Cognitive explanation and cognitive therapy of schizophrenia

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الملخص باللغة العربية:

يعتبر الفصام من الأمراض المزمنة الأكثر انتشارا بين الاضطرابات العقلية الأخرى، لمدى تفاقم الأعراض الإيجابية والأعراض السلبية به، إضافة إلى العجز الوظيفي الناتج عن تشوه البنية المعرفية وعمليات ما وراء المعرفة، واختلال عملية التفكير. وبناء على هذا، ظهرت العديد من النماذج النظرية المعرفية التي حاولت مقاربة المفهوم النظري الأمثل لفهم هذا الاضطراب، ثم اقتراح نماذج علاجية معرفية من طرف العديد من الباحثين على غرار Beck and Neil، وموجه خصيصا لهذه الفئة، مسلحين بأدوات القياس والتدخل.

الكلمات المفتاحية: الفصام، الأعراض الإيجابية، الأعراض السلبية، النماذج النظرية المعرفية، العلاج المعرفي للفصام.

ملخص باللغة الانجليزية:

Abstract: Schizophrenia is one of the most common chronic diseases among other mental disorders, because the severity of positive and negative symptoms, addition to the functional deficit resulting from distorting and bias of the cognitive structure and processes of Meta cognition and perturbation of thinking processes. Many cognitive explanations have emerged that attempt to approach the ideal and perfect theoretical concept to understand this disorder, and then propose cognitive therapy models by many researchers

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such as beck and Neil of this category, and armed with measuring and intervention tools.

Keywords: Schizophrenia, positive symptoms, negative symptoms, cognitive explanation, cognitive therapy.

- introduction :

Schizophrenia is a complex disorder, inbuilt suffering and impairment in both patients and their families. Experiences this disorder led to seek meaning in the bizarre and perplexing phenomena of their psychoses (Burns, 2004, p.831).

Schizophrenia is defined by positive symptoms (hallucinations and delusions), disorganized speech and behavior, and negative symptoms (affective flatting, abolition, ect). Schizophrenia is also characterized by cognitive, psychophysiological, interpersonal and coping skills deficits that result the vulnerability to stress (Bradshaw, 1998, p.1).

Schizophrenia, by its natures, posed a number of difficulties for the clinician for make psychological treatment plane, these difficulties consist of:

(1)- Psychological factors, such as restricted of attention, elevated arousal, stigmatization, comorbidity and high risk of suicide.

(2)- Psychosocial factors, such as sensitivity to interpersonal and family environment and risk of victimization.

(3)- Social factors, such as social deprivation and withdrawal, social drift, restricted social networks, and adverse effects of a psychiatric career in the negative effects (Tarrier, 2005, p.138).

The substantial burden and gravity of disorder is a reflection of two points of schizophrenia:

(a) The disorder usually has its commencement in early adulthood.

(b) Despite optimal treatment, approximately two thirds of affected individuals have persisting or fluctuating symptoms (Saha, Chant& Mc Grath, 2005, p. 414).

There are many perspective and explanation that try explaining this disorder, but mostly is insufficient or complex to understanding. So for all symptoms in schizophrenia maybe has relation with social cognition process. From this point, many researchers have explanation for this disorder, so what is the cognitive explanation of schizophrenia? And what is they steps of cognitive therapy?

Social and cognitive impairment in schizophrenia :

Deficit in the ability to perform everyday living skills (referred to as functional capacity) are highly related to the ability to live independently. In another hand, Reductions in quality of life are strongly associated with cognitive impairment.

Cognitive functions have been shown to be associated with medication adherence and are the strongest predictors of patient's ability to manage medications. The complexity is there is a Deficit in executive functions such as planning directly affect patient's ability to seek treatment for medical problems (Keefe& Harvey, 2012, pp. 14-15).

Memory impairment is one of the most cognitive dysfunctions in schizophrenia (Bigdeli, Farzin& Talepansand, 2014, p.57). Inability of patients with schizophrenia to reduce damaging habits such as smoking has been correlated with deficits in memory and attention and is a likely determinant of the substantial increase in cardiac morbidity and mortality among schizophrenic patients.

Much empirical evidence points to severe verbal memory impairments in schizophrenia. There is a relation between verbal memory impairment and social deficit in patients with schizophrenia. working memory deficits in

schizophrenia comes from strong correlations with a variety of other cognitive domains impaired in schizophrenia such as attention, planning, memory and intelligence, and there are a Poor performance on the WCST (Wisconsin Card Sorting Test) for reasoning and problem solving .However, there is impairment in processing speed in patients with schizophrenia (Keefe& Harvey, 2012, pp. 15-18).

Green et al (2008) propose that the term « social cognition » covers five areas: theory of mind (TOM), social perception, social knowledge, attribution bias, and emotion processing (Ziv& Levine, n.d, p.4).

Patients with schizophrenia show abnormal performance on facial emotion recognition and identity matching. These deficits, which affect the ability of patients to interpret other's intentions, might play a role in the social disorders associated with schizophrenia (Martin, Baudouin& Franck, 2005, p.43). The social word interacting with others, understanding social context, and developing interpersonal relationships, is particularly challenging for people with schizophrenia. The poor of social functioning in schizophrenia is caused by behavioral deficit in social cognitive abilities, including emotion recognition, self-regulation and theory of mind.

The regulation of emotional experience/expression and the ability to control the influence of emotion on behavior, cognitive control of emotion, is a core component of self- regulation necessary for social interactions (Dodell-feder, Tully& Hooker, 2015,pp. 1-4).

Expletory models of schizophrenia :

1-Positive symptoms :

Historical psychosis was thought of as best understood in biological terms, but in the present, number of psychological models of psychosis with acknowledge collaborate a formulation that interacted between biological, emotional, cognitive, behavioral and social factors in the appearance and

maintenance of psychosis (Cavanagh, 2012, p.511). unlike a number of theories of the positive symptoms of psychosis which posit that delusions derive as essentially normal explanations from « out-of-the-ordinary experiences » such as hallucinations, neuropsychological impairment or other erroneous input (Moritz, Liidtke& Menon, 2016,p.2).

In schizophrenia, the most common hallucinations are voices. The cognitive explanation of hallucination is as cognitive dysfunction such as information processing problems, which can lead to anomalous experiences, and which means that patient have difficulty in monitoring of internal events (self-monitoring) and may not be aware of the fact of speech has been generated. They also have a low sill in interpreting sounds or voices that seen real or almost real. The content of voices is usually negative thoughts (dysfunctional schema) about themselves or others.

Patients with schizophrenia often have poor self-esteem (negative core schemas), which means that they believe what the voices say. Patients construct a belief system about the voices and about themselves. Typical core beliefs for schizophrenia could be « i am useless », « i am evil », « i am stupid », « i am worthless ».

The cognitive model explanation of delusions is similar to that in the aberrant salience model, which is « top-down » regulation: the patient is trying to construct his or her own explanation of aberrant salience in an attempt to understand the delusions.

Patients have deficiencies in the processing of information and draw hasty to the conclusions (Jumping to conclusions). Also, the patients often try to have their conclusions confirmed, and they have difficulty in finding alternative, they are highly interest in attaching personal meaning to irrelevant causes. The powerful externalization bias that the patients have makes it difficult for them

to accept reasonable explanation for their paranoid thoughts (Sarin& Wallin, 2013, pp. 2-4).

A number of empirical studies investigating three different outcomes of delusion have been review above. First, the present authors have found strong support for a reasoning bias in people with delusions which is best described as a data-gathering bias, a tendency for people with delusions to gather less evidence than controls so that they jump to conclusions. Secondly, there is strong evidence of an attribution bias in people with persecutory delusions, which leads to externalizing particular tendency to personalize that is, to blame people rather than situations when things go wrong. Finally, a number of recent studies suggest that people with persecutory and other delusions may be poor at representing the mental states of others, although this deficit may be related to a more general reasoning factor (Grety& Wallia, 2013, p.4).

Previous cognitive behavior therapy (CBT) with schizophrenic patients has focused primarily on modification of hallucinations and delusions (Bradshaw, 1998, p.4).

2-Negative symptoms :

Negative symptoms can be consists and subdivided into primary and secondary ones. The primary symptoms are caused by the disorder itself and the secondary ones are derived from positive symptoms. The cognitive factors are that the patients have negative assumptions about themselves, such as low expectations of pleasure or success, stigma and perception of limited resources (Sarin& Wallin, 2013, p.5).

Description of negative symptoms as limited in the range and intensity of emotional expression (affective flattening), in the fluency and productivity of thought and speech, and in the initiation of goal-directed behavior (avolition), and loss of ability to feel pleasure (anhedonia) (Rector, Beck& Stalar, 2005, p. 248).

Negative symptoms function partly as a maladaptive strategy aimed to protect individuals from expected pain and rejection associated with engagement unconstructive activity. Repeated relapses and failures are theorized to foster dysfunctional beliefs, including low expectancies for pleasure and success, a perception of limited resources, defeatist beliefs about performance, and negative beliefs about social affiliation. These beliefs in turn may persistent the disengaging and avoidance that characterize negative symptoms and that result in poor treatment outcome (Perivoliotis& Cather, 2009, pp. 815-817).

3-Theory of mind (TOM) :

Social cognition, defined as the « cognitive process involve in how people think about themselves and other people, social situation, and interactions (Brekke, Kay& Lee, 2005, p.214).

Frith (1994) has proposed several mechanisms with a cognitive framework with autism and schizophrenia. Negative symptoms such as flattening of affect and impoverishment of will (agency) are attributed to the individual's lack of awareness of his own mental and emotional states and a corresponding unawareness of personal goals and intentions. Incoherence of speech and language, frith argues, is attributable to a failure to take account of the listener's lack of knowledge.

Positive symptoms in schizophrenia, argues Frith (1994) result from attempts to infer the mental states of others, because, unlike the autistic patient, the person with schizophrenia has had an experience of using TOM abilities prior to onset of illness and known that one must attempt to interpret the mental contents of others (Burns, 2004, p.836).

Deficit in self-awareness in schizophrenia may be expressed as behavioral manifestations such as lack of insight into illness, or lack of empathy, and the ability to recognize and share another's emotion. Thus in sight is the ability to make sense of the world by self-reflecting on personal limitations in an

adaptive way while also exhibiting emotional awareness (Didehbani, 2012, p.246).

cognitive Therapy for Schizophrenia :

There are many cognitive therapeutic models for schizophrenia, for the student trend to the model of Aaron Beck and his colleges. The student reminds the importance points.

1- Establishment of the therapeutic alliance.

2- Development and prioritization of problem list:

- Symptoms (e.g., delusions, hallucinations).
- Life goals (e.g., work relationships, housing, and education).

3- Psychoeducation and normalization of symptoms of psychosis:

- Discussion of the role of stress on the production and persistence of symptoms.
- Discussion of bio psychosocial aspects of the illness.
- Reducing stigma through education.

4- Development of a cognitive conceptualization:

- Identifying links between thoughts.
- Feelings and behaviors.
- Identifying underlying themes in symptoms and problems.
- Sharing formulation and cognitive focus with patient.

5- Implementation of cognitive and behavioral techniques to treat positive and negative symptoms:

- Socratic questioning (i.e., Columbo technique)
- Testing/reframing beliefs
- Weighing the evidence
- Considering alternative explanations
- Engaging in behavioral experiments

- Hierarchy of fears/suspicions
- Engaging in imagine exposures
- Engaging in *in vivo* exposure tasks
- Reducing safety behaviors
- Eliciting self-beliefs

(e.g., weak–strong, worthy–worthless)

6- Implementation of cognitive and behavioral strategies to treat comorbid depression and anxiety.

- Adapt standard cognitive therapy strategies for anxiety/depression
- Test/reframe appraisals/beliefs related to anxiety (e.g., danger and vulnerability) and depression (e.g., worthlessness and hopelessness).
- Engage in exposure exercises and create activity schedules.
- Engage in behavioral experiments.
- Engage in relaxation/exercise/breathing retraining.

7- Provision of relapse prevention strategies:

- Identifying high-risk situations.
- Provident skills training.
- Establishing step-by-step action plan to deal with relapse.

8- typical Session of Cognitive Therapy (25–50 Minutes):

- elicit update on mood since last session:
- Complete mood ratings.
- Check on medication adherence.
- Update on use of other services and progress.
- Provide bridge from last session:
- Summarize previous session and important issues addressed.
- Identify possible agenda items for focus in the session.
- Set structured agenda:

- Psychosis symptom focus (e.g., cognitive strategies for delusions)
- Comorbid symptom focus (e.g., developing hierarchy for social anxiety triggers)
- No symptom problem focus (e.g., coping with housing crisis)
- Relapse prevention (e.g., developing list of resources)
- Provide summary and homework plan.
- Provide summary and elicit patient's feedback on session.
- Provide overview of treatment plan until next session (e.g., schedule of day service visits; meetings with case manager; medication repeats). (Beck, Rector, Stolar& Grant, 2009, pp. 201-202)

Conclusion:

Schizophrenia is a chronic disease that infect the information processing system, for that the patients lead a series of interventions based on cognitive therapy, and include the patient and there family.

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