



A study to evaluate the effectiveness of Nurse Led Intervention on compliance among patients with Depression attending psychiatric OPD at RMMCH Annamalai University.

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Abstract: *Lin and colleagues (2020) stated that depression is the most common psychiatric disorders in the United States, with lifetime prevalence rates in excess of 17%. Further depression places a substantial economic burden on the US healthcare system, and current costs exceed 81 billion per year. Worldwide, the economic toll of depression is far greater. By the year 2020, the World Health Organization projects depression to be the second leading cause of global disease burden*

Objectives of the study 1. To identify the level of noncompliance among depressive patients.2.To assess the level of depression among depressive patients.3.To evaluate the effectiveness of Nurses Led Interventions on compliance among patients with depression.4.To associate the level of depression with selected demographic variables and clinical variables.

Methodology: Research design - Research Approach – Quantitative Research Approach **Quasi** experimental one group pre-test and post-test design. This study was conducted convenience sample size 40 and assesses the Nursing Led Intervention on Compliance among Depressive Patients. In this study the investigator selecting the samples through randomization. This study probability Convenience sampling technique like depressive patients in psychiatric OPD in RMMCH. **Results:** Where as the posttest Interprets the item wise responses given by depressive patients about their level of depression. Among 40 depressive patients in which (60%) answered as looks dispirited but does brighten up without difficulty, (72.5%) answered as sad or low but brightness up without difficulty, (80%) answered as occasional feeling of edginess and ill defined discomfort, (75%) answered as slight difficulty dropping off to sleep or slightly reduced, light or fitful sleep, (75%) answered slightly reduced appetite, (57.5%) answered as occasional difficulties in collecting one's thoughts ,(50%) answered as difficulties in starting activities, (67.5%) answered as reduced ability to enjoy usual interests, (75%) answered as fluctuating ideas of failure, self reproach or self depreciation, (50%) answered as weary of life, only fleeting suicidal thoughts. result was found to be significant ($p < 0.001$) and it shows that intervention was effective in improving the level of adherence. Hence the stated hypothesis (**H2**)

was accepted **Conclusion:** The present study to Evaluate the effectiveness of Nurse Led Intervention on

compliance among patients with Depression attending psychiatric OPD at RMMCH Annamalai university, and also it reveals that educational intervention on importance of antidepressants among depressive patients was more effective.

Key words: depression. Quasi, psychiatric, prevalence, effectiveness of Nurse Led Intervention, compliance

1. INTRODUCTION

The World Health Organization (WHO) 2020 revealed that, compliance as “the extent to which a behaviour taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care professional”. Noncompliance is a serious problem in psychiatric treatment and compromises effectiveness. In schizophrenia, full or partial noncompliance can exceed 60% and is associated with relapse, hospitalization, and elevated health care costs. In bipolar disorder, non-compliance ranges from 20 to 60%, and is associated with poorer outcomes, elevated rates of relapse, hospitalization, suicidal behaviour, and greater costs of care. Thirty percent of patients stop taking antidepressants after one month and 45-60% after 3 months. Inadequate adherence to antidepressants may lead to increased recurrence, severity, and disability, poorer responsiveness to future treatment, and greater healthcare cost.

Reflecting an increasing awareness of the importance of treatment compliance on psychiatric populations, the National Institute of Mental Health (NIMH) assembled a group of experts in the area of mental health treatment research for a meeting on “Methodological Challenges in Psychiatric Treatment compliance Research” held on September 27-28, 2007 in Bethesda. During this meeting, the experts discussed and consolidated their experience based upon the extensive literature and their own research on mental health treatment compliance research methods and articulated a series of recommendations for future directions. The experts concluded that other forms of compliance such as attending office visits are also important aspects of treatment for mental disorders.

M. Jose martin vazquez (2016) explained that in the field of mental health, good use of treatments is a major health care concern, since the effectiveness of psychopharmacological drugs are reduced greatly when patients fail to comply with treatment. Inadequate treatment compliance was believed to be an underlying cause of many cases in which depression becomes chronic and that it was a major compound of good use of the antidepressant treatment, even though less than half of all depressed patients treated with the traditional antidepressant medication show full remission. Patient compliance is a critical aspect of effective clinical management.

Al. Jumah k (2014) stated that non-compliance could be intentional or unintentional behavior; if a patient does not take the medicine either because of forgetfulness or lack of access, this type of noncompliance was unintentional. In contrast, if the patient does not follow the prescription because of his or her personal beliefs or evaluation of the medicine, then it is called intentional noncompliance.

Major depressive disorder is a major public health challenge due to its high prevalence, it is estimated to affect 15% of the general population, and is being seen as a global disease burden. Major depressive disorder is one of the most disabling diseases, disrupting daily life, activities, and work. It is believed that major

depressive disorder will become the second largest cause of disease burden in the next two decades. Major depressive disorder is also a common health problem in Saudi Arabia, where the prevalence is increasing. A previous study 2013 in Saudi Arabia estimated that the prevalence of depression at 18%. The World Health Organization estimated 2014 that 50% of all depression patients have not been treated, and it is therefore expected that antidepressant use and other treatment options will increase on a global level.

Although antidepressant medications are proven to be effective, many patients do not receive an adequate dosage for an adequate duration, and the medication's effectiveness were further reduced due to non-compliance. National and international therapeutic guidelines revealed the importance of continuing antidepressants for at least 9 months. It had been found that 28% of patients discontinued the medication after 1 month, and between 44% and 52% of patients discontinued medication after 3 months. Data from the Gulf countries revealed that 88% of Kuwaiti patients with major depressive disorder were non-compliance to their antidepressant medications. One cross-sectional study reported that only 60% of depressed patients adhere to their psychiatric clinic visits. Few studies from Saudi Arabia have investigated compliance to medication and factors associated with adherence among non-psychiatric, chronically ill patients.

NEED FOR THE STUDY

Sohini Banerjee (2009) Did a cross-sectional study aimed to assess non-adherence to prescribed treatment among patients with unipolar depression at a psychiatric outpatient department (OPD) of a tertiary hospital in Kolkata, India. The Morisky Medication Adherence Scale (MMAS) was used and a questionnaire designed by the Principal Investigator (PI) was administered. A total of 239 patients with unipolar depression were interviewed of whom 66.9% (160) were nonadherent and 33.1% (79) were adherent to treatment. The difference was significant (Fisher's Exact). Women were nearly three times at a higher risk of being nonadherent compared to men (OR 2.7; 95% CI 1.0–7.1). The nonadherent group compared to the adherent group was significantly more likely to consume extra medicines than the recommended amount (OR 2.8; 95% CI 1.1–7.3) and had lower internal locus of control (LOC) (OR 4.5; 95% CI 2.4–8.3). Adherence to prescribed treatment in an outpatient clinical setting was a problem among patients with unipolar depression. The authors concluded that suitable interventions on individual with the above mentioned attributes are required in India and in similar settings where nonadherence to depression therapy is an important public health problem.

Rathi Devi M (2020) Revealed that Patients noncompliance with medication regimens were one of the most common reasons for the relapse of psychiatric symptoms and the need for repeated hospitalization.

Rathi Devi M, Prakash M, Ezhil Ramya J (2020) conducted a hospital outpatient based and cross-sectional observational study in the Department of Pharmacology, Tirunelveli Medical College, Tirunelveli, Tamil Nadu, after the approval from IEC. Totally 200 patients on various psychotropic drugs with poor drug compliance were included in the study. Data were collected by face to face interview using a semi-structured questionnaire.

The study findings denoted that, noncompliance was more among males (55.3%), coolie/daily wage laborers (33.1%), and unemployed (31.6%). The major pharmacological factors affecting compliance with intake of psychotropic drugs: Adverse drug reactions due to drug (33.7%), Unpalatability (25.6%), and longer treatment duration (18.1%).

Al Jumah K (2014) performed a nonexperimental cross-sectional study to measure the adherence to antidepressants among major depressive disorder patients, and the factors associated with adherence. The patients were recruited from the outpatient clinic at the Al-Amal Complex for Mental Health in Riyadh, Saudi Arabia, between August 2013 and January 2014. Adherence was investigated indirectly by use of the Morisky Medication Adherence Scale, and patients' beliefs were assessed through the Beliefs about Medicine Questionnaire. Information about the severity of their depression, demographics, and other study variables were collected.

The study results indicated that one of 403 patients, 203 (50.37%) were females, while the remaining 200 (49.6%) were males. There was an average age of 39 years (standard deviation, ± 11 years). Half of the patients (52.9%) reported low adherence to their antidepressant medication, further the findings showed that there was a statistically significant difference between the low adherence and high adherence scores relating to sex, age, and duration of illness.

M. Jose Martin Vazquez (2016) explained that adherence of antidepressants was a major problem all over the world, which affects response, cost of the illness and risk of relapse. Persistence in the treatment was important to avoid relapses and to ensure remission, but in many cases the lack of accurate information causes an early interruption of treatment. Some of the sociodemographic factors such as, low income, low socioeducational status, severity of depression, and difficult access to physicians are the common factors to bad adherence.

Compliance to antidepressant treatment is a major problem all over the world. Emphasizing the importance of a good use of antidepressant drug treatment is especially relevant for those patients more likely to follow it poorly, which would be those whose major psychiatric diagnosis is neither an affective nor an anxiety disorder, with a lower sociocultural level, low income, taking other drugs for concomitant organic diseases and/or living in rural areas with more difficult access to specialized care. In these patients, it is particularly important to insist on the relation between good treatment use and therapeutic response, with personalized information, and the nearest possible followup. Psychiatrists and general practitioners should inquire whether their patients adequately understand and follow instructions, and offer them the chance to work together to solve difficulties that may arise during antidepressant treatment.

OBJECTIVES OF THE STUDY

1. To identify the level of noncompliance among depressive patients.
2. To assess the level of depression among depressive patients.

3. To evaluate the effectiveness of Nurses Led Interventions on compliance among patients with depression.
4. To associate the level of depression with selected demographic variables and clinical variables.

HYPOTHESIS

- H1** There is a significant reduction in the level of depression among depressive patients who received Nurse Led Intervention on compliance which was measured by using **(Montgomery- Asberg Depression Rating Scale)**
- H2** There is a significant change on the level of compliance among depressive patients who received the Nurse Led Intervention on compliance, which was measured by using **(Morisky Medication Adherence Rating Scale).**
- H3** There is an association between the level of compliance with their selected demographic and clinical variable of the patients with depression.

CONCEPTUAL FRAME WORK

A conceptual frame work refers to a concept that offers a frame work on preposition for conducting the research. The study is designed to a study to evaluate the effectiveness of Nurse Led Intervention on compliance among patient with depression.

The study is based on helping the patients with depression on prevention of compliance. King proposed post goal attainment theory in 1971. The major element of the theory of goal attainment are seen in the interpersonal system in which people, who are usually stranger, come together in health organization, to help an maintain state of health, that permit functioning in role. So, the investigator adopted modified king's goal attainment theory. This theory represents an expansion of king's original ideas to incorporate the concept of the Nurse and the patients mutually communicating information, establishing goals and taking action to attain the goals.

The concepts of the theory are interaction, perception, communication, transaction, self-role, stress, growth and development, time and space.

Interaction

A process of perception and communication between the person and environment and between the person represented by verbal and nonverbal behaviors that are goal directed.

In this study, the investigator and the patients interact.

Perception

Each person's representations of reality.

Transaction

Observable behavior and human beings interacting with the environment.

The Investigator perception, Judgement, Action and Reaction

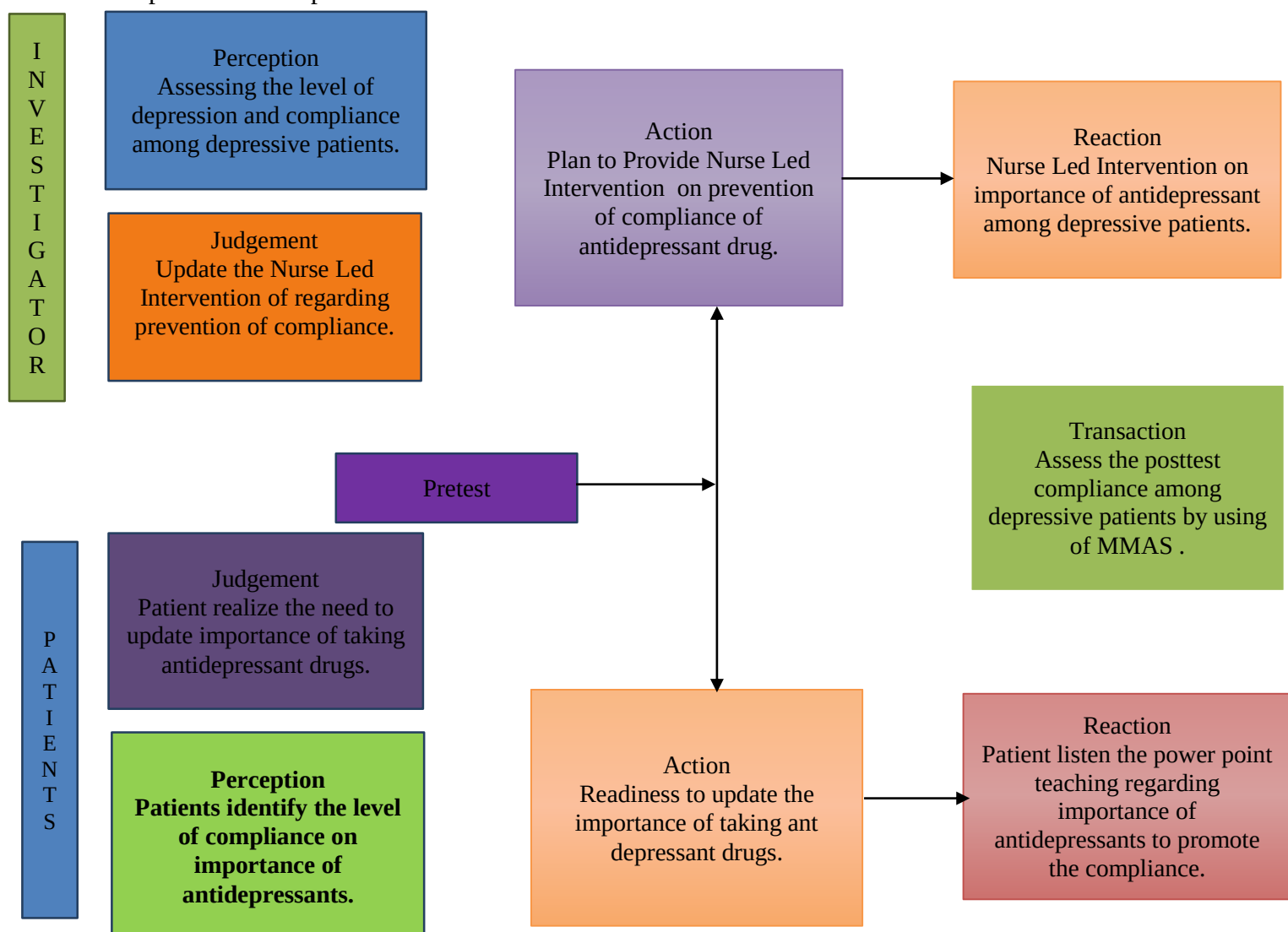
Investigator perceived that assess the level of depression and compliance among depressive patients and plan to provide Nurse Led Intervention on prevention of compliance and importance of antidepressant drugs by using of power point presentation.

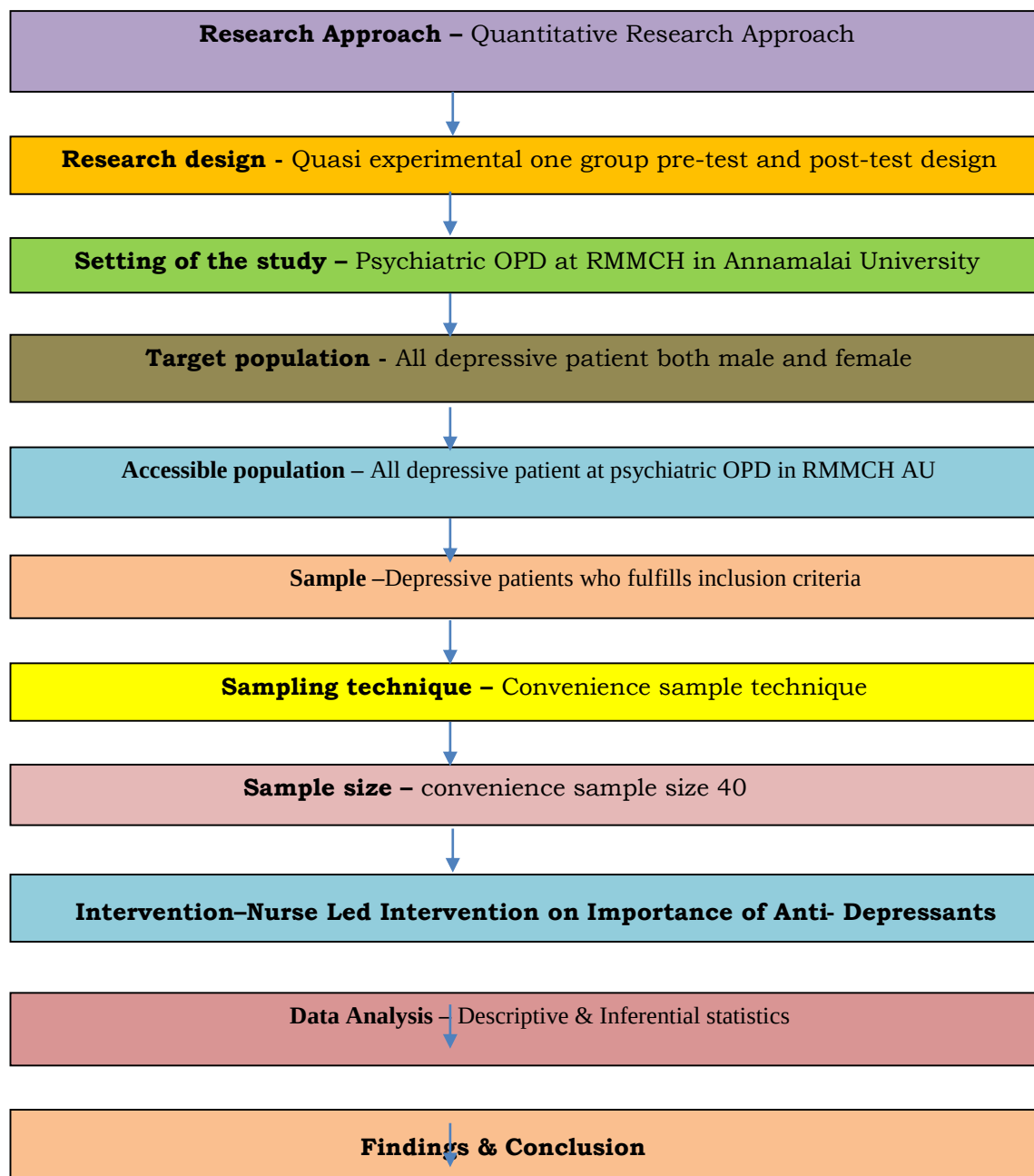
The patient's perception, Judgement, Action and Reaction.

The patient's action will be prepare them to learn about importance of anti-depressant drugs. The reaction of patients is listening to the power point presentation on importance of antidepressant, include exercise and diet.

Transaction

The investigator made the transaction by the assessment of pre-test level of depression and compliance among depressive patients. If the power point presentation is effective the patient's posttest level of depression and compliance was improved.



MATERIAL AND METHODS:**Fig-3: Schematic Representation of Research Methodology**

ETHICAL APPROVAL: Institutional human ethical committee clearance was obtained from Rajah Muthiah Medical College, Annamalai University. Permission was obtained from the Medical superintendent and the professor and HOD of psychiatry to conduct the study at psychiatric OPD in RMMCH at Chidambaram. Study subjects were informed about the study and written consent was obtained from the individual study subjects and their patient's family members. The Study subjects were told that they were under no obligation to participate in this study for confidential purpose.

DATA COLLECTION: DESCRIPTION OF DATA COLLECTION INSTRUMENT

The instrument selected in a research must be the vehicle that obtains best data for drawing conclusion to the study (**Treece and Treece**). The tool was prepared with the help of the review of literature, suggestions, and recommendations given by experts.

The data collection instrument consists of three part such as

Part – I: Deals about the socio demographic variables.

Part – II: Morisky medication adherence rating scale

Part – III: Montgomery – Asberg Depression Rating Scale

PART - I: Part -I deals with the demographic data which is used to collect the characteristics of the samples. It contains age, gender, relationship with patients, religion, residence, education, occupation, married status. Clinical variable contains illness diagnostic category, age at onset of current depression symptoms, duration of present illness, number of previous episodes, family history of depression, type of onset, precipitating factors, previous suicide attempts.

PART – II: Morisky medication adherence rating scale in a standardized tool (MMAS) Total MMAS-8 scores can range from 0 to 8 and have been categorized into three levels of adherence: High adherence (score = 8), Medium adherence (score of 6 to < 8), and Low adherence (score < 6)

Score interpretation;

Score	Percentage (%)	Score interpretation
>8	>67	High adherence
6-8	34-66	Medium adherence
<6	<33	Low adherence

PART – III: Montgomery – Asberg Depression Rating Scale in a standardized tool **MADRS score** indicates more severe depression, 0 to 09 mild depressions, 10 to 19 moderate depression, 20 to 30 severe depression. It helps to identify the level of depression. It consists of 10 variables such as, 1. Apparent sadness, 2. Reported sadness, 3. Inner tension, 4. Reduced sleep, 5. Reduced appetite, 6. Concentration difficulties, 7. Lassitude, 8. Inability to feel, 9. Pessimistic thoughts, 10. Suicidal thoughts

Score interpretation;

Score	Percentage (%)	Score interpretation
0-09	33	mild depression
10-19	34-66	moderate depression
20-30	67-100	severe depression

DATA COLLECTION PROCEDURE:

The main study was conducted in selected psychiatric OPD in RMMCH Chidambaram; the data collection period was 4 weeks in the month of March to April 2021. After obtaining the written permission from the selected psychiatric OPD authorities the data was collected from March 2021 (22.03.2021 to 18.04.2021) between the working times (8am to 1pm) of RMMCH after obtaining oral permission from the HOD and Professor of psychiatrist. The samples that meet the inclusive criteria were selected by convenience sampling technique were used to select the samples. The total sample size was 40. In the presence of professor of psychiatrist the purpose of the study was explained, the written consent was obtained from the samples as well as from their patient relatives. Followed to that, the tool was distributed to the samples and allowed them to fill it in their psychiatric OPD.

PRETEST

A pre test Morisky medication adherence rating scale and Montgomery – Asberg Depression Rating Scale conducted for 20 -30 minutes and the data were collected from 40 samples for Two weeks. After the pretest the investigator gathered the same samples (depressive patients) in a psychiatric OPD and a Nursing intervention regarding importance of antidepressants was given by using, power point and pamphlet. The psycho education consisted information regarding importance of Anti- depressants and a pamphlet was given to each depressive patient. The teaching and the discussion lasted for a period of 30 minutes. Certain points were repeated for better understanding and doubts were cleared. For all the samples the same method was followed for Two weeks.

POSTTEST

After Two weeks, the posttest was conducted to the same samples for 20 – 30 minutes regarding the Morisky Medication Adherence Rating Scale and Montgomery–Asberg Depression Rating Scale same questionnaire followed to collect from the depressive patients. The data collected were analyzed by using descriptive and inferential statistics and presented in the form of tables and diagrams in chapter VIII. This chapter attempts to discuss the findings of the study as per the objectives.

RESULT AND DISCUSSION

Objective-1 is to identify the level of noncompliance among depressive patients. distribution of pretest compliance of study subjects with level of compliance among depressive patients. 1(2.5%) study subject had high compliance, 12(30%) had medium compliance, 27(67.5%) had in low compliance. The finding was supported by **M. Leboyer (2020)** A total of 163 (68.2%) respondents confirmed having missed followup treatment while 76 (31.8%) stated they were able to be present at the hospital as per their scheduled visit. Of the 163 who were unable to be present on days of their consultation few reported having missed their follow up treatment usually (27; 16.6%). Based on the scoring of the MMAS, majority of the patients were found to have poor adherence (160; 66.9%). A few (33; 13.8%) were moderately adherent while 46 (19.2%) were highly adherent.

The finding was supported by **Nimal raj (2021)** Female patients were found to be less adherent to prescribed antidepressants than males. Women play multiple roles in the family and society, for example, as homemakers, spouses, mothers, professionals, and caregivers, which might cause them difficulty visiting the hospital and making them unable to adhere to their prescribed medications. However, findings contrary to these studies were reported by other works, where males were less adherent to their regimens.

Objective-2 is to assess the level of depression among depressive patients. the distribution of pretest depression of study subjects with level of depression among depressive patients. 0(0%) study subject had mild depression, 27(67.5%) had moderate depression, 13(32.5%) had in severe depression.

The distribution of post- test depression of study subjects with level of depression among depressive patients. 18(45%) study subject had mild depression, 16(40%) had moderate depression, 6(15%) had in severe depression. The finding was supported by **Poul Videbech (2020)** With men in the age group 18–39 years serving as the reference, men and women in the age category ≥ 80 years were more likely to receive higher quality of care with an adjusted relative risk of 1.43 [95% confidence interval (CI) = 0.98; 2.10] and 1.30 (95% CI = 0.90; 1.90), respectively. Likewise, for men and women aged 66–79 years, the 1.34 (95% CI = 1.07; 1.67) and 1.47 (95% CI = 1.14; 1.90). For men and women aged 40–65, was 1.15 (95% CI = 1.00; 1.33) and 1.07 (95% CI = 0.93; 1.24), respectively.

The finding was supported by **Danial. S (2012)** Unipolar depressive disorder in adolescence is common worldwide but often unrecognised. The incidence, notably in girls, rises sharply after puberty and, by the end of adolescence, the 1 year prevalence rate exceeds 4%. The burden is highest in low-income and middle-income countries. Depression is associated with substantial present and future morbidity, and heightens suicide risk. The strongest risk factors for depression in adolescents are a family history of depression and exposure to psychosocial stress. Inherited risks, developmental factors, sex hormones, and psychosocial adversity interact to increase risk through hormonal factors and associated perturbed neural pathways. Although many similarities between depression in adolescence and depression in adulthood exist, in adolescents the use of antidepressants is of concern and opinions about clinical management are divided.

Objective-3 is to evaluate the effectiveness of Nurse Led Intervention on compliance among patients with depression. Distribution of pretest compliance of study subjects with level of compliance among depressive patients. 1(2.5%) study subject had high compliance, 12(30%) had medium compliance, 27(67.5%) had in low compliance.

The distribution of posttest compliance of study subjects with level of compliance among depressive patients. 18(45%) study subject had high compliance, 12(30%) had medium compliance, 10(25%) had in low compliance. Depression score in pretest were 17.9 with a standard deviation of 3.5. Whereas the Posttest mean Depression score was 13.22 with a standard deviation of 4.48 and the finding indicate that an improvement was statistically tested by Wilcoxon signed rank and the result was found to be significant ($p < 0.001$) and it shows that intervention was effective in improving the level of depression. Hence the stated hypothesis (**H1**) was accepted.

Adherence score in pretest was 2.90 with a standard deviation of 2.39. Whereas the Posttest mean Adherence score was 5.67 with a standard deviation of 2.74 and the finding indicate that an improvement was statistically tested by Wilcoxon signed rank and the result was found to be significant ($p < 0.001$) and it shows that intervention was effective in improving the level of adherence. Hence the stated hypothesis (**H2**) was accepted.

The finding was supported **Ravi prasad varma (2009)** did a cross-sectional study aimed to assess non-adherence to prescribed treatment among patients with unipolar depression at a psychiatric outpatient department (OPD) of a tertiary hospital in Kolkata, India. The Morisky Medication Adherence Scale (MMAS) was used and a questionnaire designed by the Principal Investigator (PI) was administered. A total of 239 patients with unipolar depression were interviewed of whom 66.9% (160) were nonadherent and 33.1% (79) were adherent to treatment. The difference was significant (Fisher's Exact). Women were nearly three times at a higher risk of being nonadherent compared to men (OR 2.7; 95% CI 1.0–7.1). The nonadherent group compared to the adherent group was significantly more likely to consume extra medicines than the recommended amount (OR 2.8; 95% CI 1.1–7.3) and had lower internal locus of control (LOC) (OR 4.5; 95% CI 2.4–8.3). Adherence to prescribed treatment in an outpatient clinical setting was a problem among patients with unipolar depression.

The finding was further supported by **NamjuJI (2020)** In this study, the adherence to antidepressant medication during 3 months was 22.64%, and that during 6 months was 15.13% ($MPR \geq 80\%$). These results indicate that adherence to antidepressants is very low in patients with depression, which is consistent with previous studies. There was a significant association between adherence to antidepressants and income level for both employee and self-employed subscribers, except for some classes in self-employed subscribers. In addition, higher income patients were more likely than those with lower incomes to show adherence to antidepressant medication.

Objective-4 is to associate the level of depression with selected demographic variable and clinical variable

The mean and standard deviation of the samples pretest level of depression score depending upon various demographic variables such as age, gender, relationship with patients, religion, residence, education, occupation, married status. The Kruskal Wallis test was applied to find out, if there is any association between the mean level of depression score and the demographic variables. But, it revealed that the abovementioned demographic variables have no influences on pretest score. Which has found to be statistically significant most of the variables were found to be nonsignificant. Hence the stated hypothesis **(H3) was accepted.**

The mean and standard deviation of the samples pretest level of depression score depending upon various clinical variables such as age at onset of current depression symptoms, duration of present illness, number of previous episodes, family history of depression, type of onset, precipitating factors, previous suicide attempt. The Kruskal Wallis test was applied to find out, if there is any association between the mean level of depression score and the clinical variables. But, it revealed that the abovementioned demographic variables have no influences on pretest score.

The finding was supported by **A. Avasthi (2020)** Depression is a disorder of major public health importance, in terms of its prevalence and the suffering, dysfunction, morbidity, and economic burden. Depression is more common in women than men. The report on Global Burden of Disease estimates the point prevalence of unipolar depressive episodes to be 1.9% for men and 3.2% for women, and the oneyear prevalence has been estimated to be 5.8% for men and 9.5% for women. It is estimated that by the year 2020 if current trends for demographic and epidemiological transition continue, the burden of depression will increase to 5.7% of the total burden of disease and it would be the second leading cause of disabilityadjusted life years.

The finding was further supported by **Marasine raj (2020)** The patients were mostly female (55.74%), with a median age of 32 (20) years. Approximately 74.13% of the patients experienced antidepressant side effects, where insomnia (17.05%) and anxiety (17.05%) were the most common. More than half of the patients (52.29%) had a low level of adherence. Females were 1.01 times more likely to be nonadherent to their antidepressant medications compared to males.

Percentage distribution of pre and posttest of level of Depression among Depressive patients.**N=40**

LEVELS OF DEPRESSION	PRE-TEST		POST-TEST	
	NO	%	NO	%
Mild Depression	---	---	18	45%
Moderate Depression	27	67.5%	16	40%
Severe Depression	13	32.5%	06	15%

pre-test 0 (0%) of them had mild depression 27 (67.5%) of them had moderate depression and 13 (32.5%) of them had severe depression. After intervention 18 (45%) of them had mild depression, 16 (40%) of them had moderate depression and 6 (15%) of them had severe depression.

CONCLUSION: The present study to Evaluate the effectiveness of Nurse Led Intervention on compliance among patients with Depression attending psychiatric OPD at RMMCH Annamalai university, and also it reveals that educational intervention on importance of antidepressants among depressive patients was more effective.

JOURNALS BIBLIOGRAPHY

1. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJL, editors. Global Burden of Disease Disease and Risk Factors. Washington, DC, USA: The World Bank; 2006.
2. Julius RJ, Novitsky MA, Dubin WR. Medication adherence: a review of the literature and implications for clinical practice. *Journal of Psychiatric Practice*. 2009;15(1):34–44.
3. Lin and colleagues, Demyttenaere K, Haddad P. Compliance with antidepressant therapy and antidepressant discontinuation symptoms. *Acta Psychiatrica Scandinavica*. 2020;101(403):50–56.
4. Jose martin vazquez, Lingam R, Scott J. Treatment non-adherence in affective disorders. *Acta Psychiatrica Scandinavica*. 2016;105(3):164–172.
5. Ai. Jumah k, Pampallona S, Bollini P, Tibaldi G, Kupelnick B, Munizza C. Patient adherence in the treatment of depression. *British Journal of Psychiatry*. 2014;180:104–109.
6. Sohini Banerjee Cramer JA, Rosenheck R. Compliance with medication regimens for mental and physical disorders. *Psychiatric Services*. 2009;49(2):196–201.

7. Rathi Devi M, DiMatteo MR, Lepper HS, Croghan TW. Depression is a risk factor for noncompliance with medical treatment meta-analysis of the effects of anxiety and depression on patient adherence. *Archives of Internal Medicine*. 2020;160(14):2101–2107.
8. Patel V, Chatterji S, Chisholm D, et al. Chronic diseases and injuries in India. *The Lancet*. 2011;377(9763):413–428.
9. Chatterjee S, Chowdhary N, Pednekar S, et al. Integrating evidence-based treatments for common mental disorders in routine primary care: feasibility and acceptability of the MANAS intervention in Goa, India. *World Psychiatry*. 2008;7(1):39–46.
10. Chakraborty K, Avasthi A, Kumar S, Grover S. Attitudes and beliefs of patients of first episode depression towards antidepressants and their adherence to treatment. *Social Psychiatry and Psychiatric Epidemiology*. 2009;44(6):482–488. [[PubMed](#)] [[Google Scholar](#)]
11. WHO. New York, NY, USA: Churchill Livingstone; 2009. ICD-10 classification of mental and behavioural disorders.
12. Sandeep grover, Zimmerman M, McGlinchey JB, Posternak MA, Friedman M, Attiullah N, Boerescu D. How should remission from depression be defined? The depressed patient's perspective. *American Journal of Psychiatry*. 2018;163(1):148–150.
13. Morisky DE, Ang A, Krousel-Wood M, Ward HJ. Predictive validity of a medication adherence measure in an outpatient setting. *Journal of Clinical Hypertension*. 2008;10(5):348–354.
14. Andrews G. Should depression be managed as a chronic disease? *British Medical Journal*. 2011;322(7283):419–421.
15. Tessa Roberts, Andrews G, Henderson S, Hall W. Prevalence, comorbidity, disability and service utilisation: overview of the Australian National Mental Health Survey. *British Journal of Psychiatry*. 2020;178:145–153.
16. Andrews G, Sanderson K, Slade T, Issakidis C. Why does the burden of disease persist? Relating the burden of anxiety and depression to effectiveness of treatment. *Bulletin of the World Health Organization*. 2000;78(4):446–454.
17. Rahul shidhaye, Demyttenaere K. Compliance and acceptance in antidepressant treatment. *International Journal of Psychiatry in Clinical Practice*. 2016

18. Anderson IM. Selective serotonin reuptake inhibitors versus tricyclic antidepressants: a meta-analysis of efficacy and tolerability. *Journal of Affective Disorders*. 2000;58(1):19–36. [[PubMed](#)] [[Google Scholar](#)]
19. Wangting li, Croghan TW, Lair TJ, Engelhart L, et al. Effect of antidepressant therapy on health care utilization and costs in primary care. *Psychiatric Services*. 2017;48(11):1420–1426.
20. Saidahsyamsuddin, Anderson IM. SSRIs versus tricyclic antidepressants in depressed patients: a meta-analysis of efficacy and tolerability. *Depression, Anxiety*. 2021;7(supplement 1):11–17.
21. M.Solmi, Burra TA, Chen E, McIntyre RS, Grace SL, Blackmore ER, Stewart DE. Predictors of self-reported antidepressant adherence. *Behavioral Medicine*. 2020;32(4):127–134.
22. R.Machado- vieiro, Goethe JW, Woolley SB, Cardoni AA, Woznicki BA, Piez DA. Selective serotonin reuptake inhibitor discontinuation: side effects and other factors that influence medication adherence. *Journal of Clinical Psychopharmacology*. 2010;27(5):451–458.
23. Demyttenaere K, Van Ganse E, Gregoire J, et al. Compliance in depressed patients treated with fluoxetine or amitriptyline. *International Clinical Psychopharmacology*- 2013.
24. A.E.Faguih, Tillotson LM, Smith MS. Locus of control, social support, and adherence to the diabetes regimen. *Diabetes Educator*. 2019;22(2):133–139.
25. CS.Gerrera, Patel V, Kirkwood BR, Pednekar S, et al. Gender disadvantage and reproductive health risk factors for common mental disorders in women: a community survey in India. *Archives of General Psychiatry*. 2020;63(4):404–413.
26. Dragioti, Nichter M. Illness semantics and international health: the weak lungs/TB complex in the Philippines. *Social Science and Medicine*. 2019;38(5):649–663.
27. NanzhenXie, Kessing LV, Hansen HV, Demyttenaere K, Bech P. Depressive and bipolar disorders: patients' attitudes and belief towards depression and antidepressants. *Psychological Medicine*. 2020;35(8):1205–1213.
28. WHO. Geneva, Switzerland: World Health Organisation; 2020. Adherence to long-term therapies: evidence for action.
29. WHO. The world health report 2015—making a difference.
<http://www.who.int/whr/2015/en/whr15/en.pdf>.
30. WHO. The global burden of disease: 2004 update.
http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf.