Cognitive Risk Factors for Relapse in Chronic Schizophrenia

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Abstract: Cognitive risk factors and maladaptive coping mechanisms are important elements for the prognosis and evolution of schizophrenic patients, their manifestations being observed during psychotic episodes but, often, even during apparently asymptomatic, inter-episodic, intervals. Patients diagnosed with chronic schizophrenia have perceptual and thought distortions that invalidate their representation of reality, therefore coping with these disorder manifestations stands as a difficult challenge. We assessed 51 patients diagnosed with chronic schizophrenia in order to establish a correlation between main categories of coping mechanisms and specific type of schizophrenia. Patients with paranoid schizophrenia associated maladaptive coping strategies like alcoholism (36.3%) and aggression (27.2%), those with residual type presented more social withdrawal (71.4%) and self-harming (35.7%), while catatonic and disorganised schizophrenia cases had a high incidence of thought blocking (60% and 40%, respectively) and social isolation (60% in both groups). There are more frequent types of coping mechanisms in each form of schizophrenia. This is an important fact for focusing the psychotherapy approach on conversion to adaptive coping strategies, using techniques like verbal challenge and reality testing or retribution-enhancing techniques.

1 Introduction

Schizophrenia is a multidimensional disorder with a yet incomplete etiological explanation, but with certain genetic and environmental vulnerability factors. In a bio-psycho-social model [1,2], named vulnerability-stress-coping paradigm, vulnerabilities may predispose individuals for the disorder, while environmental stressors can potentially modulate the expression of symptoms in vulnerable patients.

In schizophrenia, vulnerability may include both biologic (genes intervention, complications during birth, viral infections of the central nervous system, immunity factors), psychological (early life stressful events like parental loss) or toxic (substance abuse during pregnancy) factors. Triggers for schizophrenia are also psychological (different stressors with social origin) or toxic (drugs or substance with abuse potential). The link between triggers and vulnerability is represented by coping mechanisms. Protective coping mechanisms may help vulnerable subjects to reduce the severity of symptoms or to eliminate them.

In a cognitive perspective [3], coping mechanisms include rational problem solving, social support reaching, positive situation reevaluation, fight-flight responses, cognitive repression, magical thinking, self-blaming, emotions expression, emotion repression, self-control, response to challenge. All these coping methods [4] could be classified in four categories: (a) emotion centered coping, specific for emotional dysfunctions; (b) problem focused coping for problems that caused a dysfunction; (c) avoidant coping that allows patients to reduce emotional tension through flight, refuse, submission; (d) hyper-alertness coping allows patients to resolve difficult situations using information seeking, social support, instrumental research.

One cognitive-behavioral therapy (CBT) approach to schizophrenia is coping strategy enhancement that focuses on stress decreasing by teaching patients new coping mechanisms for distract themselves and ignore the content of psychotic residual symptoms [5]. Compliance therapy is another CBT short-term intervention focused on adherence to drug treatment improvement in acute inpatients with schizophrenia. The results of compliance therapy had been considered significant [6] in clinical trials when variables like compliance, attitudes toward treatment, insight into illness were compared to control subjects receiving standard treatment.

Patients diagnosed with chronic schizophrenia have hallucinations, thoughts insertion or broadcasting, delusions of reference, disorganised thinking, that stand as anxiety provoking phenomena. Coping with these psychotic manifestations is a
difficult challenge for patients and therefore, the need for a specialized therapist to clarify and support.

CBT interventions had been used for challenging positive symptoms, as a study [7] demonstrated an overall reduction of >50% in such symptoms after 3 months of psychotherapy, adjunctive to antipsychotics, using a control group treated with supportive counseling.

The negative core symptoms like difficulty with communication, motivation, self-care, work, and establishing and maintaining relationships with others could be addressed also, by learning and using coping mechanisms to address these problems that allow people with schizophrenia to attend school, work, and socialize.

Coping strategies are important in almost all CBT and psycho-educative approaches interventions in schizophrenia, because of their central role in transition from normality to disorder and back to adaptive functionality.

2 Study design
A prospective study, non- placebo controlled, that included 51 patients, 40 male and 11 female, mean age 39.8, diagnosed with chronic schizophrenia-paranoid (n=22), residual (n=14), catatonic (n=10) and disorganised (n=5) type, according to DSM -IV-TR criteria, was initiated in order to verify if there is a correlation between main categories of coping mechanisms and specific type of schizophrenia. All patients were interviewed after release from hospital and presented some residual symptoms of psychosis in the period when the psychological evaluation had been made.

Inclusion criteria: patients diagnosed with chronic schizophrenia admitted in hospital for relapses; patients included in a cognitive- behavioural therapy and antipsychotic maintenance treatment; previous cognitive function within normal limits (above 80 on Raven test).

Exclusion criteria: axis II comorbidity; other psychotic disorders on axis I; severe somatic pathology on axis III that could modify patients coping strategies; severely cognitive impaired patients.

We used an interview- based evaluation of coping strategies and assessed the more important maladaptive mechanisms for each patient. The practical objective of this research was intended to be enhancement of positive coping mechanisms using CBT, after the stabilization of acute psychotic symptoms through medication. For this purpose a coping mechanisms profile was realized for each patient and a personalized therapeutic plan for training positive coping strategies and extinguishing negative coping mechanisms was made.

3 Results
Patients with paranoid schizophrenia associated maladaptive coping strategies like alcoholism (36.3%) and aggression (27.2%), those with residual type presented more social withdrawal (71.4%) and self-harming (35.7%), while catatonic and disorganised schizophrenia cases had a high incidence of thought blocking (60% and 40%, respectively) and social isolation (60% in both groups).

We assumed each maladaptive coping strategy is based upon several items that create, through a network of relationships, behavioural manifestations.

Patients diagnosed with alcohol dependence as comorbidity presented as causal factors self-aggression in stressful situations, flight when confronted with distressing hallucinatory symptoms and emotional repression. All 8 patients with associated alcoholism stated that the beginning of schizophrenia preceded alcohol consumption and the alcohol intake was greater during acute psychotic episodes and in post-psychotic depressive periods.

Aggression toward others as maladaptive response to positive symptoms during acute episodes in schizophrenia is similar with submissive reaction to hallucinations and delusions and was prompted in 6 patients diagnosed with paranoid schizophrenia.

Social withdrawal was considered a result of the patient’s deficits in memory or attention, anhedonia and lack of initiative manifested during residual phases of schizophrenia. Patients who realize the course of their disorder could choose the flight reaction, transformed in social withdrawal behaviors. During residual phases and post-psychotic depression self-aggression behaviours are not rare.

Magical thinking and thought blocking are more frequent in catatonic and disorganised schizophrenia. Social isolation has similar explanations in both types of schizophrenia, but the submission to psychotic symptoms was met only in catatonic patients, while flight and help-rejecting were common causes.

As we see, there are many dysfunctional coping strategies, some of them are common to more types of schizophrenia (social isolation/withdrawal, magie thinking), while others are met more frequently in one type of schizophrenia (self-harming, aggression toward others).

Table1. Cognitive risk factors for relapse according to specific subtype of schizophrenia
Schizophrenia is a type of mental disorder characterized by maladaptive coping mechanisms (factors) that can significantly impact an individual's ability to cope with daily stressors. Below is a table outlining the distribution of maladaptive coping strategies in chronic schizophrenia, expressed as a percentage (%):

<table>
<thead>
<tr>
<th>Schizophrenia type</th>
<th>Maladaptive coping mechanisms (factors)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paranoid</td>
<td>Alcoholism (self-aggression, flight, emotional repression), Fight (aggression toward others, submissive to psychotic symptoms)</td>
<td>36.3, 27.2</td>
</tr>
<tr>
<td>Residual</td>
<td>Social isolation (flight), Self-harming (emotional repression, self-aggression)</td>
<td>71.4, 35.7</td>
</tr>
<tr>
<td>Catatonic</td>
<td>Thought blocking, magic thinking, Social isolation (flight, help-rejecting, submissive to psychotic symptoms)</td>
<td>60, 60</td>
</tr>
<tr>
<td>Disorganized</td>
<td>Thought blocking, magic thinking, Social isolation (flight, help-rejecting)</td>
<td>40, 60</td>
</tr>
</tbody>
</table>

**Fig.1 Distribution of maladaptive coping strategies in chronic schizophrenia**

4 Conclusion

Patients with chronic schizophrenia have a wide variety of maladaptive coping strategies and each of them could lead to more dysfunctional behaviors, creating a vulnerability for relapse. While the treatment with antipsychotics improves both positive and negative symptoms of schizophrenia, it is important to help our patients to cope with daily stressful events, to adhere better to their medication schedule and have fewer relapses and hospitalizations.

A positive relationship with a therapist or a case manager gives the patient a reliable source of information and encouragement, essential for managing the disease. The therapist can help patients better understand and adjust to living with schizophrenia by educating them about the causes of the disorder, common symptoms or problems they may experience, and the importance of staying on medications.

Obviously, a patient who rejects help or has a magic thinking won’t be able to stay for long with a pharmacologic treatment, no matter how efficient it is, if these dysfunctional coping mechanisms are not approached in a psychotherapeutic program. Also, a patient who reacts to stress by using self-destructive actions has a poorer prognosis if he/she is not included in a coping enhancement therapy.

An important objective for any CBT derived intervention should be focusing the approach on conversion to adaptive coping strategies, using techniques like verbal challenge and reality testing, reattribution-enhancing techniques and activities daily programming.

The evaluation of coping mechanisms in schizophrenic patients help the therapeutic team to create a more personalized treatment profile and to foresee the difficulties that may appear at some moment in therapeutic relationship.

**References:**


