

Medication Adherence and its Association with Subjective Well Being among Persons with Schizophrenia: A Descriptive Trial from Assam

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Abstract

Medication non-adherence has been associated with persistence of psychotic symptoms, relapse, and hospitalisation in patients with schizophrenia. Adherence to antipsychotic drug treatment is a key issue for nurses and treatment team members caring for patients who typically are on chronic, progressive disease course. The study was conducted at LGB Regional Institute of Mental Health, Tezpur, Assam to assess the medication adherence and its association with subjective well-being. Descriptive research design was opted for the present study with 85 samples selected by using convenience sampling technique. Semi-structured interview technique was used to collect the data. Descriptive and inferential statistics were used to analyse the obtained data. Results showed that 34.1 percent patients were not adherent to medication. Significant association was found between the Subjective well-being and Medication Adherence at 0.05 level of significance. Significant association was also found between the medication adherence and Inadequate Mental Mastery Factor (Factor 8) of Subjective well-being at 0.02 level of significance.

Schizophrenia has puzzled physicians, philosophers, and general public for centuries. The early onset of the disease and its chronic course makes this a particularly disabling disorder for patients and their families. The social and economic impact of the disorder on society and families is enormous.

Antipsychotics are the mainstay of treatment. Approximately 70 percent of patients treated with any antipsychotic achieve remission. If medication for schizophrenia is discontinued, the relapse rate is about 80 percent within 2 years.

Current antipsychotics have considerable limitations. Antipsychotic-related side effects have an important influence on the patient's well-being. The reduction of negative symptoms contributes to a higher subjective well-being, a better medication adherence and thereby an improved therapeutic outcome. Involvement of the patient and the consideration of his/her subjective wellbeing will be a major aspect in the development of new treatment strategies in schizophrenia, thus subjective well-being of the patient has a significant impact on the adherence and the long-term prognosis of a schizophrenia patient.

Non-adherence to antipsychotic medication is common, averaging 40-50 percent. In two thirds of case re-hospitalisation is the result of complete or partial non-compliance. After one year of first hospitalisation, 40 percent of relapse results from non-adherence to medication.

Poor adherence to oral antipsychotic medication leads to relapses, derails the process of recovery, and contributes to the higher treatment cost. Non-adherence is also associated with poor social outcomes, including greater risk of arrest, violence, victimisation, substance use, poorer mental functioning and life satisfaction. Medication adherence is important in determining whether the selected treatment is effective, whether there should be dosage adjustments, and whether concomitant medications should be added.

Persons with untreated psychosis are significantly less likely to achieve remission, whereas antipsychotic drug adherence has been associated with recovery. As such, adherence to antipsychotic drug treatment is a key issue for nurses and treatment team members caring for patients who typically are on chronic, progressive disease course. Mental health nurses are in a key position to support improved adherence in persons with schizophrenia through use of practical educational strategies that help patients, family members, and health care providers better understand and manage treatment.

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Objectives

The objectives of the present study were:

1. To assess the medication adherence among the persons with schizophrenia
2. To assess the subjective well-being of persons with schizophrenia.
3. To assess the association of patients' subjective well-being with adherence to medication of persons with schizophrenia.

Hypothesis

H₁: There will be a significant association between the patient's adherence to medication and their subjective well-being at 0.05 level of significance.

Review of Literature

Related to prevalence of medicine adherence: In a systematic review on adherence to treatment by patients with psychosis Nosé, Barbui, Tansella (2003) found 25.78 percent of overall weighted mean rate of non-adherence in a sample of 23,796 patients. Factors associated with poor compliance included: lack of insight, positive symptoms, younger age, male gender, history of substance abuse, unemployment and low social functioning. The researchers concluded that approximately one in four patients with psychosis fails to adhere with treatment programmes.

Adewuya et al (2010) conducted a study to assess the rate of adherence to medications amongst psychiatric outpatients in Nigeria and examine factors associated with medication non-adherence amongst this group. Psychiatric outpatients (n=342) from three centres were assessed for medication adherence using the Morisky Medication Adherence Questionnaire. The researchers found 22.2 percent with good medication adherence, 29.8 percent with moderate adherence and 48.0 percent with poor adherence. The significant independent correlates of poor medication adherence included employment, poor social support, high self-stigma and perceived spiritual causation of mental illness.

Association between subjective well-being and medication adherence: Karow A et al (2007) investigated subjective well-being and compliance, with consideration of clinical symptoms and side effects in patients with schizophrenia. The researchers measured subjective well-being during 12 months with the Subjective Well-Being under Neuroleptic Treatment Scale, short version (SWN-K). The researchers found that compliance with antipsychotic medication was strongly associated with subjective well-being; other associated factors were clinical symptoms and

side effects.

deMillas, Lambert, Naber (2006) in their study to find out the impact of subjective well-being under neuroleptic treatment on compliance and remission found that the effects of antipsychotic treatment on psychopathology and on subjective well-being (SW) are not strongly related; the perspectives of the patient and his/her psychiatrist markedly differ. The data strongly suggested that a systematic evaluation of the patient's perspective of antipsychotic treatment is meaningful and necessary to increase compliance, functional outcome, and long-term prognosis.

Methodology

The study was conducted in outpatient department of Lokopriya Gopinath Bordoloi Regional Institute of Mental Health (LGBRIMH) in the form of quantitative non-experimental descriptive type. Convenience sampling technique was used. The number of samples was 85.

The conceptual framework of this study was based on the Health Belief Model designed by Hochbaum (1958) modified and used by Kegeles (1965) Rosenstock (1974), Becker M (1974).

Inclusion criteria: Persons diagnosed with schizophrenia according to ICD 10 guidelines with minimum 6 months duration at the time of study, aged between 18 to 60 years, those who were willing to participate voluntarily, persons with schizophrenia who were attending OPD and were free from other medical disease, also those who were able to read and write Assamese.

Tools used: The tools utilised for data collection included the Medication Adherence Rating Scale (MARS) by Thompson et al for assessment of adherence in psychiatric patients and the Subjective Well Being Inventory (SUBI) developed in ICMR-WHO project to assess the patient's subjective well-being. Both these were translated into Assamese language by experts from the field.

Cronbachs Alpha test was used to calculate the reliability of the translated tools. The reliability coefficient was found to be significant i.e. 0.80 for both MARS and WHO; SUBI scale.

Data collection procedure: The semi structured interview technique was used for data collection. Descriptive and inferential statistics was used in the form of SPSS 20 software for processing and analysis of gathered data.

Table 1: Mean score, Maximum score, Range of total SUBI score, the Mean value of Total SUBI score and the Standard Deviation of the Total SUBI score

Variable		Minimum score	Maximum score	Range	Mean	SD
Total SUBI Score	Minimum (40-60)	51	59	64	81.2941	12.8367
	Average (61-80)	63	80			
	Maximum (81-120)	82	115			

Results and Discussion

Mean score for Medicine Adherence was 6.7, with a minimum score of 2 and a maximum score of 8 out of 10. The standard deviation was 2.00; 56 (65.9%) patients had a MARS score between 5-10 and so were considered adherent to treatment and 29 (34.1%) had MARS score between 0-4 and so was considered as not adherent to treatment; 34.1 percent non-adherence is within the range found in previous study conducted by Hazarika, Roy, Talukdar (2012) where the researchers had found 37 percent non-adherence in their study. This finding is also in accordance with the study conducted by Sanele et al. (2012) where the researchers had found that 37 percent of participant had low adherence to psychiatric treatment.

Table 1 shows the Subjective Well Being score. The mean score for subjective well-being was 81, with minimum score of 51 and maximum score 115 out of 120. The mean score falls in the range of average subjective well-being. The standard deviation was

12.83. More than half (55.3%) of the respondents were found to have average level of subjective well-being, 40 percent had high level of subjective well-being.

Table 2 depicts the association of medication adherence with subjective well-being. Significant association was found between the medication adherence and subjective well-being ($\chi^2=6.575$, $p<0.05$). The findings are similar to those of Karow A et al (2007) who investigated subjective well-being and compliance, with consideration of clinical symptoms and side effects, in outpatients diagnosed with schizophrenia and found that compliance with antipsychotic medication was strongly associated with subjective well-being; further associated factors were clinical symptoms and side effects. The findings are also supported by Acosta et al (2012) who reviewed basic non-adherence concepts of prevalence, consequences, evaluation methods, methodological restrictions of available studies, risk factors and intervention strategies regarding medication adherence in schizophrenia and found that the cause of non-adherence is multi factorial.

Significant association was also found between the Medication adherence and Factor 8 i.e. inadequate mental mastery factor of subjective well-being of the patient ($\chi^2 = 10.821$, $p<0.05$) (Table 3).

Nursing Implications

Nursing Education: Nurse educator can help students understand various aspects of disease condition and the importance of medication adherence.

Nursing Practice: Nurses can render supportive and educative care to the clients with schizophrenia using different methods of teaching in the hospital and in the community. Nurses can make use of the telehealth in improving the medication adherence of the patients. Nursing intervention packages can be built up which can be utilised for improving patients' medication adherence.

Nursing Research: The findings of the study give base for future descriptive, quasi experimental, experimental studies in this field to build a wider base of nursing knowledge and evidence.

Nursing Administration: Nurse Administrator can plan and organise teaching programmes for the staff nurses on medication adherence and other methods for the improvement of patient's

Table 2: Association of medication adherence with the subjective well-being among persons with schizophrenia

Variable		Group				df	χ^2	p value	p (table value)
		Adherent		Non Adherent					
Subjective Well Being	Minimum (40-60)	1	1.8%	3	10.3%	2	6.575*	0.037	5.99
	Average (61-80)	28	50%	19	65.5%				
	Maximum (81-120)	27	48.2%	7	24.1%				

*Significant association at 0.05 level.

Table 3: Association of medication adherence with Inadequate Mental Mastery Factor (factor 8) of subjective well being in patients with schizophrenia

Variable		MARS		df	χ^2	p value	χ^2 (Table value)
Subjective well-being		Adherent (56)	Non Adherent (29)				
Inadequate Mental Mastery Factor (Factor 8)	Minimum	0	2	2	10.821**	0.004	5.99
	Average	20	18				
	Maximum	36	9				
	Average	23	17				

*Significant association at 0.02 level of significance.

medication adherence.

Recommendations

- Another study by using larger samples in different setting can be conducted to confirm these study findings.
- Similar study can be done for the patients with other psychiatric disorders.
- An experimental study can be carried out to assess the effectiveness of nursing intervention package on medication adherence and subjective well-being.

Conclusion

There is a significant level of association between the medication adherence and subjective well-being in persons with schizophrenia. The findings are in keeping with other studies conducted across the world. Medication non-adherence has been associated with persistence of psychotic symptoms, relapse, and hospitalisation in patients with schizophrenia. Nursing intervention packages can be built up which can be utilised for the improvement of patients medication adherence.

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