# Schizophrenia: adherence to treatment and beliefs about the disorder and the drug treatment

ESQUIZOFRENIA: ADESÃO AO TRATAMENTO E CRENÇAS SOBRE O TRANSTORNO E TERAPÊUTICA MEDICAMENTOSA

ESQUIZOFRENIA: ADHESIÓN AL TRATAMIENTO Y CREENCIAS SOBRE EL TRANSTORNO Y TERAPÉUTICA MEDICAMENTOSA

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#### **ABSTRACT**

This study verified the adherence of people with schizophrenia to the medication, identified and compared their beliefs about the disorder and the drug among patients who adhered and those who did not. Participants were 14 patients of a psychiatric outpatient clinic. Semi-structured interviews and the Morisky-Green test were performed. The data was analyzed using a quali-quantitative approach. Results showed that 64.3% of patients do not adhere to treatment. Most participants considered the drug capable of reducing the seriousness and severity of the disorder. However, the drawbacks for patients that did not adhere to the treatment were more expressive. Side effects were the cause for interrupting the treatment for 80% of patients who intentionally did not adhere to treatment. It was observed there is insufficient knowledge about schizophrenia and the drug treatment. Patients referred to faith as a strategy to cope with the process they were experiencing. This study points at the need for strategies directed towards the promotion of drug treatment adherence among people with schizophrenia.

#### **DECRIPTORS**

Schizophrenia Therapeutics Drug administration schedule Medication adherence Interpersonal relations

# **RESUMO**

Este estudo verificou a adesão de pessoas com esquizofrenia à medicação, identificou e comparou as crenças sobre transtorno e medicamento entre pacientes aderentes e não aderentes. Participaram do estudo 14 pacientes de um ambulatório de psiquiatria. Foi realizada entrevista semi-estruturada e aplicação do Teste de Morisky-Green. Os dados foram analisados com abordagem quali-quantitativa. Os resultados revelaram que 64,3% dos pacientes não aderem ao medicamento. A maioria dos entrevistados considerou a medicação capaz de reduzir a seriedade e severidade do transtorno. Entretanto, entre pacientes não aderentes, as barreiras no seguimento da terapêutica foram mais expressivas. Efeitos colaterais foram razão para descontinuidade do tratamento em 80% dos pacientes não aderentes intencionalmente. Observou-se conhecimento insuficiente sobre a esquizofrenia e tratamento medicamentoso. A fé foi mencionada pelos pacientes como estratégia para enfrentamento do processo vivenciado. Este estudo aponta para a necessidade de estratégias direcionadas à promoção da adesão ao medicamento entre pessoas com esquizofrenia.

#### **DESCRITORES**

Esquizofrenia Terapêutica Esquema de medicação Adesão à medicação Relações interpessoais

## **RESUMEN**

Estudio que verificó adhesión de personas esquizofrénicas a la medicación, identificó y comparó las creencias sobre transtorno y medicamento entre pacientes adherentes y no adherentes. Participaron 14 pacientes de ambulatorio de psiquiatría. Se realizó entrevista semiestructurada y aplicación de Test de Morisky-Green. Los datos se analizaron con abordaje cuali-cuantitativo. Los resultados revelaron que 64,3% de pacientes no adhieren a medicación. La mayoría de entrevistados consideró a la medicación capaz de reducir la seriedad y severidad del transtorno. Entretanto, en pacientes no adherentes, las barreras en el seguimiento de la terapéutica fueron más expresivas. La razón para descontinuar el tratamiento en 80% de pacientes no adherentes intencionalmente fueron los efectos colaterales. Se observó conocimiento insuficiente sobre esquizofrenia y tratamiento medicamentoso. La fe fue mencionada por los pacientes como estrategia de enfrentamiento del proceso experimentado. El estudio determina necesidad de estrategias dirigidas a promoción de adhesión a medicamentos en pacientes esquizofrénicos.

#### **DESCRIPTORES**

Esquizofrenia Terapéutica Esquema de medicación Cumplimiento de la medicación Relaciones interpersonales

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#### **INTRODUCTION**

Schizophrenia is one of the most intriguing and also most studied psychiatric conditions<sup>(1)</sup>. The disorder affects about 1% of the population, compromises different aspects of patients' lives and represents an important burden in financial and social terms, not only for patients but also for families, caregivers and society as a whole<sup>(2-4)</sup>.

As it is a chronic condition, prolonged medication treatment is needed, which mainly involves the use of antipsychotics. There is no doubt that antipsychotics can be effective to control schizophrenia<sup>(5)</sup>. These drugs can mitigate symptoms, increase patients' psychosocial adaptation and improve their subjective wellbeing<sup>(3)</sup>.

The success of medication treatment, however, is compromised by many patients' lack of treatment compliance. Non-compliance with antipsychotic medication is associated with a worse prognosis,

greater probability of relapse, rehospitalization and increased resource consumption in the health sector  $^{(6,2)}$ .

Medication treatment adherence is a complex process that involves multiple factors, among which factors directly connected with the patient can be highlighted. In this respect, a study appoints that few studies truly assess social and cultural aspects related with medication use as a result of a rational decision, which consider beliefs in treatment and forms of coping with morbidity conditions<sup>(7)</sup>.

It is also underlined that what people believe is related with how they act in view of some morbidity<sup>(8)</sup>. In view of the relevance of patients' beliefs for treatment compliance, this study offers important support to plan strategies aimed at enhancing schizophrenia patients' safety in the prescribed medication treatment.

# **OBJECTIVE**

This study aimed to verify schizophrenia patients' adherence to the prescribed medication treatment, to identify these people's beliefs regarding the disorder and treatment and to compare the beliefs of patients identified as compliant and non-compliant regarding susceptibility to and severity of the disorder and treatment benefits and barriers.

#### **METHOD**

This is a cross-sectional and descriptive study with a qualitative-quantitative approach. The study was developed at an outpatient service for care delivery to people with schizophrenia and other delusional disorders. The service is part of a general tertiary hospital located in the interior of São Paulo State. The research started after the Institutional Review Board at the University of São Paulo Medical School *Hospital das Clínicas* granted its approval.

Eligible participants were all patients with a medical appointment scheduled at the outpatient clinic in August 2008 and who complied with the following inclusion criteria: Schizophrenia diagnosis established by the diagnostic physician at the outpatient clinic, prescribed permanent medication use for Schizophrenia treatment, aged 18 years or older, capable of verbal communication in Portuguese and agreement to participate in the study. Out of 43 patients scheduled at the clinic during the study period, 14 complied with the inclusion criteria. The main limitations to develop the study were difficulties to obtain patients' acceptance to participate and the large number of patients without a confirmed diagnosis.

For data collection, the semistructured interview technique was used. Interviews were recorded and took place at the patients' homes after a previous appointment, made when patients attended the clinic for the medical appointment. The compliance level was defined by the application of the Morisky and Green Test<sup>(9)</sup>, a previously validated instrument that permits identifying patients' level of medication compliance and distinguishing whether non-compliance is due to intentional (questions When you feel good, do you sometimes not take your medicine? and When you feel bad with the medicine, do you sometimes not take it) or non-intentional behavior (questions: Do you sometimes forget to take your medicine? and Are you sometimes careless with the time to take your medicine?).

Answers were scored as 0 (zero) or 1, with score 1 corresponding to positive answers with an admitted frequency of once per month or less, and 0 (zero) for other possible frequencies. The following criterion was adopted to classify adherence levels: *compliant* for patients who scored 4 on the Morisky and Green Test<sup>(9)</sup> and *non-adherent* for patients who scored between 0 and 3. Descriptive statistics were used to analyze medication compliance data.

For qualitative data analysis on patients' beliefs regarding the disorder and treatment, the steps proposed in a study<sup>(10)</sup> were followed and the Health Beliefs Model was adopted as the theoretical framework<sup>(8)</sup>. That model comprises four dimensions: perceived susceptibility (subjective perception of personal risk of catching a disease or experiencing a condition), perceived severity (perception of disease severity or gravity), perceived benefits (beliefs in the efficacy of the action for health and perception of positive consequences) and perceived barriers (perception of negative aspects of the action).

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#### **RESULTS**

#### Characterization of study subjects

Study participants were 14 patients between 21 and 58 years of age. In that group, three (21.5%) were women and 11 (78.5%) men. Thirteen (92.9%) patients were single and one (7.1%) divorced. Out of 14 participants, only one (7.1%) had a formal job, while two (14.2%) had retired due to the mental disorder.

Regarding the participants' education level, one (7.1%) was illiterate, five (35.7%) had not finished primary education, four (28.6%) had not finished secondary education and four (28.6%) had finished secondary education.

#### Medication treatment compliance behavior

Medication treatment compliance was assessed through the Morisky and Green Test<sup>(9)</sup>, which permits assessing whether patients' non-compliance is due to intentional (not taking the medication due to feeling well or feeling bad) or non-intentional behavior (forgetting and carelessness with medication times).

It was observed that, among the 14 patients under analysis, only five (35.7%) complied with medication treatment. Among the nine patients (64.3%) who did not comply, five (35.7%) are non-compliant due to intentional and four (28.6%) due to non-intentional behavior.

# Treatment compliance and beliefs regarding the disorder and medication treatment

With a view to understanding patients' attitudes towards medication treatment compliance, a theoretical model was chosen that permits explanations about preventive health behavior. Thus, results for beliefs related to the disorder and treatment are presented as topics, divided according to the four dimensions of the Health Beliefs Model<sup>(8)</sup>: perceived susceptibility, perceived severity, perceived benefits and perceived barriers. The comparison between the beliefs of patients identified as compliant, intentionally non-compliant and non-intentionally non-compliant will be discussed under each topic.

# Perceived susceptibility

Susceptibility was considered the subjective perception of personal risk of experiencing unpleasant conditions deriving from the disorder, as the study participants had already been affected by schizophrenia.

The comparison between the beliefs of patients identified as compliant and non-compliant with medication treatment permitted identifying that both groups alluded to the perceived risk of experiencing hospitalizations and crises.

I've always done the follow-up correctly. It's because you can't do it wrong, because if you do, we're the ones who

are going to be harmed most, right! Even if you take it there are problems. I've already been hospitalized here and twice at the Day Hospital (P1).

...before starting a crisis we're good, you know, we feel good... Then you don't want to, you know that there's something wrong, you think that there's something wrong, but you're fine, I won't get concerned no, I'm so well, then afterwards... (P12).

... because there were three, no, six hospitalizations, four at the ST (psychiatric hospital) and two here, one at a wing of the H (psychiatric nursing ward of general hospital) and another at the other wing (P10).

Patients who complied with medication treatment mentioned great fear of schizophrenia crises as, due to previous experiences, they believe that, in this phase of the disorder, they can lose control and present hetero-aggression and self-aggression behaviors, being vulnerable to suicide attempts and even to death, according to the following example:

I'm scared... because when we have a crisis it's very, very bad, right? You can't control it, there's no control... A lot of things go through your head. Even our lives are at stake, right?... there's danger of death... of suicide... I can affirm that because I've already tried to do a lot to myself, right (P1).

In the two patient groups, however, some people do not perceive themselves as ill and, hence, do not see the need to follow the prescribed treatment or to obtain information on the diagnosis they have received. Some reports disclose lack of knowledge on the disorder, non-acceptance and the belief in being cured already.

During this last consultation I attended there at the ST (psychiatric hospital), I asked to be hospitalized and didn't even know why, you know... my father kept on saying it... oh you have to get there and say that you need hospitalization, and today he's dreaming that I'm gonna ask to be hospitalized... I can throw all of these drugs from the hospital away and replace them by natural treatments... they mix you up with a madman, go there, brainwash your head... (P10).

Name of the disease... Endropomy. It's a disease that... a disease that... that happens in your brain (P5).

Ah, I don't know... schizoaffective schizophrenia. I don't know what it is... I don't understand it really, I don't know really. It's something with schizophrenia, then schizoaffective... I don't know what it is to be sincere (P4).

You know, I think that I'm better know, my body has changed, you know, I'm better, I really had a problem, when I got the crisis I had several... thing, not know, I stopped (P12)

# Perceived severity

Regarding patients' perception on the severity of the disorder, a range of themes was observed among patients identified as compliant and non-compliant with medication treatment. It was evident, however, that most of the inter-



viewees, even non-compliant patients, assessed schizophrenia as a severe mental disorder. It is highlighted that, during the interview, some patients got emotional and/or demonstrated aversion to talk about the disorder:

The thing is that this really touches us a lot. It's a sad thing we don't like to remember, you see?... This disease has always been very tough (P4).

I used to live normally, and today I'm not normal (P13).

I'm not going to talk that much because... it's an area I don't like to talk about. I'll summarize it for you! It's... sometimes, when we get a crisis we see shadows, see voices. It's, it's something very... very bad right! Which touches us a lot! And... there are various symptoms too... (P1).

In the Health Beliefs Model<sup>(8)</sup>, disease severity can be assessed through the degree of emotional disorder created when thinking about the disease as well as through the types of consequences the disease can provoke. In this study, the patients appointed schizophrenia as the causal agents of physical and behavioral alterations, hearing and visual hallucinations, delusions, cognitive alterations and negative symptoms.

It changes, it changes the physiognomy, changes behavior, changes, changes in general! (P1).

What I feel is hearing voices, seeing things. It's just that I don't call it voices, who calls it voices is the physician. I call it communication with thought (P2).

I started to stay at home a lot and that made me really sad, right? I didn't leave... then I started to get weird (P9).

Among the consequences of the disorder, limitations for self-care were also mentioned, for the execution of housework, for work and study, relationship difficulties (family, love, friends), legal problems, shame and suffering.

There's difficulty to take a shower, to lie down, to eat, to change clothes, to open the door, to... to go out, to talk, to buy on the street, you see?! Inside the bus, at home... it's trouble. It's twenty-four hours! (P1).

Before I had a lot of friends, worked, went out, you know, now I don't anymore. I don't have friends anymore (P12).

The voice said like, to kill myself, or otherwise kill him, or otherwise kill my daughter, absurd things, right?... my eightmonth-old son... he died of respiratory arrest in his cradle... Everyone thought it was me, it was in the paper, the police wanting to catch me... (P9).

I stopped studying, I stopped working, I didn't get married, I didn't have a home, a family... This disease bothered my life quite a lot (P3).

#### Perceived benefits

The perceived susceptibility to and severity of the disease can motivate people to adopt certain conduct, but does not define what course of action to follow yet. The

action is guided by personal beliefs on the efficacy of known alternatives, available to decrease the threat of the disease, or by the perceived benefits of adopting that action, instead of by objective facts to demonstrate the efficacy of the action<sup>(8)</sup>.

Thus, regarding the benefits attributed to medication treatment, mainly in compliant patients' reports, the perception of improved subjective wellbeing was performed, as well as increased quality of life, mitigation of symptoms, limitations and suffering deriving from the schizophrenia.

I improved a lot, I'm a lot better... The thoughts stopped coming. Today I feel, I feel much better like this, right? Normal, I feel normal (P3).

This medication, it's keeping me stable, it's granting me quality of life... (P14).

For many patients, the medication was indicated as a strategy used to offer balance and stabilization, avoiding crisis and the worsening of the disorder.

The medication, for me, it's a balance for my mind... It doesn't let me get a crisis... Without the medication, perhaps I wouldn't even be alive, you know. I don't know, we don't know our limits, right?... We don't know what we would be capable of (P14).

It helps... it's helping because, if these problems occur with the medication, imagine without them... I'd be dead, or many people would be, right! I don't know what might have happened, I'm even afraid to talk about it! (P1).

Some patients, however, experience medication side effects and do not perceive improvements in the disorder symptoms. Therefore, they start to loose faith in their benefits and choose non-compliance.

...but getting better, I think in this respect not, because if it worked you'd take it for 12 months at most... and you'd already be cured... you start to lose reflexes, sometimes your body doesn't say that's enough, or the medicine swallows you or you finish it off, I prefer to finish it than continuing to take the medicine (P10).

Some patients believe that the goal of the medication is to cure the disorder and that, therefore, it should be taken for a limited period, according to the following reports:

I think, I think I'll get better. Cure completely (P3).

... when will I have to quit taking medicines?... because as soon as I quit I'll be able to work, get more agile to do certain things... (P10).

Although most participants are non-compliant with the prescribed drugs, their reports show that the perceived benefits are linked with belief in the need to follow the medication therapy.

Ah it's very good when we get the right medicine... the medicine is good... Who has the disease has to take the medicine every day, right, you can't say like: today I'm fine,



I'm not taking the medicine. You have to take it every day for the medicine to work always (P12).

I think I need the medication because... if I don't take it two, three days I feel bad (P1).

Non-compliant patients also reported that they experienced the worsening of symptoms when they interrupted medication treatment and indicated that this experience reinforced their perception regarding the need for treatment.

When I stopped taking it I got nervous again, it makes things a lot better, I think, this medicine I take at night, the nervous system, it helps a lot (P9).

When I didn't take medication, I had very negative thoughts... I had a problem with my brothers, when is it... so, to the extent of thinking about doing something against them (P14).

#### Perceived barriers

People can believe in the efficacy of a given action to reduce the person's susceptibility to and severity of the disease, but nevertheless perceive this action as inconvenient. Hence, perceived barriers can impede the adoption of recommended behaviors and generate conflicts in decision making<sup>(8)</sup>. In this study, the following barriers to medication treatment compliance were found among compliant as well as non-compliant patients: treatment management difficulty (mainly frequent alterations in medication prescriptions), dissatisfaction with established treatment, belief that the medication can do them harm, belief that the medication is ineffective because it cannot promote cure, difficulty to get the prescription or drug, lack of insight regarding the disorder, side effects (inhibition of sexual desire, palpitation, weight gain, sleepiness, extrapyramidal side effects).

When I started to take the drug none of them worked, I just kept on switching... (P8).

Taking the medicine, it's the same thing as drinking water! I don't know if there's another solution, right!...Things are bad! (P1).

I can't buy it, you see? (P4).

Disease? I don't have a disease (P6).

I was thinking, you know, why am I getting treatment if the disease is incurable? Why am I being treated? (P13).

It should be highlighted that the side effects stood out as a reason for interrupting treatment for four out of five patients identified as intentionally non-compliant with the medication.

It caused pounding, it made me feel bad like, I felt like vomiting, I was vomiting... I can't take it at night because, if I do, I sleep at the watchtower. I delayed it, I got rid of the amplictil (P4).

I got this big fast... And also increasingly less sexual desire... and I'm afraid it will inhibit more and more, until I

don't have any desire at all... until I questioned it... sometimes I threw it away... amplictil I stopped alone, I stopped with the risperidone too... I decreased and quit alone (P2).

Patients classified as intentionally non-compliant also appointed the following treatment barriers: lack of family support, encouragement not to follow the treatment, mistrust towards the health team, feeling of being controlled by the drug and perception that spirituality flourishes without the drug.

He (relative) did not believe in psychiatrics at all, right? So, in a way he also helped to cause that, right? (P9).

In some type of thinking the medication limits... I perceived that it limits some things you think... when I tried not to take the medication, I felt that spiritual side more apparent... (P14).

People characterized as non-intentionally non-compliant reported that self-administration of medication was compromised by difficulties to remember to take the medication.

I forget things very easily, which I also do when I take the medication... Did I remember? My mind doesn't work, right? Did I take it? Should I take it? Shouldn't I take it? Do I take it tomorrow? I take it in the morning, did I take it or not? (P13).

It was observed that many patients affirmed having little knowledge about schizophrenia and medication treatment. Their testimonies revealed, however, that they were satisfied with the information they had and did not usually question the drugs, reflecting the belief in medical truth:

No, no, I don't understand, I don't have a degree, I accept it. They change and I don't even ask... He's a doctor, he knows why he doing it. I follow his prescriptions, that's all I do (P13).

I'm not a doctor, I don't know what they (drugs) do... they've never told me, I've never tried to find out... I just know that they help me, you see! (P4).

It is also highlighted that many interviewees held schizophrenia and treatment-related beliefs that were based on faith. These patients sough spirituality as a way to cope with the difficulties the disorder imposed.

I was catholic. Ah, due to the health problem I changed to spiritualism. Ah, I think spiritualism is better for his, for this kind of disease (P3).

I went to lots of place... I went to the evangelical church, spiritist religion, hoodoo... And I tried everything, right! I believe the world is a spiritual fight... God uses people, gave man intelligence, wisdom... I believe in God a lot, but I think that God uses people, man, right!... For example, if I'm sick, I'm going to the doctor first (P4).

Only God because, if it weren't God... there's no type of medicine that I'm gonna take that I'll be fine, if I'm feeling fine with God, with myself that's everything, no medicine can bear that (P10).



And things went happening, I needed help from other places, other religions. Ah... I was a victim of a curse too, right! People who cursed me, then I needed spiritist religion for a long time (P2).

That's why they studied, right? May God enlighten the physicians to make us feel good, get better for our family... (P7).

#### **DISCUSSION**

Although prevalence levels of schizophrenia are approximately the same between men and women, most study subjects were men. As these patients are being followed at a tertiary hospital, this finding may be related with the course and evolution of schizophrenia in these subjects, as literature appoints that the male gender is associated with a worse prognosis<sup>(11)</sup>.

Among the 14 study participants, 13 were single and one divorced. During the interviews, the interviewees reported difficulties to establish and maintain stable marital relationships. A study on the quality of life of schizophrenia patients appoints that patients with this disorder, especially men, face difficulties to keep up marital relations, which significantly affects their quality of life<sup>(12)</sup>.

It should be mentioned that only patient had a stable job. In this respect, literature reveals that people with severe mental disorders are generally unemployed, have lower education levels and less conditions to get involved in intimate relationships<sup>(13)</sup>.

The assessment of medication treatment compliance related behavior showed that 64.3% of patients did not comply with the drugs. This result is similar to other scientific studies, as non-compliance with schizophrenia treatment occurs in between 50% and 60% of cases<sup>(14-15)</sup>.

Literature appoints that different factors are related with the patient's decision to follow treatment, and the patient's beliefs are highlighted as an important factor involved in this process<sup>(7,15)</sup>. Thus, people's health behavior may vary due to their beliefs in the susceptibility that a condition obliges them to experience unpleasant situations<sup>(8)</sup>. Patients identified as compliant in this study put greater emphasis on aspects related to susceptibility to the problems related with the disorder in comparison with non-compliant patients. This may be a relevant factor in their choice to comply with treatment.

Most study participants assessed schizophrenia as a severe disorder that causes different symptoms and behavioral alterations, harms people's global performance and generates great suffering, aspects supported by literature on the theme<sup>(12)</sup>. No considerable difference was found, however, in the perceived gravity of schizophrenia among patients identified as compliant and non-compliant with treatment.

Most patients appointed medication as a strategy capable of mitigating or restricting the susceptibility to and severity of the disorder. The perceived benefits deriving from compliance with medication treatment were related with the belief that the medication is necessary, even among some non-compliant patients. People identified as intentionally non-compliant, however, acknowledge the benefits of medication but assess its negative aspects as more significant, emphasizing the barriers for treatment compliance.

In fact, literature appoints that, although medication treatment provides undeniable benefits for the evolution of schizophrenia, sometimes it is exhausting for patients, arousing ambivalent feelings towards the medication<sup>(16-17)</sup>.

For some non-compliant patients, the belief in the need for treatment was based on relapse experiences caused by the interruption of treatment. In this respect, a study mentions that, in their treatment, some patients with chronic conditions experience a self-regulation mechanism of medication as a way to assess the current state of the disease and the possibility of quitting or decreasing the medication dose<sup>(18)</sup>. The intention is to overcome the stigma of chronic patients, as the act of regular medication intake continuously demonstrates that they are chronically ill.

In this study, the symptoms the patients experienced were relevant to support their beliefs. Schizophrenia symptoms (especially delusions), however, represented a bottleneck for medication compliance in some patients, and other mentioned it as a sign of severity of the disorder, reinforcing the need for treatment. This finding reveals that similar experiences can be permeated by different and even opposed beliefs.

The side effects were to reason to quit treatment in 80.0% of intentionally non-compliant patients. A study found that patients can consider the discomfort the disease symptoms cause as intense as the discomfort caused by the side effects of antipsychotics<sup>(19)</sup>. In this context, atypical antipsychotics stand out, which can cause severe side effects (agranulocytosis, dyslipidemias, among others), but can promote antipsychotic action at doses that cause no significant extrapyramidal symptoms, in addition to better efficacy regarding negative, affective and cognitive symptoms<sup>(20)</sup>.

It is highlighted that the public health system considers atypical antipsychotics as high cost and, to purchase them, patients need to comply with preset criteria. It should be reminded that the study participants also mentioned medication access difficulties, although the ideal would be for all patients to have access to the medication that best adapted to their treatment, independently of the cost involved.

Health professionals should pay attention with a view to the early identification of medication side effects, so as to put in practice, when possible, action to minimize or eliminate them. Patients also need to be informed about the possibility that these effects will occur and about what strategies to adopt when they are present<sup>(15)</sup>.

Non-intentionally non-compliant interviewees experienced difficulties to remember to take the medication. It is



known that about 40 to 60% of schizophrenia patients suffer from severe cognitive deficits, which include memory problems<sup>(21)</sup>. Health professionals should keep this aspect in mind when orienting these clients about their medication use. In this context, the family is particularly important, and should be included in patient treatment, so as to help patients to manage the medication and perceive the need to take the medication for a prolonged time, optimizing compliance.

Another relevant aspect was patients' mention of faith as a strategy to cope with the process, which can play a positive or negative role in medication compliance. Some patients believe that faith is sufficient to cure the disorder, without any need for the medication. For others, faith and treatment are complementary.

It is a fact that, at different times in history, psychiatry and religion assumed a position of reciprocal discredit. It is important to highlight, however, that they are not always mutually exclusive, and that both can benefit the individuals. In this respect, a study<sup>(22)</sup> reveals that religious experiences can exert positive effects in the course of severe mental illnesses, obliging clinicians to decide on whether to discourage or support them. The author also highlights the importance of for clinicians to understand the positive and negative roles religion plays for patients with psychotic disorders.

In this study, insufficient knowledge on schizophrenia and medication treatment was also observed among patients, some of whom could not even mention the name of the disorder, while other affirmed not usually asking about schizophrenia and treatment. It is known that a range of information sources are available for this end, but health professionals should help patients to avoid incorrect information and mistaken interpretations that can jeopardize their safety in medication treatment compliance. Patients should also be stimulated to take an active posture in medication treatment compliance, so that they make their choices consciously and develop their autonomy and co-accountability in treatment.

# **CONCLUSION**

Through the use of the Health Belief Model concepts, some aspects could be evidenced that need to be taken

into account in the education and care process of schizophrenia patients, with a view to their compliance with medication treatment.

In this study, it was verified that medication compliance is a complex process, influences by multiple beliefs and experiences, and that these play roles with different levels of importance for each patient. It was also verified that the same experience can be permeated by different beliefs. Hence, it is only through careful listening that one can get to know patients and relatives so as to plan care.

Services and professionals should enhance a broad understanding of the complexity involved in the attitude of complying with medication treatment or not, which should be present in patient training processes. Thus, patients can make their own decisions, aware of their susceptibility to crises and the possibility of losses and limitations in the different spheres of their daily life, when compliance does not occur. Professionals should also reinforce positive aspects to patients regarding the perceived benefits of complying with medication treatment.

Among the barriers the patients perceived for medication treatment compliance, patients' lack of initiative to question professionals in this respect stands out. These aspects reflect the hegemony of the biomedical health care model, in which professionals, considered as knowledge holders, establish a vertical relation with their patients, without room for inquiries and co-participation in the definition of the therapeutic proposal.

These study results appoint the need for health professionals to be oriented at patient listening, respectfully considering their beliefs, needs, knowledge and values, so that the planning of actions aiming to enhance their compliance with medication treatment is based on factors intrinsic to their reality.

Hence, this study offers important contributions to mental health practice and research, as knowledge on patients' adherence level and beliefs regarding the disorder and medication is fundamental with a view to ethical behavior that values people's subjectivity, as well to direct the elaboration of strategies, in health services, to guarantee the safety of schizophrenia patients receiving medication treatment.

#### **REFERENCES**

- Araripe Neto AGA, Bressan RA, Bussato Filho G. Fisiopatologia da esquizofrenia: aspectos atuais. Rev Psiquiatr Clin. 2007;34 Supl 2:198-203.
- Daltio CS, Mari JJ, Ferraz MB. Estudos farmacoeconômicos e carga da doença em esquizofrenia. Rev Psiquiatr Clin. 2007;34 Supl 2:208-12.
- Falkai P, Wobrock T, Lieberman J, Glenthoj B, Gattaz W, Mõller HJP, et al. Diretrizes da Federação Mundial das Sociedades de Psiquiatria Biológica para o tratamento biológico da esquizofrenia. Parte 1: tratamento agudo. Rev Psiquiatr Clin. 2006;33 Supl: 7-64.
- Colvero LA, Ide CAC, Ropim MA. Família e doença mental: a difícil convivência com a diferença. Rev Esc Enferm USP. 2004;38(2):197-205.



- Zygmunt A, Olfson M, Bouer CA, Mechanic D. Interventions to improve medication adherence in schizophrenia. Am J Psychiatry. 2002;159(10):1653-64.
- Morken G, Widen JH, Grawe RW. Non-adherence to antipsychotic medication, relapse and rehospitalisation in recent-onset schizophrenia. BCM Psychiatry. 2008;8:32.
- Leite SN, Vasconcellos MPC. Aderência à terapêutica medicamentosa: elementos para a discussão de conceitos e pressupostos adotados na literatura. Ciênc Saúde Coletiva. 2003; 8(3):775-82.
- 8. Rosenstock IM. Historical origins of the Health Belief Model. Health Educ Monogr. 1974; 2:328-35.
- 9. Morisky DE, Green LW, Levine DM. Concurrent and predictive validity of a self-reported measure of medication adherence. Med Care. 1986;(24):67-74.
- 10. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 8ª ed. São Paulo: Hucitec; 2004.
- 11. Chaves AC. Diferenças entre os sexos na esquizofrenia. Rev Bras Psiquiatr. 2000;22 Supl 2: 21-2.
- Cardoso CS, Caiaffa WT, Bandeira M, Siqueira AL, Abreu MNS, Fonseca JOP. Qualidade de vida e dimensão ocupacional na esquizofrenia: uma comparação por sexo. Cad Saúde Pública. 2006;22(6):1303-14.
- 13. Stuart GW, Laraia MT. Enfermagem Psiquiátrica: princípios e prática. 6ª ed. Porto Alegre: Artes Médicas; 2001.

- 14. Cardoso L, Galera SAF. Mental patients and their compliance profile to psychopharmacological treatment. Rev Esc Enferm USP [Internet]. 2009 [cited 2010 May 25];43(1):161-7. Available from: http://www.scielo.br/pdf/reeusp/v43n1/en 21.pdf
- 15. Rosa MA, Elkis H. Adesão em esquizofrenia. Rev Psiquiatr Clin. 2007;34 Supl 2:189-92.
- 16. Giner J, Cañas F, Olivares JM, Rodriguez A, Burón JA, Rodríguez-Morales A, et al. Adherencia terapeutica en la esquizofrenia: una comparacion entre las opiniones de pacientes, familiares y psiquiatras. Actas Esp Psiquiatr. 2006;34(6):386-92.
- 17. Rudge T, Morse K. Did anything change? Caregivers and schizophrenia after medication changes. J Psychiatry Ment Health Nurs. 2004;1(1):3-11.
- 18. Conrad P. The meaning of medication: another look at compliance. Soc Sci Med. 1985; 20(1):29-37.
- Lenert LA, Ziegler J, Lee T, Sommi R, Mahmoud R. Differences in health values among patients, family members, and providers for outcomes in schizophrenia. Med Care. 2000; 38(10):1011-21.
- Lima MS, Mari JJ, Breier A, Costa AM, Sena EP, Hotopf M. Quality of life in schizophrenia: a multicenter, randomized, naturalistic, controlled Trial comparing olanzapine to first-generation antipsychotics. J Clin Psychiatry. 2005;66(7):831-8.
- Sá Junior AR, Souza MC. Avaliação do comprometimento funcional na esquizofrenia. Rev Psiquiatr Clin. 2007;34 Supl 2:164-8.
- 22. Koenig HG. Religião, espiritualidade e transtornos psicóticos. Rev Psiquiatr Clin 2007;34 Supl 1:95-104.