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PRODUCTION OF AFFIRMATIVE, NEGATIVE AND INTERROGATIVE SENTENCES IN SCHIZOPHRENIA

Продуктування стверджувальних, заперечувальних і запитальних речень при шизофренії

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Abstract

Language disorder is one of the most significant symptom domains which characterize Schizophrenia Disorder. The aim of the present study considering these language problems is to find out the number of the affirmative, negative and interrogative sentences on schizophrenia patients' spontaneous speech and reveal whether their depression, doubts and sceptical behaviours affect their speech. Fifty patients with schizophrenia diagnosed according to DSM-IV criteria were included into the study and compared to fifty healthy subjects matched for age, sex and education level with the patients participated in the study. The subjects' speech was evaluated by using subject-based narration and free verbal narration tests. As a result of the statistical and linguistic analyses, significant differences were found between schizophrenic patients' and healthy subjects' speech in terms of between affirmative, negative and interrogative sentence use. The results indicate that the patients' excessive use of negative and interrogative sentences is related to their feature of attributing negatively to the events and emotions they experience.

Key words: *Schizophrenia, affirmative, negative, interrogative sentence.*

Introduction

Вступ

Schizophrenia is a brain disease in which language, thought, affect and behavior are impaired and is evaluated in three diagnostic groups. The first of these are delusions,

hallucinations, associative and affective disorders and disordered behaviors; the second is school, work, etc. impairments in places, interpersonal relationships, and self-care; the third one is that the disease has a history of at least 6 months (Işık, 2006, Sadock & Sadock, 2000). It is characterized by negative symptoms such as delusions, hallucinations, disorganized behaviors, and deterioration in social functionality, and deeply affects the individual's human relationships and life (Jablensky, 2000).

Language disorders in schizophrenia, which can cause thought, perception, emotion, movement and behavior disorders, are among the most important features that affect the living standards of patients with schizophrenia (Erol, 1998). These language disorders, which appear in parallel with the thought disorders in schizophrenia, first noted by Bleuler (1911), manifest themselves in phonological, morphological, syntactic and pragmatic areas and cause problems in communicating with patients (Yavuz, 2008).

Wrobel (1990) classified the language disorders that occur in schizophrenia under the headings poverty of speech and thought, empty speech, pressure of speech, distractible speech, tangentiality, derailment, incoherence, illogicality, clanging, neologism, word approximations, paraphasia, circumstantiality, loss of goal, perseveration, echolalia, blocking, stilted speech, self-reference. Thomas and Fraser (1994), on the other hand, associated the subtypes under the term thought disorder with linguistics. According to the researchers, word ascriptions, clang, association, neologism and paraphasia are the morphological problems experienced by schizophrenia patients. Association incoherence, that is, inconsistencies in the sentence, are included in the syntactic experience of patients with schizophrenia. Problems related to the derailment of thought, the shift to irrelevant topics in speech and the loss of purpose in speech, can be associated with discourse. The common feature of problems such as speech poverty, content poverty in speech, pressured speech can be evaluated as pragmatic disorders.

In other studies examining the linguistic characteristics of patients with schizophrenia in the literature, linguistic deviations that prevent the communication of patients have been revealed. Cohen and Schreiber (1992) suggested that the main underlying cause of language and cognitive impairment is the inability to create and maintain an internal representation of the context. In addition to verbal expression, Walker et al. (1993) argue that decreases in non-verbal behaviors that regulate the emotional tone of communication and enable the establishment of a non-hostile social communication, especially in facial expression, glance, gestures and facial expressions, and emotion expression, also make communication difficult. Docherty et al. (1994), on the other hand, suggested that the speech of a patient with schizophrenia contains more thought disorder when it is related to negative subjects than the speech produced on positive subjects. Barch et al. (1996) conducted a study on the semantic triggering process in the brain in schizophrenia and found that there are

impairments in the processing of the semantic triggering process. Alpert et al. (1997) examined the speech of schizophrenic patients and healthy people and described the speech of schizophrenic patients as hesitant and far from melodious and tone. They associated pauses during speech with difficulty in producing speech. Bonis et al. (1997) examined the metaphors used by paranoid and non-paranoid schizophrenia patients in their study. However, it was revealed that non-paranoid patients were unsuccessful in this regard. Meilijson et al. (2004), on the other hand, examined the linguistic disorders of schizophrenic patients from a pragmatic point of view. Each subject had a 15-minute conversation with people they knew and people they didn't know. The results showed that patients with schizophrenia had problems in their discourse styles, taking their turn to speak, and making connections about the subject.

The aim of this study considering the language deviations in schizophrenia is to find out the number of the affirmative, negative and interrogative sentences on schizophrenia patients' spontaneous speech and reveal whether their depression, doubts and sceptical behaviours affect their speech.

Methods and Techniques of the Research *Методи і методики дослідження*

Subjects

Prior to commencing study, permission was approved by the Medical School of Dokuz Eylül University, Interference-Free Ethics Committee. 50 patients who were diagnosed with schizophrenia according to DSM-IV by applying to Dokuz Eylül University Mental Health and Illness Department and 50 healthy subjects matched in terms of their age, gender and educational level participated in the study. The number of subjects in the study was determined using power analysis. The control group did not have a neurological or psychiatric discomfort story. It was defined as the criteria for participation in the study for healthy individuals who did not have a progressive central nervous system disease (Alzheimer's, Parkinsonism, etc.), psychiatric disorder, sensory problems (visual problems, neglect, hearing problems, etc.), a history of a stroke or brain disorder (tumor, head trauma, etc.), substance abuse, language, speech or learning problem story, drug use known to affect cognition. Besides, all participants mother tongue was Turkish and volunteering for participation in the research was defined as the criteria for participation for healthy individuals.

Data Collection

The data collection process was carried out at the Policlinic of Schizophrenia and Psychotic Disorders of the Department of Mental Health and Illness of the Medical Faculty

of Dokuz Eylul University. All subjects were obtained permission that they voluntarily participated in the study. During the application, each subject was interviewed individually in the psychologist's office. It was paid attention to ensure that the room where the tasks were performed was quiet so as not to distract the patients. After the data on schizophrenic patients were collected, both tests were applied to the control group who were matched with age, gender and education level with the patients in the same order. Participants' speech in the tests was recorded, and the recordings were transcribed using the symbols created by Du Bois et al. (1991).

Process

Two tests were used which were subject based speech test and free verbal narration test, and each subject was interviewed for about 15 minutes. In the first test the subjects were guided with a question (talk about the recent situation of your country) and in the second test they talked whatever they wanted.

Results *Результати*

In the study, firstly, the relationship between schizophrenia and affirmative, negative and interrogative sentence type was examined with chi-square test, and then the numbers of affirmative, negative and interrogative sentences in the speech of schizophrenia patients and the control group were compared. The results obtained are as seen in Table 1.

Table 1

Chi-square and Median Test Findings Regarding the Meaning of the Sentences Used by Schizophrenia Patients and the Control Group

	Sentence	Schizophrenia	f (%)	Control	f (%)	f (%)	Median p value	Chi-square p value
Subject-based narration test	Affirmative	342	48.2	367	51.8	100	0.003	0.046
	Negative	116	57.7	85	42.3	100	0.045	
	Interrogative	17	73.9	6	26.1	100	0.001	
Free verbal narration test	Affirmative	433	43.9	553	56.1	100	0.046	0.031
	Negative	68	61.8	42	38.2	100	0.291	
	Interrogative	16	66.6	8	33.4	100	0.001	

As seen in Table 1, a significant correlation was found between the disease and affirmative, negative and interrogative sentence type according to the results of the chi-square test in the subject based narration test ($p=0.046$). In other words having schizophrenia affected affirmative, negative and interrogative sentence use. According to the median test results, a significant difference was also found between the schizophrenia

patients and the control group in terms of affirmative sentence ($p=0.003$), negative sentence ($p=0.045$) and interrogative sentence use ($p=0.001$). The number of affirmative sentences used by the schizophrenic patients in this test was less than the number of affirmative sentences used by the control group, and the number of negative and interrogative sentences was higher than the sentences used by the control group.

In the free verbal narration test a significant relationship was also found between the disease and affirmative, negative and interrogative sentence type ($p=0.031$). In other words, schizophrenia affected sentence use. According to the median test results, a significant difference was found between schizophrenia patients and the control group in terms of use of affirmative and interrogative sentences ($p=0.046$, $p=1.000$), but no significant difference was found in terms of use of negative sentences ($p=0.291$). According to the results, the number of affirmative sentences used by schizophrenia patients was less than the number of affirmative sentences used by the control group. The number of negative and interrogative sentences used by schizophrenia patients was higher.

Conclusion *Висновки*

As a result of the findings obtained from this study, it was revealed that the number of affirmative, negative and interrogative sentences in the speech of schizophrenia patients and the control group differed. In both tests, the number of affirmative sentences used by schizophrenia patients was less than the number of affirmative sentences used by the control group, and the number of negative and interrogative sentences was higher.

The results are similar to the literature. Harrow et al. (1994) found that schizophrenic patients were significantly more likely to show depressive syndromes. Specifically, schizophrenia patients experienced more mood related symptoms (depressed mood, hopelessness, negative self-evaluations, suicidal tendencies, excessive guilt, cognitive-motor symptoms, loss of energy, fatigue, indecisiveness, reduced concentration, psychomotor retardation, and psychomotor agitation). In this context, all the mentioned features are also reflected in the language, and the linguistic choices of the patients were mostly based on negative and interrogative sentences.

Wunderink and Kaymaz (2002), on the other hand, stated that the most common features of delay of thought and action, pessimism, not enjoying anything, indecision, feelings of uselessness and negative symptoms are feeling of emptiness, passivity and emotionality. In addition, attacks of fear, panic, social phobia, and bad thoughts are common symptoms in schizophrenia patients, so this mental state of the patients again is also reflected in their linguistic characteristics. Patients often have negative and questioning

thoughts. Also in both tasks patients used more undetailed questions instead of focusing and explaining the topic and it decreased the quantity and content. The results obtained in this study support these symptoms.

To conclude it is thought Schizophrenia has a deep effect and on language and the patients' excessive use of negative and interrogative sentences is related to their feature of attributing negatively to the events and emotions they experience.

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