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## Assessment of therapeutic adherence among patients in psychiatry

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### Abstract

In order to assess medication adherence among patients in psychiatry and to improve drug therapy in these patients, we have designed this survey to better understand the monitoring variability in this category. Most suggestions from psychiatrists aim of multidisciplinary work between psychiatrist, pharmacist and family, thus the coordination between psychiatrists and pharmacists regarding product availability and updates of psychotropic drugs.

## 1. INTRODUCTION

Adherence according Haynes<sup>1</sup> is the degree of compliance or gap between the requirements and practices in terms of patient health. Morris and Schultz<sup>2</sup> defined as the degree to which the patient follows medical prescriptions regarding the prescribed diet, exercise or medication. Psychiatric poorly-therapeutic adherence is a very common problem that causes serious complications and sometimes the emergence of possible resistance to treatment and some relapses. This work is to evaluate the different parameters involved in the ill-treatment compliance among patients in psychiatry.

## 2. MATERIALS AND METHODS

This is a questionnaire for the psychiatrists and consists of seven items<sup>3</sup> which are:

- i) Patient-related factors;
- ii) Treatment-related factors;
- iii) Pharmacist-related factors;
- iv) Physician-related factors;
- v) Doctor-patient relationship-related factors;
- vi) Entourage of patient-related factors;
- vii) Suggestions.

Statistical analysis was done using the IBM SPSS Statistics 20.0.

### 3. RESULTS AND DISCUSSION

34 physicians responded to the questionnaire.

#### i) Patient-related factors

The most compliant patients are:

According to the gender are men (50%) (Table 1);

**Table - 1: Therapeutic adherence by gender**

Gender		
Male	Female	Indifferent
50.00%	35.30%	14.70%

According to the age are the elderly (38.23%) (Table 2);

**Table - 2: Therapeutic adherence by age**

Age				
Child	Teenager	Adult	Elderly	Indifferent
29.41%	8.82%	17.64%	38.23%	5.88%

According to the marital status are married (32.35%) (Table 3);

**Table - 3: Therapeutic adherence by marital status**

Marital status				
single	married	Divorced	Widow	Indifferent
20.58%	32.35%	17.65%	11.77%	17.65%

According to the socio-cultural level are literate (61.76%) (Table 4);

**Table - 4: Therapeutic adherence by socio-cultural status**

Socio-cultural status		
Illiterate	Literate	Indifferent
20.59%	61.76%	17.65%

According to the socioeconomic level patients are middle class (50%) (Table 5).

**Table - 5: Therapeutic adherence by socio-economic status**

Socio-economic status			
High social status	Medium social status	Low social status	Indifferent
26.48%	50.00%	14.70%	8.82%

#### ii) Treatment-related factors

The most compliant patients are those who have had a monotherapy prescription (76.47%) (Table 6), with once daily (79.41%) (Table 7) and a treatment period of one month (76.47%) (Table 8).

**Table - 6: Therapeutic adherence by the number of drugs**

Number of drugs			
Monotherapy	Bi or tritherapy	Polytherapy	Indifferent
76.47%	11.76%	8.82%	2.95%

**Table -7: Therapeutic adherence to the number of daily drug intake**

Number of daily drug intake				
Once Weekly	Single daily dose	Twice daily	More than twice a day	Indifferent
<b>79.41%</b>	<b>11.76%</b>	<b>5.89%</b>	<b>2.94%</b>	<b>0%</b>

**Table -8: Therapeutic adherence according to duration of treatment**

Duration of treatment				
One month	Two months	Six months	More than six months	Indifferent
<b>76.47%</b>	<b>14.70%</b>	<b>5.88%</b>	<b>2.95%</b>	<b>0%</b>

In case of mal-compliance, stopping treatment is done during the first week of treatment (41.17%) (Table 9), the incidence of errors within the treatment dosage is related socio-cultural status (61.76%) and voluntary action on the part of the patient (increase of dose) (20.59%) (Table 10).

**Table -9: Stopping treatment for poor adherence**

In case of poor adherence, treatment discontinuation is:			
During the first week of treatment	After six weeks of treatment	After twelve weeks of treatment	Indifferent
<b>41.17%</b>	<b>35.29%</b>	<b>23.53%</b>	<b>0%</b>

**Table -10: Incidence of errors in treatment dosage**

Incidence of errors in the treatment dosage is related to:			
Socio-cultural status	Forgetting in the case of a long time use	Voluntary act on the part of the patient (increase of dose)	Indifferent
<b>61.76%</b>	<b>17.65%</b>	<b>20.59%</b>	<b>0%</b>

Side effects that are due to the discontinuation of treatment (Table 11) are diseases of the reproductive organs and breast (ejaculation disorders, impotence) (41.18%), psychiatric disorders (32.35%) and nervous system disorders (17.65%).

**Table -11: Adverse effects responsible for treatment discontinuation**

What are the side effects that are the cause of treatment discontinuation?	
Affection of reproductive system and breast (abnormal ejaculation, impotence)	<b>41.18 %</b>
Psychiatric disorders	<b>32.35 %</b>
Nervous system disorders	<b>17.65 %</b>
Metabolism and nutrition disorders	<b>8.82 %</b>
Affection of blood and lymphatic system	<b>0 %</b>
Immune system disorders	<b>0 %</b>
Endocrine disorders	<b>0 %</b>
Eye disorders	<b>0 %</b>
Affection of ear and labyrinth	<b>0 %</b>
Cardiac disorders	<b>0 %</b>
Vascular disorders	<b>0 %</b>
Respiratory, thoracic and mediastinal disorders	<b>0 %</b>
Gastrointestinal disorders	<b>0 %</b>
Hepatobiliary disorders	<b>0 %</b>
Affection of skin and subcutaneous tissue	<b>0 %</b>
Affection of musculoskeletal and connective tissue	<b>0 %</b>
Affection of renal and urinary tract	<b>0 %</b>
General disorders and administration site	<b>0 %</b>

**iii) Pharmacist-related factors**

Factors related to the pharmacist that adversely impact on treatment adherence (Table 12) the unavailability or failure of drug stocks (50%) and dispensing the drug to other people (patients) presenting to the pharmacy (17.65%).

**Table -12: Factors related to the pharmacist having an adverse impact on patient compliance**

What are the factors related to the pharmacist that adversely impact on adherence?	
Unavailability or disruption of drug stocks	50.00 %
Dispensation of the drug in front of other people (patients) presenting to the pharmacy	17.65 %
Patients prefer to buy their medicines from a pharmacy away from their residence	17.65 %
Inappropriate Council or pharmaceutical education	8.82 %
Drug prices	5.88 %
Indifferent	0 %

**iv) Physician-related factors**

Factors related to the doctor who have a favorable impact on adherence (Table 13) are pleasantness of the doctor (41.18) and the conviction of the doctor of treatment efficacy (26.47%). Children prefer to consult in older doctors (47.06%) and of different gender (26.47%) (Table 14). Teenagers prefer to consult in young doctors (38.34%) and of different gender (32.36%) (Table 15). People between 18 and 30 years old prefer to consult in young doctors (38.23%) (Table 16), those whose age is between 30 and 50 years prefer to consult in older doctors (47.06%) (Table 17), for those whose age is above 60 years of age is irrelevant (70.59%) (Table 18).

**Table - 13: Factors related to the doctor having an adverse impact on patient compliance**

What are the factors related to the doctor that positively impact on adherence?	
Pleasantness doctor	41.18%
Conviction of doctor treatment efficacy	26.47%
Brief time in the waiting of consultation	23.53%
Long consultation period	5.88%
Indifferent	2.94%

**Table -14: Preference of psychiatrist in children**

Children prefer to consult doctors:			
Of different gender	Young	Older	Indifferent
26.47%	11.76%	47.06%	14.71%

**Table -15: Preference of psychiatrist in adolescents**

Teenagers prefer to consult doctors:			
Of different gender	Young	Older	Indifferent
32.36%	38.34%	14.70%	14.70%

**Table -16: Preference of psychiatrist in people between 18 and 30 years old**

People aged between 18 and 30 prefer to consult doctors:			
Of different gender	Young	Older	Indifferent
41.17%	38.23%	14.70%	5.88%

**Table -17: Preference of psychiatrist in people between 30 and 50 years old**

People aged between 30 and 50 years prefer to consult doctors:			
Of different gender	Young	Older	Indifferent
14.71%	8.82%	47.06%	29.41%

**Table -18: Preference of psychiatrist in people whose age exceeds 60 years**

People whose age is above 60 years prefer to consult doctors:			
Of different gender	Young	Older	Indifferent
5.89%	8.82%	14.70%	70.59%

**v) Doctor-patient relationship-related factors**

Factors related to the doctor-patient discomfort promoting adherence (Table 19) are questioning the patient during the entire interview without him return information (35.31%) the doctor's unpleasantness and halls of common waiting (17.64%).

**Table -19: Factors related to the doctor-patient relationship promoting poor adherence**

What are the factors related to doctor-patient relationship promoting poor adherence?	
Doctor asks the patient during the entire interview without return him information	35.31%
Doctor unpleasantness	17.64%
Common waiting rooms	17.64%
Patient dissatisfaction with the consultation	14.71%
Proper medical language	8.82%
Indifferent	5.88%

**vi) Doctor-patient relationship-related factors**

Factors related to the patient's entourage promoting poor adherence (Table 20) are the non-consideration of psychiatric pathology such as diseases (26.47%) and lack of support or understanding of the patient's condition (23.53%).

**Table - 20: Factors related to the patient's entourage promoting poor adherence**

What are the factors related to the patient's family promoting poor adherence?	
Entourage does not consider psychiatric pathologies such diseases	26.47%
Not supporting entourage or not understanding of the patient's condition	23.53%
The family members did not accept to adapt their lives to the changes necessitated by disease	20.59%
Very important family conflict	17.65%
Indifferent	11.76%

**vii) Suggestions**

Most suggestions are multidisciplinary work between psychiatrist, pharmacist and family, thus coordination between psychiatrists and pharmacists regarding product availability and updates of psychotropic drugs. Some psychiatrists speak of the authorization of the prescription at the base of the International Nonproprietary Name (INN), or substitution by the pharmacist in case of non-availability. The rate of good patient compliance for all medical specialties, are around 50%. A random compliance of the order is at the origin of 40% of annual costs associated with psychiatric readmissions. The annual cost of psychiatric readmissions in the United States due to poor drug compliance is 800 million<sup>4</sup>. Adherence is inversely correlated with the number of drugs prescribed and become important from three drugs<sup>5</sup>. The side effects, the long duration of treatment, the number of daily doses<sup>6</sup> and not suitable dosage forms psychotropic are causes of bad observance in psychiatry. The adverse effects of antidepressants are especially noted during the first or second week of treatment and usually fade later in intensity and frequency. The headache and nausea are very common side effects with antidepressants, insomnia, abnormal ejaculation and impotence in men are common<sup>7-8</sup>. Some patients should be subject to sampling blood dosage of the active ingredients to avoid toxicity or under dosing could be a poor adherence factor. The dosage form plays an important role in improving adherence and will be chosen depending on the field of each patient. The patient should be cooperating and should be monitored regularly by his doctor and his entourage<sup>9</sup> who must consider his condition as a disease and not as an abnormal phenomenon or a curse so it must adapt to various sudden changes. Adherence psychiatric correlates with age<sup>10</sup> and marital status (married), there is no association to gender or the socio-educational level<sup>11</sup>. The therapeutic results of a doctor are correlated to his own belief in the effectiveness of treatments<sup>3</sup>. The patient-doctor relationship has a strong impact on quality of compliance and improving condition of patient. Improving adherence must be based on the various items studied. Patient should be referred to the psychiatrist respecting the criteria previously discussed (age, gender, etc.), this can be facilitated by the psychiatrist map which must contain information on age and photo identification. Waiting rooms should be privatized because most patients do not seek help because of the common rooms and

long waiting times. Patients do not accept to be seen by other people when dispensing medications, this can be solved by improving the pharmacy counter by creating devices shaped cabin to keep the privacy of patients.

#### 4. CONCLUSION

Adherence remains a challenge that requires a multidisciplinary work on the part of health professionals, the patient, his entourage and all members of society must consider psychiatric disorders as diseases. Available molecules are not devoid of adverse effects which requires vigilance during the drug prescription and must be started by low effective doses. When prescribing, monotherapy treatment should be preferable in combination with other non-drug methods while keeping a positive thought.

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