

# The Relationship of Meta-Emotion Dimensions and Positive and Negative Symptoms in the Patients of Chronic Schizophrenia

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## Abstract

The aim of the present research was to determine the relationship of meta-emotion dimensions and positive and negative symptoms in the patients with chronic schizophrenia. This research is a correlation study. The statistical sample of the current research includes 100 patients with chronic schizophrenia. To collect the data, Meta-Emotion Questionnaire, Positive, and Negative Symptoms Schizophrenia Scale were used. The results of Pearson correlation coefficient showed meta-emotion with positive and negative symptoms. These results suggest that the meta-emotion of chronic schizophrenia patients may well be of important prognostic value in the intensity of symptomology, prevention and planning of cognitive enhancement therapy.

## Keywords

Meta-Emotion, Schizophrenia, Patients

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## 1. Introduction

In schizophrenia, a wide range of cognitive functions, especially memory, attention, motor skills, executive functions and intelligence are damaged [1]. Schizophrenia effectively disrupts the expression and recognition of experience [2] [3] and potentially reduces physical performance and interpersonal relationships [4] [5]. Given the severity and persistence of the disorder, patients with damage in personal, family and social encounter [6] and the lack of adequate care, with social isolation [7] and experience have a lower level of life quality [8] [9].

One of the important variables in patients with schizophrenia is excitement. Emotions represent internal data affecting motivation, behavior and cognitive processes (attention and memory biases, judgments and decisions). Excitement comes as a subset of secondary emotions (*i.e.*, anxiety, anger) and emotions like

anxiety, anger and compassion. Meta emotion is beyond meta-cognition [10] [11], which may reflect a vicious cycle [12]. Patients with schizophrenia by a defect in understanding emotions are characterized. The consequences of such defects are poor social adjustment and low tolerance for emotional stress [13] [14]. However, research evidence is contrary to the conclusion of patients with schizophrenia, negative emotions and low positive emotions [15]. As learned about violence and its causes, excitement in schizophrenia research has been done which showed conflicting results in this field [16] [17] [18]. Another research found that schizophrenia is effective in violence. However, among patients with a history of violent behavior early, psychotic symptoms have little influence [19]. Further, a research study found that schizophrenia predicted that the anger is accompanied by harassment and that drug abuse increases the risk [20]. Another research showed that the murder rate in patients with schizophrenia is much higher than after treatment [21]. Further studies, [22] investigated the relationship between emotions and violent behavior with positive symptoms of schizophrenia.

Another study on 41 healthy subjects and 39 schizophrenic patients showed that schizophrenia will have difficulty in emotional processing and emotional problems associated with schizophrenia [23] [24].

There are different results and research gaps in this area, and the results in the field of pathology are the study of the requirements in schizophrenic patients. The aim of this study was investigating the relationship between meta-excitement and positive and negative symptoms of chronic schizophrenia.

## 2. Material and Methods

This research is descriptive and correlation. Meta-excitement, which comes as predictor variables, and criterion variables are positive and negative symptoms of schizophrenia. Inclusion criteria consisted of the criteria for schizophrenia based on Structured Clinical Interview and psychiatric diagnosis, having at least secondary education and the age range of 50 - 30 years. Individuals with mental retardation or brain damage from the study were excluded.

The study population included all patients with chronic schizophrenia referred to clinical centers in Ardabil in the first 6 months of 2011. The sample consisted of 100 patients with chronic schizophrenia in Ardabil, for sampling from patients with chronic disease in the first half of 2011 selected. Given that the correlation research should sample at least 30 persons, 100 persons were selected due to increased external validity.

Meta-excitement questionnaire: meta-excitement questionnaire is a 28-item and each is subjected to the option item 6 (from completely wrong to completely correct) answer [25]. The Scale of cross-thrilling includes six components: 1) Meta anger; 2) Compassionate cares; 3) The interest spread; 4) Meta humiliation/shame; 5) Difficult to control; 6) Meta Inhibition.

Cronbach's alpha coefficient of the questionnaire in the range of 0.70 to 0.80 is reported. The correlation coefficient of the scale with Personality Inventory

NEO, Positive and Negative Affect Scale, Beck Depression Inventory and meaningful meta cognition questionnaire are obtained ( $P < 0.01$ ). Cronbach's alpha coefficient of the questionnaire in this study is 0.81.

Positive and Negative Symptom Scale for Schizophrenia: positive and negative symptoms scale has 50 questions [26]. Test-retest reliability coefficient of the scale (after one month) obtained 0.77.

The subjects to choose from patients with chronic schizophrenia clinical centers in Ardabil were used. The first psychiatrist diagnosing with chronic schizophrenia clinical trials was identified and interviewed. After diagnosis and satisfy them to participate in the study, patients were selected on a voluntary basis.

### 3. Results

As seen in **Table 1**, it shows patients with chronic schizophrenia, mean (and  $\pm$  SD) scores of meta-excitement 88.85 (or 14.06), positive symptoms 42 (and 20.88) and negative symptoms 39.083 (21.92). In **Table 2**, the data analysis showed that Meta anger ( $r = 0.24$ ), compassionate care ( $r = -0.31$ ), Meta interest ( $r = -0.26$ ), Meta shame/humiliation ( $r = 0.39$ ), difficult control ( $r = 0.40$ ), and Meta suppression ( $r = 0.33$ ) have a significant correlation with positive symptoms ( $P < 0.01$ ). The results also showed that Meta anger ( $r = 0.27$ ), compassionate care ( $r = -0.40$ ), Meta interest ( $r = -0.36$ ), Meta shame/humiliation ( $r =$

**Table 1.** Mean and standard deviation in patients with schizophrenia in the studied variables.

	Variable	Average	Standard deviation
Meta excitement	Meta anger	12.025	3.846
	Compassionate care	18.65	6.21
	Meta interest	14.3	4.468
	Meta shame/humiliation	17.13	5.39
	Meta difficult controls	16.21	4.93
	Meta repression	6.45	1.82
	Total	88.85	14.06
Schizophrenia	Positive symptoms	42.01	20.88
	Negative symptoms	39.83	21.92

**Table 2.** Meta-excitement correlation coefficient or positive and negative symptoms of schizophrenia.

	Variable	Negative symptoms	Positive signs
Meta excitement	Meta anger	0.27**	0.24**
	Compassionate care	-0.40***	-0.31**
	Meta interest	-0.36***	-0.26**
	Meta shame/humiliation	0.34***	0.39***
	Meta difficult controls	0.33***	0.40***
	Meta repression	0.30**	0.33***

0.34), control difficult ( $r = 0.33$ ) and Meta-suppression ( $r = 0.30$ ) have a significant relationship with negative symptoms ( $P < 0.01$ ).

#### 4. Discussion

This study aimed to determine the relationship between meta-excitement and positive and negative symptoms of chronic schizophrenia. To explain these findings, it can be said that more harm will be suffered in the excitement of schizophrenic patients.

One of the important psychological thrillers with components in the etiology of schizophrenia has a powerful effect on the emotional argument and on the ways that are still unknown to the consolidation help. In fact, the thrill of a complex system developed during human evolutionary history of the organism responding to environmental stimuli and challenge is equipped. Emotions can affect all aspects of our lives, and shape our relationships and our activities to motivate. So it is important to learn to identify them and how people tell them to hide [27] [28].

These patients have higher rates of lack of pleasure in comparison with ordinary people and experience fewer positive emotions. We can conclude that the patient's loss of contact with friends and family and lack of appropriate emotional interaction enhance emotions such as anger in this condition. Appropriate emotions in social interaction may underlie the social problems, job and their family. On the other hand, given that schizophrenic patients use their emotion regulation strategies of repression, this strategy leads to increased physiological arousal, especially for negative stimuli, and even disrupts memory for emotional events. This result is not consistent with the results of some studies on the lack of difference between schizophrenia patients and healthy subjects in the positive and negative meta-excitement. In its explanation, we can say that probably two research subjects are different in terms of quality of life or parental support.

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