Evaluation of the adherence by patients treated in a psychosocial ambulatory care setting in northeastern Brazil

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ABSTRACT

In the treatment of the mental disorders, the lack of adherenceto the pharmacotherapy is observed in about 50% of people and is responsible lot more morbidity, besides being the main cause of psychiatric morbidity and rehospitalization. This work sought to evaluate the adherenceto the medical treatment frompatients attended in a Primary Health Care Center in the municipal district of Aracaju – Sergipe. For that, an exploratory, descriptive and observational studywas accomplished, with transversal design, in the period from August 2011 to November 2011, carried outthrough interview applications. This research finds that more than 55% of the sample hadlow education; 41.4% were single and 42.8% presented other health problems, besides the mental disorder. Regarding to the knowledge level on the used medications, this variable presented good results, since 60% of the patients were classified in the category "know well". Likewise, the results revealed that 49.3% of the investigated patients did not adhere to treatment, having as main causes of non-adherence the forgetfulness (53%), the lack of the medication in the health units (47%) or the lack of financial resources for the purchase of the medication (45%) – all these were considered as unintentional causes of non-adherence. Anyway it is an unpublished study in the outpatient attention context in Mental Health in the State, the results are expected to contribute for the evaluation and planning actions in the specialized component of the Pharmaceutical Assistance and in the precepts invigoration perspective of the psychiatric reform, focusing on the full approach of the attention towards the mental health and the rational use of psychotropic medicines.

INTRODUCTION

The use of psychoactive medicinal products in the treatment of the Mental Disorders (MD) has been growing in the last decades in several countries. Such growth has been attributed to factors as: the diagnoses frequency increase of psychiatric disorders in the population, introduction of novel drugs in the pharmaceutical market and the new therapeutic indications of already-existing medication (Rodrigues *et al*., 2006). In the mental disorder, non-adherence to the pharmacotherapy is observed in about 50 % of the patients which responsible for countless problems, besides being the main cause of psychiatric morbidity and re-hospitalization (Cardoso & Galera, 2009; Davis & Chen, 2003). The World Health Organization (WHO) conceptualizes the adherence as-"the extension in which the behavior of a person taking medications, going on a diet or changing their lifestyle corresponds to the recommendations from the health professional" (WHO, 2003). Evaluation studies for the adherence to the pharmacotherapy have been accomplished in several countries of morbidity. The literature demonstrated that in China and USA, just 43% and 51% of the patients respectively adhere to treatment with antihypertensives. Other data revealed that in the treatment for depression, the adherence to antidepressant is in the range of 40 to 70% (WHO, 2003). In Brazil, some works analyzed the adherence to the treatment in mental disorders. A study performed to analyze patients with schizophrenia revealed 64.3% did not adhere to medical treatment (Nicolino *et al*., 2011). A work done by Cardoso *et al* (2011) to identify the level of adherence to the treatment among patients who were discharged of psychiatric hospital internment, demonstrated that 70.8% of the patients presented low levels of adherence to the treatment.

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The present study aimed to determine the knowledge on the medications and the level of adherence to the patients' medical treatment of a Primary Heath Care Center of the municipal district of Aracaju, Sergipe, Brazil.

METHOD

An observational exploratory and descriptive study was accomplished, with transversal design, in the Primary Health Care Center "Dona Sinhazinha", in Aracaju/Sergipe/Brazil, in the period comprehended between August 2011 and November 2011. The population was composed by 244 (two hundred and forty-four) patients, of which 152 (one hundred and fifty-two) composed the studied sample.

The sample members were interviewed through the application of a research instrument that contained among the inquiries: a) socio-demographic data (gender, age, marital situation, education); b) other health problems; c) current pharmacotherapy (name, dosage, medication indication and posology); d) level of adherence to the pharmacotherapy (using Haynes-Sachett's Tests and Morisky-Green's Test) (Haynes *et al*., 1981; Morisky *et al*., 1986).

Haynes-Sachett's Test consists of two questions: 1) "Most people have difficulties taking their pills. Do you, Mr. or Mrs., have any difficulty taking yours?"; 2) "Did you stop taking the medicines in the last 7 days?". For this test, the user who answered "yes" for both questions was considered as 'not inserted', and those who answered "no" to at least one of them were considered as 'inserted'.

Morisky-Green's Test is formed by four questions: 1) "Have you, Mr. or Mrs., ever forgotten to take the medications?"; 2) "Don't you, Mr. or Mrs., take the medications at the indicated time?"; 3)"When you, Mr. or Mrs., feel well, do you stop taking your medications?"; 4) "When you, Mr. or Mrs., feel bad, do you stop taking your medications?".
For Morisky-Green's Test, the value "0" was attributed to the answer "yes" and "1" to answer "no". In the end, the value was obtained regarding the sum of these answers, considering as inserted the patient who presented the total sum of the answers varying between 3 and 4, and not inserted the ones who presented the total sum of the answers varying between 0 and 2 (Ungari & Fabbro, 2010).

The work was approved by the Ethics Committee in Research with Human beings of the Federal University of Sergipe (UFS). All the participants were informed about each research step and agreed to take part in it, through signature of the "Term of Free and Known Consent".

The information obtained was organized in worksheets (Microsoft® Office Excel 2007) and the statistical analysis was performed through the BioEstat 5.0 and Epiinfo^{TM} statistic software for Windows® version 3.3. The results were analyzed through the application of descriptive statistics and the tests of Qui-square, of Mantel Haenszel and Fisher's exact test.

RESULTS

The interview analysis (n= 152) evidenced that 77% of the individuals belonged to the feminine gender, 78% with age superior to 35 years (average = 47.7 years; ±13.4 DP). However, 55.3% of them had education lower than 12 years of study. Table 1 describes the socio-demographic variables obtained.

Table. 1: Sample distribution (n=152), according to the socio-demographic variables, Aracaju, November 2011.

Variable	AF	FR (%)
Gender		
Female	117	77
Male	35	23
Age Group (in years)		
≤ 35	33	22
> 35	119	78
Education (years)		
< 12	84	55.3
≥ 12	63	41.4
No information	5	3,3
Marital Status		
Single	63	41.4
Married	50	33
Divorced	23	15.1
Widower	16	10.5

The application of Haynes-Sackett´s test determined an adherence rate of 92.1% of the patients. However, after the application of Morisky-Green´s test, revealed that only 50.7% were indeed inserted in the treatment. Table 2 shows to the variable distribution, health problem, knowledge and adherence.

Table. 2: Sample distribution, according to the variables health problem, knowledge of the used medication and adherence by Haynes-Sacket's test and Morisky-Green´s test Aracaju, November 2011.

Variable	Frequency	(%)
Health problem		
Yes	65	42.7
No	87	57.2
Knowledge		
Know well	91	60
Know	14	9.2
Know little	17	11.2
Do not know	30	19.7
Adherence		
Yes	140	92.1
No	12	7.8
Adherence		
Yes	77	50.7
No	75	49.3

[1]Haynes-Sacket´s test; [2]Morisky-Green´s test.

The adherence by Haynes-Sacket's Test, according to the socio-demographic variables and health problem, it was noticed that none of the variables presented statistical association (Table 3). The variable education deserves to be highlighted, once there was the evidence that people with education lower than 12 years presented 1.16 times more chances of adhering to the treatment when compared with people with education equal or longer than 12 years.

Table. 3: Adherence distribution by Haynes-Sacket's test according to the variables: Gender, age group, education, health problem and polypharmacy. Aracaju, November 2011.

Variable	Prevalence (%)	IC 95%[1]	RP[2]	p-value
Gender				
Female	91.4	0.9342 –	1.00	
Male	94.3	1.138	1.03	0.8960
Age Group (in years)				
≤ 35	93.9	0.9258 –	1.00	
> 35	91.6	1.136	1.03	0.9880
Education (years)				
< 12	57.8	0.6445 -	1.00	
≥ 12	50	2.072	1.16	0.8196
Health problem				
Yes	92.3	0.914 –	1.00	
No	91.9	1.102	1.00	> 0.999

[1] IC 95% = reliable interval to the level of 95%; [2] RP: Prevalence reason.

When it was done it confront of the adherence, according to Morisky-Green's Test, with the independent variables gender, age, education and health problem, the application of the association test did not show statistically significant differences (Table 4).

Finally, this study evidenced the main causes of non-adherence, highlighting the following: "forgetfulness", "do not find the medication in the Health Center" and "cannot afford it", whose frequencies were in the figure 1.

Table. 4: Adherence distribution by Morisky-Green's test according to the variables: Gender, age band, education, health problem. Aracaju, November 2011.

Variable	Prevalence (%)	IC 95%[1]	RP[2]	p-value
Gender				
Female	21.4	0.6187 –	1.00	
Male	14.3	3.616	1.5	0.5057
Age Group (in years)				
≤ 35	21.01	0.5755 –	1.00	
> 35	15.15	3.341	1.4	0.6331
Education (in years)				
< 12	22.6	0.665 –	1.00	
≥ 12	17.4	2.524	1.3	*0.4440
Health problem				
Yes	23.1	0.7062 –	1.00	
No	17.2	2.537	1.34	0.4897

[1] RI 95% = reliable interval to the level of 95%; [2] PR: Prevalence reason; * According to the Mantel-Haenszel.
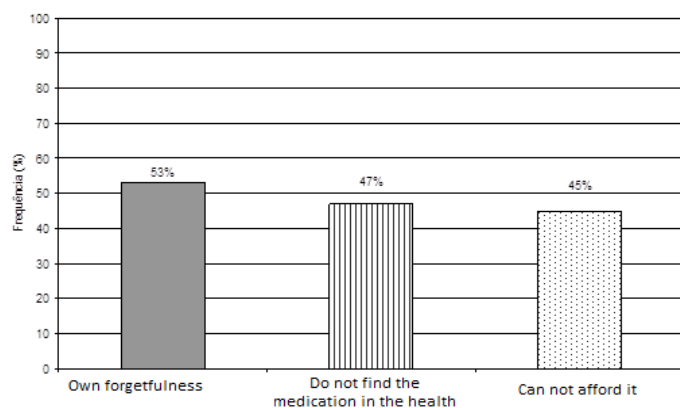

Fig. 1: Distribution of non-adherence causes to the treatment in the studied sample (n=152). Aracaju, November 2011.

DISCUSSION

Lima (1999) reported patients with low education tend to present larger prevalence of mental disorders. Moreover, the literature demonstrates that people with MD present symptoms as forgetfulness, concentration and relationship difficulty, factors that can influence in their education and learning process.

Referring to the variable knowledge, the numbers found were satisfactory, being 60% of the classified patients as "know well" and 9.2% as "know". A good knowledge level is essential for the treatment of these patients, because many times information such as medication names and dosages will have fundamental role in the handling and care that should be offered to these patients in internment cases, adverse reactions, allergies and other health problems.

The adherence was measured through indirect tests are advantageous because of their simplicity and economy. However other methods used to measure the adherence have some disadvantages of overestimation and underestimation and also to the obtaining of socially acceptable (Krousel-Wood *et al.,* 2004; Piñeiro, 1997).

The analysis of adherence through Haynes-Sachett´s test is used to find adherence indications and presenting with high specificity, despite its' low sensibility. Thus, it detects only the number of patients that do not adhere to treatment, classifying the adherence as good or not good. To characterize good adherence, they consider values comprehended between a range from 80% to 110%. Henceforth, this method is not useful to determine the adherence prevalence in population studies (Haynes *et al.,* 1981); another test should be applied for the confirmation of the results obtained.

The application of Morisky-Green´s test, the percentage of adherence suffered a significant decrease, because this test demonstrated that just 50.7% of the patients adhered to the treatment, indeed. This decrease is foreseen because several studies already found values of much weaker adherence after the use of this test. For example, in the study of adherence to the pharmacotherapeutic treatment, accomplished by Santa Helena *et al* (2008), the adherence estimated by Haynes-Sachett'stest was 91.3%, switching to 56.6% with Morisky-Green's test.

Among these causes of non-adherence, a larger mention should be given to forgetfulness. This is a cause found in several other evaluation studies for adherence. Forgetfulness is classified as a form of unintentional non-adherence and was responsible for 57.2% of the non-adherence in the study accomplished by Miasso (2009), which was investigated the adherence from patients with bipolar affective disorder.

The lack of medication in the centers, another cause of non-adherence, is directly related to the performance of the Health Department of Aracaju (SMS/AJU). According to information supplied by the Coordination of Pharmaceutical Assistance of SMS/AJU, some of the main medications had their stocks cleared during the accomplishment period of this study.

The main cause of this shortage is related to vendors that do not respect the contracts signed in the bidding processes.

CONCLUSION

This study demonstrated that there is the need for the implantation of a policy that promotes the rational use and the universal access of medications by the entire population. Therefore, it will be possible to increase the adherence to the pharmacotherapeutic treatment, this essential factor to obtain the success in the treatment of the Mental Disorders. This research also the revealed that the performance of pharmacists and the other health professionals through educational initiatives and the development of caring strategies that aim at the achievement of a rational use of medications.

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