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RESEARCH ARTICLE

THERAPEUTIC ADHERENCE IN A POPULATION OF PATIENTS TREATED FOR SCHIZOPHRENIA AT THE HOSPITAL FOR MENTAL HEALTH AND PSYCHIATRIC DISORDERS IN TANGIER

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Abstract

Introduction: Schizophrenia is a chronic psychosis requiring long-term, often lifelong, treatment and psychiatric follow-up. Adherence to treatment in this population is a prognostic factor for patients and a major challenge for practitioners, with multiple interfering factors and significant consequences. However, the relationship between depression and therapeutic adherence in schizophrenic patients remains underexplored. This study aims to evaluate the epidemiology of therapeutic adherence in our institution .

Materials and Methods: This is a descriptive and analytical cross-sectional study conducted at the Mental Health and Psychiatric Diseases Hospital in Tanger over a two-month period (from October 1, 2022, to November 30, 2022). Data were collected using a hetero-questionnaire that included sociodemographic data, patient history, clinical characteristics, and therapeutic aspects. Therapeutic adherence, insight,, and psychotic symptoms were assessed using the MARS, Birchwood Q8, , respectively. Bivariate analysis using the Chi-square test, Student's t-test, and Mann-Whitney U test, and multivariate analysis using binary logistic regression were performed. Data entry and analysis were carried out using SPSS version 21, with the significance threshold set at 0.05.

Résults: The prevalence of poor therapeutic compliance in our study was 26,7%; 72.2% of the patients had poor therapeutic adherence according to the MARS scale. A comparison between the non-adherent patient group and the adherent patient group (Table 2) showed that the latter were significantly more likely to be female (p=0.00) and have a good socioeconomic status (p=0.05). They were also more likely to live with their families (p=0.04) and be more aware of their condition compared to non-adherent patients (p=0.00). Regarding therapeutic characteristics, significant differences between the two groups included the type of antipsychotic medication (p=0.00), treatment supervision (p=0.00), quality of family support (p=0.03), and patient's assessment of the treatment (p=0.00)

Conclusion: Compliance is a complex and dynamic phenomenon whose definitions and evaluation methods are multiple and non-consensual and the factors are numerous, interacting with each other.

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Introduction:-

Therapeutic adherence is defined as the concordance between the patient's behavior and the prescriptions (medicinal or otherwise) of their physician. It is a dynamic, multifactorial phenomenon that is difficult to evaluate (1).There is no consensus standard for defining adequate adherence; however, many authors suggest that an approximately 80% ratio of prescription adherence indicates an acceptable therapeutic alliance over an 18-month period, which is often referenced in chronic conditions. (2)

In psychiatry, most patients with schizophrenia exhibit partial or no medication adherence,(3,4)Only one-third of them adhere to their treatment as prescribed (5)

Non-adherence to treatment has clinical as well as socioeconomic consequences, including prolonged hospital stays and excessive healthcare utilization.(6–8)

In Morocco, therapeutic non-adherence is also a major problem, although data are scarce. According to a study by Dr. Adil El Ammouri, the prevalence rate of non-adherence among patients was found to be 40%.

Our objective is to evaluate the quality of therapeutic adherence among schizophrenic patients receiving outpatient care at Ar-razi Hospital in Tangier, and to identify predictive factors of poor therapeutic adherence as well as factors influencing treatment adherence.

Materials and Methods:-

Type and Location of the Study

This is a cross-sectional study with descriptive and analytical aims spanning over 3 months involving patients being treated for schizophrenia in our institution.

Inclusion Criteria

1. Age between 18 and 65 years.
2. Patients diagnosed with schizophrenia according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and being treated in our institution.
3. Patients who have given their consent to participate in the study.

Exclusion Criteria

1. Patients aged under 18 or over 65 years.
2. Patients who have not given their consent.
3. Patients who are unstable and disorganized.
4. Patients with intellectual disability.
5. Patients in whom a diagnosis of schizoaffective disorder is likely.

Ethical Considerations

All patients participating in our study were asked to provide informed consent. Data collection was conducted with respect for anonymity and confidentiality of information.

Data Collection

In order to conduct our statistical study, we developed an exploitation form in the form of a questionnaire containing the following elements:

1. Sociodemographic characteristics of the patient.
2. Personal and family history of the patient.
3. Clinical characteristics of the disease.
4. Therapeutic management.

Measurement Tools

1. Evaluation of insight using the Birchwood Insight Scale: This is a self-assessment scale of insight consisting of 8 items divided into 3 subscales. Each item can be scored from 0 to 2, each subscale from 0 to 4, and the total score of the patient can vary from 0 to 12. When the score is less than 9, insight is considered poor, and when it is greater than or equal to 9, insight is considered good. An insight score of 12 is considered very good.

2. Evaluation of adherence using the MARS (Medication Adherence Rating Scale): The MARS scale is a validated measurement tool for therapeutic adherence, consisting of 5 questions to be answered with the patient. The total score provides an overview of therapeutic adherence: the higher the score, the better the therapeutic adherence. If the total MARS score is 21 or if the score reaches 4 for each individual question, the patient is considered compliant.

Analytical Studies

Characteristics were described in mean or median for quantitative variables, and frequency and percentage for qualitative variables. Comparison of characteristics was performed using Chi-square tests, Fisher's test. The significance threshold (p) was set at 0.05.

Résultats:-

Our study included a total of 91 patients diagnosed with schizophrenia. The characteristics of the total sample were as follows (Table 1):

They had a median age of 50 years, predominantly single (73.6%), male (85.6%), and from urban areas (94.3%). Regarding educational level, 88.7% of them did not exceed secondary education level; 43.8% were unemployed, and 68.2% lived with a third party. 95.8% reported substance use.

Non-medicated psychoactive substances were used by 95.8% of the patients, and 5.6% had a family history of psychiatric disorders. The average duration of illness was 12.79 years, and our patients had been hospitalized an average of 2.51 times.

Regarding therapeutic characteristics, first-generation antipsychotics were the most prescribed (62.9%). 10.2% of the patients reported experiencing side effects induced by the antipsychotic treatment they were taking.27.8% of the patients have good insight, while 72.2% have poor insight regarding their condition.

Table 1:- Summary Table of Sociodemographic Characteristics of the Studied Population.

Sociodemographic and clinical characteristics".	percentage/ number
Gender male female	 85,6% 14,4%
living situation urban rural	 94,3% 5,7%
marital status single married divorced	 73,6% 2,3% 24,1%
Profession without profession with profession	 56,2% 43,8%
Health insurance Present Absent None	 98,9% 1,1%
Socioeconomic level Low Meduim Good	 75% 22,7% 2,3%

Schooling level illiterate primary middle school" high school university	 3,4% 33,4% 37,1% 22,5% 3,4%
lifestyle single with family	 31,8% 68,2%
History of organic pathology yes no	 6% 94%
Family history of psychiatric disorder yes no	 5,6% 94,4%
Psychoactive substance use yes no	 95,8% 4,2%
Suicide attempt Yes No	 21,9% 78,1%
Clinical characteristics	
Length of schizophrenia	12,79 years
Nombre d'hospitalisations	2,51
Time since the last hospitalization	4,11 years
Type of antipsychotic medication Atypical antipsychotic Typical antipsychotic	 37,1% 62,9%
side effects yes no	 10,2% 89,8%
treatment cost yes no	 73,3% 26,7
treatment availability yes no	 65,9% 34 ,1
treatment monitoring alone the family	 92,9% 5,9%
Patient satisfaction with the treatment beneficial damage	 52,3% 47 ,7%
Families' assessment of the treatment beneficial damage	 41,8% 58,2%

psychoéducation Yes no	 26,7% 73,3%
Quality of psychological family support Yes NO.	 47,1% 52,9%
Therapeutic adherence according to the MARS scale good observer poor observer	 73,3% 26,7%
Quality of patient insight according to the Birchwood Q8 scale good insight poor insight	 27,8% 72,2%

Table II:- Comparison of Sociodemographic and Clinical Characteristics of Adherent and Non-Adherent Patients.

	observation		Comparison Test	P-Value
	No	Yes		
Gender				
male	65%	11%	Fisher's test	0.000
Female	0%	13%		
living situation				
urban	74,7%	25,3%	Fisher's test	0,123
rural	40%	60%		
Marital status				
Single	79,7%	20,3%	Chi-squared test	0,16
Married	61.6%	38.1%		
Profession				
None	64,1%	35,9%	Chi-squared test	0,008
Daily	83,3%	16,7%		
Health insurance				
None	100%	0%	Fisher's test	1
With	72,7%	27,3%		
Socioeconomic level				
Low	80,3%	19,7%	Chi-squared tes	0,05
Meduim	55%	45%		
High	0%	100%		
lifestyle				
With family	63,3%	36,7%	Fisher's test	0.04
Alone	92,9%	7,1%		
History of organic pathology				
Yes	100%	0%	Fisher's test	0,323
No	73,1%	26.9%		
Family history of psychiatric disorder				
Yes	75%	25%	Fisher's test	1
No	75%	25%		
Type of antipsychotic medication				
Atypical	51,5%	48,5%	Chi-squared test	0,00
Classic	85,7%	14,3%		
treatment cost				

Yes	70.6%	29,4%	Chi-squared test	0,548
No	57,1%	42,9%		
side effects				
Yes	88,9%	11,2%	Fisher's test	0,434
No	70,9%	29,1%		
treatment monitoring				
Patient	79,7%	20,3%	Chi-squared test	0,00
Family	0%	100%		
Quality of psychologcal family support				
Good	6,3%	93,8%	Chi-squared test	0,03
Poor	70%	30%		
Patient satisfaction with the treatment				
Beneficial	35,2%	64,7%	Chi-squared test	0,00
Damage	100%	0%		
Families' assessment of the treatment				
Beneficial	42,1%	57%	Fisher's test	0,91
Damage	100%	0%		
Psychoeducation				
Yes	0%	100%	Fisher's test	0.00
No	100%	0%		
Insight.				
Good	4,2%	95,8%	Chi-squared test	0,00
Bad	98,5%	1,5%		

72.2% of the patients had poor therapeutic adherence according to the MARS scale. A comparison between the non-adherent patient group and the adherent patient group (Table 2) showed that the latter were significantly more likely to be female (p=0.00) and have a good socioeconomic status (p=0.05). They were also more likely to live with their families (p=0.04) and be more aware of their condition compared to non-adherent patients (p=0.00).

Regarding therapeutic characteristics, significant differences between the two groups included the type of antipsychotic medication (p=0.00), treatment supervision (p=0.00), quality of family support (p=0.03), patient's assessment of the treatment (p=0.00),and psychoeducation (p=0,00)

Discussion:-

The prevalence

The phenomenon of poor therapeutic adherence is encountered in all medical disciplines. In psychiatry, 15 to 25% of hospitalized patients and 50% of those followed on an outpatient basis would have poor therapeutic adherence. (9) ;20% of subjects would not purchase their medications in the month following the prescription, and 30 to 50% of purchased medications would be discarded, unused, or stockpiled. (10) .Non-adherence concerns approximately 50% of patients across all situations in psychiatry. Corrigan et al provided the following figures for patients with schizophrenia treated with neuroleptics: 11 to 80% non-adherent, with an average percentage of 48% in the first year and 74% for the first two cumulative years. In our study, the rate of non-adherent patients is approximately 73.3%. (11)

Indeed, it is very difficult to obtain consistent figures for methodological reasons (various methods, more or less reliable) and due to difficulties in clearly defining adherence.(11).

Cramer & Rosenheck conducted an analysis of 24 studies conducted between 1958 and 1994 that attempted to measure the adherence rate among patients treated with antipsychotics. The figures concerning non-adherence vary from 24 to 90% (average percentage of 58%).(12) Misdrahi et al mention that 16% to 80% of patients with schizophrenia are non-adherent.(13)Palazzolo conducted a literature review of all publications (34 studies) published between 1985 and 2000 and found that the average adherence rate is 46% for daily intake of oral medication, with results ranging from 5 to 85%. (14)

Factors influencing therapeutic adherence

Adherence in schizophrenia is a multifactorial phenomenon.(13,15,16). Generally, four types of factors influencing adherence can be distinguished: those related to medications, those related to patients and the illness, those related to the physician and healthcare team (therapeutic alliance), and finally, environmental factors.

Factors related to medication

Adverse effects

Indeed, medication adherence partly depends on treatment tolerance and therapeutic efficacy. Adverse effects are often considered the main reason for poor therapeutic adherence. A significant advancement has been represented by the introduction of new antipsychotics. Besides their excellent efficacy, at least equivalent to that of conventional neuroleptics such as haloperidol, they have reduced the incidence of certain side effects and improved quality of life. The reduction of these adverse effects, which greatly troubled patients and led many to discontinue treatment, should significantly improve therapeutic adherence. (17)

One can conclude that a medication must be taken and understood by the patient as a highly useful, indispensable, and vital treatment; the benefits must clearly outweigh the drawbacks.

Treatment Cost:

For individuals with socio-economically disadvantaged conditions, the cost of treatment can become a factor if reimbursement is insufficient or nonexistent after hospital discharge.(13). In our study, we did not find a relationship between treatment cost and adherence, which can be explained by the availability of treatment in public services most of the time.

Factors related to patients and the illness

Sociodemographic Factors:

Among sociodemographic factors, literature data regarding the potential influence of age, gender, level of education, income, etc., are contradictory.(18–20)

It appears that women adhere better to treatment than men, and (19), The same result was reported in our study.

Illness Insight and Anosognosia:

This lack of illness insight is a factor frequently mentioned as a cause of non-adherence.(19,21,22). Within a population of 60 patients with schizophrenia, the score obtained on a scale measuring illness insight was significantly correlated with the score of poor adherence measured by the DAI-30.(23). This holds true for our patients, where good therapeutic adherence was associated with a good level of insight.

Substance Use:

Olfson et al., in a longitudinal study involving 213 patients with schizophrenia followed after hospital discharge, explored negative predictive factors on adherence. Three months after discharge, 19.2% of the subjects were non-adherent (discontinuation of treatment for at least one week). Compared to those who were adherent to their treatment, these subjects had significantly more frequent histories of addictive behaviors.(21)

Owen et al. highlighted that among patients with schizophrenia with substance use disorders, the risk of not regularly taking their medication was over eight times higher. Individuals who use substances and do not adhere to their medication regimen or outpatient treatment consistently exhibit the most symptoms.(25)

Bowers and colleagues explained that psychoactive substances lead to alterations in dopaminergic systems at the mesolimbic level, which would make patients resistant to the action of antipsychotics.(26)

Environmental Factors

Family Support and Accessibility of Care:

Unfavorable family environments and cultural factors also seem to be involved.(13).According to the ADHES survey, 71% of Belgian doctors believe that their patients need family, a psychiatrist, etc., to remind them to take medication as prescribed, and 57% of schizophrenic patients live in conditions (family, environment, etc.) that could affect daily adherence. This is confirmed in our study, where patients with good quality family support adhere to their treatment.

Psychoeducation:
A structured program comprising various educational modules has a positive impact on medication adherence. (14). Kemp et al. demonstrated in patients with schizophrenia that an educational program significantly improves therapeutic adherence, illness insight, and social functioning.(27). The superiority of this type of intervention was confirmed in another study involving a population of patients with schizophrenia treated with antipsychotics, without an increase in healthcare costs associated with this management.(22). Many studies highlight the benefits of these modules in terms of favorable clinical outcomes for patients.(28).

Conclusion:-

Non-adherence to treatment is a major problem in the management of schizophrenia. It is common and has serious consequences for the patient, their family, and society as a whole. This research aims to shed light on this major public health issue, as it is a complex and multidimensional concept. Its clinical relevance remains significant as it is correlated with the prognosis of the disease.

Its multifactorial and complex origin emphasizes the need for a multidisciplinary, personalized approach for each patient, integrated into a comprehensive biopsychosocial therapeutic approach.