardar, Celikgun, Dilşen and Durak, et al., (2011) conducted a study on coping with side effects of antipsychotic drugs among patients with schizophrenia in hospitals at Turkey. Coping with antipsychotic side effects was worse for the patient and it was negatively correlated with the severity of psychopathology and extra pyramidal side effects induced by antipsychotic drugs in the patients.

The third objective of the study was to determine the effectiveness of laptop assisted teaching on coping with side effects of antipsychotic drugs among patients with schizophrenia.

Laptop assisted teaching on side effects of antipsychotic were given to patients with schizophrenia and posttest was done to assess the effectiveness of teaching.

The mean value of coping with antipsychotic side effects among patients with schizophrenia in pretest and posttest. In the pretest, the coping mean value was 53.03 with SD of 8.82 and posttest mean value coping was 84.20 with SD of 24.34. The comparison of mean difference of the level of coping among patients with schizophrenia. There was a statistical significant difference in the level of coping with side effects of antipsychotic drug among patients with schizophrenia in the pretest and posttest at the level of $p < 0.001$.

The above findings were supported by Deborah. (2003) did a study on computer-based approaches on patient education of coping with antipsychotic drugs side effect among patients with schizophrenia. The findings supported that computer-based education was an effective strategy for transfer of knowledge and skill development among patients. This study recommended that this new technology on patient education was an effective strategy for improving healthcare knowledge and clinical outcomes. The study findings revealed that laptop assisted teaching is effective in coping with side effects of antipsychotic among patients with schizophrenia. There is a significant difference in the level of coping with side effects of antipsychotic drugs among patients with schizophrenia before and after the laptop assisted teaching. Hence the stated hypothesis was accepted.

The fourth objective of the study was to associate the level of coping of side effects of antipsychotic drugs with selected demographic variables among patients with schizophrenia.

the association between the level of coping and demographic variables of patients with schizophrenia. There is an association between the level of coping and type of family among patients with schizophrenia at the level of $p < 0.01$.

Summary: The pre experimental one group pre and post test design was used for this study. The

conceptual frame work of this research was based on Ernestine Weidenbach's Helping Art Theory. The data were collected from the patients who visited to psychiatric outpatient department at Sri Ramachandra Hospital. Totally, 30 patients with schizophrenia were selected by using convenience sampling technique. The duration of the study was 4 weeks. The investigator after establishing rapport with the participants assessed the side effects and the level of coping with side effects of antipsychotic drugs with the help of Glasgow antipsychotic side effects scale and Self Structured Questionnaire. Laptop assisted teaching was given and the posttest was conducted using Self Structured Questionnaire on the 7th day of intervention.

Findings of the study

The overall mean value of assessment on antipsychotic side effects among patients with schizophrenia was 23.3 with SD of 7.81. In pretest, most of the patients 23(76.6%) had negative coping and seven (23.3%) had positive coping. In the posttest, 16(53.3%) of them had positive coping, 13 (43.3%) had highly positive coping and one (3.3%) had negative coping after the intervention. In the pretest, the coping mean value was 53.03 with SD of 8.82 and the posttest mean value coping was 84.20 with SD of 24.34. A statistically significant difference in the level of coping among patients with schizophrenia in the pretest and posttest at the level of $p < 0.001$. There was an association between the level of coping and type of family among patients with schizophrenia at the level of $p < 0.01$.

Nursing Implication

Psychiatric nurse plays a major role in collaborating with other mental health team members. Patients who had positive coping toward the antipsychotic drug. The psychiatric nurse has a major role in educating the psychiatric patients about the importance, side effects and the management of antipsychotic drug which improve their coping towards drugs. **Nursing Practice**: The nurses working in the hospital and community should teach patient with schizophrenia regarding coping with side effects of antipsychotic drugs using innovative instructional technology. The nurse need to be knowledgeable and skillful in providing information about the importance, side effects and management of antipsychotic drugs in order to enhance positive coping among patients with schizophrenia and thereby prevent relapse. **Nursing Education**: The mental health and community health nursing curriculum should be reenergized as to enable nursing students to identify the side effects of antipsychotic drugs and to provide supportive education to cope with the problems. As a nurse educator while planning the clinical block, she could offer ample opportunity for the students to teach patients regarding coping with side effects of antipsychotic drugs. **Nursing Administration**: Nurse administrator must periodically evaluate the nursing interventions used in the hospitals. Nursing administrator could take active a cost effective educational materials and could encourage the staff nurses to conduct programmes for the patients and their caregivers related to coping with side effects of antipsychotic drugs. **Nursing Research**: The study emphasizes that more of research work need to be conducted in relating the problems and consequences of psychopharmacological treatment of patients with schizophrenia. This study could be a reference for the research scholars. The institutional authorities should provide opportunity and necessary support to the nurse in applying and assimilating the findings of this study for evidence based practice.

RECOMMENDATIONS

1. Study can be replicated on a larger sample size to validate and generalize the findings.
2. Similar study can be conducted with a control group.
3. Study can be compared between the patients with schizophrenia and other mental illness.
4. Similar study can be conducted in community setting.
5. Comparative study can be done between inpatients and outpatients set up.

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