THE ROLES OF PERCEIVED EXPRESSED EMOTION OF THE
SCHIZOPHRENIC PATIENTS AND THE EXPRESSED EMOTION
OF THEIR CAREGIVERS ON SYMPTOM SEVERITY AND
QUALITY OF LIFE

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ABSTRACT

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This study aimed to examine relative effect of perceived expressed emotion of schizophrenic patients and their caregivers' expressed emotion on the symptom severity and quality of life at the framework of Vulnerability-Stress Model. Before the main study, for evaluating the psychometric properties of the Perceived Expressed Emotion Scale (PEES) a pilot study was conducted with the seventy five patients. Results of the pilot study provided support for the reliability and validity of PEES that had two factors, namely, criticism/hostility and emotional over-involvement. The main study was conducted at two stages. At time one assessment, one hundred and sixteen patients were administered PEES, Positive and Negative Symptom Scale for schizophrenia (PANSS), WHO's Quality of Life Scale (WHOQOL-BREF), and open ended questions to explore the views about their illness. Their caregivers were administered Expressed Emotion Scale (EES). After

six month follow up, time two assessment was conducted 103 patients remained on the study using PANSS and WHOQOL-BREF. In order to test the main hypothesis of the study a series of repeated ANOVA analyses were conducted. The results revealed that patients' perceived expressed emotion was a more robust component on quality of life and symptom severity than caregivers' expressed emotion. It was found that patients' perceived criticism/hostility was a toxic element on positive and negative symptoms, and total scores of PANSS, whereas patients' perceived emotional over-involvement had a protector effect on social and environmental domain of standardized culture of WHOQOL-BREF. It was seen that symptom severity evaluated using PANSS improved from time one assessment to time two assessment. After discussing the findings in the framework of the literature, the limitations and the clinical implications of the results and directions for future studies were suggested.

ÖZ

ŞİZOFREN HASTALARIN ALGILADIKLARI DUYGU DIŞAVURUMU VE AİLELERİNİN DUYGU DIŞAVURUMUNUN SEMPTOMLARIN CİDDİYETİ VE YAŞAM KALİTESİ ÜZERİNDEKİ ROLLERİ

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Bu çalışmada şizofren hastaların ailelerindeki temel bakım veren kişinin duygu dışavurumu ile hastaların algıladıkları duygu dışavurumunun, semptomların ciddiyeti ve yaşam kalitesi üzerindeki göreceli etkileri Stres-Yatkınlık Modeli çerçevesinde araştırılmıştır. Ana çalışmadan önce, Algılanan Duygu Dışavurumu Ölçeği'nin (PEES) psikometrik özelliklerini değerlendirmek amacıyla 75 hastanın katıldığı bir pilot çalışma yapılmıştır. Bu çalışmanın sonucuna göre, geçerlilik ve güvenirliği olan Algılanan Duygu Dışavurumu Ölçeği bu hasta popülasyonu ile kullanılabilir, eleştirel/ düşmanca oluş ve duygusal aşırı iç içe geçme şeklinde iki faktörü vardır.

Ana çalışma iki aşamada gerçekleştirilmiştir. İlk aşamaya 116 hasta ve temel bakım veren yakını alınmış, hastalara PEES, Şizofren Hastalar için Pozitif ve Negatif Semptom Ölçeği (PANSS) ve Dünya Sağlık Örgütü'nün Yaşam Kalitesi Ölçeği (WHOQOL-BREF) ve yakınlarına Duygu Dışavurum Ölçeği (EES) uygulanmış, hastaların hastalıklarına ilişkin görüşlerini almak amacıyla açık uçlu sorular sorulmuştur. Çalışmanın ikinci aşamasında, altı aylık izleme döneminden sonra çalışmada kalan 103 hastaya yeniden PANSS ve WHOQOL-BREF verilmiştir. Araştırmanın temel hipotezlerini test etmek için repeated Anova analizleri kullanılmıştır. Bulgular hastaların semptom düzeyi ve yaşam kalitesi üzerinde hastaların algıladıkları duygu dışavurumunun ailenin duygu dışavurumuna göre daha etkili bir değişken olduğunu göstermiştir. PANSS'ın pozitif, negatif semptomlar ve toplam puanlarında, hastaların algıladıkları eleştirel/düşmanca oluşun zarar verici, WHOQOL-BREF'in sosyal ve Türk kültürüne standardize olmuş çevre alanlarında hastaların algıladıkları duygusal aşırı iç içe geçme tutumunun koruyucu etkisi olduğu bulunmuştur. Ayrıca hastaların geçen altı aylık süre içinde semptom düzeylerinde belirgin bir iyileşme olduğu görülmüştür. Araştırmanın bulguları literatür doğrultusunda tartışıldıktan sonra, araştırmanın sınırlılıkları, klinik doğurguları ve ileriki çalışmalar için öneriler ele alınmıştır.

Anahtar kelimeler: Algılanan duygu dışavurumu, Algılanan eleştirel/düşmanca tutum, Algılanan duygusal aşırı iç içe geçme faktörü, Şizofreni, Yaşam kalitesi, Depreşme.

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TABLE OF CONTENTS

xi

LIST OF TABLES

LIST OF FIGURES

FIGURES

CHAPTER I

INTRODUCTION

Schizophrenia, which affects approximately 1 % of the population, is a chronic mental disease. Schizophrenia is a clinical syndrome, with a greatly disruptive psychopathology, involving thoughts, emotions and behavior. Due to the heterogeneity of symptomatic and prognostic presentations of schizophrenia, no single etiological factor is considered causative (Lang, Puls, Muller, Strutz-Seebohm, & Gallinat, 2007). According to the vulnerability-stress model, a person who develops schizophrenia has a specific biological vulnerability, or diathesis, that is triggered by stress and leads to schizophrenic symptoms. Within the vulnerability–stress model of schizophrenia, a variety of biological, psychological and psychosocial factors work together and determine the course and outcome of schizophrenia. The concept of expressed emotion (EE) refers to the affective attitudes and behaviors (criticism, hostility, and emotional over-involvement [EOI]) of a relative towards a psychiatric patient (Barrowclough & Hooley, 2003). There is considerable evidence from research studies conducted in a variety of countries supporting the relationship between expressed emotion and relapse process for schizophrenia (Martins, Lemos, & Bebbington, 1992; Jenkins & Karno, 1992; Kuipers, 1992; Hooley, 2007).

The main aim of the current study is to examine the relative roles of expressed emotion of relatives and perceived expressed emotion (PEE) of the patients on the quality of life (QOL) and well-being of the patients with schizophrenia. The study uses expressed emotion as a stress factor. The first, part of

1

the introduction provides a general overview of schizophrenia. Section two will deal with the vulnerability–stress model, as the main theoretical basis for this study. Section three will focus on the EE concept, which includes the discussion of the relationship of the EE construct with psychiatric and medical illness, especially for schizophrenia. Additionally, perceived expressed emotion concept is discussed in this part. Quality of life and symptom severity are taken as outcome measures in the current study. The final section of the introduction will present the aims and the hypotheses of the study.

1.1.Schizophrenia

Schizophrenia is one of the most severe mental illnesses. Schizophrenia poses great difficulties for the patients and their families. Individuals with schizophrenia become isolated, social contexts are broken and the families are distressed under the burden of caring for a loved one with mental disease.

Historically, it was known that schizophrenia had existed as long as human kind. Before the Graeco-Roman period, mental illnesses were varieties of physical illnesses. During the Graeco-Roman period, it was accepted that the gods were responsible for the illness, concerning the four elements of nature. In the fifteenth century Europe, persons who had hallucinations were apt to be persecuted as witches and accused of possession by demons or Devil (Stone, 2006). At the end of the nineteenth century, Emil Kraepelin identified the cognitive impairment of schizophrenia, calling the disorder *dementia praecox*. The term 'schizophrenia' was first proposed by Bleuler in 1908. Bleuler also identified primary symptoms of schizophrenia which are the affective disturbances, autism, ambivalence, and

associational disturbances as the four A's. Schneider also identified the 'first-rank symptoms and contributed to the classification of schizophrenia (Gelder, López-Ibor, & Andreasen, 2000; Stone, 2006). Finally, in the current edition of the DSM-IV, the main criteria of schizophrenia are delusions, hallucinations and disorganized speech.

After the brief summary of history of schizophrenia, the following sections include clinical diagnosis, epidemiology, etiology, positive and negative symptoms and treatment of schizophrenia.

1.1.1   Clinical Diagnosis

In schizophrenia, illness may start in various ways. On insidious onset, patient starts demonstrating social inhibition, talking to self, decreased self care, and sometimes somatic complaints and obsessive compulsive symptoms. On the other hand on acute exacerbation hearing voices and aggressive behavior due to paranoia may occur (Schultz, North, & Shields, 2007).

The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) (APA, 1994) gives the following three diagnostic areas for schizophrenia: (a) characteristic symptoms (b) social or occupational dysfunction and (c) duration. A diagnosis of schizophrenia can be made after ruling out schizoaffective or mood disorder, a substance, general medical condition, and a pervasive developmental disorder. For a diagnosis, during a 1-month period at least two of the following symptoms should be present: (a) delusions, (b) hallucinations, (c) disorganized speech, (d) grossly disorganized or catatonic behavior, or (e) negative symptoms like flat affect, lack of thought and speech fluency or apathy. Other diagnostic criteria are

social and occupational dysfunction for a duration of at least six months. The

diagnostic criteria for schizophrenia according to DSM-IV are given below:

A. Characteristic symptoms: Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):
1. delusions
2. hallucinations
3. disorganized speech (frequent derailment or incoherence)
4. grossly disorganized or catatonic behavior
5. negative symptoms (affective flattening, alogia or avolition)
Note: Only one criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping up a running commentary on the person's behavior or thoughts, or two or more voices conversing with each other.

B. Social/occupational dysfunction: For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning, such as work, interpersonal relations, or self-care, are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic or occupational achievement).

C. Duration: Continuous signs of the disturbance persist for at least 6 months. This 6 –month period must include at least 1 month of symptoms (or less if successfully treated) that meet criterion A (active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or two or more symptoms listed in criterion A present in an attenuated form (eg. Odd beliefs, unusual perceptual experiences).

D. Schizoaffective and mood disorder exclusion: Schizoaffective disorder and mood disorder with psychotic features have been ruled out because either: 1) no major depressive, manic, or mixed episodes have occurred concurrently with the active-phase symptoms; or 2) if mood episodes have occurred during active phase symptoms, their total duration has been brief relative to the duration of the active and residual periods.

E. Substance /general medical condition exclusion: The disturbance is not due to the direct physiological effects of a substance (a drug of abuse, a medication) or a general medical condition.

F. Relationship to a pervasive developmental disorder: If there is a history of autistic disorder or another pervasive developmental disorder, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated) (APA, 1994).

Differential diagnosis has been considered of great importance in schizophrenia diagnosis. In making the differential diagnosis of schizophrenia, the following psychiatric disorders must be excluded: brief psychotic disorder; schizophreniform disorder; schizoaffective disorder; delusional disorder; mood disorders, such as bipolar disorder, with psychotic features; substance-induced psychotic disorder; personality disorder and psychotic disorder caused by a medical condition.

The differential diagnosis for schizophrenia requires obtaining a detailed longitudinal history. The clinician gathers information from the patient as well as from sources like the family, previous clinicians, medical records, friends, and the school system. The differential diagnosis includes mental status examination, physical and neurological examinations, and laboratory tests like blood chemistries and a complete blood count to exclude other medical causes of psychosis. Magnetic resonance imaging (MRI) or positron emission tomography (PET) helps making the diagnosis of schizophrenia (Maguire, 2002).

The clinical features of schizophrenia involve a varied range of disturbances of general appearance, motivational, speech, behavioral, affective, perceptual and thought processes. It is an illness in which episodes of florid disturbance are usually set against a background of constant disability. The level of chronic disability ranges from a mild decrease in the ability to cope with stress, to an intense difficulty in initiating and organizing activity that can render patients unable to care for themselves.

Patients with schizophrenia tend to neglect their personal appearance and hygiene. Schizophrenia patients are characterized by social withdrawal. They cannot

5

develop a qualitative emotional attachment with other people. Consequently, the communication disorder tends to create a lack of empathy toward the patients, so the patients are isolated from the family and the social network. Another characteristic is the loss of ego boundaries. The patients cannot comprehend where the patients begin and end and where the outside world begins and ends (Cancro & Lehmann, 2000). Another dramatic clinical phenomenon is disruptions of motivation and will. Voluntary activity of daily living can be weakened. The patient might lie in bed or sit in a chair for hours (Gelder, López-Ibor, & Andreasen, 2000).

The speech of schizophrenic patients is often difficult to understand because of derailment, tangentiality, incoherence, loss of goal, circumstantiality, and neologisms. Loosening of associations (derailment) is the loss of the logical connections between associations. Clang association, verbigeration, mutism, echolalia are another speech disorders which are seen in schizophrenia.

The patients often behave in an unpredictable and inappropriate manner, and are poorly organized. Many patients exhibit mannerism, echopraxia, negativism and stereotypic behavior. However, stuporous state, catalepsy or flexibility is rare at the present day (Cancro & Lehmann, 2000). During the acute phase, excitation, irritability, agitation, motor over activity, sleeplessness is common (Gelder, López-Ibor, & Andreasen, 2000).

Lack of insight is another characteristic of the illness. It contributes to unwillingness to accept treatment. Blunted affect and inappropriate affect which are disorders of emotion are the most persistent characteristics (Gelder, López-Ibor, & Andreasen, 2000).

Hallucinations are perceptions that occur without sensory stimuli. Hallucinations are experienced as being personal, thereby other people can not

perceive the same voice or image. Auditory hallucinations are the most prevalent in schizophrenia. Hearing voices speaking in the third person is the most common. The content is sometimes ordinary and sometimes there is an implied criticism. Second-person auditory hallucinations are often derogatory. Voices might issue commands that patient obeys. In some instances, the patient participates in a dialogue with the voices. In schizophrenia, visual hallucinations are less common than auditory hallucinations. Somatic hallucinations are also relatively common and often are associated with a delusional misinterpretation (Kaplan & Sadock, 2003).

In addition to hallucinations, a wide range of cognitive deficits occur in schizophrenia. In the acute phase, attentional impairment is common and is associated with psychomotor excitation. Difficulty in abstract-symbolic thinking and concrete thinking can be measured through proverb interpretation and similarities (Hughes, Kumari, Soni, Das, Binneman, Drozd, O'Neil, Mathew, & Sharma, 2003).

Delusions that are most typical thought disorder of schizophrenia have an unknowable character rarely seen in other disorders. Delusions are defined as false beliefs about which a person is firmly convinced and is inflexible to outside reality. Delusions must be distinguished from cultural or religious beliefs. In schizophrenia, delusions often emerge to reflect disintegration in the experience of reality. The content of the delusional belief often contains contradictions. There is a lack of logical consistency between the components of the belief, or between the belief and common understanding of what is possible. The relationship between the delusion and action is unpredictable. In many instances, the delusions of schizophrenia appear to arise from an altered experience of self or of external reality (Gelder, López-Ibor, & Andreasen, 2000; Kaplan & Sadock, 2003).

Although the delusions most characteristic of schizophrenia have an incongruous quality, it is not uncommon for schizophrenic patients to have coherent delusions that are internally consistent and produce predictable behavioral responses (Gelder, López-Ibor, & Andreasen, 2000). In particular, coherent persecutory delusions are common, ideas of reference and delusions are also prevalent. Other types of delusions are grandiose, being controlled, sin or guilt, religious, somatic delusions, thought insertion, thought withdrawal and broadcasting.

Tardive dyskinesia is a movement disorder that occurs due to the side effect of neuroleptic usage. The abnormal movements include the face, the mouth and lips, chewing and eye-blinking. The incidence of tardive dyskinesia is approximately 5 % per year for patients receiving first-generation agents, namely typical antipsychotics. Tardive dyskinesia is believed to arise from long-term blockade of dopamine receptors in the nigrostriatal pathway, leading to an up regulation of receptors and a relative dopamine excess.

Relapse may be part of the natural course of schizophrenia. It can result from a lack of insight, such as denial of illness or poor compliance with treatment. Relapse can have psychosocial origins, such as lack of family support or inability to cope with the complex mental health system. Pharmacologically, relapse may be related to dopamine-binding affinity (Maguire, 2002).

There are several comorbid conditions that tend to be prevalent in patients with schizophrenia. Substance abuse is quite common among people with schizophrenia. More than 75% are addicted to nicotine, 30-50% to alcohol, 15-25% to cannabis and 5-10% to cocaine or amphetamines (Maguire, 2002). Many patients with schizophrenia have impairments in cognition, especially impairments in attention, it is suggested that these substances may improve attention, and the

patients with schizophrenia may use these substances for self-medication. The lifetime risk of major depressive disorder is approximately 60 % in patient with schizophrenia. The risk of suicide in patients with schizophrenia is 10-25 % and an average of 15 % of all patients will complete suicide. Suicidal behavior in depressed patients with schizophrenia can be impulsive and unpredictable. These patients often choose very violent means (Liddle, 2000).

Some clinical features and diagnosis have been discussed in this section. Since positive and negative symptoms are given an important place in the diagnosis and research studies, they are presented separately in the following section.

1.1.2   Positive and Negative Symptoms

McGlashan and Fenton (1992) stated that a distinction between positive and negative symptoms of schizophrenia was made in the 19th century as Jackson used the terms negative and positive symptoms to describe insanity. Bleuler also had a similar negative-positive dichotomy in mind. According to him, negative term involved loss of function (of attention, volition, affective responsiveness and association) and was always present, whereas positive term involved an abnormality of function (hallucinations, delusions and catatonia) and was present only during severe relapse. In 1980, Crow proposed two syndromes and psychopathologic processes in schizophrenia. He came up with a classification of schizophrenia patients as type I and type II on the basis of the presence or absence of positive (or productive) and negative (or deficit) symptoms (Kay, 1990). Type I patients tend to have mainly positive symptoms, normal brain structures on computerized tomography (CT) scans, good premorbid functioning, acute onset and relatively good

response to treatment. Type II patients tend to have mainly negative symptoms, structural brain abnormalities on CT scans, poor premorbid functioning, insidious onset and poor response to treatment (Kay, 1990; McGlashan & Fenton, 1992; Kaplan & Sadock, 2003).

Many systems have been proposed to define positive and negative symptoms. In these many systems positive symptoms were identified as hallucinations and delusions, whereas negative symptoms were identified as flat affect and poverty of speech. The effect of the antipsychotics on the positive and negative symptoms will be discussed in the section of treatment. Several scales have been developed in order to measure these symptoms. Among these scales Positive and Negative Symptom Scale (PANSS) that was developed by Kay, Fiszbein, and Opler in 1987 has been used most frequently (McGlashan & Fenton, 1992). Following the information on positive and negative symptoms, in the next section, literature review on epidemiology of schizophrenia will be given.

1.1.3   Epidemiology

Generally, point prevalence rate of schizophrenia was found to range between 1 to17 per 1000 of population. The lifetime prevalence of schizophrenia is about 1 % and its prevalence is equal in men and women. Incidence of schizophrenia, meaning the rate of increase in new cases at a specific time, changes from 10 to 54 in 100000.

Schizophrenia presents and unfolds differently in men and women. The earlier age of onset of schizophrenia in males compared to females by 3-5 years is a robust finding across many studies. The peak age of onset is usually 15-25 years for men and 25-35 years for women. Males have an early large peak of onset in their late

teens and early twenties, followed by a gradual decline. In contrast, females have several peaks of onset, in their twenties, in late middle age and over the age of 65 (Leung & Chue, 2000).

It was found that never being married was a common feature, as well as increasing rates of divorce or separation. The illness increases the possibility of divorce and decreases the possibility of marriage. Çetingök, Chu, and Park (1990) compared Turkish and American samples and found that for both samples male schizophrenic patients were more commonly single than females. Within the Turkish sample, separated, divorced or widowed Turkish male schizophrenics were found to have the most disoriented and most intense stupor behavior.

Among lower socioeconomic status persons, the prevalence and number of new diagnosed cases is higher than those of higher socioeconomic status. The difference may be interpreted by two explanations similar to the case of marital status. First explanation is that socioenvironmental factors are known to be the cause of schizophrenia in low socioeconomic status. People may experience more life event stressors, increased environmental and occupational risks, may have insufficient social support, and may be exposed to more infectious agents. This explanation is called the social causation theory. A second explanation is that people drift down to low socioeconomic status because of schizophrenia, and this explanation is known as the social drift theory (Kaplan and Sadock, 2003).

Immigrant groups were found to have higher prevalence and incidence of schizophrenia, possibly because of greater stress. The incidence of schizophrenia has been associated with race and ethnicity. The incidence of schizophrenia in urban areas has been found to be higher than in rural areas, because of the chaotic living conditions. Schizophrenia is more prevalent among persons of lower socioeconomic

status (Kaplan and Sadock, 2003; Chien, Chou, Lin, Bih, Chou, & Chang, 2004).

Prevalence of schizophrenia is given as 0.5 % in high socioeconomic status, and 2.5

% in low socioeconomic status. There are insufficient amount of epidemiological

studies in Turkey, however, Doğan, Akyüz, Kaya, Önder, and Özkürkçügil (1996)

conducted a study in Sivas and reported that the life time prevalence of schizophrenia

was in accordance with the results of the literature. Together with epidemiology of

schizophrenia, its' etiology has also been important research area. Details on the

etiology of schizophrenia will be presented in the next section.

1.1.4   Etiology

Etiology of schizophrenia has been subject to research for centuries.

However, the exact etiology of schizophrenia still remains unknown. Schizophrenia

is an illness that seems to be caused by biopsychosocial factors rather than on a

single etiological base. Regarding this information, this section will include genetic,

biological, environmental, and psychological causal factors within the etiology of

schizophrenia.

Family, twin and adoption studies have indicated higher concordance rates for

schizophrenia within families, which implied genetic factors. In contrast to the 1 %

incidence of schizophrenia in the general population, the incidence of schizophrenia

is about 2 % in third degree relatives, as first cousins of an individual with

schizophrenia; 2-6 % in second degree relatives as nieces/nephews; and 6-17 % in

first degree relatives, such as parents, siblings or children (Lewis & Lieberman,

2000). The morbid risk in first-degree relatives was 5.6 % in the parents of

schizophrenics, 12.8 % in the children of one schizophrenic parent, and 46.3 % in the

children of two schizophrenic parents (Bromet & Fennig, 1999). Twin studies supported the relationship between genes and schizophrenia. They demonstrated a 50% concordance rate in monozygotic twins, whether they are raised together or apart. Among dizygotic twins, the concordance rate is about 15% (Bromet & Fennig, 1999; Lewis & Lieberman, 2000).

Etiology of schizophrenia also has a biological basis. Gene and protein changes related to signal transmissions including biochemical pathways of normal mental functioning are suggested. In dysfunctions regarding signal intake, there are dopamine, serotonin, glutamate, GABA and acetylcholine neurotransmitter levels or density of receptors and changes in the number of receptors. Additionally in dysfunctions related to signal transmission molecular changes and intracellular phospholipids metabolism dysfunctions are in consideration. The dopamine hypothesis suggests that schizophrenia is associated with an increased dopamine level in the brain. All FDA-approved antipsychotic agents block dopamine type 2 (D_2) receptors. Cocaine and amphetamine, which are dopaminergic compounds, can lead to psychosis (Lang, Puls, Muller, Strutz-Seebohm, & Gallinat, 2007).

According to another hypothesis, lysergic acid diethylamide (LSD) can cause or increase hallucinations through its effects on the serotonin system. New focus on the mechanisms by which antipsychotic agents work shows that increased activity of dopamine in the brain explains only the positive symptoms of schizophrenia, while increased serotonin activity explains some of the negative systems. It has been suggested that impairment in the N-methyl-D-aspartate (NMDA) or glutamate system explains more of the problems in cognition, delusions and negative symptoms associated with schizophrenia (Maguire, 2002). Adrenergic alfa-2 receptor and alfa-7 nicotinic receptor are discussed as novel approaches for schizophrenia biology. Other

possible biological causal factors are considered as being related to prolactine, prostaglandin, and growth hormone.

Abnormalities in the brain structure are also suggested as causal factors in schizophrenia. From a neurological viewpoint, ventricular enlargement is seen in schizophrenia. It was also shown anatomically that prefrontal cortex and medial temporal lobe are affected in schizophrenia (DeLisi, Szulc, Bertisch, Majcher, & Brown, 2006).

Environmental factors are another component of etiology of schizophrenia. Some researchers believe that although genetic and biological causal factors best establish a person's risk for schizophrenia, place and season of birth may also be important (Rhoades, 2000). Environmental factors including exposure to infectious, autoimmune, toxic or traumatic insults and stress during gestation or childhood may play a role. Studies in both the northern and southern hemispheres have found that persons with schizophrenia show a modest excess of births in the winter and spring months (Lewis & Lieberman, 2000). Schizophrenia may have viral influences as well. A mother's exposure to a virus may affect fetal development. This theory would help explain why some children of the same family have schizophrenia and others do not. Individuals with schizophrenia also tend to come from lower socioeconomic status and to be more numerous in urban and selected immigrant populations. Although equal numbers of males and females are affected, some data suggest that males may have more severe symptoms of the disorder, including an earlier age of onset, more marked neuropathological abnormalities, poorer response to treatment, and less favorable outcome (Lewis & Lieberman, 2000). Thus, schizophrenia appears to be associated with environmental and developmental vulnerability factors.

According to the psychodynamic approaches to schizophrenia, Freud proposed that the conflict in schizophrenia was related to drives from the id although it seemed to be coming from the outer world. Patients with schizophrenia who have difficulty coping with these drives and processing them together with the reality finally give up on the outer reality and regress to a more primitive psychosexual developmental period, primary narcissism where there is no outer reality. Characteristic of this period is libidinal energy being completely toward the person. As the withdrawal of this libidinal energy is from these objects, they become vague and their boundaries start diminishing. Hence the patient becomes incapable of drawing the boundaries between self and the real objects (Kaplan and Sadock, 2003).

As to the ego psychology theorists, the basic problem in schizophrenia is related to "faulty ego boundaries". Since there is no psychological commitment made for ego boundaries, there is no line between what is inside and what is outside (Kaplan and Sadock, 2003). On the other hand Sullivan reported that schizophrenia resulted from early interpersonal difficulties. Mothers of schizophrenics generally are anxious people, cause an anxious self and prevent the baby from meeting his needs. Persons can not cope with the tensions caused by the sexual needs in adulthood and their self worth start being distorted. Hence anxiety comes back. Schizophrenia is called a reconstruction process to "being an individual again" by avoiding feelings of panic as "it's the end of the world" (Kaplan and Sadock, 2003).

From the above brief discussion it can be seen that the etiology of schizophrenia is explained by quite different paradigms by various perspectives. Vulnerability-stress paradigm is a broader one postulating that the genetic and biological factors are considered inborn vulnerability factors, whereas the psychological factors and familial relationship are considered as stress factors.

Theoretical framework of the current study will be given in the following section according to the vulnerability–stress model.

1.1.5   Vulnerability-Stress Model

Vulnerability–stress model of schizophrenia was developed by Zubin & Spring, in 1977. They offered a model which attempted to accommodate different etiological explanations of schizophrenia. The vulnerability model proposes that individual inherits a degree of vulnerability that under suitable circumstances will express itself in an episode of schizophrenic illness.

Zubin and Spring (1977) distinguish between vulnerability to schizophrenia and episodes of schizophrenic disorder. Two major components of vulnerability are defined as the inborn and the acquired. Inborn vulnerability includes the genes, internal environment, and neurophysiology of the organism. The acquired component of vulnerability includes the influence of traumas, specific diseases, perinatal complications, family experiences, adolescent peer interactions and other life events. Regardingly, the preservation of health requires the maintenance of equilibrium against stressors continually originating from the chemical, physical, infectious, psychosocial and social environment. When this equilibrium is disturbed, a disorder arises.

There is considerable evidence that life event stressors can play a major role in the development of physical and mental disorders. A life event stressor is an incident such as loss, promotion, marriage or divorce that challenges adjustment. As long as the stress stays below the threshold of vulnerability, the individual responds to the stressor in a flexible homeostatic way and remains within the limits of

normality. However, when the stress exceeds threshold, the person is likely to develop a psychopathological episode (Zubin & Spring, 1977).

The theory was improved by Nuechterlein and Dawson (1984). They suggested a psychobiological formulation of schizophrenia and its course. According to the theory, a range of biological, psychological and psychosocial factors interact and determine the course and outcome of schizophrenia. The primary components of this interactive model focus on four categories namely as permanent vulnerability characteristics, external environmental stimuli, temporary intermediate states and outcome behaviors. Permanent vulnerability characteristics interact with stressful external environmental stimuli to produce temporary intermediate states. Stressors that influence the course of schizophrenia are family climate, social class and culture, social networks, and life events. Poverty, unemployment, ignorance, social isolation, poor nutrition and health care are also strong stressors and cause dysfunction in vulnerable persons. Stressful life events are seen together with schizophrenia however, they are not an obligation for the occurrence of schizophrenia. The temporary intermediate states and their outcome behaviors tend to increase the level and frequency of environmental stressors. The feedback circle leads to a more intense temporary intermediate state. This vicious cycle go on as presented in Figure1.

As depicted in the figure, vulnerability factors, stressors, and protectors play a role on the formulation of the course and outcome of schizophrenia. Personal vulnerability factors are dopaminergic dysfunctions, reduced available processing capacity, autonomic hyperreactivity to adverse stimuli, and schizotypal personality characteristics which are interacting mutually. Personal protectors include coping and self-efficacy, and antipsychotic medication. There is a mutual interaction

between personal vulnerability factors and personal protectors. Additionally, environmental potentiators and stressors are critical or emotionally over involved family climate, over-stimulating social environment, and stressful life events. The construct of expressed emotion is important for the system at this point. Environmental protectors include family problem solving skills and supportive psychosocial interventions. The interplay between environmental potentiators - stressors and environmental protectors appears to be mutual. Following all these factors' interaction, intermediate states are included in the system. Intermediate states are processing capacity overload, tonic autonomic hyperarousal and deficient processing of social stimuli. This interaction causes prodromal symptoms. At the end of the prodromal symptoms, schizophrenic psychotic symptoms increase, occupational and social dysfunctioning occurs.
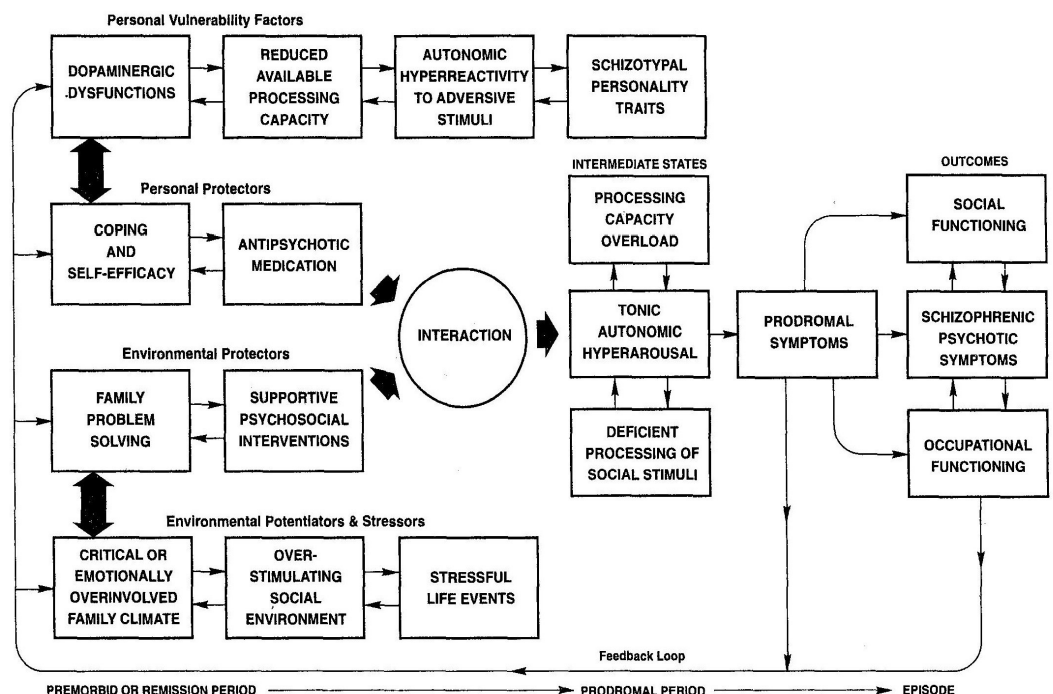
Source: *Tarrier, N., 1996*

Figure 1 *Vulnerability-stress model of schizophrenia*

1.1.6 Treatment

Treatment of schizophrenia needs to adopt a multidimensional approach that needs to be tailored for each patient and is based on a biopsychosocial model. Additionally the treatment process itself differs for the acute, stabilization and maintenance phases. The primary biological intervention consists of pharmacotherapy. Antipsychotic drugs can be classified as typical and atypical antipsychotic drugs.

Typical (classical or conventional) antipsychotics' (haloperidol, fluphenazine, chlorpromazine and thioridazine, etc) therapeutic action on positive symptoms such as hallucinations and delusional thinking result from blockage of hyperactive Dopamine 2 (D_2) receptors on mesolimbic dopamine (DA) pathway. Unfortunately these antipsychotics are not selective on mesolimbic D_2 receptors. They block not only mesolimbic D_2 receptors, but also mesocortical, nigrostrital and tuberoinfundibular D_2 receptors as well. The blockage of nigrostriatal receptors result in acute and delayed neurological side effects, such as parkinsonism, akathisia and tardive dyskinesia. Anticholinergic agents are used to overcome these neurological side effects of typical antipsychotics. The most feared and fatal complication of antipsychotics use is the neuroleptic malign syndrome which is a result of hypersensitivity of receptors. Neuroleptic malignant syndrome is characterized by muscle rigidity, fever, delirium, mutism and elevated blood pressure. Other side effect, hyperprolactinemia, occurs because of D_2 blockage in tuberoinfundibular pathway and results in galactorrhea, and sexual side effects. DA hypoactivity in mesocortical pathway causes dysfunction of executive processes, affective blunting, and avolition which are classified in negative symptoms and cognitive side effects.

19

D$_2$ receptor blockage by classical antipsychotics in this pathway increases the negative symptoms. Also anticholinergics increase the cognitive side effects (Kandel, 2000; Stahl, 2000).

Typical antipsychotics' lack of effect on negative symptoms and their other neurological side effects led the researchers to search for novel antipsychotics. These novel antipsychotics are called atypical antipsychotics. These antipsychotics can be classified as partial serotonin (5-HT$_2$) – dopamine (D$_2$) antagonists. Pioneer of these antipsychotics is clozapine. The followers are risperidone, olanzapine, quetiapine, ziprasidone, and aripiprazole. These agents primarily block D$_2$ and 5-HT$_2$ receptors. Besides their blocking effect of D$_2$ on mesolimbic pathway, blockage of 5-HT$_2$ effects dopaminergic system differently in four pathways. These drugs increase DA release in mesocortical and nigrostriatal pathways, resulting in improvement in negative symptoms and lesser observable neurologic side effects (Abi-Dargham & Laruelle, 2005). Similar effects in tuberoinfundibular pathway causes decreased prolactine secretion, lesser galactorrhea and lesser sexual side effects than typical antipsychotics use. Metabolic effects of antipsychotics and their other consequences (hypertension, etc) are seen in both groups of antipsychotics. However atypical antipsychotics are more pronounced responsible for metabolic effects than typical ones. These are as follows: metabolic syndrome [weight gain (Allison, Mentore, Heo, Chandler, Cappelleri, Infante, & Weiden, 1999), hypertension, and hyperlipidemia (Olfson, Marcus, Corey-Lisle, Tuomari, Hines, & L'Italien, 2006)] and diabetes (Lean & Pajonk, 2003). Also atypical antipsychotics are more responsible for arrhythmias (Kandel, 2000; Stahl, 2000).

The use of antipsychotics in schizophrenia is considered as a long term therapy. However, each patient' treatment must be tailored individually regarding the nature of illness and patients' biopsychosocial features.

Lithium, anticonvulsants, antidepressants, benzodiazepines etc. are also used as adjunctive medications in treatment of schizophrenia. Electroconvulsive therapy still has an important role in treating patients especially with the catatonic type of schizophrenia and patients with an affective component for whom medications have failed.

The development of neuroleptic medication in 1950s is accepted as a major advance in the management of schizophrenia. Therapeutic use of antipsychotics alleviated most of the problem symptoms, moreover the prophylactic use of neuroleptics increased the possibility of community residence and decreased the demand for hospitalization. Some of the patients fail to comply with their medication and of those use, 30 to 50 per cent will relapse in the short term. In other words, the trend to deinstitutionalize schizophrenic patients since 1960s has been complicated by a pattern of frequent relapse and readmission. Clinical and theoretical interest focused on the family climate, the main caregiver and the support system of patients, since more than half of discharged patients were returned to their families, (Lebell, Marder, Mintz, Mintz, Tompson, Wirshing, Johnston-Cronk, and McKenzie, 1993; Tarrier, 1996). These developments lead to the establishment and use of psychological treatment, especially the research on expressed emotion, together with biological treatment.

Patients with schizophrenia receive various psychotherapeutic approaches and rehabilitation. Effective psychosocial treatments should not only reduce overt psychotic symptoms or hospitalization, but also improve the cognitive and social

abilities, quality of life, employment and other domains. It includes cognitive-behavioral therapy and social skills training, family-oriented therapies, group therapy and individual supportive therapy.

In the psychological treatment of schizophrenic symptoms, both behavioral modifications and empowerment are provided by social skills training, life skills training and family management. By these approaches a change in patients' and their relatives' behavior is aimed. In the treatment of hallucinations and delusions operant methods are used. Other than above mentioned methods, token economy, systematic desensitization, and aversion therapy are considered as behavioral treatment elements. Empowering approaches are counter-stimulation or distraction, earplug therapy and focusing and self-monitoring methods. Belief modification is a form of cognitive- behavioral treatment which is started with weakly held beliefs and then is proceeded through the beliefs that are held strongly. The therapist avoids direct confrontation and not requires the patient to give up the beliefs. Then the therapist discusses the alternative approaches. The patient is supported to voice their own arguments against their beliefs (Slade & Haddock, 1996).

1.2 Expressed Emotion

The construct of expressed emotion (EE) refers to the affective attitudes and behaviors (criticism, hostility, and emotional over-involvement [EOI]) of a relative towards a psychiatric patient (Barrowclough & Hooley, 2003). Kazarian (1992) on the other hand defined EE, in the families with mentally ill patient, as emotional attitudes and behavior of the other members towards the mentally ill member. Expressed emotion is depicted as a toxic element or potentiator of relapse in patients

with schizophrenia. This section includes discussions of the relationships of EE with psychiatric and medical illness. Also, perceived expressed emotion (PEE) by the patient and its correlates are discussed.

1.2.1   Expressed Emotion and Schizophrenia

Vulnerability-stress model as an integrative approach between biological, psychological and social factors considers environmental stress processes. Expressed emotion is a family environment characteristic that has been found to create stress for schizophrenic patients. This important stress factor is the focus of the current study.

The development of neuroleptic drugs in the 1950s created a major advance in the management of schizophrenia, because the use of medication decreased the positive symptoms of the disease. Moreover, the prophylactic use of neuroleptics enhanced the possibility of community residence and decreased the demand for hospitalization. The trend to deinstitutionalize schizophrenic patients since the 1960s has resulted in frequent relapses and readmissions. Since more than half of discharged patients return to live with their families, clinical and theoretical interest focused on the family climate, the main relative and support system of patients (Lebell, Marder, Mintz, Mintz, Tompson, Wirshing, Johnston-Cronk, & McKenzie, 1993; Tarrier, 1996). In England Brown, Carstairs and Topping (1958) found that the patients discharged to live in pension or at home with siblings survived better psychiatrically over the course of the following year than those who lived in large hostels or returned to the parental home. Brown, Birley and Wing (1972) found that patients whose families had high criticism, hostility and emotional over-involvement tended to relapse more than the patients whose families did not have these

23

components of expressed emotion. This led to the investigation of factors at home that may relate to relapse and subsequently the concept of expressed emotion was proposed by Vaughn and Leff (1976a).

Expressed emotion is a measure of a relative's attitude, behavior and emotion towards a patient member. It was defined as a measure of the amount to which an individual family member talks about another family member in a critical or hostile style or in a way that indicates marked emotional over-involvement (Barrowclough & Hooley, 2003).

Camberwell Family Interview (CFI), which has been the most frequently used device to assess expressed emotion, was developed by Brown and Rutter (Brown & Rutter, 1986). The original form of the device was a three-hour semi-structured family interview. Later, Vaughn and Leff (1976b) revised the interview into a shorter form that took about1.5 to 2 hours to administer. It is concerned with obtaining information about events and activities, attitudes and emotions in the home climate and the onset and development of the patient's illness. It is always audiotaped for later coding. It is administered by well trained clinicians, empathically and supportively. The ratings of relatives' interview data are based on five scales. Criticism is the total of critical comments made about the patient, such statements being judged as critical on the basis of both the content and the voice tone. While Criticism is situation specific, Hostility, the second scale, is defined as a more generalized negative feeling and a statement of general criticism of the patient himself/herself rather than his/her specific actions. Emotional over-involvement reflects an exaggerated emotional response, marked concern reflected in unusually self-sacrificing behaviors or clearly overprotective behaviors. Warmth and Positive Remarks are defined by content, for statements that contain praise and approval

without ambiguity. EE ratings are based mainly on criticism/hostility and emotional over-involvement, because warmth and positive remarks were noted not to contribute to the predictive power of EE on relapse (Barrowclough & Tarrier, 1984; Hooley, 1985). Relatives scoring above cut off points on one or more of three scales (i.e. criticism, hostility and EOI) as high EE (Barrowclough & Hooley, 2003).

The time–consuming administration and coding of CFI limits the widespread utilization of this instrument to assess EE. Therefore, several attempts have been made to develop alternative methods of assessment. Van Humbeeck, Van Audenhove, De Hert, Pieters, and Storms (2002) reviewed the scales used in the studies of EE. The CFI, the Five Minute Speech Sample (FMSS), and the Questionnaire Assessment of Expressed Emotion (QAEE) are the only instruments that have a clear cut-off score to classify a relative as high or low EE. The instruments with the best predictive power are the CFI, the Perceived Criticism Scale (PCS) and Level of Expressed Emotion (LEE). The predictive validity of other instruments (FMSS, Patient Rejection Scale [PRS]) is poorer than the ones listed above. The most predictive for the relapse scales turn out to be criticism and hostility, the EOI scale being less sensitive for relapse. There is a strong overlap between the PCS and the CFI.

Perceived Criticism Scale and the Level of Expressed Emotion are two other scales to measure patients' perceived expressed emotion. PCS was developed to assess the amount of perceived criticism of depressive patients' spouses (Hooley and Teasdale, 1989). LEE used to measure the perceived EE from the patient's viewpoint is a self-report questionnaire (Cole and Kazarian, 1988).

Several studies indicated that EE construct was a good predictor of relapse in patients with schizophrenia (Vaughn, Snyder, Jones, Freeman, & Fallon, 1984;

Hogarty, Anderson, Reiss, Kornblith, Greenwald, Javna, & Madonia, 1986; Barrelet, Ferrero, Szigethy, Giddey, & Pellizer, 1990; Vaughan, Doyle, McConaghi, Blaszcynski, Fox, & Tarrier, 1992; Linszen, Dingemans, Nugter, Van der Does, Scholte, & Lenior, 1997; King & Dixon, 1999; Marom, Munitz, Jones, Weizman, & Hermesh, 2002; Yang, Phillips, Licht, & Hooley, 2004; Kopelowicz, López, Zarate, O'Brien, Gordon, Chang, & Gonzalez-Smith, 2006; Hooley, 2007). In a meta-analysis that included 27 articles in which EE was assessed using the CFI, Butzlaff and Hooley (1998) confirmed that EE was a reliable predictor of relapse for 9 to 12 months on patients with schizophrenia.

Many independent studies in different cultures established that high EE was associated with a higher rate of relapse in patients with schizophrenia (Martins, Lemos, & Bebbington, 1992; Jenkins & Karno, 1992; Kuipers, 1992). However, a few studies have failed to replicate these findings (Hogarty, Anderson, Reiss, Kornblith, Greenwald, Javna, & Madonia, 1986; Parker & Johnson, 1987; Barrelet, Ferrero, Szigethy, Giddey, & Pellizer, 1990). These studies failed to find a strong EE effect on relapse. Researchers aiming the test the EE construct's validity in different cultures found that, in Western countries the rates of high EE families was high; however in developing countries this rate was reported as being lower (Wig, Menon, Bedi, Ghosh, Kuipers, Leff, Korten, Day, Sartorius, Ernberg, & Jablensky, 1987; Kavanagh, 1992).

Studies indicated the predictive power of EE on acute exacerbation. However, drawing an absolute cause-effect relationship or considering EE construct and problematic families as synonymous would be underestimating expressed emotion. High EE families differ by their problems, ways of coping with the problems, and the style of family interaction. Thus they form a heterogeneous group. On the other

hand low EE families should not be accepted as effectively coping with their problems, creating a stress free climate and decreasing the risk of relapse, and facilitating rehabilitation. In low EE families, during the period of exacerbation, high EE may develop. Additionally, sometimes the familial burn out may cause the existing criticism/hostility and/or emotional over-involvement attitudes to disappear.

The fact that EE and relapse are associated does not mean that EE causes relapse. Therefore, expansive studies have been conducted to explore the factors associated with expressed emotion. The factors that correlated with expressed emotion included coping strategies of caregivers (Hall & Docherty, 2000); sensitivity of caregivers towards patients with schizophrenia (Shimodera, Inoue, Tanaka, & Mino, 1998); caregivers' perception of the patient's social functioning (Scazufca & Kuipers, 1996); and the personality characteristics of caregivers (Hooley & Hiller, 2000).

In Turkey there are only a limited number of studies investigating expressed emotion in families of schizophrenic patients (Berksun, 1992; Cansever, 1994; Özden, 1995; Karanci & Inandilar, 2002). Cansever (1994) conducted a study with 33 schizophrenics using Level of Expressed Emotion Scale (Cole & Kazarian, 1988, LEE) in order to investigate the relapse rate in a 9-month period. In the study Cansever only rated the patients but the caregivers. He concluded that high familial EE as rated by the patient increased the relapse rate in schizophrenia and that there was a significant relationship between relapse rate and over intrusiveness and emotional response. Özden (1995) conducted an 18 month follow up with chronic schizophrenia patients. On the first interview LEE, Beck Depression Inventory (BDI), Brief Psychiatric Rating Scale (BPRS), and Global Assessment of Functioning Scale (GAFS) were administered to patients and Expressed Emotion

Scale (Berksun, 1992, EES) was administered to relatives. Patients were assessed on the 6th, 12th, and 18th month following first interview. According to the results of this study, caregivers perceived themselves as low critical/hostile and high emotionally overinvolved. These results were found to be parallel with patients' perceptions of their caregivers. The families of patients who relapsed in the first 6 month follow up were found to be significantly higher EE levels. Especially, predictivity of Criticism/Hostility (C/H) component correlated with later relapse. However expressed emotion components were not differentiated in terms of relapse prediction and the effects of these components on symptom severity and quality of life were not investigated. This bring along the major difference between Özden's study and the current research. Karanci and Inandilar (2002) examined the predictive power of patients and caregivers traits and caregivers' perceptions of related variables by using EES. Their results indicated that while caregivers' perceptions of coping with symptom behaviors decreased C/H, their perceptions of higher frequency of symptom behaviors increased C/H. Although EE is a construct that was developed for schizophrenia, it is also used in research with other psychiatric illnesses.

1.2.2 Expressed Emotion and Psychiatric Illness

Expressed emotion and its impact on the prognosis of illness has recently been studied in various different psychiatric illnesses. In one study examining whether parental EE ratings, based on the Camberwell Family Interview were predictive of the course of illness in a sample of Dutch families with an adolescent eating disorder patient, the levels of EE were taken at first assessment and at the

termination of treatment (van Furth, van Strien, Martina, van Son, Hendrickx, & van Engeland, 1996). The study involved 49 adolescent eating disorder patients and their parents subjected to assessments at intake (T1), at the termination of treatment (T2), and at a one year follow-up (T3). The levels of parental EE at first assessment were low and during the treatment period the levels decreased further. The mothers' criticism ratings at T2 and T3 were the best predictor of outcome when compared to other possible predictors. Rodríguez Santos and Vaz Leal (2005) aimed to examine the levels of EE in both parents of patients with eating disorders using the CFI in Spain. There were no significant differences found between mothers and fathers in global scores, but mothers were found to have higher emotional over involvement with the patient than the fathers. In their sample the percentage of families that had high EE was lower than the families with a member with schizophrenia.

In the literature little is known about the relationship between EE and relapse in alcoholism. The association between the spouse's EE and the alcoholic patient's relapse rate within 12 months after the couple began an outpatient behavioral marital therapy (BMT) program for alcoholism was examined by O'Farrell, Hooley, Fals-Stewart, and Cutter (1998) with 86 alcoholic patients. When compared with the patients with low EE spouses, alcoholic patients with high EE spouses were more likely to relapse, they had a shorter time to relapse, and drank on a greater percentage of days within the 12 months after starting BMT. EE was found to be associated with relapse after patients' age, education, and alcohol problem severity were controlled. The greater use of Antabuse and more sessions of BMT were found to be associated with reduced relapse for alcoholic patients with high EE spouses.

The relationship between EE and Alzheimer disease was investigated in several studies (Tarrier, Barrowclough, Ward, Donaldson, Burns, & Gregg, 2002;

Cooney, Howard, & Lawlor, 2006). It was found that high EE caregivers made more attributions personal to the patient for negative events. Consequently, it was suggested that effective intervention strategies should attend to manage high levels of expressed emotion in dementia patients.

In spite of the strong biological foundations of attention deficit hyperactivity disorder (ADHD), family factors remain to be an important influence on the course of the disorder. Little is known about how familial variables relate to the disorder in girls with ADHD. For this purpose, the relationship between parental EE, as measured by FMSS, and ADHD was investigated as well as comorbid disruptive behavior disorders in a sample of 131 girls aged 6-12 years. It was reported that high parental EE was associated with both ADHD and aggression (Peris & Hinshaw, 2003). In a study from Turkey (Uslu, Kapci, & Erden, 2006), a psycho-education group program was conducted on expressed emotion, family functioning, and child behavior for parents of children with learning disorders and compared to a regular treatment group. A semi structured interview for parental EE, self-reports of family functioning, and child behavior was done at baseline and following an 8-session psycho-education group program. Parents who attended the program differed significantly from control group on measures of criticism, warmth, and positive remarks, and overall EE. It was concluded that a psycho education group program could be effective in helping parents establish a more positive emotional climate in their relationships with their children.

Within psychiatric illnesses, affective disorders have been subject to research on expressed emotion nearly as much as schizophrenia. Miklowitz & Johnson (2006) reviewed research that has been conducted on the diagnosis, course, etiology, and pharmacological and psychosocial treatment of bipolar disorder. They stated that

30

psychosocial stressors, life events, and familial expressed emotion significantly influence the course of the illness in addition to genetic and neurobiological factors for bipolar disorder.

The construct of EE indexed by FMSS was examined in spouses or children of 54 elderly patients with major depressive disorder when they were hospitalized and one year after they were discharged as follow up. EE was not found to be significantly related to relapse in the total sample of elderly patients. However, there was an interaction between EE and the type of relationship to the patient (i.e., spouse or adult child) on the follow-up outcomes. Among the children who cared for the elderly patients, having high EE predicted higher relapse rate, and lower recovery from depression than among children who had low EE. On the other hand among the spouses of the elderly patients high EE and low relapse rate were correlated with sustained recovery (Hinrichsen & Pollack, 1997).

Tarrier, Sommerfield, and Pilgrim (1999) investigated the effect of EE regarding the treatment outcome in chronic post-traumatic stress disorder (PTSD) through a prospective design. The relatives of 31 PTSD patients participating in a treatment trial that requires comparing imaginal exposure with cognitive therapy were interviewed and rated on EE prior to treatment allocation. The effect of EE on post-treatment clinical outcomes was assessed. It was reported that a higher level of criticism and hostility predicted less change at posttest after treatment with imaginal exposure.

So, the previous studies show that expressed emotion is a measure that has been used to assess the quality of the relationship between patient and their key relative in various disorders. It has been shown to be strongly predictive of clinical outcome in a range of psychiatric and medical disorders. Although EE is a construct

that was developed for schizophrenia; it has also been examined for various medical illnesses.

1.2.3 Expressed Emotion and Medical Illness

Expressed emotion has also been recently been studied in some medical conditions, as a factor that may play a role in the course or outcome of the illness. In a study, researchers hypothesized that high EE in partners of diabetes patients would be associated with poorer glucose control, management of and adaptation to diabetes (Wearden, Tarrier, & Davies, 2000). For this reason, sixty adults Type 1 diabetes out patients were interviewed to assess self-management practices and their partners were interviewed separately by a modified Camberwell Family Interview. 17% of partners were classified as high EE. While there was no association between EE measures and glucose control, patients with high-EE partners had significantly lower self-management scores, more negative appraisal of diabetes, and higher depression scores than those with low-EE partners.

Maternal EE has also been found to be related to metabolic control in childhood diabetes (Liakopoulou, Alifieraki, Katideniou, Peppa, Maniati, Tzikas, Hibbs, & Dacou-Voutetakis, 2001). Liakopoulou et al. (2001) conducted a study to examine whether maternal expressed emotion, in the form of critical comments (CC), hostility and EOI was related to metabolic control, and to determine if CC and EOI were separately related to poor metabolic control, and finally to ascertain whether high EE was related to psychopathology in these children. The Present Episode version of the Schedule for Affective Disorders and Schizophrenia for School-Age Children (Kiddie-SADS-P/K-SADS-P) interview was administered to 55 children

and adolescents with diabetes and the parental EE instrument, Five Minute Speech Sample was administered to 55 mothers of diabetic children. The same measurements were taken from 54 healthy controls and their mothers. It was reported that high EE was exhibited by 70.9% of the diabetes group mothers in contrast to only 29.6% of the control group mothers. High maternal EE was found not to be related to the psychopathology of children with diabetes. High maternal EE and in particular EOI component were related to poor metabolic control of the diabetic children.

Another study examined the relationship between maternal expressed emotion and family relationships of children with epilepsy and its association with high risk for psychiatric disorder (Hodes, Garralda, Rose, & Schwartz, 1999). EE was assessed using the Camberwell Family Interview carried out with the mothers of 22 schoolchildren out patient with chronic epilepsy and 16 of their healthy siblings, who served as controls. It was found that mothers showed significantly more emotional over involvement and a trend for more hostility towards their children with epilepsy than towards sibling controls. For the children with epilepsy, maternal emotional over involvement was not associated with child behavioral deviance whereas high levels of criticism and hostility did show associations with child behavioral deviance, and the strongest links were between maternal criticism and maternal rated antisocial and overactive behavior in the child.

Expressed emotion was found to have a similar effect on Parkinsonism, colitis ulcerate, and kidney failure like the effect it has on schizophrenia (Lefley, 1992). To this point, studies of expressed emotion on psychiatric illness especially schizophrenia and medical illness have been briefly

33

reviewed. In the following section, information on perceived expressed emotion which is also examined in the current study will be presented.

1.3   Perceived Expressed Emotion

In this section, studies related to perceived expressed emotion which is the main focus of the current study, will be presented. Families' effect on the course of schizophrenia has been commonly accepted. However, it is also important to understand how patients perceive EE characteristic and the effects of their perceptions on the course of illness. How the patients view and evaluate the EE of the family can be described as perceived EE which is a relatively new concept in research studies.

In a number of studies, patients with high EE relatives have been found to have higher rates of relapse (Vaughn, Snyder, Jones, Freeman & Fallon, 1984; Hooley, 2007). Measures of EE have traditionally been made by evaluating the criticism and emotional over-involvement components in the CFI or in FMSS. While trained raters assessing the interview with the relative may evaluate him or her as critical or emotionally over-involved, it is not obvious whether the patients' perception of the relative is parallel with the EE assessed from the expressions of the relative.

Although the research on the relationship of EE to relapse started in 1950's, the role of the patients' perceptions of the relationships with their relatives has not been considered until Hooley and Teasdale's study with depressed women. The researchers stated that "it is surprising that no study to date has sought to obtain data directly from patients themselves concerning their perceptions of criticism from

family members" (Hooley and Teasdale, 1989). Perceived criticism was assessed by patients' evaluations of the levels of criticism they perceived from their spouses as rated on a 10-point scale (Hooley & Teasdale, 1989). Their results showed that EE, marital distress and patients' perceived criticism were all significantly associated with the depressed patients' 9-month relapse rates. In the analysis using logistic regression, the variable most strongly associated with relapse was found to be patients' perceptions of spouses' criticism. Depressed patients who rated their spouses as highly critical of them were significantly more likely to relapse during follow-up than were patients who perceived less criticism. Hooley and Teasdale (1989) argued that an objective rater's report of relative's criticism was less important than the patient's perception of that criticism because criticism perceived by the patient is likely to be the proximal cause of any effects of EE on the patient.

Thompson, Goldstein, Lebell, Mintz, Marder, and Mintz (1995) used a detailed interview to assess patients' perceptions of their caregivers' emotional attitudes towards them (criticism, emotional over-involvement and nagging) and assessed caregivers' emotions by FMSS. They found that patients whose caregivers demonstrated higher rates of criticism reported significantly more critical behavior. Thus, there was a concordance between the views of the patients and caregivers.

Scazufca and Kuipers (2001) examined the reliability of perceived criticism and whether patients' judgment about caregivers' criticism agreed with an independent assessment of caregivers' criticism towards patients at hospitalization and 9 months after discharge from the hospital. It was found that perceived criticism had been reliable and was associated with measures from CFI. However, relapse was not assessed in this study.

In a recent study (Bachmann, Bottmer, Jacob, & Schröder, 2006), with a German sample, the expression and perception of EE in schizophrenic patients and their relatives were compared. While EE in relatives of chronic schizophrenic patients was assessed using an extended version of the FMSS, patients rated their relatives with the Perceived Criticism Scale (PCS), the Family Emotional Involvement and Criticism Scale (FEICS), and a German questionnaire on family atmosphere (FEF). It was found that patients' ratings of the whole family on the FEICS and FEF criticism subscales were related to their relatives' EE status. Using a sample of 42 patients with schizophrenia and their relatives (Weisman, Rosales, Kymalainen, & Armesto, 2006), the concordance between the numbers of criticisms of relatives during the CFI and patients' perceptions of how critical they perceived their relative was examined. White and Latino family members who expressed more criticism were indeed perceived as more critical by patients. However, among blacks, no significant association between relatives' expressed criticism and patients' perceived criticism was found (Weisman, Rosales, Kymalainen & Armesto, 2006). These studies show that perceived expressed emotion is a valid and reliable measure. However, studies on the relative power of perceived expressed emotion by patients and expressed emotion by relatives is lacking.

The results of the Hooley and Teasdale (1989)'s study from depressive patients could not be generalized readily to schizophrenia. For this purpose, Scott, Fagin, and Winter (1993) conducted a series of studies examining schizophrenic patients' perceptions of their family members' attitudes by using Family Interpersonal Perception Test. Patients who expected their parents to view them negatively were significantly more likely to relapse than those who expected their parents to view them positively. The patient's viewpoint was shown to be the best

predictor of the relapse. Only among those patients who relapsed, a significant correlation between the parents' view of the patient and patients' expectation was found.

A number of investigations have focused on the relationship between clinical course in schizophrenia and patients' perceptions of the family environment, using some measurement devices, such as Family Environment Scale (FES) or Parental Bonding Instrument (PBI) which have been indirect. Administering instruments to patients, namely Dyadic Adjustment Scale and PBI; Patient Rejection Scale (PRS) to relatives, Lebell, Marder, Mintz, Mintz, Tompson, Wirshing, Johnston-Cronk, and McKenzie (1993) interviewed chronic schizophrenic male out patients and their relatives separately to assess their perceptions of their relationships. Patients' ratings of their attitudes toward their relatives and their perceptions of their relatives' attitudes towards them were significantly related to outcome during the one-year follow-up. Patients with positive perceptions of their relatives had a significantly lower rate of psychotic exacerbation at follow-up. When the severity of psychotic symptom was statistically controlled, the patients' own ratings of their attitudes and feelings towards their key relatives and their perceptions of these relatives' attitudes towards them appeared as a significant predictor of outcome. In another study (Baker, Kazarian, Helmes, Ruckman, & Tower, 1987), forty-nine schizophrenic inpatients who were about to be discharged from the hospital completed the Influential Relationship Questionnaire which measures patients' perceptions of three typical attitudes, namely care, overprotection and criticism by two influential people in their lives (Baker, Kazarian, Helmes, Ruckman, & Tower, 1987). At the 9-month follow-up, it was found that readmitted patients rated the second-most influential

person higher on the Overprotection and Criticism scales and lower on the Care scale than did nonreadmitted patients.

Using Parental Bonding Instrument (PBI), Warner and Atkinson (1988) found that patients who perceived their parents positively tended to experience a milder course of schizophrenia if they were in high contact with them, and a more severe course if they were not. The reverse was true for patients who perceived their parents negatively. It was suggested that patients' perceptions of parental attitudes would influence the course of schizophrenia by creating ongoing stress.

Perceived expressed emotion construct was studied within some other psychiatric illnesses other than schizophrenia. Researchers have disagreed about whether perceived criticism (PC) contributed to poor treatment outcomes and reflected the severity of the patient's disturbance. In a study with obsessive-compulsive and agoraphobic outpatients, the researchers predicted that higher perceived criticism, hostility, and EOI would be associated with poorer treatment outcome defined as terminating treatment while still highly symptomatic or as poor response to treatment for those who completed at least 10 sessions of behavior therapy (Chambless & Stekete, 1999). PC was found to be unrelated to coexisting symptom severity. Furthermore, pretreatment PC significantly predicted post treatment symptom severity over and above the effect of pretreatment symptom severity; whereas pretreatment symptom severity failed to significantly predict post treatment PC. Thus, these results were supporting the hypothesis that PC predicted how patients' respond to treatment. The results also showed that PC was not related to patient's symptom severity (Renshaw, Chambless, & Steketee, 2003).

The relationship between the level of Perceived Expressed Emotion (PEE) of the siblings and parents of patients hospitalized with anorexia nervosa and its effect

on weight gain and psychological functioning was examined (Moulds, Touyz, Schotte, Beumont, Griffiths, Russell, & Charles, 2000). The Level of Expressed Emotion (LEE) Scale was administered to the patients with anorexia nervosa who completed the LEE three times so as to identify their perceptions of their relationship with their closest age sibling, mother, and father. The results suggested that PEE was not predictive of body mass index (BMI) change and improvement in psychological functioning after 6 weeks of hospitalization (Moulds, Touyz, Schotte, Beumont, Griffiths, Russell, & Charles, 2000).

In order to examine whether perceived family criticism was independently associated with depression, and moderated the association between depression and functional disability, Seaburn, Lyness, Eberly, and King (2005) recruited 379 adults 65 years of age or older from primary-care practices. The results showed that perceived family criticism was independently associated with depression diagnosis and depressive symptoms, whereas perceived family criticism did not moderate the association between depressive symptoms and functional status in the overall study group. Another study (Miklowitz, Wisniewski, Miyahara, Otto, & Sachs, 2005) examined a self-report measure of expressed emotion as a predictor of the one year course of bipolar affective disorder. 360 patients filled out the four-item Perceived Criticism Scale concerning one or more relatives or close friends. Patients' ratings of the severity of criticisms from relatives did not predict patients' mood disorder symptoms at follow-up. However, patients who were more distressed by their relatives' criticism had more severe depressive and manic symptoms and proportionately fewer days of well being during the study year than patients who were less distressed by criticism.

In thirty two Egyptian depressed patients, Okasha, El Akabawi, Snyder, Wilson, Youssef, and El Dawla (1994) aimed to determine the value of families' expressed emotion and patients' perception of family criticism in predicting relapse. They also evaluated transcultural differences. An Arabic version of the CFI was administered to key relatives of the patients that were followed up for 9 months in order to assess relapse and compliance with treatment. The relation of family criticism to relapse was found to be statistically significant, but no association between perceived criticism and relapse was detected.

Regarding the literature in this section, it can be stated that perceived expressed emotion is a relatively new concept in research studies. Little is known about the concept and still no accepted consensus has been formed. Although some studies support the effect of perceived expressed emotion on prognosis, other studies fail to note a relationship. Like in other psychiatric disorders, literature lacks studies on the relationship among perceived expressed emotion, quality of life, and relapse regarding schizophrenia. Findings related to quality of life and impact of EE will be presented in the following section.

1.4. Quality of Life

The quality of life (QOL) of patients with schizophrenia presents an extension of different outcome criteria for treatment. For a long time, the reduction of positive symptoms alone was the most important outcome parameter, but the development of atypical antipsychotic drugs in the early 1990s resulted in the adoption of more wide-ranging measures of therapeutic outcome. In the present study, it will also be used as

an outcome criterion. In this section the definition of QOL will be given, followed by studies on its validity.

The construct of QOL has been increasingly included in studies exploring course and treatment of chronic somatic or psychiatric illnesses. Patient satisfaction appears to be strongly related to their willingness to be engaged in psychosocial and pharmacological treatment, and therefore to the symptomatic and functional outcome (Karow, Moritz, Lambert, Schoder, & Krausz, 2005).

World Health Organization (WHO) defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment (cited in Fidaner, Elbi, Fidaner, Yalçın Eser, Eser, & Göker, 1999). Within the concept of QOL, physical and mental health, level of independency, social relationships, environmental effect, and personal beliefs are subjectively evaluated by the patients. The importance of developing appropriate instruments emphasized the recognition of the importance of evaluating the QOL of patients with schizophrenia. There are a number of scales for measuring quality of life. The available and most frequently used QOL instruments that have been validated for schizophrenic populations are the World Health Organization Quality of Life Assessment (WHOQOL) and the 36-Item Short-Form Health Survey (SF-36) (Bobes, García-Portilla, Sáiz, Bascarán, & Bousoño, 2005).

In the recent literature (Prince, 2007; Hewith, 2007) two types of QOL are under consideration. These are subjectively rated QOL, usually defined as life satisfaction and objectively rated QOL, usually defined as participation in activities

41

and relationships. What is new in the definition in the subjective QOL is the emphasis on the scale being patients' self report. The scale used in the current study also assesses subjective QOL.

A difference between objectively and subjectively rated QOL was identified (Fitzgerald, de Castella, Filia, Collins, Brewer, Williams, Davey, and Kulkarni, 2003). Subjectively rated QOL was shown to be associated with depressive symptoms, whereas, objectively rated QOL was shown to be associated with negative symptoms. Similarly, Narvaez, Twamley, McKibbin, Heaton, and Patterson (2007) tested whether better subjective QOL would be associated with less severe negative and depressive symptoms, better objective QOL, and greater everyday functioning capacity. They also hypothesized that better objective QOL would be associated with less severe negative and depressive symptoms, better cognitive performance, and greater functional capacity. The researchers found that more severe depressive symptoms and better neuropsychological functioning were independent predictors of lower subjective QOL and that more severe negative symptoms predicted lower objective QOL.

The quality of life is a measure that is used in considering the outcome of illness and evaluation of different treatment modalities in schizophrenia. Therefore, a number of studies have been conducted examing the QOL as an outcome criterion. Xiang, Weng, Leung, Tang, and Ungvari (2007) aimed to explore the relationships between sociodemographic and clinical factors and QOL in a cohort of 200 Chinese schizophrenia outpatients. It was aimed to evaluate the relationships of sociodemographic, clinical characteristics including psychotic and depressive symptoms, extrapyramidal symptoms (EPS), and QOL. The scores for the physical, psychological, and social QOL domains in the patient group were found to be

42

significantly lower than controls. The presence of positive, negative, depressive, anxiety and EPS symptoms was all significantly and negatively correlated with QOL. Chinese outpatients with schizophrenia had poorer QOL than the general population.

Another study (Ritsner, Modai, Endicott, Rivkin, Nechamkin, Barak, Goldin, and Ponizovsky, 2000) about variations in QOL domains and related psychopathological and psychosocial factors in patients with schizophrenia, schizoaffective disorder, and mood disorders was conducted. It was hypothesized that QOL would have a more significant relationship with psychosocial factors than with illness-associated factors. The results showed that in all QOL domains, patients were less satisfied than nonpatient controls. The researchers concluded that psychosocial factors affect subjectively rated QOL of hospitalized patients with severe mental disorders rather than psychopathological symptoms.

Research conducted on the family's contribution to the QOL of persons who have serious mental illness has a major focus on negative family interactions associated with poorer outcomes. However, many families play a supportive role and little is known about the expression of warmth and positive remarks on QOL, namely prosocial family processes. Greenberg, Knudsen, and Aschbrenner (2006) aimed to study prosocial family processes that potentially improve, rather than detract from the life satisfaction of adults with schizophrenia and their aging mothers. It was found that the adults with schizophrenia demonstrated higher levels of life satisfaction when their mothers expressed greater amount of warmth and praise, and when their mothers reported the quality of their relationship as being close and mutually supportive.

In order to understand the relationship between the subjectively rated QOL and psychopathology using Positive and Negative Symptom Scale (PANSS),

43

researchers assessed schizophrenia patients at hospitalization, discharge and follow-up periods. The results showed that anxiety was the most important symptom and depression was the most important syndrome associated with different domains of QOL during and after hospitalization. Also cognitive and negative symptoms were associated with different QOL domains, but positive symptom clusters showed no substantial association with QOL (Karow, Moritz, Lambert, Schoder, & Krausz, 2005).

In Turkey, several studies were conducted on QOL. Örsel, Akdemir, and Dağ (2004) aimed to conduct the reliability and sensitivity study of the WHOQOL- 100 in patients with schizophrenia. Stepwise regression analysis was conducted to examine the predictive influences of psychopathology measures on QOL domains. The results showed that WHOQOL-100 was a reliable and valid measurement for patients with schizophrenia. The physical, psychological, social and independence domains had discriminant validity, differentiating ill and control subjects. Another finding revealed that symptom severity, especially the severity of negative symptoms and in some cases positive symptoms were related to subjective QOL scores. Yıldız, Veznedaroğlu, Eryavuz, and Kayahan (2004), using PANSS, Quality of Life Scale (QLS), Social Functioning Scale (SFS) and Global Assessment of Functioning (GAF), assessed the impact of psychosocial skills training program as an integrative approach on social functioning and QOL of patients with schizophrenia, in comparison to standard care. There was a significant improvement in the total PANSS, QLS, SFS and GAF scores, whereas no significant change for those on standard cares. The study underlined the social functioning and QOL profits of the psychosocial skills training program in schizophrenia. Another study (Akvardar, Akdede, Ozerdem, Eser, Topkaya, & Alptekin, 2006) aimed to identify how

psychiatric patients characterize the quality of their lives compared to others with diabetes (a chronic physical illness) and healthy individuals. WHOQOL was used to measure the QOL. For the physical domain of QOL, patients with alcohol dependence, bipolar disorder, and schizophrenia scored lower than healthy subjects. For the psychological domain, patients with schizophrenia had lower scores compared to patients with bipolar disorder, patients with diabetes, and healthy subjects. In the social relationship domain, patients with schizophrenia and alcohol dependence scored lower compared to healthy subjects. Patients with schizophrenia were worse than bipolar patients and diabetics with respect to social relationships.

As discussed in previous parts of the introduction, the expressed emotion of caregivers has been found to be related with exacerbation of the symptoms, and consequently relapse (Butzlaff, & Hooley, 1998; King & Dixon, 1999). However, there are few studies on the combined effects of caregivers' expressed emotion and exacerbation of schizophrenic symptoms on the QOL of patients. Mubarak and Barber (2003) examined the association between QOL of patients, EE of their relatives and psychiatric symptom severity. Their findings indicated that patients with severe psychiatric symptoms living with caregivers with high EE had lower QOL than the patients with mild psychiatric symptoms living with caregivers with low EE.

So, in this thesis the impact of expressed emotion, both as expressed by caregiver and as perceived by the patient on the QOL of schizophrenic patients will also be examined.

1.5 Aims of the Study

Although schizophrenia is a chronic psychiatric illness, which is being treated by recently found more potent medications, there has not been sufficient success in relapse prevention. Despite the important developments on the medication, there are problems adjusting the treatment process. Even under regular medication, relapse may occur. Prevention of relapse still has clinical importance. Recently, general views regarding the weakness of treatment if the family is excluded have been presented. However, issues on handling the family within treatment still remain to be explored. Vulnerability-stress model could be one way of including the family via EE in the course and relapse of schizophrenia.

Vulnerability-stress model offers a theoretical guide for understanding the etiology and maintenance of schizophrenia. As presented in the introduction, the impact of families' expressed emotion on relapse of patients with schizophrenia has been shown in previous research. However, up to our knowledge, the effect of schizophrenic patient's perceived expressed emotion on relapse has not been studied. Families' expressed emotion from the patients' viewpoint is a novel subject of research. Although, some researchers found that perceived criticism is related to relapse in depressive patients, there is no conclusive evidence for schizophrenic patients.

The aim of the present study is to investigate the effect of both EE of caregivers and perceived EE of the patient on the QOL and positive and negative symptoms of schizophrenic patients in Turkey.

Within this general aim, first, the study aims to develop the Perceived Expressed Emotion Scale (PEES) that will be rated by the patients to reflect their

46

perceptions of caregiver expressed emotion. PEES is expected to be a valid and reliable measure of patients' perceived expressed emotion. Secondly, the study also aims to compare the relative power of C/H and EOI of EE of caregivers and perceived EE of patients on symptom severity and QOL.

The following hypotheses will be tested within the framework of the present study:

1. Perceived Expressed Emotion Scale will have a structure similar to the Expressed Emotion Scale.

2. Perceived criticism/hostility and emotional over-involvement will be correlated with Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement, Behavior Control, and General Functions of Family Assessment Device (FAD).

3 Perceived expressed emotion by patients will have more relative effects than expressed emotion of caregivers on the symptoms of positive and negative, general psychopathology and total scores of PANSS and physical, psychological, social domains, and environmental domain of standardized to culture of WHOQOL-BREF.

4 Expressed emotion of caregivers is expected to have high positive and negative symptoms, general psychopathology and total scores of PANSS.

5 Expressed emotion of caregivers is expected to have high scores on physical, psychological, social domains, and environmental domain of standardized to culture of WHOQOL-BREF.

6. Patients with high perceived criticism/hostility will have higher positive and negative symptoms of PANSS as compared to patients with low perceived criticism/hostility.

7. Patients with high perceived emotional over-involvement will have higher positive and negative symptoms of PANSS as compared to patients with low perceived emotional over-involvement.

8. Patients with high perceived criticism/hostility will have higher scores on general psychopathology of PANSS as compared to patients with low perceived criticism/hostility.

9. Patients with high perceived emotional over-involvement will have higher scores on general psychopathology of PANSS as compared to patients with low perceived emotional over-involvement.

10. Patients with high perceived criticism/hostility will have higher total scores of PANSS as compared to patients with low perceived criticism/hostility.

11. Patients with high perceived emotional over-involvement will have higher total scores of PANSS as compared to patients with low perceived emotional over-involvement.

12. Patients with high perceived criticism/hostility will have higher scores on physical domain of quality of life as compared to patients with low perceived criticism/hostility.

13. Patients with high perceived emotional over-involvement will have higher scores on physical domain of quality of life as compared to patients with low perceived emotional over-involvement.

14. Patients with high perceived criticism/hostility will have higher scores on psychological domain of quality of life as compared to patients with low perceived criticism/hostility.

15. Patients with high perceived emotional over-involvement will have higher scores on psychological domain of quality of life as compared to patients with low perceived emotional over-involvement.

16. Patients with high perceived criticism/hostility will have higher scores on social domain of quality of life as compared to patients with low perceived criticism/hostility.

17. Patients with high perceived emotional over-involvement will have higher scores on social domain of quality of life as compared to patients with low perceived emotional over-involvement.

18. Patients with high perceived criticism/hostility will have higher scores on

environmental domain of standardized to culture of quality of life as compared to patients with low perceived criticism/hostility.

19. Patients with high perceived emotional over-involvement will have higher scores on environmental domain of standardized to culture of quality of life as compared to patients with low perceived emotional over-involvement.

CHAPTER II

PILOT STUDY

2.1 Introduction

In this section, the pilot study for the reliability and validity study of the Perceived Expressed Emotion Scale (PEES) developed for the current study will be presented. Expressed Emotion Scale of Berksun (EES) (1992), which was originally developed for the caregivers' of the patients, was changed to assess patient's perceived expressed emotion level. As discussed in Chapter I, expressed emotion (EE) turns out to be an important construct in schizophrenia treatment research. Patients' perceptions of their families' EE and its relationship with the course of illness is not a well known subject. In general, families' EE is considered to be a strong predictor of patients' symptom severity and quality of life (QOL). In the present study, the role of patients' perceptions of families' EE will also be examined. For this reason, it was aimed to develop PEES which has not been subject to previous research in Turkey. Additionally, for evaluating the validity of the PEES, Family Assessment Device (FAD) was used.

2.2 Method

2.2.1 Subjects

The sample was comprised of 75 schizophrenic patients, 28 females (37 %) and 47 males (63 %) from Ankara Numune Education and Research Hospital, Psychiatry Service. The patients ranged in age from 19 to 54 with a mean of 32. 93 (sd = 8.68). The patients with a DSM-IV diagnosis of schizophrenia, who applied to the hospital for follow-up purposes, who were not in the acute episode and who had no mental retardation were selected. The sociodemographic and illness related characteristics of the sample are given in Table 1.

Table 1 *Sociodemographic and Illness Related Characteristics of the Sample*

Variable		Percentage (n)	Mean (Sd)	Range
Age			32.93 (8.68)	19-54
Gender				
	Female	37.3 (28)		
	Male	62.7 (47)		
Years of education			10.24 (3.21)	5-17
Marital status				
	Single	60.0 (45)		
	Married	33.3 (25)		
	Divorced	5.3 (4)		
	Widowed	1.3 (1)		
For those who are not single, having a child				
	No	65.3 (49)		
	Yes	34.7(26)		
Number of children				
	1	9.3 (7)		
	2	16.0 (12)		
	3	5.3 (4)		
	4	4.0 (3)		
Current employment				
	No	85.3 (64)		
	Yes	14.7 (11)		
Social security status				
	Social Insurance Inst.	33.3 (25)		
Insurance Inst. for state workers		17.3 (13)		

Table 1 *(continued)*

Insurance Inst. for trades	14.7 (11)		
green card	21.3 (16)		
none	12.0 (9)		
Monthly household income (YTL)		1.059,66 (919,59)	150-5.000
Number of rooms in the house			
2	10.7 (8)		
3	34.7 (26)		
4	48.0 (36)		
5	2.7 (2)		
6	4.0 (3)		
Having a private room in the house			
Yes	80.0 (60)		
No	20.0 (15)		
Persons with whom the patient lives			
Both parents	48.0 (36)		
Spouse & children	33.3 (25)		
With one parent	14.7 (11)		
Sibling	4.0 (3)		
Duration of illness (years)		8.59 (5.97)	0.5-27
Age of illness onset		24.35 (8.03)	12-48
Age of diagnosis		26.66 (8.19)	15-49
Duration of treatment (year)		6.14 (5.29)	0-27
Number of previous hospitalizations		1.58 (1.44)	0-8
no	18.7 (14)		
1	38.7 (29)		
2	24.0 (18)		
3	9.3 (7)		
4	4.0 (3)		
5	1.3 (1)		
6	1.3 (1)		
8	1.3 (1)		
Medication use during the last three months			
Yes	82.7 (62)		
No	16.0 (12)		
Caregiver's relation to the patient			
Mother	49.3 (37)		
Spouse	30.7 (23)		
Father	9.3 (7)		
Sibling	8.6 (6)		
Children	7 (2)		

2.2.2 Instruments

The research instruments used in data collection of the pilot study consisted of three parts. The first part included questions related to sociodemographic characteristics of the patients: age, gender, educational level, marital status, number of children, current employment status, social security status, monthly household income, number of rooms in the house, having a private room in the house, persons with whom the patient lives. Questions related to the illness history of the patient were also included: duration of illness, age of illness onset, age of diagnosis, duration of treatment (year), number of previous hospitalizations and medication use during the last three months before the admission to the study (See Appendix A for Informed Consent and Sociodemographic and Illness Characteristics Information Form).

The second part of the research instrument contained the PEES, whereas the third part was the FAD. These scales are described in the following section.

2.2.2.1 Perceived Expressed Emotion Scale (PEES)

The Expressed Emotion Scale (EES) (Berksun, 1992) was developed in order to measure the level of expressed emotion of the main members of the family. This scale is administered to relatives of schizophrenic patients. It is a self report instrument, consisting of two factors, which are Criticism/Hostility (C/H) and Emotional Overinvolvement (EOI). The scale has 41 items. The format of the response scale is "Yes" or "No". Cronbach alpha reliability coefficient was shown to be 0.84. Internal consistency of the scale was tested through Kuder Richardson-20,

since the scale was rated on a True – False basis, and reliability coefficient was found to be .89 (Berksun, 1992).

The results of different studies (Cansever, 1994; Karanci & Inandilar, 2002; Özden, 1995) revealed that the psychometric properties of the EES are satisfactory for the Turkish population.

Unlike the original form, for the present study, items of the EES were transformed to reflect how patients perceive their relatives' emotional expressions into other-oriented version ('He/she' language) and adapted for schizophrenic patients to evaluate their perceptions of relatives' expressed emotion. The transformation was done with the permission of the author of EES. The sentences, like "I don't believe that s/he is ill" in EE scale was transformed into other oriented form, like "S/He doesn't believe that I'm ill". This scale also has 41 items. The format of the response scale, as in the original, is "true" or "false" (true= 2, false= 1).

In order to explore whether the PEES is comprehensible and appropriate for the study, initially 5 schizophrenic patients were administered the PEES. It was seen that in item 28 ("S/he thinks that we are alike") there was a problem. The patients understood this as being alike in physical characteristics or/ as physical similarity. Subsequently, item 28 was modified as "S/He thinks that we are alike as character and habit."

Additionally, the patients were also required to rate whether they felt distressed by each item and how much they were distressed. The format of the response on distress was "The statement doesn't distress me" and "The statement distresses me". If they expressed distress, they rated their level of their distress (little, medium and a lot) (See Appendix B for Perceived Expressed Emotion Scale-PEES).

2.2.2.2 Family Assessment Device (FAD)

The Family Assessment Device (FAD), which was developed by Brown University and Buttler Hospital in the USA in the context of Family Research Programme, contains 60 items determining how the family functions in different domains. The FAD was formed through the clinical use of formerly constructed McMaster Model of Family Functioning. The scale was devised to discriminate "healthy" and "unhealthy" structural and organizational characteristics of family and interaction between family members. The FAD uses a 4-point Likert type scale, ranging from totally disagree (4) to totally agree (1). There are items in the scale indicating healthy and unhealthy functions. In some items, the phrase "totally agree" indicates healthy family functioning, whereas in some others the phrase "totally disagree" may also indicate healthy family functioning. Items reflecting unhealthy functioning are treated as reverse items and the points on these items are subtracted from 5. By this way it was made sure that the phrase "totally disagree" indicated unhealthy functioning whereas "totally agree" indicated healthy functioning. Thus, higher scores indicate unhealthy functioning.

The scale consists of seven subscales, measuring problem areas in family functioning (Epstein, Boldwing, & Bishop, 1983).

1. Problem Solving is defined as problem solving skills of the family that are necessary for the family to be able to function effectively. This subscale has 6 items (Items 2, 12, 24, 38, 50, 60)

2. Communication measured with 9 items, is defined as information flow among family members (Items 3, 14, 18, 22, 29, 35, 43, 52, and 59).

3. Roles are behavioral patterns that help family meet all kind of their needs. There are 11 items (4, 8, 10, 15, 23, 30, 34, 40, 45, 53, and 58) in this subscale.

4. Affective Responsiveness, assessed with 6 items, is family members' reacting most appropriately towards all kinds of stimuli (9, 19, 28, 39, 49, and 57).

5. Affective Involvement consists of interest, love, and caring that members show to each other. It has 7 items (5, 13, 25, 33, 37, 42, and 54).

6. Behavior Control which has 9 items is a familial style for setting standards and providing discipline (7, 17, 20, 27, 32, 44, 47, 48, and 55).

7. General Functions aim to assess comprehensive information related to the six subscales defined above and has 12 items (1, 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, and 56).

Reverse items are listed as 1, 4, 5, 7, 8, 9, 11, 13, 14, 15, 17, 19, 21, 22, 23, 25, 27, 28, 31, 33, 34, 35, 37, 39, 41, 42, 44, 45, 47, 48, 51, 52, 53, 54, and 58.

Reliability and validity of the original FAD was found to be high in studies conducted in the US (Epstein, Baldwin & Bishop, 1983; Miller, Epstein, Bishop, & Keitner, 1985). The original FAD was translated into Turkish and the reliability and validity studies were conducted by Bulut (1990). Cronbach alpha value for each subscale of Bulut's study will be given with the values of the present study in Table 3 (see, p.63). Bulut stated that the study on reliability and validity of FAD showed satisfactory psychometric properties (See Appendix C for Family Assessment Device-FAD). Soykan (2000) investigated the effects of communication skills training focused family psychoeducational group approach on family functioning in the families of schizophrenic patients, using FAD.

2.2.3 Procedure

The patients with a DSM-IV diagnosis of schizophrenia, who applied to the hospital for follow-up purposes, were recruited for the current study. Recruiting source for finding patients was outpatient clinic of the hospital. Patients coming to the hospital for their routine control examination were referred to the researcher by the psychiatrists. Psychiatrists informed the researcher whether the patients' symptoms were active and whether they could be included in the study. The patients with comorbidities who had mental retardation or schizoaffective disorder and acute episode were excluded from the research by the psychiatrist. The instruments described above were administered to the patients together as a set by the investigator in the Ankara Numune Education and Research Hospital, 1st Psychiatry Service. Patients were given the scales individually by the researcher and their relatives were not in the administration room. Participation was on a voluntary basis and almost all of those who were contacted agreed to participate. Then, the investigator introduced herself as a psychology graduate student and a clinical psychologist working as a member of the clinic team. The patients were informed about the aim and the procedure of the study and informed consent was obtained from the patients. The first page of the set included a general introduction, aim of the study, and the work telephone and address of the investigator and informed consent. The second page consisted of questions concerning the sociodemographic and illness related characteristics of the patients. After gathering the information on the first two forms, PEES and FAD were administered to the patient. Patients were asked to answer PEES considering who their primary caregiver was. For identifying the primary caregiver, patients were asked who were most frequently in face to face

contact with them, and who was the member taking care of the patient. The investigator gave the necessary instructions for each scale and then read the items and recorded the responses herself. The administration of the questionnaires took approximately half an hour. The pilot study was conducted between August and October, 2005.

2.2.4 Statistical Analysis

The data were analyzed using the appropriate programs of the SPSS for Windows (Green, Salkind, & Akey, 1997). First of all, descriptives statistics on sociodemographic and illness related characteristics of the patients were obtained. Then, the factor structure of PEES was examined by the factor analyses programme and reliability analyses were conducted for the factors of PEES and its validity was examined by calculating correlations with FAD.

Prior to analyses, all variables were examined through SPSS 10, programme for accuracy of data entry, missing values and multivariate outliers. Since the investigator asked to the patients all questions there were only one missing value on the scales. No cases were identified through Mahalanobis distance as multivariate outliers. No patient was excluded from further analyses.

2.3 Results

2.3.1 Factor Analysis of Perceived Expressed Emotion Scale (PEES)

The initial factor analysis of the responses to the Perceived Expressed Emotion Scale (PEES), employing principal components, varimax rotation, with the

eigenvalue of 1.00 as the criterion yielded twelve factors, explaining 72.61 per cent of total variation. After examining the scree plot, further analysis with restrictions on the number of factors, revealed that a two factors solution explaining 36.1 per cent of the variance produced the clearest solution. Items with factor loadings greater than .35 were included in the factors. One item with .08 was excluded from further analysis (item 36). The two factors were labeled as criticism/hostility and emotional overinvolvement. The first factor, Criticism/Hostility (C/H) consisted of 21 items with factor loadings ranging between .35 and .77. The second factor Emotional Overinvolvement (EOI) had 19 items with factor loadings ranging between .41 and 71.Table 2 presents the two factors, their items, factor loadings and the cronbach's alpha reliability coefficients. Cronbach's alpha reliability of the whole scale was .88.

Table 2 *Factor Structure of Perceived Expressed Emotion Scale (PEES)*

Factor and items	Factor I	Factor II
Factor I: Criticism/Hostility (variance explained 20.10%) (Cronbach's alpha .90)		
17. S/He thinks that I interfere with her/his life.	**.77**	-.17
24. Sometimes, s/he wishes that s/he can get rid of me.	**.74**	-.27
34. S/He thinks that I give her/him a lot of trouble.	**.71**	.08
13. S/He hurts and offends me.	**.69**	.04
1. S/He thinks that I do certain things on purpose and this makes her/him angry.	**.69**	.08
33. S/He wants to keep away from me.	**.69**	.07
11. S/He no longer cares for me and stays away from me.	**.68**	.00
35. S/He thinks that without me, everything would be fine.	**.63**	-.10
20. S/He doesn't like the way I dress up and s/he tells this to me.	**.61**	.12
32. S/He frequently criticizes me and wants me to correct myself.	**.59**	-.05
40. S/He thinks that I exaggerate my illness.	**.56**	.03
10. S/He can not get along with me.	**.56**	-.29
6. My existence makes him/her crazy.	**.55**	.05
19. S/He doesn't like anything I do.	**.53**	-.18
18. Due to my illness s/he feels that the whole world collapsed on her/him.	**.51**	.45
5. S/He tries to learn everything, even private matters about me.	**.50**	.34

Table 2 *(continued)*

21. S/He wants me to behave in ways s/he expects me to behave.	**.47**	.08
25. S/He keeps away from me when I am uneasy and unhappy.	**.42**	.29
29. S/He wants me to correct my mistakes.	**.38**	.22
26. S/He often warns met o do what I do in an orderly and systematic manner.	**.37**	.09
2. S/He doesn't believe that I'm ill.	**.35**	-.03
Factor II: Emotional Overinvolvement (variance explained 15.98%) (Cronbach's alpha .87)		
23. S/He attends to everything about me.	.22	**.71**
15. S/He cherishes me.	.01	**.69**
39. S/He tries talking with me when I'm uneasy and unhappy.	-.14	**.67**
22. S/He worries even for a slightest thing that may happen to me.	.27	**.66**
12. S/He is the one in our family who takes care of everything about me.	.12	**.60**
38. When I get angry s/he tries to soothe me, s/he doen't stay away from me.	-.16	**.59**
30. S/He thinks that we get on well.	-.16	**.59**
27. My hospitalization makes her/him desperate and s/he cannot part from me.	.30	**.57**
14. S/He listens to all my ideas.	-.41	**.57**

Factor and items	Factor I	Factor II
41. S/He gives me emotional support when I feel down.	-.22	**.57**
8. S/He likes and admires some aspects of me.	-.20	**.53**
16. When we are together s/he only shows attention to me and nothing else.	.22	**.51**
7. S/He keeps on thinking about what s/he did wrong.	.40	**.48**
31. Her/his mind is always full of me, s/he can not think of anything else.	.38	**.48**
4. For her/him, my wishes are more important than the rest of the families'.	-.20	**.47**
3. S/He enjoys talking with me.	-.20	**.47**
37. It gives her/him pleasure to attend to everything about me.	-.00	**.47**
9. S/He frequently gives me advice.	.31	**.44**
28. S/He thinks that we are alike as character and habit.	.10	**.41**
Item Excluded		
36. S/He thinks that when s/he faces a difficulty s/he can cope with it.	.08	.03

Subsequently, two mean scores for the factors were obtained, by summing up the responses to the items that belonged to the factors and dividing them by the number of items. The mean scores for the responses to the two scales of the PEES, namely Criticism/Hostility ($\underline{M}$ =1.40, $\underline{SD}$ = .27) and Emotional Overinvolvement ($\underline{M}$ = 1.60, $\underline{SD}$ =.26) were calculated.

2.3.2 Family Assessment Device (FAD)

Since Family Assessment Device (FAD) was used as a validity check for PEES, first the internal consistency of its factors was examined. The reliability analysis of FAD was conducted with seven factors according to the original form. In the present study, the Cronbach's alpha for Problem Solving scale was found to be .47 with 6 items. After examining the results for alpha values when certain items are deleted, Item 2 was excluded, and the reliability value increased to .76. Similarly the Cronbach's alpha for Roles scale was found to be .63. When item 10 was excluded, the Cronbach's alpha was found to be .67 in the Roles scale. Finally, on the Behavioral Control scale, Cronbach's alpha increased to .64 from .56, excluding the item 32. The Cronbach's alpha for Communication scale was found to be .64 with 9 items. For Affective Responsiveness scale, the Cronbach's alpha was found to be .74 with 6 items and for Affective Involvement scale, it was found to be .68 without any item exclusion. Finally, Cronbach's alpha for General Functions scale was found to be .87 with 12 items. These results were similar to Bulut's study (1990). Table 3 gives the reliability coefficients of the subscales of FAD.

Table 3 *Cronbach's alpha of the subscales of FAD*

Subscales of the FAD	Cronbach's alpha	
	The study (N= 75)	Bulut (1990) (N=51)
Problem Solving	.76	.80
Communication	.64	.71
Roles	.67	.42
Affective Responsiveness	.74	.59
Affective Involvement	.68	.38
Behaviour Control	.64	.52
General Functions	.87	.86

As seen in Table 3, in the present study Cronbach alpha results for Roles, Affective Responsiveness, Affective Involvement and Behaviour Control scales were found to be higher than Bulut's results. The mean scores for the responses to the seven scales of the FAD, namely Problem Solving (M =2.19, SD = .83), Communication (M = 2.08, SD =.59), Roles (M = 2.14, SD =.59), Affective Responsiveness (M = 2.22, SD =.77), Affective Involvement (M = 2.12, SD =.65), Behavior Control (M = 2.02, SD =.60) and General Functions (M = 2.08, SD =.74) were calculated.

2.3.3 Correlations Among the Variables in the Study

In order to examine the relationship between the scales of PEES and FAD, an initial correlation analysis was conducted. The intercorrelations among the subscales of FAD and C/H and EOI subscales of PEES are given in Table 4.

Table 4. *Pearson Correlations Among the Subscales of PEES and FAD*

Scales	1	2	3	4	5	6	7	8
1.C/H								
2.EOI	.17							
3.PS	.17	-.44**						
4.C	.41 **	-.14	.48**					
5.R	.61**	.02	.17	.57**				
6.AR	.42**	-.04	.42**	.54**	.51**			
7.AI	.58**	.27*	-.11	.32**	.69**	.35**		
8.BC	.46**	-.03	.25**	.45**	.73**	.37**	.57**	
9.GF	.62**	-.20	.61**	.66**	.62**	.59**	.42**	.57**

** $p<0.01$, * $p<0.05$

Note C/H=Criticism/Hostility; EOI=Emotional Over-Involvement; PS= Problem Solving; C=Communication; R=Roles; AR=Affective Responsiveness; AI=Affective Involvement; BC=Behavior Control; GF=General Functions.

As can be seen from Table 4, the correlation analysis showed that C/H was positively related to all subscales of FAD, except for Problem Solving which is in line with the expectations and lends support to the validity of the C/H scale of PEES. On the other hand, EOI was negatively related to Problem Solving (r = -.44, p< .05) and positively related to Affective Involvement (r =.27, p< .01) and not significantly related to other subscales of FAD.

As indicated in section 2.2.2.1, several questions that were not included in the original scale were added, next to the items of PEES in order to examine the level of distress caused by the main family members' expressed emotion on the patients. The patients were required to rate whether they felt distressed by each item and how much they were distressed. The format of the response on distress was "What is expressed in this statement doesn't distress me" and "What is expressed in this

statement distresses me". If they expressed distress, they rated their level of their distress (little, medium and a lot).

For each item, distress scores were calculated by multiplying item score and distress degree on the statement. Subsequently, distress score for each factor was obtained.

The mean scores for the distress level to the two subscales of the PEES, namely distress on Criticism/Hostility ($\underline{M}$ =1.13, $\underline{SD}$ = 1.40) and distress on Emotional Overinvolvement ($\underline{M}$ = .73, $\underline{SD}$ =.91) were calculated. Table 5 presents the intercorrelation among the two factors of the PEES and their distress level.

Table 5. *Intercorrelation among the two factors of the PEES and the distress level*

Scales	Mean	1	2	3	4
1.C/H	1.40		.17	.85**	.64**
2.EOI	1.60			-.02	-.01
3.distress score of C/H	1.13				.85**
4.distress score of EOI	.73				

** p<0.01, * p<0.05

As can be seen from Table 5, criticism/hostility was significantly related to distress level on C/H ($\underline{r}$=.85, $\underline{p}$<.01) and distress level on EOI ($\underline{r}$=.64, $\underline{p}$<.01). Distress level on EOI was positively correlated to distress level on C/H ($\underline{r}$=.85, $\underline{p}$<.01).

2.4 Discussion

The aim of the pilot study was to evaluate the psychometric properties of the Perceived Expressed Emotion Scale (PEES). The PEES was subjected to factor

analysis and two factors emerged. Coefficient alphas were computed for the factors of PEES. The results of the factor analysis for the PEES showed that it had two factors which were similar to the results obtained from the Expressed Emotion Scale (Berksun, 1992; Karanci & Inandilar, 2002).

Correlations between FAD and PEES subscales indicate that patients' perceived C/H was significantly correlated with all subscales of FAD. As perceived C/H increased, patients perceived that the communication within the family was insufficient, that the members could not directly express themselves, and that there were problems regarding roles within the family. Role confusions while meeting the financial, housing, clothing and nutritional needs of schizophrenic patients increase together with perceived C/H. Similarly schizophrenic patients thought that there were functional problems in the family on expressing positive and negative emotions. The higher the patients' perceived C/H, the higher was the dysfunction on affective responsiveness. Dysfunction on Affective Involvement means that family members care for each other either more or less than needed. As perceived C/H increased, schizophrenic patient thought that family members were little or over involved with them. Behavioral control is the family members' way of setting the standards and discipline. As the perceived C/H increased, the patient tended to perceive the control behaviors of family members as rigid, flexible, and irregular. Patients' negative perceptions of their family functioning were related to higher scores in their perceived C/H.

Although, perceived C/H had high correlations with most subscales of FAD, perceived EOI was only found to be correlated with problem solving and affective involvement. Perceived EOI was positively correlated with Affective Involvement and negatively correlated with Problem Solving. The finding could be interpreted as

66

the patients perceive the problem solving skills of the family as effective, when they perceive higher EOI. The patients thought they received extreme care, interest, and love as they perceived higher EOI. Thus, EOI seems to be a less toxic element of perceived EE than C/H. This finding in line with previous studies on EE, showing that C/H is a more negative element than EOI (Moline, Singh, Morris, & Meltzer, 1985; Parker, Johnston, & Hayward, 1988; Barrelet, Ferrero, Szigethy, Giddey, & Pellizer, 1990; Karanci & Inandilar, 2002). Thus, overall the results of the pilot study showed that the perceptions of the patients on the emotional attitudes can be grouped into C/H and EOI as have been noted for caregivers' perceptions.

As expected, the correlations of the factors of FAD with the factors of PEES provided support for the concurrent validity of the PEES scales. Thus, it was thought that PEES was reliable and valid scale that can be used in the main study.

CHAPTER III

MAIN STUDY

3.1 Introduction

The main study was conducted in order to examine the relative effects of caregivers' expressed emotion (EE) and patients' perceived expressed emotion on symptom levels and quality of life (QOL) of schizophrenic patients. Assessments were taken twice at time 1 and time 2 with a six months interval. This section includes details on time 1 and time 2 studies, and the finally high and low EE and perceived EE on symptoms and QOL.

3.2. Method

3.2.1 Participants

The sample of the study was 116 schizophrenic patients, 46 females (39.7 %) and 70 males (60.3 %) from Ankara Numune Education and Research Hospital, Psychiatry Service. The patients ranged in age from 20 to 60 with a mean of 34.33 (SD = 8.63). The patients with a DSM-IV diagnosis of schizophrenia who were not in their acute episode and who had no mental retardation were included.

In order to test the relative effects of perceived EE and expressed emotion of caregivers on the schizophrenic patients' symptom severity and QOL, time 2

assessments were carried out after a six months interval following time 1 assessment. One hundred and sixteen patients who participated in the first measurement were called to participate for the second measurement of the study. Thirteen of them dropped out for several reasons (refusing to participate for the reasons of finding a job, feeling better, etc.; marriage in another country; changing of the contact information). In order to see whether 13 drop out patients had a common characteristic for age, monthly income and education, t-test was conducted. No differences were found between subjects who completed the time one assessments and subjects who were lost to follow-up (time two) regarding age t $(24,114)=1.52$, p>.05, monthly income t$(16,111)=1.26$, p>.05, and education t $(17,114) =.34$, p>.05. For gender and marital status, pearson chi-square test was conducted and no differences were found between subjects, respectively t $(1,116)= 0.009$, p= > .05; t$(3,116) = 4.48$, p>.05. In order to see whether 13 drop out patients had a common characteristic for number of children, number of hospitalization and duration of illness, Mann-Whitney-U test was conducted. There were no significant differences found, respectively U= 510.50, p= .11; U= 482.0, p= .09; U= 555.5, p= .32. Fisher's Exact test was conducted to investigate whether 13 drop-out patients differed significantly from the patients remained at the research due to current employment and it was found significant difference, p=.026. All drop out patients were current unemployment.

Totally 103 patients participated in the time 2 phase of the study. 41 of them were female (39.8 %) and 62 of them were male (60.2 %). The age range of the patients was between 20 and 60. 5 of the patients were hospitalized after the first study. The sociodemographic and illness related characteristics of the 103 patients that remained for phase 2 and their caregivers are given in Tables 6 and 7.

Table 6 *Sociodemographic and Illness Related Characteristics of the Patients*

Variable	Percentage (n)	Mean (Sd)	Range
Age		34.76 (8.92)	20-60
Gender			
Female	39.8 (41)		
Male	60.2 (62)		
Years of education		8.98(3.77)	0-19
Marital status			
Single	42.9 (44)		
Married	41.7 (43)		
Divorced	13.6 (14)		
Widowed	1.9 (2)		
Having a child			
No	58.3 (60)		
Yes	41.7 (43)		
Number of children			
1	17.5 (18)		
2	13.6 (14)		
3	6.8 (7)		
4	2.9 (3)		
5	1.0 (1)		
Current employment			
No	73.8 (76)		
Yes	26.2 (27)		
Social security status			
Social Insurance Inst.	34.0 (35)		
Green card	31.1 (32)		
Insurance Inst. for state workers	16.5 (17)		
Insurance Inst. for trades	15.5 (16)		
other	1.0 (1)		
none	1.9 (2)		
Monthly household income (YTL)		931.90(601.96)	140-3500
Number of family members		3.97 (1.40)	2-7
Number of rooms in the house			
2	2.9 (3)		
3	35.9 (37)		
4	56.3 (58)		
5	3.9 (4)		
6	1.0 (1)		
Having a private room in the house			
Yes	70.9 (73)		
No	29.1 (30)		
Duration of illness (years)		9.13(8.30)	1-35
Age of illness onset		25.64 (7.05)	13-47

Table 6 *(continued)*

Variable		Percentage (n)	Mean (Sd)	Range
Age of diagnosis			29.27 (10.39)	13-55
Duration of treatment (month)			90.30 (99.78)	1-420
Number of previous hospitalizations				
	No	19.4 (20)		
	1	36.9 (38)		
	2	19.4 (20)		
	3	11.7 (12)		
	4	5.8 (6)		
	5	3.9 (4)		
	6	1.0 (1)		
	8	1.0 (1)		
	10	1.0 (1)		
Medication use during the last three months				
	Yes	87 (84.5)		
	No	14 (13.69		
Hospitalization within the last 6-month				
	No	95.1 (98)		
	Yes	4.9 (5)		

Table 7 *Sociodemographic and Illness Related Characteristics of the Caregivers*

Variable		Percentage (n)	Mean (Sd)	Range
Age			46.44(13.69)	19-80
Gender				
	Female	71.8 (74)		
	Male	28.2 (29)		
Years of education			5.22(3.98)	0-18
Marital status				
	Married	77.7 (80)		
	Widowed	12.6 (13)		
	Single	4.9 (5)		
	Divorced	4.9 (5)		
Current employment				
	No	77.7 (80)		
	Yes	22.3 (23)		
Relationship to the Patient				

Table 7 *(continued)*

Mother	38.8 (40)		
Spouse*	35.9 (37)		
Father	13.6 (14)		
Sibling	5.8 (6)		
Child	3.9 (4)		
Other Relatives	1.9 (2)		
Duration of face-to-face contact (hour/day)		8.51(4.63)	1-17

* From among the spouse, 67.5 % (N=25) were wives and 32.5 % (N=12) were husbands.

3.2.2. Instruments

3.2.2.1 The Instruments Administered to the Patients

A Demographic Information Form, two self-report questionnaires, namely, Perceived Expressed Emotion Scale (PEES), Quality of Life Scale (WHOQOL-BREF), open-ended questions on perceptions about illness form, and Positive and Negative Symptom Scale (PANSS) which was applied by the investigator to evaluate positive and negative symptoms of patients were administered.

3.2.2.1.1 Sociodemographic and Illness Related Information Form

First, written informed consent from both patients and their caregivers was taken. Different from the informed consent used in the pilot study, patients and their caregivers were informed that they would be invited to participate again six months later for further assessment (i.e time 2).

Sociodemographic and Illness Related Information Form was only used at time 1 measurements of the main study. The form was excluded from Time 2 assessment because the same patients were contacted at time 2. The details on background characteristics of the respondents collected through a questionnaire to gather information on socio-demographic characteristics such as age, gender, education level, marital status, number of children, current employment status, social security status, monthly household income, number of family members and rooms in the house, and having a private room in the house. The questionnaire also contained questions on medical history and illness related variables of patients. The illness related variables were duration of illness, age of illness onset and diagnosis, duration of treatment, number of previous hospitalizations, medication use during the last three months, and hospitalization within six months (See Appendix D for Informed Consent and Sociodemographic and Illness Characteristics Information Form).

3.2.2.1.2 Perceived Expressed Emotion Scale (PEES)

For the present study, the items of the EES were modified from the original form. The sentences were transformed into other-oriented version ('He/she' language) and adapted for schizophrenic patients to evaluate their perceptions of relatives' expressed emotion. The sentences, such as "I don't believe that he/she is ill" was reversed into other oriented form, like "He/she doesn't believe that I'm ill" This scale has 40 items, rather than 41 items as in the Expressed Emotion Scale. In the pilot study, item 36 was excluded because of problems in reliability (see Table 2, p. 60). The format of the response scale is "True" or "False" (true= 1, false= 0). (See Appendix E for Perceived Expressed Emotion Scale-PEES),

3.2.2.1.3 The Quality of Life Scale (WHOQOL-BREF)

The WHOQOL-BREF was used to collect information related to the quality of life of the patients. The WHOQOL-BREF was developed by the World Health Organization. The WHOQOL-BREF instrument which is comprised of 26 items, measures the following broad domains: physical health, psychological health, social relationships, and environment. This version is available in approximately 19 different languages. The WHOQOL-BREF is a shorter version of the original instrument (WHOQOL-100) that may be more convenient for use in large research studies or clinical trials.

The adaptation study of WHOQOL-BREF to Turkish samples was completed by Fidaner, Elbi, Fidaner, Yalçın Eser, Eser, and Göker (1999). The findings showed that WHOQOL-BREF can be used instead of WHOQOL-100 as a reliable and valid scale. The Turkish version of the scale has 27 items and 4 subscales which are related to physical health, psychological health, social relationship and environmental factors. It was found that WHOQOL-BREF's item scores were significantly correlated with the domain mean scores of the items according to Pearson correlations. Correlation coefficients ranged between .49 and .78. Construct, concurrent, and discriminant validity studies were shown to be satisfactory. Internal consistency of the domains and items of WHOQOL-BREF and test retest reliability were found to be high. Additionally studies conducted by using WHOQOL-100 indicated that WHOQOL-BREF could be used as an alternative to WHOQOL-100 (Fidaner, Elbi, Fidaner, Yalçın Eser, Eser, & Göker 1999) (see Appendix F for The Quality of Life Scale-WHOQOL-BREF).

3. 2. 2. 1. 4 Positive and Negative Symptom Scale (PANSS)

The Positive and Negative Syndrome Scale (PANSS) was developed by Kay, Fiszbein and Opler (1987). It is a 30-item scale with 16 general psychopathology symptom items, 7 positive-symptom items, and 7 negative-symptom items. PANSS is a scale that can be administered only by psychologists or psychiatrists trained on the application of the scale. Each item is scored on a seven-point scale (1= absent, 2= minimal, 3= mild, 4= moderate, 5=moderate/severe, 6=severe, 7= extreme), resulting in possible scores ranging between 30 to 210. The positive- and negative-symptom scores are often reported separately, with a possible range of 7 to 49 and general psychopathology subscale is scored with a possible range of 16 to 112. The positive symptom includes delusions, conceptual disorganization, hallucinatory behavior, excitement, grandiosity, suspiciousness/persecution, and hostility. The items of negative symptom are blunted affect, emotional withdrawal, passive/apathetic and social withdrawal, difficulty in abstract thinking, lack of spontaneity and flow of conversation, and stereotyped thinking. General psychopathology items are somatic concern, anxiety, guilt feelings, tension, mannerisms and posturing, depression, motor retardation, uncooperativeness, unusual thought content, disorientation, poor attention, lack of judgment and insight, disturbance of volition, poor impulse control, preoccupation, and active social avoidance.

Kostakoğlu, Batur, Tiryaki, and Göğüş (1999) conducted the studies of reliability and validity with Turkish samples, and obtained satisfactory psychometric properties. Internal consistency values for subscales of positive and negative syndrome, and general psychopathology score were .75, .77, and .71 respectively. According to construct validity analysis, when general psychopathology was

controlled, partial correlation coefficients between positive and negative syndrome was found to be negative (r=-.41, p< .001). The finding pointed out that two subscales measure different symptom clusters. Inter-rater reliability coefficients for positive and negative syndrome and general psychopathology, and total scale were found to be .97, .96, .91, and .96 respectively.

Kostakoğlu, Batur, Tiryaki, and Göğüş (1999) conducted a study with 100 schizophrenic patients. They found the mean scores for positive and negative syndrome and general psychopathology of PANSS as 16.00, 18.64, and 31.52 respectively.

PANSS is known to be a semi structural scale. It should be tested whether there are biases due to administrator skills. In order to see inter-rater reliability of the applications of PANSS, the scale was administered to three patients by the researcher herself. Three administrations were observed by an experienced psychiatrist. Followingly each application was rated independently by the researcher and the qualified physician on two different evaluation forms. Two different ratings were analyzed by Cohen's cappa (Cohen, 1960). The results showed that Cohen's kappa was .75 which was significant (p <.001) (see Appendix G for Structured Clinical Interview for Positive and Negative Symptom Scale [PANSS]).

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3.2.2.1.5 Open-ended Questions

In order to examine the thoughts of schizophrenic patients related to their disease, the following open-ended questions were included:

1. "What are the things that distress you about your illness? Which one do you think is the most important one among these distressing aspects?"

2. "Do you think that there are some aspects related to your illness that are getting better? If yes, what are these?"

3. "Do you think that there are some aspects related to your illness that are getting worse? If yes, what are these?"

4. "Who is/are supporting you most with your illness? How do they support you?"

5. "What are the difficulties that you have experienced in the last six months? How did you cope with these?" (see Appendix H for Open-ended Questions).

3.2.2.2 The instruments administered to the caregivers

3.2.2.2.1 Sociodemographic Information Form

The details on background characteristics of the caregivers were collected with a questionnaire aimed to gather information on socio-demographic characteristics, such as age, gender, education level, marital status, and current employment status. Information on caregivers' relationship to the patient was gathered by the form. Additionally daily duration for face to face contact with the patient was also asked (See Appendix I for Sociodemographic Characteristics Information Form).

3.2.2.2.2 Expressed Emotion Scale (EES)

The EES (Berksun, 1992) was developed in order to measure the level of expressed emotion in the family environment. This scale is administered to relatives of schizophrenic patients. It is a self report instrument, consisting of two factors,

which are Criticism/Hostility and Emotional Over-Involvement. This scale has 41 items. The format of the response scale is "True" or "False" (true= 1, false= 0). Reliability studies pointed that the scale has an internal reliability coefficient of .89. The results of different studies (Cansever, 1994; Karanci & Inandılar, 2002; Özden, 1995) revealed that the psychometric properties of the EES are satisfactory for the Turkish population (See Appendix J for Expressed Emotion Scale [EES]).

3.2.3 Procedure

The participants of the study were recruited among registered inpatient and outpatient population of Ankara Numune Education and Research Hospital, 1st – 2nd Psychiatry Services. Previously hospitalized patients were identified according to their hospital records and diagnosis. Patients with comorbidities, mental retardation or schizoaffective patients were excluded from the research. Patients were reached through their phone numbers, obtained from their hospital records. The researcher introduced herself to the relative who answered the phone and informed them on the reason for calling. Information regarding the general state of the patient, adjustment to the treatment, and the family member taking most of the care of the patient were gathered over the phone. The primary caregivers were described as the family members who have the most face to face contact with the patient and who take most of the caregiving burden. Schizophrenic patients were asked to identify the one person whom they spent a good deal of time and was the most influential in their lives. Then appointments suitable for the family, patient and the researcher were made. Another recruiting source for finding patients was the outpatient clinic of the hospital. Patients coming to the hospital for their routine control examination were

referred to the researcher by the psychiatrists. The psychiatrists informed the researcher about the patients' symptom status (ie. not being acute phase, not having mental retardation, not having comorbidity and not being schizoaffective disorder) and whether they could be included in the study. Suitable patients from the outpatient clinic of the hospital were also given appointments with their caregiver.

Patients and their caregivers were first welcomed in the administration room. Participation was on a voluntary basis and almost all of those who were contacted agreed to participate. Then, the investigator introduced herself as a psychology graduate student and a clinical psychologist working as a member of the clinic team. The patients were informed about the aim and the procedure of the study and informed consent was obtained from patients. The first page of the set included a general introduction, aim of the study, and the work telephone and address of the investigator and informed consent. The second page consisted of questions concerning the sociodemographic and illness related characteristics of the patients and caregivers. After gathering the information on the first two forms, PEES, the open ended questions, WHOQOL-BREF, and PANSS were administered to the patient in a face to face format. PANNS was administered as a semistructured interview. The investigator gave the necessary instructions for each scale and then read the items and recorded the responses herself. Following administration, patients were let out and the caregivers awaiting outside were taken into the administration room. Here, caregivers were given the information on EES and the scale was administered to the caregivers by the researcher. The administration of the questionnaires to the patients and the caregivers took approximately one and half hour. After time 1 administration was completed, patients and caregivers were given appointments for time 2 assessment in six months time. Caregivers and patients were

79

advised to use their medication regularly during the six months interval and come to the hospital for their follow up examination.

The sample size of the study was finalized as 116 patients who have the diagnosis of schizophrenia according to DSM-IV. The sample was controlled by having no acute episode and mental retardation. The time 1 assessment was conducted between March and June, 2006.

After the time 1 assessment, all of the 116 patients were scheduled to participate in the time 2 assessment of the study, to take place in six-month time. After the six months period, they were called and reminded of the second interview date. They were subsequently seen one by one according to the first interview list. Time 2 assessment was only administered to the patient. The instruments consisted of Positive and Negative Symptom Scale (PANSS) and The Quality of Life Scale (WHOQOL-BREF). The whole package was administered by the researcher herself. The interview took about 45 minutes-1 hour. The Time 2 assessment was conducted between September-December, 2006.

3.2.4 Statistical Analysis

Statistical analysis was performed with statistical package for the social sciences (SPSS) (Green, Salkind & Akey, 1997). After conducting Factor Analyses with the measures of PEES and EES, to test the similarity of the factors of PEES and EES, target rotation was carried out. Then, a correlation matrix was created in order to see the correlations between the variables of the present study. Following the correlation analyses, eighteen separate repeated measures ANOVA analyses were conducted. Criticism (C/H) and emotional over-involvement (EOI) scores of the

patients and caregivers were used as independent variables, PANSS subscales (for four factors) and WHOQOL-BREF (for four factors) for time 1 and time 2 were used as dependent variables. Finally, the coefficient of inter-rater agreement was calculated using Cohen (1960) method for analyzing the responses to open-ended questions and PANSS.

Prior to analyses, all variables were examined through SPSS 10 programme for accuracy of data entry, missing values and multivariate outliers. Since all questions were asked to the patients by the researcher there were no missing values. No cases were identified through Mahalanobis distance as multivariate outliers. Only one patient had a diagnosis of schizoaffective disorder and was excluded from further analyses, leaving 116 patients.

CHAPTER IV

RESULTS

4.1 Overview

The results will be presented in separate sections. Firstly, the results of factor analysis for Perceived Expressed Emotion Scale (PEES) and Expressed Emotion Scale (EES) will be presented. Secondly, means, standard deviations and correlations of all the measures used in the study will be given. Then effects of expressed emotion (EE) and perceived EE on psychopathology and quality of life (QOL) will be presented. Finally, patients' views on their illness on the basis of qualitative analysis of replies to open-ended questions will be given.

4.2 Expressed Emotion Scale (EES)

Expressed Emotion Scale (EES) was administered to the caregivers of schizophrenic patients at Time 1. The initial factor analysis of the responses to the EES employing principal components, varimax rotation, with the eigenvalue of 1.00 as the criterion yielded twelve factors, explaining 64.93 per cent of the total variation. After examining the scree plot, further analysis with restrictions on the number of factors, revealed that the two factors solution, explaining 27.62 per cent of the variance produced the clearest solution. Items with factor loadings greater than .28 were included in the factors. Four items were excluded from further analysis

(item 2, 14, 40 and 41). The two factors were labeled as criticism/hostility (C/H) and emotional over-involvement (EOI) as similar to previous studies and theoretical basis. The first factor, C/H consisted of 21 items with factor loadings ranging between .31 and .79. The second factor EOI had 16 items with factor loadings ranging between .31 and .69. Table 8 presents the two factors, their items, factor loadings and the Cronbach alpha reliability coefficients. Cronbach's alpha reliability of the whole scale was .78.

Table 8 *Factor Structure of Expressed Emotion Scale (EES)*

Factor and items	Factor I	Factor II
Factor I: Criticism/Hostility (variance explained 17.34) (Cronbach's alpha .87)		
17. S/He interferes with my life.	**.79**	.13
33. I want to keep away from him/her.	**.72**	-.04
24. Sometimes, I wish that I can get rid of him/her.	**.69**	.10
10. We can not get along with him/her.	**.64**	.09
6. His/her existence makes me crazy.	**.63**	.04
35. Without him/her, everything would be fine.	**.62**	.30
34. S/He gives me a lot of trouble.	**.59**	.33
30. We get on well.	**-.58**	.15
37. It gives me pleasure to attend to everything about him/her.	**-.57**	.22
19. I do not like anything s/he does.	**.56**	.19
39. I try talking with him/her when s/he is uneasy and unhappy.	**-.55**	.31
38. When s/he gets angry, I try to soothe him/her, I don't stay away from him/her.	**-.47**	.29
8. I like and I admire some aspects of him/her.	**-.47**	.06
25. I keep away from him/her when s/he is uneasy and unhappy.	**.42**	.13
13. S/He hurts and offends me.	**.41**	.34
11. I no longer care for him/her and stay away from him/her.	**.40**	.06
28. We are alike as character and habit.	**-.39**	.30

Table 8 *(continued)*

1. I think that s/he does certain things on purpose and this makes me angry.	**.37**	.18
3. I enjoy talking with him/her.	**-.37**	.15
20. I do not like the way S/he dresses up and I tell this to him/her.	**.33**	.21
36. When I face a difficulty I can cope with it.	**-.31**	-.05

Factor II: Emotional Over-involvement

(variance explained 10.28 %) (Cronbach's alpha .78)

22. I worry even for a slightest thing that may happen to him/her.	-.14	**.69**
31. My mind is always full of him7her, I can not think of anything else.	.18	**.61**
9. I frequently give him/her advice.	-.08	**.56**
15. I cherish him/her.	-.21	**.55**
23. I attend to everything about him/her.	.04	**.54**
5. I try to learn everything, even private matters about him/her.	.08	**.51**
26. I often warm him/her to do what s/he does in an orderly and systematic manner.	.29	**.47**
32. I frequently criticize him/her and want him/her to correct himself/herself.	.33	**.46**
16. When we are together I only show attention to him/her and nothing else.	.06	**.46**
21. I want him/her to behave in ways I expect him/her to behave.	.35	**.43**
18. Due to his/her illness I feel that the whole world collapsed on me.	.27	**.41**
4. For me, his/her wishes are more important than the rest of the families'.	-.30	**.39**
27. His/her hospitalization makes me desperate and I cannot part from him/her.	-.07	**.39**
29. I want him/her to correct his/her mistakes.	.21	**.32**
7. I keep on thinking about what we did wrong.	.25	**.32**
12. I am the one in our family who takes care of everything about him/her.	.11	**.31**

Table 8 *(continued)*

Item excluded		
2. I don't believe that s/he is ill.	.16	.03
14. I listen to all his/her ideas.	-.24	.22
40. I think that s/he exaggerates his/her illness.	-.01	.18
41. I give him/her emotional support when s/he feels down.	-.00	.15

Subsequently, items (item number of 3, 8, 28, 30, 36, 37, 38, 39) that had negative factor loadings were recoded, so that 0=True and 1=False. Then, the mean scores of C/H and EOI were obtained, simply by summing up the responses to the items that belonged to the factors and dividing them by the number of items. The mean for C/H was .31 (SD = .22) and the mean for EOI was .77 (SD = .20).

4.3 Perceived Expressed Emotion Scale (PEES)

Initial factor analysis of the responses to the Perceived Expressed Emotion Scale (PEES), employing principal components, varimax rotation, with the eigenvalue of 1.00 as the criterion yielded twelve factors, explaining 64.79 per cent of the total variation. After examining the scree plot, further analysis with restrictions on the number of factors, revealed that two factors solution, explaining 27.67 per cent of the variance, produced the clearest solution. Items with factor loadings greater than .28 were included in the factors. Item 2, 40 and 41 were excluded from further analysis. Although the factor loadings for item 40 and 41 were higher than .28, these items were excluded from the scale in order to maintain structural similarity of EES. The two factors were labeled as C/H and EOI as appropriate for the theoretical basis. The first factor, C/H consisted of 20 items with factor loadings

85

ranging between .28 and .67. The second factor, EOI had 17 items with factor loadings ranging between .30 and .66.

Table 9 *Factor Structure of Perceived Expressed Emotion Scale (PEES)*

Factor and items	Factor I	Factor II
Factor I: Criticism/Hostility (variance explained 16.01) (Cronbach's alpha .83)		
24. Sometimes, s/he wishes that s/he can get rid of me.	**.67**	-.13
34. S/He thinks that I give her/him a lot of trouble.	**.62**	-.17
33. S/He wants to keep away from me.	**.56**	-.25
32. S/He frequently criticizes me and wants me to correct myself.	**.55**	.22
10. S/He can not get along with me.	**.54**	-.22
35. S/He thinks that without me, everything would be fine.	**.53**	-.02
13. S/He hurts and offends me.	**.53**	.02
6. My existence makes him/her crazy.	**.52**	-.30
19. S/He doesn't like anything I do.	**.51**	-.13
18. Due to my illness s/he feels that the whole world collapsed on her/him.	**.49**	.23
1. S/He thinks that I do certain things on purpose and this makes her/him angry.	**.49**	-.12
7. S/He keeps on thinking about what s/he did wrong.	**.48**	.13
21. S/He wants me to behave in ways s/he expects me to behave.	**.47**	.02
11. S/He no longer cares for me and stays away from me.	**.46**	-.01
20. S/He doesn't like the way I dress up and s/he tells this to me.	**.45**	-.03
29. S/He wants me to correct my mistakes.	**.43**	.26
17. S/He thinks that I interfere with her/him life.	**.40**	-.21
26. S/He often warns me to do what I do in an orderly and systematic manner.	**.39**	.24
6. S/He tries to learn everything, even private matters about me.	**.37**	.24

Table 9 *(continued)*

25. S/He keeps away from me when I am uneasy and unhappy.	**.28**	-.04
Factor II: Emotional Over-involvement		
(variance explained 11.66 %)		
(Cronbach's alpha .81)		
15. S/He cherishes me.	-.12	**.66**
14. S/He listens to all my ideas.	-.20	**.65**
37. It gives her/him pleasure to attend to everything about me.	-.12	**.64**
30. S/He thinks that we get on well.	-.31	**.60**
38. When I get angry s/he tries to soothe me, s/he doesn't stay away from me.	.03	**.59**
39. S/He tries talking with me when I'm uneasy and unhappy.	-.33	**.53**
16. When we are together s/he only shows attention to me and nothing else.	.07	**.52**
22. S/He worries even for a slightest thing that may happen to me.	.13	**.48**
3. S/He enjoys talking with me.	-.20	**.48**
12. S/He is the one in our family who takes care of everything about me.	.20	**.45**
23. S/He attends to everything about me.	.21	**.44**
27. My hospitalization makes her/him desperate and s/he cannot part from me.	.03	**.43**
28. S/He thinks that we are alike as character and habit.	-.05	**.41**
31. Her/his mind is always full of me, s/he can not think of anything else.	.24	**.37**
8. S/He likes and admires some aspects of me.	-.29	**.37**
4. For her/him, my wishes are more important than the rest of the families'.	-.24	**.34**
9. S/He frequently gives me advice.	.23	**.30**

Item Excluded

2. S/He doesn't believe that I'm ill.	.11	.07
41. S/He gives me emotional support when I feel down.	-.12	.68
40. S/He thinks that I exaggerate my illness.	.40	-.07

Table 9 presents the two factors, their items, factor loadings and the Cronbach's alpha reliability coefficients. Cronbach's alpha reliability of the whole scale was .78.

The mean scores of C/H and EOI were obtained, simply by summing up the responses to the items that belonged to the factors and dividing them by the number of items. The mean for C/H was .40 (SD = .22) and the mean for EOI was .67 (SD = .23).

In order to test the similarity of the factor structures obtained from the scales from the patients and their caregivers, target rotations of the PEES and EES factor matrices were carried out. Proportionality (Tucker's phi) coefficients were calculated to assess the similarity of the PEES and EES factor matrices. Proportionality coefficient values above .90 indicate sufficient similarity between the factors (van de Vijver and Leung, 1997). The values for Tucker's phi were .92 for the PEES and .92 for the EES. Hence, the factor structures found among PEES and EES were virtually identical and they allowed the comparisons of the scores in further analysis.

4.4 Means, Standard Deviations and Ranges of the Variables Used in the Study

Central tendency and dispersion scores of the variables used in the study were calculated with the aim of presenting general information about the measures of the study. Table 10 presents means, standard deviations and ranges of all the variables used in the study.

Table 10 *Means, standard deviations and ranges of all the measures used in the study*

Variables	Mean	SD	Range
PEES			
C/H	.39	.21	.00-.90
EOI	.66	.22	.00-1.00
EES			
C/H	.26	.22	.00-.83
EOI	.75	.20	.15-1.00
PANSS (time 1)			
Positive	15.04	5.20	7-28
Negative	14.47	5.24	7-37
General Psychopathology	28.01	6.29	16-52
Total	57.52	13.08	32-109
WHOQOL-BREF (time 1)			
Physical health	13.39	3.22	6-20
Psychological health	12.99	3.17	5-19
Social relations	11.96	4.05	4-20
Cultural standardized Environmental	13.13	2.39	8-18
PANSS (time 2)			
Positive	14,07	5,46	7-30
Negative	13,80	4,55	7-30
General Psychopathology	25,30	5,55	16-41
Total	52,97	11,91	32-81
WHOQOL-BREF (time 2)			
Physical health	14,02	2,92	6-19
Psychological health	13,54	2,71	7-19
Social relations	12,52	3,77	4-20
Cultural standardized Environmental	13,83	2,01	8-18

Note. PEES = Perceived Expressed Emotion Scale ; C/H= Criticism /Hostility Subscale; EOI= Emotional Over-Involvement Subscale; EES= Expressed Emotion Scale; PANSS= Positive and Negative Symptom Scale; WHOQOL-BREF= Quality of Life-Bref

In order to examine differences between patient and caregiver and factors of EE (C/H and EOI) and interactional effect of being patient or caregiver between factors of EE, Repeated Two Way Anova was conducted. The results indicated that, the main effect of factors of EE was found. The perceived EOI of patients and caregivers' EOI (M=.70, SD=.01) were significantly higher than the perceived C/H of patients and caregivers' C/H [M=.32, SD=.02, $F(1,102)=320.46$, $p< .001$]. A significant differences was not found between the being of patient or caregiver [$F(1,102)= 1.46$, $p>.05$]. The results indicated that, an interactional effect of being patient or caregiver between factors of EE was found [$F(1,102) = 32.47$, $p< .001$].

In order to understand the difference between groups, tukey test was conducted as post hoc analysis. It was observed that caregivers' EOI (M=.75, SD=.20) had significantly higher than perceived EOI of patients (M=.66, SD=.22). Perceived C/H of patients (M= .39, SD=.21) had significantly higher than caregivers' C/H (M=.26, SD=.22). Similarly, perceived EOI had significantly higher than the perceived C/H. Also, caregivers' EOI had significantly higher than the caregivers' C/H. Table 11 presents the means and standard errors of C/H and EOI of PEES and EES.

Table 11 *Means and standard errors of C/H and EOI of PEES and EES*

	Perceived expressed emotion		Expressed emotion	
Criticism/hostility	.39 (.21)	a	.26 (.22)	b
Emotional over-involvement	.66 (.22)	c	.75 (.20)	d

4.5 Correlations Among the Variables of the Study

Table 12 presents the Pearson correlation coefficient among the variables used in the study. As can be seen from Table 12, C/H of PEES was positively and significantly related to positive, negative, and total scores of PANSS at time one, positive and total scores of PANSS at time two, C/H, and EOI of EES. However, C/H of PEES was negatively significantly related to physical health, psychological health, social relations, and environmental domain standardized to culture of WHOQOL-BREF at time one. EOI of PEES was positively and significantly related to environmental domain standardized to culture of WHOQOL-BREF at time one, social relations, and environmental domain standardized to culture of WHOQOL-BREF at time two. However, EOI of PEES was negatively and significantly related to number of hospitalization, age of caregiver, positive and total scores of PANSS at time one.

As can be depicted from Table 12, C/H of EES was positively and significantly related to scores of positive and negative, general psychopathology, and total scores of PANSS at time one, but negatively and significantly related to only social relations domain of WHOQOL-BREF at time one. EOI of EES was positively and significantly related to scores of positive of PANSS at time one and C/H of EES. However, EOI of EES was negatively and significantly related to age of the patient, education of the patient and the caregiver.

Table 12 *Pearson Correlations of the variables in the study*

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Patient																
1.gender	.074	-.152	.107	.106	-.030	.121	-.152	.064	.074	-.204*	.101	-.076	.001	.012	-.159	-.125
2. age		.347**	-.042	.667**	.488**	.142	-.109	.015	-.129	.202*	.053	.021	-.086	-.013	.010	-.080
3.marital status			-.045	.340**	.039	.137	-.089	-.206	.058	.177	-.010	-.145	-.202*	-.156	.149	.186
4.education				-.013	-.041	.058	.009	.146	.028	.272**	.091	-.054	.001	.016	.119	.187
5.duration of illness					-.324**	.315**	-.229*	.105	.048	.058	.184	.121	.096	.164	-.102	-.049
6.beginning age of illness						-.190	.131	-.111	-.230*	.189	-.141	-.116	-.221*	-.206*	.126	-.043
7.number of hospitalization							.060	.108	.070	-.077	.152	.034	.019	.082	.130	.074
Caregiver																
8.gender								.123	.188	.112	-.058	-.060	-.125	-.106	.011	-.062
9.age									.384**	-.352**	-.006	.085	.102	.079	.008	.013
10.marital status										-.084	.002	.069	.072	.061	-.059	.179
11.education											-.190	-.086	-.174	-.191	.045	.100
12. PANSS Positive 1.												.241*	.509**	.730**	-.305**	-.141
13. PANSS Negative 1													.572**	.745**	-.121	-.162
14. PANSS Gen Psy.1														.898**	-.269**	-.265**
15.PANSS Total 1															-.295**	-.244*
16. QOL Physical 1																.648**

92

* Significant correlations at the .05 alpha level (2-tailed) ** Significant correlations at the .01 alpha level (2-tailed)

Table 12 (*continued*)

	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Patient														
1.gender	-.152	-.075	-.001	-.059	.152	.068	-.172	-.108	-.135	-.160	.124	.022	-.033	.015
2. age	.010	-.054	.040	.135	-.092	.025	-.028	-.074	.091	-.028	.039	-.213*	-.038	-.030
3.marital status	-.023	.179	-.123	-.093	-.158	-.152	.143	.210*	.214*	.254**	-.056	-.052	-.065	.108
4.education	.149	.259**	.147	-.163	.095	.067	.139	.087	-.028	-.019	-.007	-.237*	-.179	-.131
5.duration of illness	-.077	-.097	.127	.176	.010	.112	-.009	-.104	.018	-.094	.192	-.121	.013	-.069
6.beginning age of illness	.100	.041	-.100	-.034	-.124	-.098	-.025	.031	.098	.081	-.170	-.127	-.059	.046
7.number of hospitalization	.010	.056	.071	.150	-.020	.068	.179	.173	.068	.087	.084	.085	.041	-.283**
Caregiver														
8.gender	.041	.045	-.063	.028	-.026	-.020	.003	-.070	.062	.055	-.124	.039	.008	-.168
9.age	.003	.042	-.004	.046	-.035	-.015	.014	.116	.058	.074	.156	.050	-.055	-.197*
10.marital status	-.099	-.051	.073	-.016	.111	.084	.050	.168	.065	-.024	.086	-.010	-.073	-.178
11.education	.010	.141	-.073	-.086	-.019	-.054	.025	-.030	-.062	.108	-.172	-.513**	-.107	-.023
12. PANSS Positive 1.	-.131	-.310**	.644**	.200*	.422**	.553**	-.049	-.078	-.143	-.178	.269**	.204*	.293**	-.238*
13. PANSS Negative 1	-.120	-.265**	-.023	.533**	.137	.182	.138	-.030	-.022	.014	.247*	.129	.204*	-.161
14. PANSS Gen Psy.1	-.200*	-.355**	.412**	.403**	.479**	.504**	.001	-.146	-.173	-.154	.234*	.116	.172	-.106
15.PANSS Total 1	-.193	-.392**	.444**	.472**	.449**	.529**	.032	-.113	-.148	-.139	.311**	.185	.275**	-.205*
16. QOL Physical 1	.535**	.644**	-.084	.071	-.138	-.084	.478**	.472**	.419**	.425**	-.161	-.175	-.244*	.144
17. QOL Psycho.1	.481**	.574**	-.018	-.062	-.115	-.074	.477**	.614**	.452**	.382**	-.103	-.111	-.317**	.101
18. QOL Social 1		.562**	.057	-.057	-.068	-.043	.285**	.336**	.499**	.207*	-.194*	-.071	-.197*	.140
19. QOL Cultur 1			-.114	-.115	-.136	-.144	.268**	.378**	.374**	.423**	-.189	-.138	-.267**	.336**
20. PANSS Positive 2.				.185	.633**	.805**	-.045	-.119	-.159	-.252*	.177	.072	.241*	-.171
21. PANSS Negative 2					.416**	.605**	-.031	-.161	-.048	-.105	.088	.068	.115	-.145
22. PANSS Gen Psy.2						.889**	-.207*	-.280**	-.233*	-.259**	.177	.036	.134	-.126
23.PANSS Total 2							-.157	-.225*	-.228*	-.278**	.184	.055	.196*	-.191
24. QOL Physical 2								.715**	.567**	.535**	-.018	-.063	-.184	.130
25. QOL Psycho.2									.511**	.607**	-.048	-.026	-.183	.178
26. QOL Social 2										.522**	-.150	.045	-.106	.222*
27. QOL Cultur 2											-.104	-.120	-.049	.370**
28. EESCH												.251*	.336**	-.103
29. EESEOI													.266**	-.055
30. PEESCH														-.107
31.PEESEOI														

* Significant correlations at the .05 alpha level (2-tailed) ** Significant correlations at the .01 alpha level (2-tailed)

93

4.6 Effects of Expressed Emotion and Perceived Expressed Emotion on Psychopathology as Measured with PANSS

In order to examine the effect of EE of the caregivers and perceived EE of the patients taken at time one on PANSS scores at time one and time two repeated ANOVA was conducted. For this analysis, the scores of C/H and EOI of EE and perceived EE were used to group patients and caregivers as high and low using the median split.

4.6.1 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS Positive at Time 1 and Time 2.

In order to examine possible main effects of the scores C/H of caregivers and perceived C/H of patients and interactional effect of the scores of C/H of caregivers and perceived C/H of patients on the positive scores of PANSS at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results indicated that, the main effect of time on positive scores of PANSS was significant [$F (1, 99) = 6.12$, $p< .05$]. The positive scores of PANSS at time one (M= 15.40) was higher than the scores at time two (M= 14.28). The main effect of perceived C/H of patients was found [$F (1, 99) =7.77$, $p< .01$]. The high perceived C/H group had significantly higher scores on PANSS positive symptoms (M=16.13) than the low perceived C/H group (M=13.55). The main effect of C/H of the caregivers was not significant [$F (1, 99) = 3.29$, $p>.05$]. There was no significant interactional effect for the scores of C/H of caregivers and perceived C/H of patients

on the positive scores of PANSS at the time one and time two [F (1, 99) = .35, p>.05]. Table 13 presents the results of repeated Anova analysis of high and low C/H EE and perceived EE groups on the scores of PANSS positive at time one and time two.

Table 13 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of PANSS positive at time 1 and time 2*

	SS	df	MS	F
EES-C/H	141.53	(1,99)	141.53	3.29
PEES-C/H	334.28	(1,99)	334.28	7.77**
PEES-C/H*EES-C/H	15.01	(1,99)	15.01	.35
Error	4258.27	99	43.01	
Time	63.62	(1,99)	63.62	6.12*
Time*EES-C/H	7.82	(1,99)	7.82	.75
Time*PEES-C/H	.45	(1,99)	.45	.04
Time*EES-C/H*PEES-C/H	.93	(1,99)	.93	.09
Error	1029.18	99	10.40	

* p< .05, ** p<.01

4.6.2 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS Positive at Time 1 and Time 2

In order to examine the possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of caregivers and perceived EOI of patients on the positive scores of PANSS at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The main effect of time on positive scores of PANSS was

significant [F (1, 99) = 5.71, p< .05]. The positive scores of PANSS at time one (M= 14.96) was higher than the scores at time two (M= 13.88). The main effect of perceived EOI of patients was also significant. [F (1, 99) = 6.97, p≤ .01]. The low perceived EOI patients (M=15.64) had significantly higher scores than the high perceived EOI patients (M=13.20) on PANSS positive scores. The main effect of EOI of the caregivers was not found [F (1, 99) = 2.81, p>.05]. There was no significant interaction effect for the scores of EOI of caregivers and perceived EOI of patients on the positive scores of PANSS at the time one and time two [F (1, 99) = 1.80, p>.05]. Table 14 shows the results of repeated Anova analysis of high and low EOI expressed emotion and perceived expressed emotion groups on the scores of PANSS positive at time one and time two.

Table 14 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of PANSS positive at time 1 and time 2*

	SS	Df	MS	F
EES-EOI	120.54	(1,99)	120.54	2.81
PEES-EOI	299.02	(1,99)	299.02	6.97**
PEES-EOI*EES-EOI	77.36	(1,99)	77.36	1.80
Error	4245.57	99	42.89	
Time	58.39	(1,99)	58.39	5.71*
Time*EES-EOI	20.41	(1,99)	20.41	1.99
Time*PEES-EOI	1.46	(1,99)	1.46	.14
Time*EES-EOI*PEES-EOI	6.28	(1,99)	6.28	.61
Error	1013.03	99	10.23	

* p< .05, ** p<.01

4.6.3 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS Negative at Time 1 and Time 2

In order to examine possible main effects of the scores of C/H of caregivers and perceived C/H of patients and interactional effect of the scores of C/H of caregivers and perceived C/H of patients on the negative scores of PANSS at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The main effect of time on negative scores of PANSS was not significant [F (1, 99) =1.89, p>.05]. The results indicated that the main effect of perceived C/H of patients was significant [F (1, 99) = 7.30, p< .01]. The high C/H group patients were significantly higher (M=15.33) than the patients in the low C/H group (M=13.16) on PANSS negative scores. The main effect of C/H of caregivers was not found [F (1, 99) = 1.85, p>.05]. There was no significant interaction effect for the scores of C/H of caregivers and perceived C/H of patients on the negative scores of PANSS at the time one and time two [F (1,99) = 1.44, p>.05]. Table 15 gives the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of PANSS negative at time one and time two.

Table 15 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of PANSS negative at time 1 and time 2*

	SS	Df	MS	F
EES-C/H	60.01	(1,99)	60.01	1.85
PEES-C/H	237.49	(1,99)	237.49	7.30**
PEES-C/H*EES-C/H	46.94	(1,99)	46.94	1.44
Error	3219.66	99	32.52	

Table 15 *(continued)*

Time	20.47	(1,99)	20.47	1.89
Time*EES-C/H	7.18	(1,99)	7.18	.66
Time*PEES-C/H	2.39	(1,99)	2.39	.22
Time*EES-C/H*PEES-C/H	.09	(1,99)	.09	.01
Error	1075.42	99	10.86	

** p< .01

4.6.4 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS Negative at Time 1 and Time 2

In order to examine possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of caregivers and perceived EOI of patients on the negative scores of PANSS at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results did not give significant main effects of the scores of negative scores of PANSS at time one and time two [F (1, 99) = 1.28, p>.05]. The main effects of EOI of caregivers [F (1, 99) = .19, p>.05] and perceived EOI of patients were not significant [F (1,99) = 3.14, p>.05]. The interactional effect for EOI of caregivers and perceived EOI of patients on negative scores of PANSS at the time one and time two was not found [F (1,99) = .98, p>.05]. Table 16 presents the results of repeated Anova analysis of high and low EOI expressed emotion and perceived expressed emotion groups on the scores of PANSS negative at time one and time two.

Table 16 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of PANSS negative at time 1 and time 2*

	SS	Df	MS	F
EES-EOI	6.53	(1,99)	6.53	.19
PEES-EOI	107.55	(1,99)	107.55	3.14
PEES-EOI*EES-EOI	33.66	(1,99)	33.66	.98
Error	3386.98	99	34.21	
Time	13.56	(1,99)	13.56	1.28
Time*EES-EOI	3.06	(1,99)	3.06	.29
Time*PEES-EOI	17.26	(1,99)	17.26	1.63
Time*EES-EOI*PEES-EOI	13.56	(1,99)	13.56	1.28
Error	1051.26	99	10.62	

4.6.5 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS General Psychopathology at Time 1 and Time 2

In order to examine possible main effects of the scores of C/H of caregivers and perceived C/H of patients and interactional effect of the scores of C/H of caregivers and perceived C/H of patients on the general psychopathology scores of PANSS at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results revealed a main effect of time on general psychopathology scores of PANSS [F (1,99)=17.54, p< .001]. The general psychopathology scores of PANSS at time one was higher (M=28.04) than the scores at time two (M=25.44). The main effect of C/H of caregivers [F (1,99) = 2.93, p>.05] and perceived C/H of patients [F (1,99) = 2.86, p>.05] were not significant. There was no significant interaction effect for the scores of C/H of caregivers and perceived C/H of patients on the general psychopathology scores of PANSS at the time one

and time two [F (1,99) = 3.14, p>.05]. Table 17 shows the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of PANSS general psychopathology at time one and time two.

Table 17 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of PANSS general psychopathology at time 1 and time 2*

	SS	Df	MS	F
EES-C/H	148.23	(1,99)	148.23	2.93
PEES-C/H	144.80	(1,99)	144.80	2.86
PEES-C/H*EES-C/H	159.12	(1,99)	159.12	3.14
Error	5014.68	99	50.65	
Time	341.14	(1,99)	341.14	17.54***
Time*EES-C/H	5.60	(1,99)	5.60	.29
Time*PEES-C/H	.06	(1,99)	.06	.00
Time*EES-C/H*PEES-C/H	.02	(1,99)	.02	.00
Error	1925.85	99	19.45	

*** p< .001

4.6.6 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS General Psychopathology at Time 1 and Time 2

In order to examine possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of caregivers and perceived EOI of patients on the general psychopathology scores of PANSS at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The result revealed that the main effect of time on general psychopathology was significant [F (1,99)=17.04, p< .001]. The

general psychopathology scores of PANSS at time one (M=27.66) was higher than the scores at time two (M=25.11). The main effect of perceived EOI of patients was significant [F (1,99)=6.04, p< .05]. The low perceived EOI group (M=27.61) had significantly higher scores on PANSS general psychopathology than the high EOI group (M=25.16) on PANSS general psychopathology scores. The main effect of EOI of caregivers was not found [F (1,99) = 1.26, p>.05]. There was no significant interaction effect for the scores of EOI of caregivers and perceived EOI of patients on the general psychopathology scores of PANSS at the time one and time two [F (1,99) = 2.41, p>.05]. Table 18 presents the results of repeated Anova analysis of high and low EOI expressed emotion and perceived expressed emotion groups on the scores of PANSS general psychopathology at time one and time two.

Table 18 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of PANSS general psychopathology at time 1 and time 2*

	SS	Df	MS	F
EES-EOI	62.50	(1,99)	62.50	1.26
PEES-EOI	299.16	(1,99)	299.16	6.04*
PEES-EOI*EES-EOI	119.16	(1,99)	119.16	2.41
Error	4900.47	99	49.50	
Time	324.67	(1,99)	324.67	17.04***
Time*EES-EOI	36.75	(1,99)	36.75	1.93
Time*PEES-EOI	3.20	(1,99)	3.20	.17
Time*EES-EOI*PEES-EOI	1.09	(1,99)	1.09	.06
Error	1886.79	99	19.06	

* p< .05, *** p< .001

4.6.7 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS Total at Time 1 and Time 2

In order to examine possible main effects of the scores of C/H of caregivers and perceived C/H of patients and interactional effect of the scores of C/H of caregivers and perceived C/H of patients on the total scores of PANSS at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results indicated that the main effect of time on total scores of PANSS was significant [F $(1,99)$=13.92, p< .001]. The total scores of PANSS at time one (M=58.00) was higher than the scores at time two (M=53.40). The main effect of perceived C/H of patients was found [F $(1,99)$ =8.78, p< .01]. The high perceived C/H group had significantly higher (M=58.80) scores on PANSS total than the low perceived C/H group (M=52.60). The main effect of C/H of caregivers was significant [F$(1,99)$=4.11, p< .05]. The caregivers with the high scores of C/H had patients with significantly higher PANSS total scores (M=57.82) than the caregivers with low scores of C/H (M=53.58). There was no significant interaction effect for the scores of C/H of caregivers and perceived C/H of patients on the total scores of PANSS at the time one and time two [F $(1,99)$ = .88, p>.05]. Table 19 gives the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of PANSS negative at time one and time two.

Table 19 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of PANSS total at time 1 and time 2*

	SS	Df	MS	F
EES-C/H	907.77	(1,99)	907.77	4.11*
PEES-C/H	1939.32	(1,99)	1939.32	8..78**
PEES-C/H*EES-C/H	193.24	(1,99)	193.24	.88
Error	21867.10	99	220.88	
Time	1066.71	(1,99)	1066.71	13.92***
Time*EES-C/H	90.85	(1,99)	90.85	1.19
Time*PEES-C/H	17.13	(1,99)	17.13	.22
Time*EES-C/H*PEES-C/H	.09	(1,99)	.09	.00
Error	7586.53	99	76.63	

* p < .05, ** p< .01, *** p< .001

4.6.8 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of PANSS Total at Time 1 and Time 2

In order to examine possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of caregivers and perceived EOI of patients on the total scores of PANSS at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results indicated that the main effect of time on total scores of PANSS was significant [F (1,99)=12.42, p≤ .001]. The total scores of PANSS at time one (M=56.83) was higher than the scores at time two (M=52.52). The main effect of perceived EOI of patients was found [F(1,99)=8.76, p< .01]. The low perceived EOI group had significantly higher scores on PANSS total (M=57.77) than the high perceived EOI group (M=51.59). The main effect of EOI of caregivers

was not significant [F (1,99) = 1.88, p>.05]. There was no significant interactional effect for the scores of EOI of caregivers and perceived EOI of patients on the PANSS total scores at the time one and time two [F (1,99) = 2.71, p>.05]. Table 20 presents the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of PANSS negative at time one and time two.

Table 20 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of PANSS total at time 1 and time 2*

	SS	Df	MS	F
EES-EOI	410.45	(1,99)	410.45	1.88
PEES-EOI	1916.54	(1,99)	1916.54	8.76**
PEES-EOI*EES-EOI	592.04	(1,99)	592.04	2.71
Error	21653.39	99	218.72	
Time	931.59	(1,99)	931.59	12.42***
Time*EES-EOI	182.46	(1,99)	182.46	2.43
Time*PEES-EOI	69.39	(1,99)	69.39	.93
Time*EES-EOI*PEES-EOI	15.70	(1,99)	15.70	.21
Error	7424.87	99	75.00	

** p< .01, *** p< .001

4.7 Effects of Expressed Emotion and Perceived Expressed Emotion on the Domains of Quality of Life as Measured with WHOQOL-BREF

In order to examine the effect of expressed emotion of the caregivers and perceived expressed emotion of the patients taken at time one on WHOQOL-BREF scores at time one and time two repeated ANOVA was conducted. For this analysis,

the scores C/H and EOI of expressed emotion and perceived expressed emotion were used to group caregivers and patients as high and low using the median split.

4.7.1 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Physical Health Domain of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of being high and low in C/H for caregivers and for patients and to examine the interactional effects on the physical health domain of WHOQOL-BREF at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results indicated that the main effect of time on physical health domain scores of WHOQOL-BREF was significant [F (1, 99) = 4.17, p< .05]. The physical health domain scores of WHOQOL-BREF at time two was higher (M=14.03) than the scores at time one (M=13.38). The main effect of perceived C/H of patients [F(1,99)=1.35, p>.05] and main effect of C/H of caregivers [F(1,99)=.23, p>.05] were not significant. There was no significant interactional effect for the scores of C/H of caregivers and perceived C/H of patients on the physical health domain of WHOQOL-BREF at the time one and time two [F (1,99) = .12, p>.05]. Table 21 gives the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of physical health domain of WHOQOL-BREF at time one and time two.

Table 21 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of WHOQOL-BREF physical health domain at time 1 and time 2*

	SS	Df	MS	F
EES-C/H	3.30	(1,99)	3.30	.23
PEES-C/H	19.62	(1,99)	19.62	1.35
PEES-C/H*EES-C/H	1.77	(1,99)	1.77	.121
Error	1443.79	99	14.58	
Time	21.58	(1,99)	21.58	4.17*
Time*EES-C/H	5.87	(1,99)	5.87	1.14
Time*PEES-C/H	1.66	(1,99)	1.66	.32
Time*EES-C/H*PEES-C/H	2.56	(1,99)	2.56	.50
Error	511,84	99	5,17	

* p < .05

4.7.2 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Physical Health Domain of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of caregivers and perceived EOI of patients on the physical health domain of WHOQOL-BREF at the time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results indicated that main effect of time on scores of physical health domain of WHOQOL-BREF [F(1,99) = 2.88, p>.05] and the interactional effect of the scores of EOI of caregivers and perceived EOI of patients on physical health domain of WHOQOL-BREF at time one and time two were not significant [F(1,99) = 2.29, p>.05]. The main effect of perceived EOI of patients [F(1,99) = 2.18, p>.05] and main effect of EOI of

caregivers [F(1,99) = 1.32, p>.05] were not significant. Table 22 shows the results of repeated Anova analysis of high and low EOI expressed emotion and perceived expressed emotion groups on the scores of physical health domain of WHOQOL-BREF at time one and time two.

Table 22 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of WHOQOL-BREF physical health domain at time 1 and time 2*

	SS	Df	MS	F
EES-EOI	18.42	(1,99)	18.42	1.32
PEES-EOI	30.32	(1,99)	30.32	2.18
PEES-EOI*EES-EOI	31.91	(1,99)	31.91	2.92
Error	1378,12	99	13,92	
Time	14.46	(1,99)	14.46	2.88
Time*EES-EOI	2.84	(1,99)	2.84	.57
Time*PEES-EOI	2.62	(1,99)	2.62	.52
Time*EES-EOI*PEES-EOI	17.84	(1,99)	17.84	3.55
Error	497,67	99	5,03	

4.7.3 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Psychological Health Domain of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of the scores of C/H of caregivers and perceived C/H of patients and interactional effect of the scores of C/H of caregivers and perceived C/H of patients on the psychological health domain of WHOQOL-BREF at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results indicated that no main effect of time on scores of psychological health domain of WHOQOL-BREF

[F(1,99) =2.28, p>.05] and the interactional effect of the scores of C/H of caregivers and perceived C/H of patients on psychological health domain of WHOQOL-BREF at time one and time two was not found [F(1,99)= .84, p>.05]. The main effect of perceived C/H of patients [F (1,99)=2.85, p>.05] and main effect of C/H of caregivers [F (1,99)= .57, p>.05] were not significant. Table 23 gives the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of psychological health domain of WHOQOL-BREF at time one and time two.

Table 23 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of WHOQOL-BREF psychological health domain at time 1 and time 2*

	SS	Df	MS	F
EES-C/H	7.92	(1,99)	7.92	.574
PEES-C/H	39.29	(1,99)	39.29	2.85
PEES-C/H*EES-C/H	11.58	(1,99)	11.58	.839
Error	1365.98	99	13.80	
Time	7.80	(1,99)	7.80	2.28
Time*EES-C/H	1.30	(1,99)	1.30	.38
Time*PEES-C/H	8.05	(1,99)	8.05	2.35
Time*EES-C/H*PEES-C/H	.06	(1,99)	.06	.02
Error	338.69	99	3.42	

4.7.4 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Psychological Health Domain of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of

caregivers and perceived EOI of patients on the psychological health domain of WHOQOL-BREF at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. There was no significant main effect of time on scores of psychological health domain of WHOQOL-BREF $[F(1,99) = 2.40, p>.05]$, EOI of caregivers $[F(1,99)=.13, p>.05]$ and perceived EOI of patients $[F(1,99)=1.80, p>.05]$. The results indicated that there was a significant interaction effect of EOI of caregivers and perceived EOI of patients on the psychological health domain of WHOQOL-BREF at the time one and time two $[F(1,99) = 7.69, p< .01]$. Table 24 gives the results of repeated Anova analysis of high and low EOI expressed emotion and perceived expressed emotion groups on the scores of psychological health domain of WHOQOL-BREF at time one and time two.

Table 24 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of WHOQOL-BREF psychological health domain at time 1 and time 2*

	SS	Df	MS	F
EES-EOI	1.65	(1,99)	1.65	.127
PEES-EOI	23.54	(1,99)	23.54	1.80
PEES-EOI*EES-EOI	100.43	(1,99)	100.43	7.69**
Error	1293.25	99	13.06	
Time	8.01	(1,99)	8.01	2.40
Time*EES-EOI	4.53	(1,99)	4.53	1.36
Time*PEES-EOI	3.81	(1,99)	3.81	1.14
Time*EES-EOI*PEES-EOI	7.07	(1,99)	7.07	2.12
Error	330.64	99	3.34	

** $p< .01$

Tukey test was conducted as post hoc analysis to understand the difference between groups. The results of post hoc analysis are presented in Figure 2.
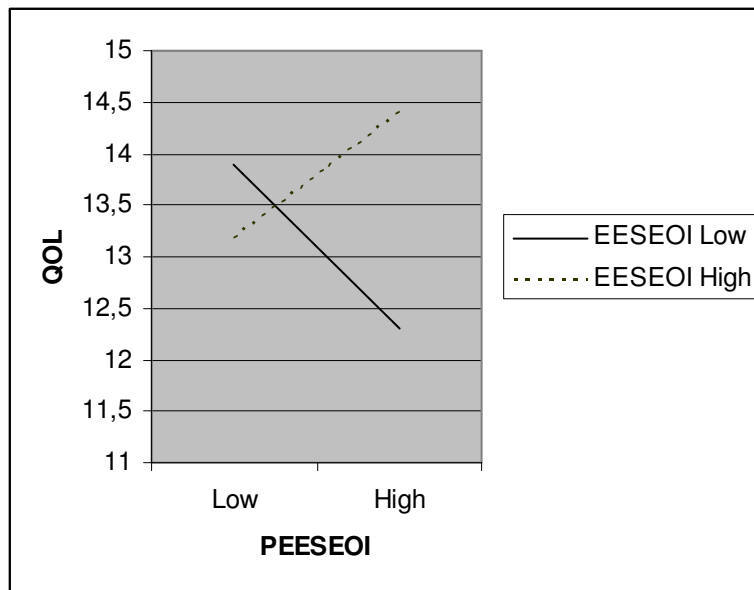
Figure 2 *Interaction between the factors of emotional over-involvement of caregivers and perceived emotional over-involvement of patients on the psychological health domain of QOL at the first and last measurement*

For the low EOI caregivers, low perceived EOI patients had significantly higher scores than the high perceived EOI patients in terms of psychological health domain of WHOQOL-BREF. For the high EOI caregivers, high perceived EOI patients had significantly higher scores than the low perceived EOI patients in terms of psychological health domain of WHOQOL-BREF. Furthermore, for low perceived EOI patients, low EOI caregivers had significantly higher scores than the high EOI caregivers in terms of psychological health domain of WHOQOL-BREF. Also, for high perceived EOI patients, the high EOI caregivers had significantly higher scores than the low EOI caregivers in terms of psychological health domain of WHOQOL-BREF. Table 25 shows the mean scores of psychological health domain for high and low groups of caregivers and patients. Mean scores of each group was significantly different from each other. As can be seen the highest scores were for the high perceived EOI patient and high expressed EOI caregiver group.

Table 25 *Means and standard errors of PEES EOI and EES EOI on the psychological health domain of WHOQOL-BREF*

	EESEOI high	EESEOI low
PEESEOI high	14.40 (.57)	13.17 (.52)
	a	b
PEESEOI low	12.30 (.47)	13.90 (.48)
	c	d

4.7.5 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Social Relations Domain of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of the scores of C/H of caregivers and perceived C/H of patients and interactional effect of the scores of C/H of caregivers and perceived C/H of patients on the social relations domain of WHOQOL-BREF at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results indicated that main effect of time on scores of social relations domain of WHOQOL-BREF [$F(1,99) = 2.00$, $p>.05$] and the interactional effect of the scores of C/H of caregivers and perceived C/H of patients on social relations domain of WHOQOL-BREF at time one and time two were not significant [$F(1,99) = .72$, $p>.05$] The main effect of perceived C/H of patients [$F(1,99) = .81$, $p>.05$] and main effect of C/H of caregivers

[F(1,99) = .33, p>.05] were also not significant. Table 26 gives the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of social relations domain of WHOQOL-BREF at time one and time two.

Table 26 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of WHOQOL-BREF social relations domain at time 1 and time 2*

	SS	df	MS	F
EES-C/H	7.67	(1,99)	7.67	.329
PEES-C/H	18.76	(1,99)	18.76	.805
PEES-C/H*EES-C/H	16.78	(1,99)	16.78	.720
Error	2306.46	99	23.30	
Time	15.55	(1,99)	15.55	2.00
Time*EES-C/H	14.82	(1,99)	14.82	1.91
Time*PEES-C/H	2.96	(1,99)	2.96	.38
Time*EES-C/H*PEES-C/H	.93	(1,99)	.93	.12
Error	767.82	99	7.76	

4.7.6 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Social Relations Domain of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of caregivers and perceived EOI of patients on the social relations domain of WHOQOL-BREF at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The main effect of time on social relations domain of WHOQOL-BREF was not significant [F(1,99)=1.63, p>.05]. The

main effect of perceived EOI of patients was significant [$F(1,99)=11.53$, $p \leq .001$]. The high perceived EOI patient group had significantly higher scores on the social relations domain of WHOQOL-BREF (M=13.54) than the low perceived EOI patient group (M=11.35). The main effect of EOI of caregivers was not significant [$F(1,99)=1.29$, $p>.05$]. There was no significant interactional effect for the scores of EOI caregivers and perceived EOI of patients on the social relations domain of WHOQOL-BREF at the time one and time two [$F (1,99) = .17$, $p>.05$]. Table 27 presents the results of repeated Anova analysis of high and low EOI expressed emotion and perceived expressed emotion groups on the scores of social relations domain of WHOQOL-BREF at time one and time two.

Table 27 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of WHOQOL-BREF social relations domain at time 1 and time 2*

	SS	df	MS	F
EES-EOI	26.94	(1,99)	26.94	1.29
PEES-EOI	240.14	(1,99)	240.14	11.53***
PEES-EOI*EES-EOI	3.44	(1,99)	3.44	.165
Error	2062.63	99	20.84	
Time	12.67	(1,99)	12.67	1.63
Time*EES-EOI	8.60	(1,99)	8.60	1.11
Time*PEES-EOI	2.12	(1,99)	2.12	.29
Time*EES-EOI*PEES-EOI	5.35	(1,99)	5.35	.69
Error	767.48	99	7.75	

*** $p< .001$

4.7.7 Repeated Anova Analysis of High and Low C/H Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Environmental Domain Standardized to Culture of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of the scores of C/H of caregivers and perceived C/H of patients and interactional effect of the scores of C/H of caregivers and perceived C/H of patients on the environmental domain standardized to culture of WHOQOL-BREF at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor. The results indicated that the main effect of time on environmental domain of standardized to culture scores of WHOQOL-BREF at time one and time two was significant [F (1, 99)=8.83, p< .01]. The environmental domain of standardized to culture scores of WHOQOL-BREF measurement at time two was higher (M=13.83) than the scores at time one (M=13.13). The main effect of perceived C/H of patient [F(1,99)=.97, p> .05] and the main effect of C/H of caregivers were not significant [F(1,99)=.08, p> .05]. The interactional effect for C/H of caregivers and perceived C/H of patients on the environmental domain of standardized to culture of WHOQOL-BREF at the time one and time two [F (1,99) = .66, p> .05] was not significant. Table 28 gives the results of repeated Anova analysis of high and low C/H expressed emotion and perceived expressed emotion groups on the scores of environmental domain standardized to culture of WHOQOL-BREF at time one and time two.

Table 28 *Repeated Anova Analysis of high and low C/H EE and PEE groups on the scores of WHOQOL-BREF environmental domain standardized to culture at time 1 and time 2*

	SS	df	MS	F
EES-C/H	.54	(1,99)	.54	.08
PEES-C/H	6.66	(1,99)	6.66	.97
PEES-C/H*EES-C/H	4.57	(1,99)	4.57	.66
Error	682.49	99	6.894	
Time	24.63	(1,99)	24.63	8.83**
Time*EES-C/H	.16	(1,99)	.16	.06
Time*PEES-C/H	6.41	(1,99)	6.41	2.30
Time*EES-C/H*PEES-C/H	1.30	(1,99)	1.30	.47
Error	275.99	99	2.79	

** p < .01

4.7.8 Repeated Anova Analysis of High and Low EOI Expressed Emotion and Perceived Expressed Emotion Groups on the Scores of Environmental Domain Standardized to Culture of WHOQOL-BREF at Time 1 and Time 2

In order to examine possible main effects of the scores of EOI of caregivers and perceived EOI of patients and interactional effect of the scores of EOI of caregivers and perceived EOI of patients on the environmental domain of standardized to culture of WHOQOL-BREF at time one and time two, a 2x2x2 Mixed Design ANOVA with repeated measures on the last factor was conducted. The results revealed a significant main effect of time on environmental domain standardized to culture of scores of WHOQOL-BREF was found [F (1,99)=6.92, p≤ .01]. The environmental domain standardized to culture of scores of WHOQOL-BREF at time two (M=13.92) was higher than the scores at time one (M=13.29). The

main effect of perceived emotional over-involvement of patients was significant [F (1,99)=15.66, p<.001]. The high perceived EOI group had significantly higher scores on environmental domain of standardized to culture of WHOQOL-BREF (M=14.28) than the low perceived EOI group (M=12.93). A significant main effect was not found for EOI of caregivers [F (1,99)=1.63, p> .05]. The interactional effect for EOI of caregivers and perceived EOI of patients on the environmental domain of standardized to culture of WHOQOL-BREF at the time one and time two [F (1,99) = 2.43, p> .05] was not significant. Table 29 gives the results of repeated Anova analysis of high and low EOI expressed emotion and perceived expressed emotion groups on the scores of environmental domain standardized to culture of WHOQOL-BREF at time one and time two.

Table 29 *Repeated Anova Analysis of high and low EOI EE and PEE groups on the scores of WHOQOL-BREF environmental domain standardized to culture at time 1 and time 2*

	SS	df	MS	F
EES- EOI	9.45	(1,99)	9.45	1.63
PEES- EOI	90.77	(1,99)	90.77	15.66***
PEES- EOI *EES- EOI	14.08	(1,99)	14.08	2.43
Error	573.67	99	5.80	
Time	19.75	(1,99)	19.75	6.92**
Time*EES-EOI	.33	(1,99)	.33	.12
Time*PEES-EOI	.87	(1,99)	.87	.31
Time*EES-EOI*PEES-EOI	.81	(1,99)	.81	.28
Error	282.52	99	2.854	

** p≤ .01, ***p <.001

Sixteen repeated ANOVA analyses are summarized in Table 30. As can be seen the table, the main effects of perceived C/H of patients on the symptoms of

positive and negative and total scores of PANSS were found. The main effect of C/H of caregivers' expressed emotion on the total scores of PANSS was significant only. The main effects of perceived EOI of patients on the symptoms of positive, general psychopathology, and total scores of PANSS and social relations domain and environmental domain of standardized to culture of WHOQOL-BREF were significant. There was a significant interaction effect of EOI of caregivers and perceived EOI of patients on the psychological health domain of WHOQOL-BREF at the time one and time two assessments.

Table 30 *Summary of All Anova Analyses*

Dependent variables	Time main effect (time1-time2)	Main effect of EE-C/H High/low groups	Main effect of PEE-C/H High/low groups	Inter effect EEC/H&PEE-C/H High/low groups	Main effectEE-EOI High/low groups	Main effect of PEE-EOI High/low groups	Inter effect EEEOI& PEE-EOI High/low groups
PANSS positive	+	-	High > Low	-	-	Low > High	-
PANSS negative	-	-	High > Low	-	-	-	-
PANSS general psychopathology	+	-	-	-	-	Low > High	-
PANSS total	+	High > Low	High > Low	-	-	Low > High	-
QOL physcial	+	-	-	-	-	-	-
QOL psychological	-	-	-	-	-	-	+
QOL social	-	-	-	-	-	High > Low	-
QOL environmental	+	-	-	-	-	High > Low	-

+ Significant effect

- Non significant effect

4.8. Qualitative Analysis of Replies to Open –Ended Questions

4.8.1 Patients' views on their illness

In order to examine the perspectives of the schizophrenic patients on their illness, four groups of open-ended questions were asked in time one of the main study. The first group of questions were 'What are the things that distress you about your illness?; Which one do you think is the most important one among these distressing aspects?'. The second group of questions were 'Do you think that there are some aspects related to your illness that are getting better?; If yes, what are these?; Do you think that there are some aspects related to your illness that are getting worse?; If yes, what are these?'. The third group of questions were 'Who is/are supporting you most with your illness?; How do they support you?' and the last group of questions were 'What are the difficulties that you experienced for the last six months?; How did you cope with these?'. For each question, after inspecting the replies, several reply categories were formed by the researcher. These categories were each given a general label and examples were provided for explanation. In order to evaluate the replies to these open-ended questions, firstly, two raters, one of them is a professor in the psychology department (she is also supervisor of this thesis) and the other is the researcher coded all the reports independently. In the categorization process, if one patient mentioned more than one category of thoughts in his/her answers, the responses were included in all relevant thought categories. Thus, one patient could obtain more than one rating. Then, the coefficients of inter-rater agreement, coefficient kappa, were calculated. The Cohen's kappa was found to be .68 (p< .001) and .66 (p< .001) for the first questions; .70 (p< .001) and .92 (p<

.001) for the second questions; .86 (p< .001) and .71 (p< .001) for the third questions and .85 (p< .001) and .66 (p< .001) for the last one, respectively (Cohen, 1960).

The first group of questions were "What are the things that distress you about your illness?; Which one do you think is the most important one among these distressing aspects?". The question "What are the things that distress you about your illness? was categorized into nine concepts: Side effect of drugs, distress about using the drug; Stigmatization, Rejection by the family and society; Social dysfunction and lack of a social position; Physical symptoms of illness; Psychological symptoms of the illness; Communication problems; Self-blaming for being burden to family; Financial problems and I don't know/ No opinion. The replies to the question "Which one do you think is the most important one among these distressing aspects?" were coded according to same categories (See Appendix K Categories of Pointing of Open-ended Questions and Examples of Answers). Table 31 presents responses to "What are the things that distress you about your illness" and "which is the most distressing".

As can be seen from table 31, psychological symptoms, stigmatization, social dysfunction, and physical symptoms were the most frequently given distressing aspects of the illness. For the most important, psychological symptoms, physical symptoms and social dysfunction were given by the patients.

Table 31 *Responses to "what are the things that distress you about your illness" and "which is the most distressing"*

Categories	Distressing aspects Percentage (n=106)	Most distressing Percentage (n=59)
Psychological symptoms of the illness	41.5 (44)	25.4 (15)
Stigmatization; rejection by the family and society	26.4 (28)	11.9 (7)
Social dysfunction and lack of a social position	25.5 (27)	15.3 (9)
Physical symptoms of illness	25.5 (27)	23.7 (14)
Side effect of drugs, distress about using the drug	13.2 (14)	5.1 (3)
Financial problems	12.3 (13)	3.4 (2)
I don't know/ No opinion	10.4 (11)	1.7 (1)
Communication problems	7.5 (8)	5.1 (3)
Self-blaming for being burden to family	6.6 (7)	8.5 85)

The second group of questions were "Do you think that there are some aspects related to your illness that are getting better?; If yes, what are these?; Do you think that there are some aspects related to your illness that are getting worse?; If yes, what are these?". The replies for the "getting better" were categorized into eight concepts. The categories were Improvement in communicating/relating to others; Psychological well-being; Improvement in physical symptoms; Positive attitude to the future; Increase in social functioning; Decrease in drug dosage; Acceptance of the illness; No opinion. The replies for the "getting worse" were categorized into eight concepts. The categories were Lack of socialization and social role, social dysfunction; Increase in psychological symptoms; Increase in physical symptoms; Negative attitude to future; Increase in the feelings of burden to the family; Side

effects of drugs; Communication problems; No opinion. Table 32 shows the percentages of replies to the question "Do you think that there are some aspects related to your illness that are getting better? If yes, what are these? Do you think that there are some aspects related to your illness that are getting worse? If yes, what are these?"

Table 32 *Thoughts related to getting better and getting worse*

Categories	Percentage (n=109)
Getting better	
Psychological well-being	60.6 (66)
Increase in social functioning	16.5 (18)
Improvement in communication/relating to others	15.6 (17)
Improvement in physical symptoms	13.8 (15)
No opinion	10.1 (11)
Decrease in drug dosage	4.6 (5)
Acceptance the illness	2.8 (3)
Positive attitude to the future	0.9 (1)
Getting worse	Percentage (n=106)
No opinion	76.4 (81)
Increase in psychological symptoms	8.5 (9)
Lack of socialization and social role, social dysfunction	5.7 (6)
Increase in physical symptoms	5.7 (6)
Side effect of drugs	2.8 (3)
Negative attitude to future	1.9 (2)
Increase in the feeling of burden to family	0.9 (1)
Communication problems	0.9 (1)

As can be seen from Table 32, psychological well-being, increase in social functioning, improvement in communicating/relating to others and improvement in

physical symptoms were the most frequently given aspects related to the illness that were getting better. Almost all the patients replied to the question of "aspects getting worse" as "no opinion". Patients responded Increase in psychological symptoms as most important following "no opinion" item.

Table 33 *Percentages of for "who gives support for illness" and "how they support"*

Categories	Percentage(n=116)
Who gives support	
Mother	38.8 (45)
Whole family	29.3 (34)
Spouse	28.4 (33)
Sibling	24.1 (28)
Father	15.5 (18)
Other relatives such as aunt, uncle	9.5 (11)
Physician & psychologist	8.6 (10)
Child	6.9 (8)
Nobody	6.0 (7)
Friends	4.3
Neighbor	1.7 (2)
Himself/herself	1.7 (2)
How they support	Percentage(n=111)
Moral support	73.0 (81)
Drug control & providing treatment	26.1 (29)
Financial support	10.8 (12)
Take to the hospital & physician	9.0 (10)
Sharing housework	8.1 (9)
Doing everything	2.7 (3)
No opinion	1.8 (2)

The third group of questions were "Who is/are supporting you most with your illness?; How do they support you?". The replies to the third group of questions, that's 'Who is/are giving you the most support about your illness?' were categorized into Mother; Father; Sibling; Spouse, Child, Other relatives such as aunt, uncle, Friends, Physician & psychologist; Neighbor, Himself/herself; Nobody and the Whole family. The other part of the question were classified as Moral support; Drug control & providing treatment; Take to the hospital & physician; Financial support; Sharing housework; Doing everything and No opinion. Table 33 presents replies to the question on source and type of support.

As can be seen from Table 33, the most frequently given source of support were the close family member. Moral support is the most pronounced type of support mentioned.

The last group of questions were "What are the difficulties that you have experienced in the last six months?; How did you cope with these?". Replies that were related to the difficulties experienced for the last six months were categorized into Communication gap, conflict with other people; Unemployment & financial problems; Difficulties on the hospital; Illness itself, physical & psychological symptoms; Academic failure; Dysfunctions in daily routine, Medication & side effect; Lack of social support and No opinion. Reports of coping were classified as Positive thinking & suggestion; Problem solving techniques; Use social support; Medical care; Be patient & accept; Use Religion/faith and Could not cope. Table 34 presents thoughts in each category of the difficulties that were experienced for the last six months and how the patient coped with each.

As can be seen from Table 34, a substantial number of the patients did not share information about the difficulties experienced in the last six months (i.e. no

opinion). Among the patients who shared information on difficulties experienced in the last six months, answers were mainly unemployment and financial problems, illness itself and physical and psychological symptoms. Patients also reported on how they coped with these difficulties. Most patients reported not being able to cope, however other answers included social support, problem solving techniques, and medical care to help them cope.

Table 34 *Views on the difficulties experienced in the last six months and how they coped with them*

Categories	Percentage (n=106)
Unemployment & financial problems	28.3 (30)
Illness itself, physical & psychological symptoms	18.9 (20)
Dysfunctions in daily routine	7.5 (8)
Lack of social support	5.7 (6)
Medication & side effect	2.8 (3)
Communication gap, conflict with other people	2.8 (3)
Difficulties on the hospital	1.9 (2)
Academic failure	1.9 (2)
No opinion	36.8 (39)
How they coped	Percentage (n=59)
Could not cope	30.5 (18)
Use social support	16.9 (10)
Problem solving techniques	15.3 (9)
Medical care	13.6 (8)
Be patient & accept	11.9 (7)
Positive thinking & suggestion	10.2 (6)
Use religion/ faith	5.1 (3)

CHAPTER V

DISCUSSION

5.1 Overview

Schizophrenia is an illness that has a deteriorative effect on patients and their families. Recently family has been an important part of schizophrenia treatment. The existing relationship between relapse and familial attitude has lead to the development of the expressed emotion phenomenon. Expressed emotion was conceptualized as a construct reflecting the relative's attitude, behavior and emotion towards a patient member. The main aim of the current study was to investigate the roles of expressed emotion of the caregivers and the perception of this, which is perceived expressed emotion of the schizophrenic patients on symptom severity and quality of life. The aim was actualized by using the vulnerability-stress model as a guiding framework. In order to investigate the main research interest of the present study, first of all Perceived Expressed Emotion Scale (PEES) was developed and by conducting a pilot study reliability / validity of PEES was tested. In this section first of all reliability / validity results for PEES will be discussed. Secondly, the results in regards to the dependent variables, namely symptom severity (subscales of PANSS) and quality of life will be discussed. Thirdly, the results of the patients' views on their illness which was investigated by using open-ended questions will be discussed. Then, the limitations of the study, clinical implications, and suggestions for future investigations will be presented.

5.2. Pilot study

The pilot study was conducted to evaluate the psychometric properties of the PEES. The PEES was subjected to factor analysis and two factors emerged. The results of the factor analysis for the PEES showed that it had two factors which were similar to the results obtained from the Expressed Emotion Scale (Berksun, 1992; Karanci & Inandilar, 2002), which supported the construct validity of the perceived expressed emotion concept.

Correlations between Family Assessment Device (FAD) and PEES subscales indicated that patients' perceived criticism/hostility (C/H) was significantly correlated with all subscales of FAD, namely Communication, Roles, Affective Responsiveness, Affective Involvement, Behavioral control and General Functions. Dysfunction in all these areas were found to be related to high perceived C/H. This finding is in line with previous studies on expressed emotion, showing that criticism/hostility is a more toxic element (Moline, Singh, Morris, & Meltzer, 1985; Parker, Johnston, & Hayward, 1988; Barrelet, Ferrero, Szigethy, Giddey, & Pellizer, 1990; Karanci & Inandilar, 2002). Although, perceived C/H had high correlations with all subscales of FAD, perceived emotional over-involvement (EOI) was only found to be correlated with problem solving and affective involvement. Patients tended to perceive the problem solving skills of the family as problematic with increased rates of perceived EOI. On the other hand, as perceived EOI increased, patients tended to perceive family's affective over-involvement as more functional. Thus, EOI seems to be a less toxic element of perceived expressed emotion. Overall the results of the pilot study showed that the perceptions of the patients on the

emotional attitudes can be grouped into C/H and EOI as have been noted for caregivers' perceptions.

Additionally, in the pilot study, a rating scale was added to the perceived expressed emotion scale to examine the level of distress caused by the main family members' expressed emotion. The patients were required to rate whether they felt distressed by each item and if so, how much they were distressed. The results of the pilot study showed that perceived C/H was significantly related to distress caused by the C/H items. In a consistent way, Cutting, Aakre, and Docherty (2006) showed that patients reported experiencing more distress when interacting with high EE caregivers than low EE ones.

As expected, the correlations of the factors of FAD with the factors of PEES provided support for the concurrent validity of the PEES scales. Thus, it was thought that PEES was reliable and valid scale that can be used in the main study.

5.3 Main study

In order to meet the main aim of the study, the relative powers of caregivers' expressed emotion and the perceived expressed emotion in determining the symptom levels and quality of life were examined. According to the results of the main study, perceived expressed emotion appeared as a more robust factor than expressed emotion for symptom severity and quality of life. In many studies in the literature, generally the predictive power of family's expressed emotion on relapse was examined (Barrelet, 1990; Butzlaff, & Hooley, 1998).

According to the findings regarding the comparisons of EES with PEES, caregivers reported themselves as lower on criticism/hostility and higher on

emotional over-involvement as compared to the patients (see Table 11, p:90) . These results were found to be consistent with the study of Özden (1995). Özden explained that his results could be the fact that criticism/hostility of Turkish families was low. Another explanation for their results could be that due to the families' defensive attitude toward the idea of being evaluated, they reported low criticism/hostility. Caregivers might have reported that they have low C/H and high EOI, due to social desirability.

In the current study, expressed emotion of caregivers was found to have only a significant effect on the total scores of PANSS in terms of symptom severity. This effect is related to the criticism/hostility of caregivers' expressed emotion.

The role of emotional over-involvement on relapse is not widely stressed in the literature. Emotional over-involvement of caregivers' expressed emotion was shown to be a more sensitive predictor of relapse only by Gutierrez in 1988 (cited in Kavanagh, 1992). In other studies, it is taken as a less robust predictor. For example, when Anglo-American and British families were compared, Anglo-American families were found to have high EE and the British families were found to be less hostile and critical. Both cultures were found to have low and equal EOI (Vaughn, Snyder, Jones, Freeman, & Fallon, 1984). Similarly, preceding EOI, hostility was found to be the strongest contributor of high EE in Iran (Mottaghipour, Pourmand, Maleki, & Davidian, 2001). However, emotional over-involvement is still being used as a master of expressed emotion in the literature together with criticism/hostility.

Cross cultural studies found that expressed emotion was high in western cultures, whereas it was low in rural and eastern countries. Although Turkey has several features similar to western countries it is considered as an eastern country.

Thus, while interpreting the results of the current study, it would be appropriate to make comparisons with eastern countries.

Examining EE in the families of schizophrenic patients in both urban and rural populations in India, Wig, Menon, Bedi, Ghosh, Kuipers, Leff, Korten, Day, Sartorius, Ernberg, and Jablensky (1987) found that high EE was very rare, and that the finding was related to low critical comments and being less over-involved. These findings were consistent with the results of the current study. Wig et al. also compared their findings with the western populations. In contrast to studies of British populations where warmth and criticism were seldom coupled, family members in the Indian study frequently expressed criticism and warmth simultaneously.

El İslam (1979) conducted a study in Qatar. In his study it was found that in eastern cultures, especially within extended families, supporting the individuals with mental illness and decreasing their expectations is a common situation. Similarly in Turkey, families continue to support patients who burden the family due to the deteriorative effects of the illness and who have been unemployed for a long time (Özden, 1995).

Okasha, El Akabawi, Snyder, Wilson, Youssef, and El Dawla (1994) discussed Egyptian families' expressed emotion on patients with depression and bipolar disorder. Egyptian families believed that the care for a sick family member was their obligation and considered to be the right behavior for essential caregivers. High expressed emotion could be viewed as a kind of social trait in many Egyptian families. Criticism might also be taken as a sign of care and interest in any Egyptian enmeshed family. Extended families in an Arab culture were more tolerant to eccentric behavior than nucleus families. Reactions like these by the extended family not only would produce a less stressful environment for the patient, but would draw a

129

model for low expressed emotion behavior of members of a nucleus family (Okasha, El Akabawi, Snyder, Wilson, Youssef, & El Dawla, 1994).

In addition to the findings regarding eastern cultures, there are similar findings from several western cultures. López, Nelson Hipke, Polo, Jenkins, Karno, Vaughn, and Snyder (2004) indicated that family warmth was a significant protective factor for Mexican Americans. However, for Anglo Americans, family criticism was a significant risk factor. Their findings suggested that the sociocultural context shaped the pathways by which family processes were related to the course of illness. Moreover, the findings on warmth suggested that it contributes to preventing relapse.

Turkey is a country that comprises both eastern and western features within its Mediterranean make up. In a study conducted in Italy, Cazzula, Bressi, Bertrando, Clerici, & Maffei (1989) found that, when the scale cut off was lowered, participant mothers were emotionally overinvolved and self sacrificing (cited in Martins, de Lemos, and Bebbington, 1992). Within the current study, the relationship between types of relationship of caregivers' and factors of expressed emotion was not investigated. However, the majority of the caregivers were mothers of the patients. According to the results of the Open-ended questions, patients reported that the main source of moral support was their mothers.

Martins, et al. (1992) hypothesized that in Brazilian society, patient relatives mostly had low EE. Cases of high EE were explained by having high EOI. Similar to the present study, Martins' participants were mostly mothers and they markedly had overprotective attitude and self sacrificing attitude.

According to the results of the present study, emotional over-involvement of caregivers did not have a significant effect on symptom severity that was measured by PANSS. Similarly, Bentsen, Boye, Munkvold, Notland, Lersbryggen, Oskarsson,

Ulstein, Uren, Bjørge, Berg-Larsen, Lingjærde, & Malt (1996) could not find a significant relationship between EOI and symptoms assessed by a researcher. Additionally, EOI was discussed to be defective for patients due to its reinforcing effects on dependency and depression. Karanci and Inandilar (2002) found that caregivers' EOI was higher than their C/H in the Turkish culture, and this present study was a replication of this finding.

Until this point the relationship between the components of expressed emotion and relapse has been discussed. Another outcome variable concerned by this present study was quality of life. Quality of life and expressed emotion have been subject to few studies. Mubarak & Barber (2003) found that severe schizophrenic symptoms and high emotional over-involvement of caregivers were associated with low quality of life. However, according to the results of the present study, emotional over-involvement of caregivers was not found to be significantly effective on any domain of quality of life. Only a significant interactional effect of emotional over-involvement of caregivers and perceived emotional over-involvement of patients was found on the psychological health domain of quality of life. Mubarak and Barber (2003) suggested that emotional over-involvement of caregivers could lead to adverse outcomes on patients' quality of life. Mubarak and Barber discussed the possibility that low quality of life of severely ill patients increased caregivers' emotional over-involvement and this let to compensate their situations.

Greenberg, Knudsen, & Aschbrenner (2006) had results similar to the present study. They found that increasing quality of life was associated with social support for the severely ill patients. According to their results, adult schizophrenic patients reported high quality of life when their mothers expressed high warmth. When parents provide children with a supportive and praising environment, children tend to

131

perceive themselves in a positive manner. As discussed by Greenberg, Knudsen, & Aschbrenner (2006), warmth and praise coming from a parent could be important for the mentally ill because these people often face discrimination and stigmatization within daily life. Results of the present study also showed that patients with high perceived over-involvement had significantly higher scores on social, psychological health domains and environmental domain of culture standardized quality of life than patients with low perceived over-involvement.

Since EE is a reciprocal interaction, patients' perceptions of their families' attitudes are important as well as families' attitudes. Until recently, the importance of patients' perceptions of their families' attitudes were not given necessary importance. However, although not many, there are some studies in the literature considering the importance of perceived expressed emotion (Baker, Kazarian, Helmes, Ruckman, & Tower, 1987; Lebell, Marder, Mintz, Mintz, Tompson, Wirshing, Johnston-Cronk, & McKenzie, 1993). Thompson, Goldstein, Lebell, Mintz, Marder, and Mintz (1995) found that overall patients' perceptions and caregivers' attitudes nearly almost overlapped. They found that patients with high EE caregivers classified according to caregiver ratings, perceived them as highly critical. Patients' perceptions of critical behavior rather than the EE ratings were associated with high risk of relapse. Warner and Atkinson (1988) found that patients who perceived their families as less caring or more over-involved had a more severe course of illness than patients who perceived their families as more caring and less over-involved. Scott, Fagin, and Winter (1993) found that the best predictor of relapse was the patients' expectations of how their families perceived them. Lebell, et al. (1993) found that the patients' perceptions of their relatives' attitudes towards themselves were highly correlated with the relatives' self-reported attitudes. Considerable concurrent validity of the

patients' perceptions as measured by directly asking patients to rate their perceptions of their relatives' attitudes towards them was found. In their study, only the patients' perceptions predicted outcome. Patients with positive perceptions of their caregivers' attitudes had significantly lower rate of relapse at one year follow-up. According to the results of the current study, perceived expressed emotion was shown to be a more robust construct than the expressed emotion reported by the caregiver.

Rosenfarb Bellack, Aziz, Kratz, and Sayers (2004) stated that discordance between caregivers' EE and patients' perception of EE was the result of cultural differences in the interpretation of criticism. It was suggested that African American patients evaluated critical attitudes to be a reflection of caring and involvement.

There are several studies in the literature indicating that perceived criticism/hostility is a toxic element. Thompson et al. (1995) found that EOI of PEE did not predict outcome, however criticism of PEE predicted high risk of psychotic exacerbation within a year. In the same study it was demonstrated that a large number of patients who perceived high criticism/hostility in their families relapsed. Hooley and Teasdale (1989) showed that perceived C/H predicted relapse in one year follow up. On the other hand Okasha, El Akabawi, Snyder, Wilson, Youssef, & El Dawla (1994) could not find a significant relationship between perceived C/H and relapse.

Bachmann, Bottmer, Jacob, & Schröder (2006) found that perceived C/H was a beneficial tool for predicting relapse and that high C/H was more associates with relapse than EOI for schizophrenia.

According to the results of the current study, it was found that criticism/hostility of PEE is a toxic element. Patients who perceived high criticism/hostility, scored higher on positive / negative symptoms and total PANSS

than patients who perceived low criticism/hostility. If patients perceive high criticism/hostility in the family climate, they are likely to experience more severe positive symptoms such as delusions, hallucinatory behavior, grandiosity, suspiciousness/persecution, and hostility. Additionally increase in negative symptom such as blunted affect, emotional withdrawal and total scores were seen together with high perceived criticism/hostility.

In the present study perceived emotional over-involvement is a protective element, in fact opposite effects as compared to criticism/hostility. Patients who perceived low emotional over-involvement had high scores on positive symptoms, general psychopathology, and total scores of PANSS. Hence it could be concluded that low perceived emotional over-involvement has a toxic effect on symptom severity. On the other hand, in terms of social relations domain and environmental domain standardized to culture of WHOQOL-BREF, patients who perceived high emotional over-involvement scored higher than patients who perceived low emotional over-involvement. Within these areas, patients' subjective evaluation of quality of life was positive. Meaning, perceived emotional over-involvement is protective when it is high.

Perceived emotional over-involvement was shown to be a protector in several studies. Lebell et al. (1993) found that more frequent contact with key relatives who were perceived by the patients as benign could be protective for the vulnerable schizophrenic patient. Supportive family milieu protects the patients from symptom exacerbation.

To identify the specific nature of the relationships between EE indices and relapse, Breitborde, López, Wickens, Jenkins, and Karno (2007) conducted a study. Their results indicated that the relationship between the EOI and relapse was

curvilinear and that high levels of EOI exerted a toxic effect on the course of illness whereas medium levels of EOI were protective. The results of the present study showed that low perceived EOI was related to higher PANSS subscale scores. This finding pointed out to the protective effect of EOI. Furthermore, high perceived EOI was associated with high scores on quality of life domains, also supporting the protective power of perceived EOI.

One of the most important findings of this study is that, for the high EOI caregivers, high perceived EOI patients had significantly higher scores than the low perceived EOI patients in terms of psychological health domain of WHOQOL-BREF. Also, for high perceived EOI patients, the high EOI caregivers had significantly higher scores than the low EOI caregivers in terms of psychological health domain of WHOQOL-BREF. The highest scores on psychological health domain of quality of life were for the high perceived EOI patient and high expressed EOI caregiver group. Cases where the caregiver reported highest over-involvement and patient reported highest perceived over-involvement were shown to be the best combination for the psychological health domain of quality of life. The worst combination for quality of life was observed when the patients had high perceived over-involvement and the caregivers had low over-involvement.

One other result that needs to be discussed is that, symptom severity on time two assessments was lower than time one assessment. Positive symptoms, general psychopathology, and total scores of PANSS were higher on time one assessment than time two assessment. This progress in symptom severity was unexpected and could be explained by regular medication and controls during the interval. Additionally interviews with the patients could have let the patient feel care and support and lower the symptom severity. Due to limited access to health care system

in Turkey, being invited to take part in a study and having the opportunity to visit the psychiatry department might have helped the patients. They may have had the chance to visit the psychiatrist and have their medication controlled which might have facilitated their well being inadvertently.

Mottaghipour, et al. (2001) conducted a study in Iran and found that majority of the patients who live in a high EE environment relapsed. They discussed the reason for this with the number of patients who had not recovered or dropped out. In order to continue their study, several attempt ions to contact with the patients failed for insufficient information on patients. Due to community mental health service defects and high burden within family, most of the patients could not be contacted for follow up. However, in the current study the number of drop outs were minimal and it was found that patients were found to be better than they were at time one according to time two assessment.

Overall, as a result of these discussions it could be stated that perceived criticism/hostility of patients was a more robust factor than criticism/hostility of caregivers on positive and negative symptoms of PANSS. Only on total scores of PANSS, both perceived criticism/hostility of patients and criticism/hostility of caregivers had been found to have a main effect. Perceived emotional over-involvement of patients was more robust factor than emotional over-involvement of caregivers all subscales of PANSS, except for negative symptoms. Perceived criticism/hostility of patients and criticism/hostility of caregivers had been found to have no main effect on all domains of WHOQOL-BREF. Perceived emotional over-involvement of patients was a more robust component than emotional over-involvement of caregivers on social relations domain and environmental domain of standardized to culture of WHOQOL-BREF. Emotional over-involvement of

caregivers had no main effect on any domain of WHOQOL-BREF. On psychological health domain of WHOQOL-BREF, there was a significant interaction effect of emotional over-involvement of caregivers and perceived emotional over-involvement of patients. Cases where the caregiver reported highest emotional over-involvement and patient reported highest perceived emotional over-involvement were shown to be the best combination for the psychological health domain of quality of life.

5.4 Patients' views on their illness

Answers to the open-ended questions were examined in order to understand how schizophrenic patients view their illnesses, difficulties, and support sources. Responses to the question 'What are the things that distress you about your illness?' showed that psychological symptoms of illness, stigmatization, rejection and refusal by the family and society, and social dysfunction and lack of social position were the most frequently given distress sources. Among the psychological symptoms of illness, hallucinations, sleep disorder, fear, anhedonia, irritability were included. Thus, suffering from the symptoms of the disorder seems to be the category on which most consensus was present. It may be beneficial if the patients are informed that the psychological symptoms of the illness can be relieved by tailoring the pharmacotherapy they receive. Patients in drug control often experience problems due to dysfunctional health policies in Turkey. Recent changes in the social security system have been problematic for the patients. Drug prescriptions of the physicians can be turned down by the pharmacies due to diagnostic and medical inconsistencies. This leads to financial difficulties in obtaining drugs and hence difficulties arise about using them consistently for treatment. Atypical antipsychotics are expensive

drugs. However, when the social security system difficulties are handled, patients are able to receive and use these drugs without financial difficulties with the drug reports from their physicians. Hence, it is important to provide user friendly policies in order to resolve the difficulties experienced by the patients.

Additionally, in the outpatient clinics patients' follow up processes are not carried out by the same physician. This brings the need for the patient and their families to adopt a new physician each time they go to a clinic. Due to insufficient physical conditions in the hospital, duration of the interview with the patients have to be kept shorter than normal. This brings along the difficulties in following patients' negative symptoms and general functioning. Lack of cooperation with social workers and the lack of adequate numbers of social workers also cause difficulties in monitoring patients' daily activities and general functioning. Patients should be informed through psycho-education that following symptom relief, communication and social functioning would be increased. Thus it is necessary to emphasize psycho-education together with pharmacotherapy. In a study carried out in Turkey (Sağduyu, Aker, Özmen, Ögel, & Tamar, 2001) it was found that the need for setting a social distance between self and the schizophrenic patient due to expected aggression from the patient was lower in Turkey than it was in western countries. This finding may be interpreted by a possible traditional tolerance toward the mentally ill in Turkish culture. Despite this finding, Tuna (1999) reported a rejecting attitude of the society towards psychotic patients. The patients in the present study gave stigmatization (refusal by the family and society) as a second most frequent complaint. Thus, it seems that psycho-education and other methods of combating negative attitudes are needed to change attitudes towards schizophrenia in both relatives and in the society. Even though the society believes that the patients are not stigmatized (Sağduyu,

Aker, Özmen, Ögel, & Tamar, 2001) patients' perceptions of stigmatization from the society can clearly be seen in the present research. When additional perceived C/H from the families' leads to distress, it can be stated that life could become more stressful for the patient.

Patients responded to the question 'Which one do you think is the most important one among these distressing aspects?' as psychological symptoms of illness. Again, this shows that a better patient monitoring system and follow-up sessions for drug compliance and effects are needed in Turkey.

The replies to the question "Do you think that there are some aspects related to your illness that are getting better?" psychological well-being, increase in social functioning, improvement in communication/relating to others, improvement in physical symptoms were given. In general the patient group seemed to have an optimistic perspective on the course of their illness. Regarding the choice of answers it can be stated that patients replies to this question were in line with their answers to "What are the things that distress you about your illness?" Thus, psychological symptoms, social functioning and physical symptoms seem to be of major concern for the patients.

Patients having replied 'no opinion' to 'Do you think that there are some things getting worse about your illness?' might be explained as patients being optimistic and not perceiving negative effects. Additionally for these patients being in continual treatment and expecting improvement, they might be feeling better in terms of symptom relief and not attending to negative aspects of their condition.

Patients depicted "mother, whole family, spouse etc" as the support sources. In our main study primary caregivers were shown to be mothers and spouses. This was similar to several other studies showing mothers as the main caregivers and

supporters (Ohaeri, 2001; Jenkins & Schumacher, 1999). It seems that although mothers are given more frequently as the support provider, still fathers and the whole family are also perceived as supporters. This may reflect the close family ties in Turkish culture (Kağıtçıbaşı, 1979).

Taking care of a mentally ill relative can be an important burden and may cause burn out for that caregiver. For this reason in full treatment sharing responsibility and burden equally among family members should be emphasized within psycho-education programs. Additionally, in cases where mothers and/or fathers are the mentally ill, children experience hardship. Here comes the need for a relative to undertake the role and responsibility of a parent for the child. Regardingly, it would be beneficial that the extended family should be included in the rehabilitation process and psycho-education should also be given to these members (Caton, Cournos, Felix, & Wyatt, 1998).

Moral support, helping with drug control and providing treatment were the most frequently stated answers for 'How do they support you?' This shows that moral support is important for the patients. Moral support category included giving love, interest, and understanding, talking, building morale, and being on one's side. When compared to the western cultures, with the presence of extended family within the traditional family structure in Turkey, our patients report having satisfactory familial support. However, after a while, it could be expected for the family to experience burn out and give up on their patient, which may decrease their moral support. This may result in negative outcomes as mourning both for the mentally ill and their family. Here, it would be better to emphasize the fact that responsibility and burden should also be shared by social institutions and rehabilitation centers. This is likely to reduce the burden of caregivers.

Most frequent answers to 'What are the difficulties that you have experienced in the last six months? How did you cope with these?' were no opinion, unemployment and financial problems, and the illness itself, physical and psychological symptoms. Like in western cultures, our health policy should consider the contribution of schizophrenic patients to productive processes. Institutions should support the recruitment of mentally ill people in order to get them active in the economy just like the disabled.

Ohaeri (2001) stated that social marks of poor disease outcome, like patient's unemployment, were related to significantly higher caregiver financial distress. Similarly in our country, as a way of reducing caregiver burden, manufacturers and government should find ways of reducing the enormous cost of the new generation "atypical" antipsychotic drugs, so that with their higher potency and better side effect profile, they can be made available for early effective intervention, so as to reduce the high proportion of subjects with persistent chronic psychotic symptoms. This can enable patients to have paid employment which may reduce their burden. Additionally, in the study conducted in Nigeria (Ohaeri, 2001), families of psychotic patients were proactive in obtaining help from the wide network of relatives, in an attempt to cope with the problem. Instead of giving up and abandoning the patient in frustration, they sought assistance from the extended family and various members responded to their call, hence, the patient's perception of social support was increased. Patients in our sample also reported having received social support. Rose (1996) noted that family members may respond by increasing their efforts to find support for themselves and appropriate treatment for the patient. In our study statements of medication control and provision is related to this discussion. For developing countries, where there seems to be little hope for immediate

developments in national social welfare programs, the researchers and policy makers should focus on articulating measures that can strengthen extended family relations, as a way of providing social support and reducing caregiver burden.

Although our patients had difficulties mostly due to unemployment and financial problems, their major distress was shown to be psychological symptoms of illness. In a country with severe economic hardship, even where the caregivers seem to be tolerant, the care giving role nevertheless diminishes family efficiency, in social performance, because of the disruption of routines of economically active members and the psychic distress of living with the patient's psychotic symptoms.

It is important for our individual and social well being that patients with schizophrenia are employed in jobs suitable for their profession or skills. Regardingly, it is necessary to adopt treatment strategies to provide relief from psychological symptoms of illness, to ease the loneliness resulting from stigmatization and withdrawal from the society, and to help regain skills lost due to unemployment and disturbed communication. Thus, rehabilitation services and psychosocial approaches should be considered as an important part of schizophrenia treatment and management. Additionally it would be beneficial to establish and spread day hospitals in our country. These day hospitals would provide the patients with a work like environment where they can take responsibility, run small businesses, be involved in activities as making the budget and running banking errands, receiving several classes and educational programs. Relapse prevention procedures that include improving environmental conditions, social support, problem solving skills and coping strategies could be included within these adjustments.

5.5 Hypotheses of the Study

The main aim of the present study was to examine the relative power of the caregivers' expressed emotion and perceptions of expressed emotion by the patients on the quality of life and symptom severity of schizophrenic patients.

Specifically, the present study examined the following hypotheses and it was found that:

Hypothesis 1: Perceived Expressed Emotion Scale will have a structure similar to the expressed emotion scale was supported, because the results of the factor analysis for the PEES showed that it had two factors which were similar to the results obtained from the Expressed Emotion Scale. Additionally, in order to test the similarity of two scales, target rotations were conducted and it was found that the factor structures found among PEES and EES were virtually identical.

Hypothesis 2: Perceived criticism/hostility and emotional over-involvement will be correlated with Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement, Behaviour Control, and General Functions of Family Assessment Device (FAD) was partially supported. For perceived criticism/hostility, this hypothesis was supported, because patients' perceived C/H was positively and significantly correlated with all subscales of FAD. For perceived emotional over-involvement, this hypothesis was partially supported, because perceived EOI was only found to be correlated with problem solving and affective involvement. Perceived EOI was negatively and significantly correlated with problem solving and but positively with affective involvement. Thus, the results showed that perceived C/H has more connections with problematic family characteristics.

143

Hypothesis 3 Perceived expressed emotion by patients will have more effects than expressed emotion of caregivers on the symptoms of positive and negative, general psychopathology and total scores of PANSS and physical health, psychological health, social relations domains, and environmental domain of standardized to culture of WHOQOL-BREF was partially supported. The main effects of criticism/hostility and/or emotional over-involvement of perceived expressed emotion were significant on positive and negative symptoms, general psychopathology and total scores of PANSS and social relations domain and environmental domain of standardized to culture of WHOQOL-BREF. Only, the main effect of criticism/hostility of caregivers' expressed emotion was significant for the total scores of PANSS. Thus, the perceptions of EE dimensions by the patients seemed to be a more robust factor influencing well being and quality of life.

Hypothesis 4 Expressed emotion of caregivers will have higher positive and negative symptoms, general psychopathology and total scores of PANSS was partially supported. The main effect of criticism/hostility of caregivers' expressed emotion was not significant on positive and negative symptoms, general psychopathology of PANSS, except for total scores of PANSS. The main effect of emotional over-involvement of caregivers' expressed emotion was not significant on positive and negative symptoms, general psychopathology, and total scores of PANSS.

Hypothesis 5 Expressed emotion of caregivers will have higher physical health, psychological health, social relations domains, and environmental domain of standardized to culture of WHOQOL-BREF was not supported. The main effects of criticism/hostility and emotional over-involvement of caregivers' expressed emotion

144

were not significant physical health, psychological health, social relations domains, and environmental domain of standardized to culture of WHOQOL-BREF.

Hypothesis 6: Patients with high perceived criticism/hostility will have higher positive and negative symptoms of PANSS as compared to patients with low perceived criticism/hostility was supported. Patients with high perceived criticism/hostility had higher positive and negative symptoms of PANSS as compared to patients with low perceived criticism/hostility.

Hypothesis 7: Patients with high perceived emotional over-involvement will have higher positive and negative symptoms of PANSS as compared to patients with low perceived emotional over-involvement was not supported and in fact showed a reverse effect. For positive symptoms of PANSS, patients with low perceived EOI had significantly higher scores than the patients with high perceived EOI. Thus, perceiving emotional over-involvement seemed to be a favorable aspect. This finding was also supported by the answers to the open-ended questions. Patients reported that "moral support" is an important type of support they received from caregivers. Thus, it seems that in the Turkish culture perceiving the care, love, interest, and control from relatives is not toxic, as have been found in western cultures. For negative symptoms of PANSS, the main effects of perceived emotional over-involvement of patients were not significant.

Hypothesis 8: Patients with high perceived criticism/hostility will have higher scores on general psychopathology of PANSS as compared to patients with low perceived criticism/hostility was not supported. Because the main effect of perceived criticism/hostility of patients was not significant on general psychopathology of PANSS.

145

Hypothesis 9: Patients with high perceived emotional over-involvement will have higher scores on general psychopathology of PANSS as compared to patients with low perceived emotional over-involvement was not supported and showed a reverse trend. The patients with low perceived emotional over-involvement had significantly higher scores on PANSS general psychopathology than the patients with high emotional over-involvement. The discussion for hypothesis 2.2 above also holds for this hypothesis.

Hypothesis 10: Patients with high perceived criticism/hostility will have higher total scores of PANSS as compared to patients with low perceived criticism/hostility was supported. The patients with high perceived criticism/hostility had significantly higher scores on PANSS total than the patients with low perceived criticism/hostility.

Hypothesis 11: Patients with high perceived emotional over-involvement will have higher total scores of PANSS as compared to patients with low perceived emotional over-involvement was not supported. Again, the patients with low perceived emotional over-involvement had significantly higher scores on PANSS total than the patients with high perceived emotional over-involvement.

Hypothesis 12: Patients with high perceived criticism/hostility will have higher scores on physical health domain of quality of life as compared to patients with low perceived criticism/hostility was not supported. Because the main effect of perceived criticism/hostility of patients was not significant.

Hypothesis 13: Patients with high perceived emotional over-involvement will have higher scores on physical health domain of quality of life as compared to patients with low perceived emotional over-involvement was not supported. Because

the main effect of perceived emotional over-involvement of patients was not significant.

Hypothesis 14: Patients with high perceived criticism/hostility will have higher scores on psychological health domain of quality of life as compared to patients with low perceived criticism/hostility was not supported. Because the main effect of perceived criticism/hostility of patients was not significant.

Hypothesis 15: Patients with high perceived emotional over-involvement will have higher scores on psychological health domain of quality of life as compared to patients with low perceived emotional over-involvement was not supported. Because the main effect of perceived emotional over-involvement of patients was not significant.

Hypothesis 16: Patients with high perceived criticism/hostility will have higher scores on social relations domain of quality of life as compared to patients with low perceived criticism/hostility was not supported. Because the main effect of perceived criticism/hostility of patients was not significant.

Hypothesis 17: Patients with high perceived emotional over-involvement will have higher scores on social relations domain of quality of life as compared to patients with low perceived emotional over-involvement was supported. The high perceived EOI patient group had significantly higher scores on the social relations domain of WHOQOL-BREF than the low perceived EOI patient group.

Hypothesis 18: Patients with high perceived criticism/hostility will have higher scores on environmental domain of standardized to culture of quality of life as compared to patients with low perceived criticism/hostility was not supported. Because the main effect of perceived criticism/hostility of patients was not significant.

Hypothesis 19: Patients with high perceived emotional over-involvement will have higher scores on environmental domain of standardized to culture of quality of life as compared to patients with low perceived emotional over-involvement was supported. The patients with high perceived emotional over-involvement had significantly higher scores on environmental domain of standardized to culture of WHOQOL-BREF than the patients with low perceived emotional over-involvement.

5.6 Limitations of the study

There are some limitations of the present study that needs to be addressed. Firstly, a six month interval was given between time one and time two assessments in order to examine relapse. Generally schizophrenia research investigate relapse within a nine to twelve month interval and in patients who are hospitalized (Butzlaff and Hooley, 1998). However, due to limitations in time in the present study, the time interval to examine relapse was set to six months. Furthermore, patients at time one were chosen from among out-patients rather than in-patients.

Another limitation of the study is the fact that only one caregiver was interviewed per family. Not all relatives who were centrally involved with the patients were included. There are studies that criticize including only one family member within research (Falloon, 1988; Kavanagh, 1992; Montero, Gomez, Ruiz, Rihe, & Adam, 1992). According to the critics, although conducting research with only one family member is practical, these researches do not fully reflect the family climate. However, within several studies in the literature (Scazufca, & Kuipers, 1996; Bachmann, Bottmer, Jacob, & Schröder, 2006) only one family member was

148

assessed as caregivers. For practical reasons, only one family member, denoted as the main caregivers, was assessed in the present study.

Another limitation of the current study is that, like various studies, quality of life (QOL) assessment was based on self report. QOL is a construct that can be rated both as subjectively and objectively. Within the current study QOL could have been objectively rated by the researcher as well as the patient.

Finally, selection of the patients from the hospital (Ankara Numune Education and Research Hospital) which services to population from middle and low socioeconomic status, led to problems of the representativeness of the sample for other schizophrenic patients. The majority of the present sample had low and middle incomes and educational level. Additionally the majority of the sample consisted of patients who were currently unemployment. The present sample was composed of schizophrenic patients not showing great variation in regards to income, education level and current employment status. The selection of patients' from only one hospital brings about generalizibility problems of the present findings to schizophrenic patients from other socioeconomic groups. However, the present study should also be considered for its large sample size. Despite the above limitations the present study was conducted with 103 patients. Regarding many studies in the literature (Bentsen, Boye, Munkvold, Notland, Lersbryggen, Oskarsson, Ulstein, Uren, Bjørge, Berg-Larsen, Lingjærde, & Malt, 1996; Cutting, Aakre, and Docherty, 2006), the current study is reliable in terms of generalization issues due to its large sample.

5.7 Clinical Implications of the Study and Directions for Future Research

The current study is a comprehensive investigation conducted to examine both expressed emotion of caregivers and the perceived expressed emotion of patients in a sample of Turkish schizophrenic patients. Thus, it can provide guidelines for support services for schizophrenic patients. In order to identify the appropriate choices of treatment for the chronically ill schizophrenic patients, it is important to evaluate the effects of family's expressed emotion and perceived expressed emotion by the patient on symptom severity and quality of life. Results of the current study provided important information on the role of perceived expressed emotion on the quality of life and well-being of schizophrenic patients. The present study investigated the protective and toxic factors for a schizophrenic patient within the Vulnerability- Stress Model. The results showed a good application of this model to a chronic disease as schizophrenia in Turkey. Scales and the model used in the present study could be used with other psychotic disorders, depression, and eating disorders that are sensitive to different needs and perspectives. However necessary revisions should be made for different groups of disorders.

Several scales were used in order to measure expressed emotion and perceived expressed emotion in the literature. Camberwell Family Interview (CFI) is a widely used measure for investigating expressed emotion; however it requires a special training and is time consuming to administer and to score. Instead of CFI, Expressed emotion scale (EES) that was developed by Berksun (1992) was used. This scale was reported as specific to the Turkish culture. Perceived expressed emotion scale (PEES) was adopted from the EES for the current study. Adoption of a

new perceived expressed emotion scale would provide utilizations and comparisons among different patient groups for future research.

As a clinical implication, information regarding relapse and quality of life would be beneficial for developing treatment strategies for schizophrenic patients. QOL measures with WHOQOL –BREF, was an important dependent variable for schizophrenic patients and should be considered together with other clinical outcome measures following patients up. Additionally, subjectively rated scales are useful measures for determining effectiveness and needs of treatment at psychiatry clinics.

The findings of the current study may be utilized by clinicians (psychologists or psychiatrists) in their supportive work both with patients and their families. They need to be aware of the possibility of perceived expressed emotion and its implications. Results of the present study showed that perceived criticism/hostility was especially a risk factor for positive and negative symptoms and total scores of PANSS. There are an increasing number of research studies showing the toxic effects of Perceived C/H for various illnesses. The results of the current study are supportive of these findings. Perceived C/H can easily be measured by Perceived Expressed Emotion Scale which is a reliable and valid scale. The existing C/H in the family and that is perceived by the patient can be decreased via family psychoeducation programs. Importantly according to these findings, family should not be addressed as the only source for influencing the patients' prognosis. Here, the emphasis should be on shaping the effect of family on progress of the illness and symptom exacerbation from toxic to protective. Further research should consider the need for investigating the patterns contributing to high perceived C/H level. Another consideration for future research could be identifying the messages and behaviors

which the patient perceives as high C/H and modifying them through cognitive, restructuring techniques.

Results of the present study indicated that perceived emotional over-involvement was a protective factor on the positive symptoms, general psychopathology, and total scores of PANSS and psychological health, social relations, and environmental domain of standardized to culture of WHOQOL – BREF. Although rarely discussed in the literature, this finding could be considered as an important and specific factor for the Turkish culture. In cases where families were over involved and patients perceived this over involvement as it existed, EOI was shown to have protective features. Thus, EOI should specifically be handled during family interventions. Further research should consider the need for investigating the patterns contributing to high perceived EOI level as well as Perceived C/H. Another consideration for future research could be identifying and reinforcing the messages and behaviors which the patient perceives as high EOI.

As discussed in the limitations section, selection of the patients from only one hospital, patients coming from only low and middle incomes and educational level, and current unemployment, as they reported in the open ended questions section, led to problems of generalizibility of the results. For this reason conducting research with patients from high socio-economic status in future research might result in different findings.

Open ended questions in the present study provided qualitative information about patients' viewpoints on their illness, social support, and daily difficulties. This information consisted of useful data for clinical applications, treatment, and general health policy. Psychological symptoms, stigmatization, social dysfunction, and physical symptoms were the most frequently given distressing aspects of the illness.

152

Any psychoeducation program for the patients and families should include information on psychological and physical symptoms of schizophrenia. By this way distress experienced by the patients could be decreased. The most supportive member of the family was shown to be the mothers in the present study. This finding supported the fact that mothers were the most common primary caregiver in the literature. Familial intervention should include information about equal distribution of burden among family members rather that one member carrying it. The answers given to the question "How do they support you?" were mainly as "moral support". This finding indicates the importance of providing psychological support for schizophrenic patients.

The application of a psychoeducation program, including all the variables of the present study using a longitudinal design can be valuable in future research. Perceived Expressed Emotion Scale is a valid and reliable scale that can be used in further studies. Additionally, the results of the current study implicate the importance of psychological support programs for schizophrenic patients. The study suggests that treatment aimed at lowering patients' perceived criticism/hostility and increasing patients' perceived emotional over-involvement could help to facilitate the well-being and quality of life of schizophrenic patients. Existing cognitive therapy modalities could be used to focus on schizophrenic patients' possible biases in magnify the critical attitudes and in minimizing over-involvement.

REFERENCES

Abi-Dargham, A., & Laruelle, M.(2005). Mechanisms of action of second generation antipsychotic drugs in schizophrenia: insights from brain imaging studies, 20, 1, 15–27.

Akvardar, Y., Akdede, B.B., Ozerdem, A., Eser, E., Topkaya, S., & Alptekin, K. (2006). Assessment of quality of life with the WHOQOL-BREF in a group of Turkish psychiatric patients compared with diabetic and healthy subjects, *Psychiatry and Clinical Neurosciences,* 60, 6, 693-699.

Allison, D.B., Mentore, J.L., Heo, M., Chandler, L.P., Cappelleri, J.C., Infante, M.C., & Weiden, P.J. (1999). Antipsychotic-induced weight gain: a comprehensive research synthesis, *American Journal of Psychiatry*, 156, 11, 1686–1696.

American Psychiatric Association (1994). *DSM-IV: Diagnostic and Statistical Manual of Mental Disorders,* 4th Ed., Washington, DC.

Bachmann, S., Bottmer, C., Jacob, S., & Schröder, J. (2006). Perceived criticism in schizophrenia: A comparison of instruments for the assesment of the patient's perspective and its relation to relatives' expressed emotion, *Psychiatry Research*, 142, 167-175.

Baker, B., Kazarian, S.S., Helmes, E., Ruckman, M., & Tower, N. (1987). Perceived attitudes of schizophrenic inpatients in relation to rehospitalization, *Journal of Consulting and Clinical Psychology*, 55, 5, 775-777.

Barrelet, L., Ferrero, F., Szigethy, L., Giddey, C., & Pellizer, G. (1990). Expressed emotion and first-admission schizophrenia, Nine-month follow-up in a French cultural environment, *British Journal of Psychiatry*, 156, 357-362.

Barrowclough, C., & Tarrier, N. (1984). 'Psychological' interventions with families and their effects on the course of schizophrenia: A review, *Psychological Medicine,* 14, 629-642.

Barrowclough, C., & Hooley, J.M. (2003). Attributions and expressed emotion: A review, *Clinical Psychology Review,* 23, 849–880.

Bentsen, H., Boye, B., Munkvold, O.G., Notland, T.H., Lersbryggen, A.B., Oskarsson, K.H., Ulstein, I., Uren, G., Bjørge, H., Berg-Larsen, R., Lingjærde, O., & Malt, U.F. (1996). Emotional overinvolvement in parents of patients with schizophrenia or related psychosis: Demographic and clinical predictors, *British Journal of Psychiatry*, 169, 622-630.

Berksun, O. E. (1992). Şizofrenide aile faktörü: Expressed emotion (EE) ölçek geliştirme ve uyarlama denemesi [Family factor in schizophrenia: Developing

and adaptation an expressed emotion scale. Unpublished doctorate thesis]. Ankara Üniversitesi Tıp Fakültesi Yayınlanmamış Uzmanlık Tezi.

Bobes, J., García-Portilla, P., Sáiz, P.A., Bascarán, T., & Bousoño, M. (2005). Quality of life measures in schizophrenia, *European Psychiatry*, 3, 313-317.

Breitborde, N.J., López, S.R., Wickens, T.D., Jenkins, J.H., & Karno, M.(2007). Toward specifying the nature of the relationship between expressed emotion and schizophrenic relapse: the utility of curvilinear models, *International Journal of Methods in Psychiatric Research*, 16, 1, 1–10.

Bromet, E.J., & Fennig, S. (1999). Epidemiology and natural history of schizophrenia, *Biological Psychiatry*, 46, 871-881.

Brown, G.W., & Rutter, M. (1986). The measurement of family activities and relationships: methodological study, *Human Relations*, 19, 241-263.

Brown, G.W., Birley, J.L.T., & Wing, J.K. (1972). Influence of family life on the course of schizophrenic disorders: A replication, *British Journal of Psychiatry*, 121, 241-258.

Brown, G.W., Carstairs, G. M., & Topping, G. C. (1958). The post hospital adjustment of chronic mental patients, *The Lancet*, ii, 685-689.

Bulut, I. (1990). Aile Değerlendirme Ölçeği Elkitabı, Özgüzeliş Matbaası, Ankara.

Butzlaff, R.L. & Hooley, J.M. (1998). Expressed emotion and psychiatric relapse A meta-analysis, *Archives of General Psychiatry*, 55, 547-552.

Cancro, R., & Lehmann, H.E. (2000). Schizophrenia: Clinical features, *Comprehensive Textbook of Psychiatry*, Eds. B.J. Sadock & V.A. Sadock, Seventh Edition, Lippincott Williams & Wilkins, Philadelphia.

Cansever, A. (1994). Ailenin duygu dışavurumunun skizofrenik bozukluğun seyri üzerine etkisi. [The effect of expressed emotion of the family on the prognosis of schizophrenic disorder] Genel Kurmay Başkanlığı Gülhane Askeri Tıp Akademisi Askeri Tıp Fakültesi Ruh Sağlığı ve Hastalıkları Ana Bilim Dalı Başkanlığı, Yayınlanmamış Uzmanlık Tezi.

Caton, C.L., Cournos, F., Felix, A., & Wyatt, R.J. (1998). Childhood experiences and current adjustment of offspring of indigent patients with schizophrenia, *Psychiatry Services*, 49, 1, 86–90.

Chambless, D.L., & Steketee, G. (1999). Expressed emotion and behavior therapy outcome: A prospective study with obsessive-compulsive and agoraphobic outpatients, *Journal of Consulting and Clinical Psychology*, 67, 658-665.

Chien, I., Chou, Y., Lin, C., Bih, S., Chou, P., & Chang, H. (2004). Prevalence and incidence of schizophrenia among national health insurance enrollees in Taiwan 1996-2001, *Psychiatry and Clinical Neurosciences*, 58, 611-618.

Cohen, J. (1960). A coefficient of aggrement for nominal scales, *Educational and Psychological Measurement*, XX. 1, 37-46.

Cole, J.D. & Kazarian, S.S. (1988). The level of expressed emotion scale: A new measure of expressed emotion, *Journal of Clinical Psychology,* 44, 3, 392-397.

Cooney, C., Howard, R., & Lawlor, B. (2006). Abuse of vulnerable people with dementia by their carers: can we identify those most at risk? *International Journal of Geriatric Psychiatry*, 21, 6, 564-571.

Cutting, L.P., Aakre, J.M., & Docherty, N.M. (2006). Schizophrenic patients' perceptions of stress, expressed emotion, and sensitivity to criticism, *Schizophrenia Bulletin*, 32, 4, 743–750.

Çetingök, M., Chu, C.C., & Park D.B. (1990), The effect of culture. On the sex differences in schizophrenia, *International Journal of Social Psychiatry,* 36, 272-279.

DeLisi, L.E, Szulc, K.U., Bertisch, H.C., Majcher, M., & Brown, K. (2006) Understanding structural brain changes in schizophrenia, *Dialogues in Clinical Neuroscience*, 8, 1, 71–78.

Doğan, O., Akyüz, G., Kaya, B., Önder, Z., & Özkürkçügil, A. (1996). Ruhsal Bozuklukların Epidemiyolojisi II, Dilek Matbaası, Sivas.

El Islam, E.F. (1979). A better outlook for schizophrenics living in extended families, *British Journal of Psychiatry*, 135, 343-347.

Epstein, N.B., Baldwin, L.M., & Bishop, D.S. (1983). The McMaster family assessment device, *Journal of Marital and Family Therapy*, 9, 2, 171-180.

Falloon, I.R.H.(1988). Expressed emotion: current status, *Psychological Medicine,* 11, 329–339.

Fidaner, H., Elbi, H., Fidaner, C., Yalçın Eser, S., Eser, E., & Göker, E. (1999). WHOQOL 100 ve WHOQOL-BREF'in psikometrik özellikleri, *3P Psikiyatri Psikoloji Psikofarmakoloji Dergisi,* 7, Ek Sayı:2, 23–41.

Fitzgerald, P.B., de Castella, A. R., Filia, K., Collins, J., Brewer, K., Williams, C.L., Davey, P., & Kulkarni, J. (2003). A longitudinal study of patient- and observer rated quality of life in schizophrenia, *Psychiatry Research*, 119, 55–62.

Gelder, M.G., López-Ibor, J.J., & Andreasen, N. (2000). New Oxford Textbook of Psychiatry, Oxford University Press.

Green, S.B., Salkind, N.J., & Akey T.M. (1997). Using SPSS for windows. New Jersey: Prentice Hall.

Greenberg, J.S., Knudsen, K.J., & Aschbrenner, K.A. (2006). Prosocial family processes and the quality of life of persons with schizophrenia, P*sychiatric Services*, 57, 12, 1771-1777.

Hall, M.J., & Docherty, N.M. (2000). Parent coping styles and schizophrenic patient behavior as predictors of expressed emotion, *Family Process*, 39, 435-444.

Hewitt, J. (2007). Critical evaluation of the use of research tools in evaluating quality of life for people with schizophrenia, *International Journal Of Mental Health Nursing,* 16, 1, 2–14.

Hinrichsen, G.A., & Pollack, S. (1997). Expressed emotion and the course of late-life depression, *Journal of Abnormal Psychology*, 106, 2, 336-340.

Hodes, M., Garralda, M.E., Rose, G., & Schwartz, R. (1999). Maternal expressed emotion and adjustment in children with epilepsy, *The Journal of Child Psychology and Psychiatry and Allied Disciplines,* 40, 1083-1093.

Hogarty, G.E., Anderson, C.M., Reiss, D.J., Kornblith, S.J., Greenwald, D.P., Javna, C.D., & Madonia, M.J. (1986). Family psychoeducation, social skills training, and maintenance chemotherapy in the aftercare treatment of schizophrenia, *Archieves of General Psychiatry*, 43, 633-642.

Hooley, J.M. (1985). Expressed emotion: A review of the critical literature, *Clinical Psychology Review*, 5, 119-139.

Hooley, J.M. (2007). Expressed emotion and relapse of psychopathology, *Annual Review of Clinical Psychology*, 3, 329-352.

Hooley, J.M., & Hiller, J.B. (2000). Personality and expressed emotion, *Journal of Abnormal Psychology,* 109, 40-44.

Hooley, J.M., & Teasdale, J.D. (1989). Predictors of relapse in unipolar depressives: Expressed emotion, marital distress and perceived criticism, *Journal of Abnormal Psychology*, 98, 3, 229-235.

Hughes, C., Kumari, V., Soni, W., Das, M., Binneman, B., Drozd, S., O'Neil, S., Mathew, V., & Sharma, T. (2003). Longitudinal study of symptoms and cognitive function in chronic schizophrenia, *Schizophrenia Research*, 59, 137–146.

Jenkins, J.H., & Karno, M. (1992). The meaning of expressed emotion: Theoretical issues raised by cross-cultural research, *American Journal of Psychiatry,* 149, 1, 9-21.

Jenkins, J.H., & Schumacher, J.G. (1999). Family burden of schizophrenia and depressive illness, Specifying the effects of ethnicity, gender and social ecology, *British Journal of Psychiatry*, 174, 31-38.

Kağıtçıbaşı, Ç. (1979). Türkiye'de çocuğun değeri, kadının rolü ve doğurganlığı, *Türk toplumunda kadın*, Ed: N.A.Unat, O. Kandiyoti, M. Kıray, Çağ Basımevi, Ankara.

Kandel, E.R. (2000). Disorders of thought and volition: schizophrenia, *Principles of Neural Science*, Eds: Eric R. Kandel, James H. Schwartz and Thomas M. Jessel, 4th Ed. Mc Graw Hill, USA.

Kaplan, H.I., & Sadock, B.J. (2003). *Kaplan & Sadock's Synopsis of Psychiatry, Behavioral Sciences/Clinical Psychiatry,* IXth edition, Lippincot Williams&Wilkins.

Karanci, A.N., & Inandilar, H. (2002). Predictors of components of expressed emotion in major caregivers of Turkish patients with schizophrenia, *Social Psychiatry and Psychiatric Epidemiology*, 37, 80-88.

Karow, A., Moritz, S., Lambert, M., Schoder, S. & Krausz, M., (2005). PANSS syndromes and quality of life in schizophrenia, *Psychopathology*, 38, 6, 320-326.

Kavanagh, D.J. (1992). Recent developments in expressed emotion and schizophrenia, *British Journal of Psychiatry*, 160, 601-620.

Kay, S.R., (1990). Significance of the positive-negative distinction in schizophrenia, *Schizophrenia Bulletin*, 16, 4, 635-652.

Kay, S.R., Fiszbein, A., & Opler, L.A. (1987). The positive and negative syndrome scale (PANSS) for schizophrenia, *Schizophrenia Bulletin,* 13, 2, 261–276.

Kazarian, S.S. (1992). The measurement of expressed emotion: a review, *Canadian Journal of Psychiatry*, 37, 1, 51–56.

King, S., & Dixon, M. (1999). Expressed emotion and relapse in young schizophrenia outpatients, *Schizophrenia Bulletin,* 25, 377-386.

Kopelowicz, A., López, S.R., Zarate, R., O'Brien, M., Gordon, J., Chang, C., & Gonzalez-Smith, V., (2006). Expressed emotion and family interactions in Mexican Americans with schizophrenia, *Journal of Nervous and Mental Disease*, 194, 5, 330–334.

Kostakoğlu (Anıl), A.E., Batur, S., Tiryaki, A., & Göğüş, A. (1999). Pozitif ve negatif sendrom ölçeğinin (PANSS) Türkçe uyarlamasının geçerlik ve güvenirliği, *Türk Psikoloji Dergisi,* 14, 23–32.

Kuipers, L. (1992). Expressed emotion in 1991, *Social Psychiatry and Psychiatric Epidemiology*, 27, 1-3.

Lang, U.E., Puls, I., Muller, D.J., Strutz-Seebohm, N., & Gallinat, J. (2007). Molecular mechanisms of schizophrenia, *Cellular Physiology and Biochemistry,* 20, 6, 687–702.

Lean, M.E., & Pajonk, F.G. (2003). Patients on atypical antipsychotic drugs: another high-risk group for type 2 diabetes, *Diabetes Care*, 26, 5, 1597–1605.

Lebell, M.B., Marder, S.R. Mintz, J., Mintz, L.I., Tompson, M., Wirshing, W., Johnston-Cronk, K., & McKenzie, J. (1993). Patients' perceptions of family emotional climate and outcome in schizophrenia, *British Journal of Psychiatry*, 162, 751-754.

Lefley, H.P. (1992). Expressed emotion: Conceptual, clinical and social policy issues, *Hospital and Community Psychiatry*, 43, 6, 591-598.

Leung, A., & Chue, P., (2000). Sex differences in schizophrenia, A review of the literature, *Acta Psychiatrica Scandinavica*, 101, 3-38.

Lewis, D.A., & Lieberman, J.A. (2000). Catching up on schizophrenia, natural history and neurobiology, *Neuron*, 28, 2, 325-334.

Liakopoulou, M., Alifieraki, T., Katideniou, A., Peppa, M., Maniati, M., Tzikas, D., Hibbs, E.D., & Dacou-Voutetakis, C. (2001). Maternal expressed emotion and metabolic control of children and adolescents with diabetes mellitus, *Psychotherapy and Psychosomatics*, 70, 2, 78-85.

Liddle, P.F. (2000). Descriptive Clinical Features of Schizophrenia, *New Oxford Textbook of Psychiatry*, Eds. M.G. Gelder, J.J.López-Ibor, N. Andreasen, Oxford University Press.

Linszen, D.H., Dingemans, P.M., Nugter, M.A., Van der Does, A.J.W., Scholte, W.F., & Lenior, M.A., (1997). Patient attributes and expressed emotion as risk factors for psychotic relapse, *Schizophrenia Bulletin*, 23, 1, 119-130.

López, S.R., Nelson Hipke, K., Polo, A.J., Jenkins, J.H., Karno, M., Vaughn, C., & Snyder, K.S. (2004). Ethnicity, expressed emotion, attributions, and course of schizophrenia: family warmth matters, *Journal of Abnormal Psychology*, 113, 3, 428–439.

Maguire, G.A. (2002). Comprehensive understanding of schizophrenia and its treatment, *American Journal of Health System Pharmacy*, 59, 17 Suppl 5, 4-11.

Marom, S., Munitz, H., Jones, P.B., Weizman, A., & Hermesh, H. (2002). Familial expressed emotion: Outcome and course of Israeli patients with schizophrenia, *Schizophrenia Bulletin*, 28, 4, 731-743.

Martins, C., de Lemos, A.I., & Bebbington, P.E. (1992). A Portuguese/ Brazilian study of expressed emotion, *Social Psychiatry and Psychiatric Epidemiology*, 27, 22-27.

Mottaghipour, Y., Pourmand, D., Maleki, H. & Davidian, L. (2001). Expressed emotion and the course of schizophrenia in Iran, *Social Psychiatry and Psychiatric Epidemiology*, 36, 195-199.

McGlashan, T.H. & Fenton, W.S., (1992). The positive-negative distinction in schizophrenia, *Archives General Psychiatry,* 49, 1, 63-72.

Miklowitz, D.J., & Johnson, S.L. (2006). The psychopathology and treatment of bipolar disorder, *Annual Review of Clinical Psychology*, 2, 199-235.

Miklowitz, D.J., Wisniewski, S.R., Miyahara, S., Otto, M.W., & Sachs, G.S. (2005). Perceived criticism from family members as a predictor of the one-year course of bipolar disorder, *Psychiatry Research*, 136, 2-3, 101-111.

Miller, I.W., Epstein, N.B., Bishop, D.S., & Keitner, G.I. (1985). The McMaster family assessment device: Reliability and validity. *Journal of Marital and Family Therapy*, 11, 345–356.

Moline, R.A., Singh, S., Morris, A., & Meltzer, H.Y. (1985). Family expressed emotion and relapse in schizophrenia in 24 urban American patients, *American Journal of Psychiatry*, 142, 1078-1081.

Montero, I., Gomez, B.Y., Ruiz, I., Rihe, E., & Adam, A. (1992). The influence of family expressed emotion on the course of schizophrenia in a sample of Spanish patients, A two year follow up study, *British Journal of Psychiatry,* 161, 217-222.

Moulds, M.L., Touyz, S.W., Schotte, D., Beumont, P.J., Griffiths, R., Russell, J., & Charles, M. (2000). Perceived expressed emotion in the siblings and parents of hospitalized patients with anorexia nervosa, *International Journal of Eating Disorders*, 27, 3, 288-296.

Mubarak, A.R., & Barber, J.G. (2003). Emotional expressiveness and the quality of life of patients with schizophrenia, *Social Psychiatry and Psychiatric Epidemiology*, 38, 7, 380- 384.

Narvaez, J.M., Twamley, E.W., McKibbin, C.L., Heaton, R.K., & Patterson, T.L. (2007). Subjective and objective quality of life in schizophrenia, *Schizophrenia Research*, October 3, [Epub ahead of print].

Nuechterlein, K.H., & Dawson, M.E. (1984) A heuristic vulnerability/stress model of schizophrenic episodes, S*chizophrenia Bulletin*, 10, 2, 300-312.

O'Farrell, T.J., Hooley, J., Fals-Stewart, W., & Cutter, H.S.(1998). Expressed emotion and relapse in alcoholic patients, *Journal of Consulting and Clinical Psychology*, 66, 5, 744-752.

Ohaeri, J., U. (2001). Caregiver burden and psychotic patients' perception of social support in a Nigerian setting, *Social Psychiatry and Psychiatric Epidemiology*, 36, 86-93.

Okasha, A., El Akabawi, A. S., Snyder, K. S., Wilson, A. K., Youssef, I., & El Dawla, A.S. (1994). Expressed emotion, perceived criticism and relapse in

depression: A replication in an Egyptian community, *American Journal of Psychiatry*, 151, 7, 1001-1005.

Olfson, M., Marcus, S.C., Corey-Lisle, P., Tuomari, A.V., Hines, P., & L'Italien, G.J. (2006). Hyperlipidemia following treatment with antipsychotic medications, *American Journal of Psychiatry*, 163,10, 1821–1825.

Örsel, S., Akdemir, A., & Dağ, İ. (2004). The sensitivity of quality of life scale WHOQOL-100 to psyhopathological measures in schizophrenia, *Comprehensive Psychiatry*, 45, 1, 57-61.

Özden, A. (1995). Şizofren hastalarda relaps ve ailelerinde dışavuran duygudurum ilişkisi [The relationship between relaps of schizophrenic patients and expressed emotion on their families]. Ankara Üniversitesi Tıp Fakültesi Psikiyatri Anabilim Dalı. Yayınlanmamış Uzmanlık Tezi.

Parker, G., & Johnson, P. (1987). Parenting and schizophrenia: An Australian study of expressed emotion, *Australian and New Zealand Journal of Psychiatry*, 21, 60-66.

Parker, G., Johnston, P., & Hayward, L. (1988). Parental 'expressed emotion' as a predictor of schizophrenic relapse, *Archives of General Psychiatry*, 45, 806-813.

Peris, T.S., & Hinshaw, S.P. (2003). Family dynamics and preadolescent girls with ADHD: the relationship between expressed emotion, ADHD symptomatology, and comorbid disruptive behavior, *Journal of Child Psychology and Psychiatry*, 44, 8, 1177-1190.

Prince, J.D. (2007). Education, ethnicity, and subjective life quality of recently discharged inpatients with schizophrenia, *Journal of Nervous and Mental Disease*, 195, 7, 560–565.

Renshaw, K.D., Chambless, D.L., & Steketee, G. (2003). Perceived criticism predicts severity of anxiety symptoms after behavioral treatment in patients with obsessive- compulsive disorder and panic disorder with agoraphobia, *Journal of Clinical Psychology,* 59, 4, 411-421.

Rhoades, D.R. (2000). Schizophrenia: A Review for Family Counselors, *The Family Journal: Counseling and Therapy for Couples and Families,* 8, 3, 258-266.

Ritsner, M., Modai, I., Endicott, J., Rivkin, O., Nechamkin, Y., Barak, P., Goldin, V., & Ponizovsky, A. (2000). Differences in quality of life domains and psychopathologic and psychosocial factors in psychiatric patients, *Journal of Clinical Psychiatry*, 61, 11, 880–889.

Rodríguez Santos, L., & Vaz Leal, F.J. (2005). Assessment of expressed emotion in families of patients with eating disorders: using the Camberwell Family Interview on a Spanish sample, *Actas españolas de psiquiatría*, 33, 6, 359–365.

Rose, L.E. (1996). Families of psychiatric patients: A critical review and future research directions, *Achives of PsychiatricNursing*, 10, 2, 67-76.

Rosenfarb, I.S., Bellack, A.S., Aziz, N., Kratz, K.M. & Sayers, S. (2004). Race, family interactions, and patient sabilization in schizophrenia, *Journal of Abnormal Psychology*, 113, 109-115.

Sağduyu, A., Aker, T, Özmen, E., Ögel, K., & Tamar, D. (2001). Halkın şizofreniye bakış ve yaklaşımı üzerine bir epidemiyolojik araştırma, *Türk Psikiyatri Dergisi,* 12, 99-110.

Scazufca, M., & Kuipers, E. (1996). Links between expressed emotion and burden of care in relatives of patients with schizophrenia, *British Journal of Psychiatry*, 168, 580-587.

Scazufca, M., & Kuipers, E. (2001). Perception of negative emotions in close relatives by patients with schizophrenia, *British Journal of Clinical Psychology,* 40, 167-175.

Schultz, S.H., North, S.W., & Shields, C.G. (2007). Schizophrenia: A review, *American Family Physician*, 75, 1821-1829.

Scott, R.D., Fagin, L., & Winter, D. (1993). The importance of the role of the patient in the outcome of schizophrenia, *British Journal of Psychiatry*, 163, 62-68.

Seaburn, D.B., Lyness, J.M., Eberly, S., & King, D.A., (2005). Depression, perceived family criticism, and functional status among older, primary-care patients, American *Journal of Geriatric Psychiatry*, 13, 9, 766-772.

Shimodera, S., Inoue, S., Tanaka, S., & Mino, Y. (1998). Critical Comments Made to Schizophrenic Patients by Their Families in Japan, *Comprehensive Psychiatry,* 39, 85-90.

Slade, P.D., & Haddock, G. (1996). *Cognitive- Behavioural Interventions with Psychotic disorders: A Historical Overview of Psychological Treatments for Psychotic Symptoms*, Eds: Gillian Haddock and Peter D. Slade, Routledge, London.

Soykan, Ç. (2000). Şizofreni hastalarının aileleriyle yapılan iletişim becerileri odaklı psiko-eğitim grup programının aile işlevleri üzerindeki etkisi [The effects of communication skills training focused family psychoeducational group approach on family functioning in the families of schizophrenic patients], Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü Yayınlanmamış Doktora Tezi.

Stahl, S.M. (2000). *Essential psychopharmacology Neuroscientific basis and practical applications*, 2nd Ed., Cambridge University Press, United Kingdom.

Stone, M.H. (2006). History of Schizophrenia and Its Antecedents, *Textbook of Schizophrenia*, Eds. J.A. Lieberman, T. S. Stroup, D.O.Perkins, The American Psychiatric Publishing.

Tarrier, N. (1996). Family interventions and schizophrenia, Eds. G. Hadock & P.D. Slade, *Cognitive-Behavioural Interventions with Psychotic Disorders (pp 212-234)*. Routledge; London and New York.

Tarrier, N., Barrowclough, C., Ward, J., Donaldson, C., Burns, A., & Gregg, L., (2002). Expressed emotion and attributions in the carers of patients with Alzheimer's disease: the effect on carer burden, *Journal of Abnormal Psychology*, 111, 2, 340-349.

Tarrier, N., Sommerfield, C., & Pilgrim, H. (1999). Relatives' expressed emotion (EE) and PTSD treatment outcome, *Psychological Medicine*, 29, 4, 801-811.

Thompson, M. C., Goldstein, M.J., Lebell, M.B., Mintz, L.I., Marder, S.R., & Mintz, J. (1995). Schizophrenic patients' perceptions of their relatives' attitudes, *Psychiatry Research,* 57, 155-167.

Tuna, A. (1999). Akıl hastalarının sosyal red durumunun hasta ailesi üzerindeki etkilerinin araştırılması, *Düşünen Adam*, 12 (3), 50-61.

Uslu, R., Kapci, E.G., & Erden, G. (2006). Psychoeducation and expressed emotion by parents of children with learning disorders, *Psychological Reports*, 98, 2, 291-306.

van de Vijver, F., & Leung, K. (1997). *Methods and Data Analysis for Cross-cultural Research.* Sage, London.

van Furth, E.F., van Strien, D.C., Martina, L.M., van Son, M.J., Hendrickx, J.J., & van Engeland, H. (1996). Expressed emotion and the prediction of outcome in adolescent eating disorders, *International Journal of Eating Disorder*, 20, 1, 19-31.

Van Humbeeck, G., Van Audenhove, Ch., De Hert, M., Pieters, G., & Storms, G., (2002). Expressed emotion, A review of assessment instruments, *Clinical Psychology Review*, 22, 321-341.

Vaughan, K., Doyle, M., McConaghi, N., Blaszcynski, A., Fox, A., & Tarrier, N. (1992). The relationship between relative's expressed emotion and schizophrenic relapse: An Australian replication, *Social Psychiatry and Psychiatric Epidemiology*, 27, 10-15.

Vaughn, C.E., & Leff, J. (1976b) The measurement of expressed emotion in the families of psychiatric patients, *British Journal of Social and Clinical Psychology,* 15, 157-165.

Vaughn, C.E., & Leff, J.P. (1976a). The influence of family and social factors on the course of psychiatric illness, A comparison of schizophrenic and depressed neurotic patients, *British Journal of Psychiatry,* 129, 125-137.

Vaughn, C.E., Snyder, K.S., Jones, S., Freeman, W.B., & Fallon, I.R.H. (1984). Family factors in schizophrenic relapse: Replication in California of British research on expressed emotion, *Archives of General Psychiatry*, 41, 169-177.

Warner, R., & Atkinson, M. (1988). The relationship between schizophrenic patients' perceptions of their parents and the course of their illness, *The British Journal of Psychiatry*, 153,344-353.

Wearden, A.J., Tarrier, N., & Davies, R., (2000). Partners' expressed emotion and the control and management of type 1 diabetes in adults, *Journal of Psychosomatic Research*, 49, 2,125-130.

Weisman, A.G., Rosales, G.A., Kymalainen, J.A., & Armesto, J.C. (2006). Ethnicity, expressed emotion, and schizophrenia patients' perceptions of their family members' criticism, *Journal of Nervous Mental Disease*, 194, 9, 644-649.

Wig, N.N., Menon, D.K., Bedi, H., Ghosh, A., Kuipers, L., Leff, J., Korten, A., Day, R., Sartorius, N., Ernberg, G., & Jablensky, A. (1987). Expressed emotion and schizophrenia in North India, *British Journal of Psychiatry,* 151, 156-173.

Xiang, Y.T., Weng, Y.Z., Leung, C.M., Tang, W.K., & Ungvari, G.S. (2007). Quality of life of Chinese schizophrenia outpatients in Hong Kong: relationship to sociodemographic factors and symptomatology, *Australian and New Zealand Journal of Psychiatry*, 4, 5, 442-449.

Yang, L.H., Phillips, M.R., Licht, D.M., & Hooley, J.M (2004). Causal attributions about schizophrenia in families in China: Expressed emotion and patient relapse, *Journal of Abnormal Psychology*, 113, 4, 592-602.

Yıldız, M., Veznedaroğlu, B., Eryavuz, A., & Kayahan, B. (2004). Psychosocial skills training on social functioning and quality of life in the treatment of schizophrenia: A controlled study in Turkey, *International Journal of Psychiatry in Clinical Practice,* 8, 219-225.

Zubin, J., & Spring, B., (1977). Vulnerability- a new view of schizophrenia, *Journal of Abnormal Psychology,* 86, 2, 103-126.

APPENDICES

APPENDIX A

BİLGİLENDİRİLMİŞ ONAY FORMU

Psikiyatrik hastalığınız nedeni ile başvurduğunuz Ankara Numune Eğitim ve Araştırma Hastanesi 1. Psikiyatri Kliniği'nde tarafımdan yapılacak bir çalışmaya davet edilmektesiniz.

Bu çalışmanın amacı şizofreni hastalarının ve ailelerinin duygu dışavurum düzeyleri arasındaki ilişkiyi ve bu ilişkinin hastalık belirtileri üzerine etkisini incelemektir. Bu sırada hastalık belirtilerinin değerlendirilmesi amacıyla size bazı testler uygulanacaktır.

Bu araştırmaya gönüllü olarak katılıyorsunuz. Katılmayı tercih ederseniz, fikrinizi değiştirdiğinizde araştırmadan ayrılabilirsiniz. Bu durumda hastalığınızın gerektirdiği tıbbi bakım size hiçbir aksama olmadan verilecektir. Bu araştırmada kimliğiniz gizli tutulacaktır. Araştırma bulguları yayınlansa da kimlik bilgileriniz gizli tutulacaktır. Ancak yasal gereklerin yerine getirilebilmesi için, kimliğinizi içeren kayıtlara etik kurul üyeleri tarafından bakılabilir. Bu belgeyi imzalayarak buna izin vermektesiniz. Çalışma hakkında daha fazla bilgi almanız mümkündür. Bunun için Uzman Klinik Psikolog Gülbahar Baştuğ ile doğrudan görüşebilir ya da (0312) 310 30 30/5115 no'lu telefondan ulaşabilirsiniz.

Gülbahar Baştuğ
Uzman Klinik Psikolog

Prof. Dr. A. Nuray Karancı
ODTÜ Psikoloji Bölümü

1. Yukarıdaki çalışma ile ilgili olarak, bilgilendirme formunu okudum ve aklıma takılan soruları sorabildim.	
2. Bu araştırmaya katılmanın gönüllülük esasına göre olduğunu anladım. İstediğim taktirde, herhangi bir neden göstermeksizin ve sonraki tıbbi bakımımın aksamayacağını bilerek bu çalışmadan çekilme kararı verebilirim.	
3. Bana ait kayıtların sağlık otoritelerince incelenebileceğini anladım ve bu kişilere izin veriyorum.	
4. Yukarıda belirtilen çalışmaya katılmayı kabul ediyorum.	

Gönüllü (hastanın) adı soyadı   Tarih   İmza
……………………………   ..../……/……
…………….

Gönüllü (hasta yakının) adı soyadı   Tarih   İmza
……………………………   ..../……/……
…………….

KİMLİK BİLGİLERİ VE DEMOGRAFİK ÖZELLİKLER

<u>HASTANIN</u>

Adı Soyadı:

Cinsiyeti:　　　　　Kadın (　)　　　　　Erkek (　)

Doğum Yeri:_____　　　Doğum Tarihi:____/____/_____

Yaşı:_____

Medeni Durumu:　　Bekar (　)　　Evli (　)　　Dul (　)　　Boşanmış (　)

Çocuğu var mı? Var (　)　　　　　Yok (　)

Varsa, sayısı_____

Ev Adresi:_____
_____

Telefon Numarası: _____

Ailenin Yaklaşık Geliri:
(Bu konuda bilgi verip vermemekte serbest olduğu hastaya bildirilir. İstenen bilgi, sadece hastanın değil, yaşadığı eve giren toplam gelirdir.)

● Eğitim Durumu:
　　　　En son mezun olduğu okul:　Okuma yazma bilmiyor　　(　)
　　　　　　　　　　　　　　　　　　Okuma yazma biliyor　　　(　)
　　　　　　　　　　　　　　　　　　İlkokul mezunu　　　　　　(　)
　　　　　　　　　　　　　　　　　　Ortaokul mezunu　　　　　(　)
　　　　　　　　　　　　　　　　　　Lise mezunu　　　　　　　(　)
　　　　　　　　　　　　　　　　　　Üniversite mezunu　　　　(　)
　　　　　　　　　　　　　　　　　　Yüksek lisans/Doktora　　(　)

● İş Durumu:
　　　　Şu anda çalışıyor mu?　　　Evet (　)　　　　　Hayır (　)

　　　　Çalışıyorsa ne iş yapıyor?_____

　　　　Çalışmıyorsa, işten ayrılma nedeni nedir?_____

　　　　Ne kadar süredir çalışmıyor?_____

Sosyal Güvencesi var mı?   Var ( )   Yok ( )

Varsa, Sosyal Güvenlik Kurumu hangisidir?
        SSK ( )   Emekli Sandığı ( ) Bağ-Kur ( ) Yeşil Kart ( )

● Ev Ortamı:
    Yaşadığı ev kaç odalı?_____

    Evde kendisine ait odası var mı? Var ( )   Yok ( )

    Kimlerle birlikte yaşıyor? _____

● Hastalık Bilgisi:

    İlk kez kaç yaşındayken hasta olduğu_____

    Ne kadar zamandır hasta?_____

    Kaç yaşındayken hastalık tanısı aldığı?_____

    Kaç yaşındayken ilk tedaviye başlandığı?_____

    Bu hastalık nedeniyle toplam kaç yıldır tedavi olduğu?_____

    Hastaneye yatışı var mı? Var ( )   Yok ( )

    Hastaneye yatışı varsa, kaç kez yattığı?_____

    Son üç aydır düzenli kullandığı ilaç var mı? Var ( )   Yok ( )

    İlacın adı:_____

Aileniz içinde, gerektiğinde sizinle en çok ilgilenen, bakımınızı üstlenen kişi kimdir?

……………………………………….

PEES

Açıklama: Aşağıda ailenizin içinde sizinle en çok ilgilenen kişiyle olan ilişkilerinizi anlamaya yönelik bazı ifadeler bulunmaktadır. Her bir cümleyi dikkatle okuyup bu cümlenin sizin için doğru olup olmadığını işaretleyiniz. Daha sonra bunun sizi rahatsız edip etmediğini belirtiniz. Eğer rahatsız ediyorsa ne kadar ettiğini göstermek için o ifadenin yanındaki parantezi işaretleyiniz.

1. Benim bazı şeyleri kasten yaptığımı düşünüyor ve öfkeleniyor. (D)   (Y)

  Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                      Ediyorsa, ne kadar?
                                      Az ( )   Orta ( )   Çok ( )

2. Benim hasta olduğuma inanmıyor. (D)   (Y)

  Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                        Ediyorsa, ne kadar?
                                      Az ( )   Orta ( )   Çok ( )

3. Benimle sohbet etmekten hoşlanıyor. (D)   (Y)

  Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                        Ediyorsa, ne kadar?
                                      Az ( )   Orta ( )   Çok ( )

4. Onun için benim isteklerim diğer aile üyelerininkinden daha önemlidir. (D)   (Y)

  Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                        Ediyorsa, ne kadar?
                                      Az ( )   Orta ( )   Çok ( )

5. Benimle ilgili her şeyi, bana özel konuları bile öğrenmeye çalışıyor. (D)   (Y)

  Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                        Ediyorsa, ne kadar?
                                      Az ( )   Orta ( )   Çok ( )

6. Benim varlığım onu deli ediyor. (D)   (Y)

  Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                        Ediyorsa, ne kadar?
                                      Az ( )   Orta ( )   Çok ( )

7. Ne hata yaptık da, o böyle oldu diye düşünüp düşünüp yanıyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?
                                           Az ( )   Orta ( )   Çok ( )

8. Benim bazı yönlerimi beğeniyor ve takdir ediyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?
                                           Az ( )   Orta ( )   Çok ( )

9. Bana sık sık öğüt veriyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?
                                           Az ( )   Orta ( )   Çok ( )

10. Benimle uyuşamıyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?
                                           Az ( )   Orta ( )   Çok ( )

11. Ne halin varsa gör diye beni bıraktı artık. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?
                                           Az ( )   Orta ( )   Çok ( )

12. Aile içinde benim her şeyimle o ilgileniyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?
                                           Az ( )   Orta ( )   Çok ( )

13. Bana kırılıyor, güceniyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?
                                           Az ( )   Orta ( )   Çok ( )

14. Benim fikirlerimi sonuna kadar dinler. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                           Ediyorsa, ne kadar?

Az ( )　　Orta ( )　　Çok ( )

15. Benim üstüme titrer. (D)　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐
　　　　　　　　　　　　　　　　Ediyorsa, ne kadar?
　　　　　　　　　　　　　　　　Az ( )　　Orta ( )　　Çok ( )

16. Benimleyken başka şeyle ilgilenemiyor, ilgisi hep benimle oluyor. (D)　　　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐
　　　　　　　　　　　　　　　　Ediyorsa, ne kadar?
　　　　　　　　　　　　　　　　Az ( )　　Orta ( )　　Çok ( )

17. Onun hayatını yaşamasına engel olduğumu düşünüyor. (D)　　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐
　　　　　　　　　　　　　　　　Ediyorsa, ne kadar?
　　　　　　　　　　　　　　　　Az ( )　　Orta ( )　　Çok ( )

18. Ben hasta oldum diye dünya başına yıkılmış gibi geliyor. (D)　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐
　　　　　　　　　　　　　　　　Ediyorsa, ne kadar?
　　　　　　　　　　　　　　　　Az ( )　　Orta ( )　　Çok ( )

19. Benim yaptığım işleri beğenmiyor. (D)　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐
　　　　　　　　　　　　　　　　Ediyorsa, ne kadar?
　　　　　　　　　　　　　　　　Az ( )　　Orta ( )　　Çok ( )

20. Benim giyim kuşamımı beğenmiyor ve bunu bana söylüyor. (D)　　　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐
　　　　　　　　　　　　　　　　Ediyorsa, ne kadar?
　　　　　　　　　　　　　　　　Az ( )　　Orta ( )　　Çok ( )

21. Benden onun beklediği gibi davranmamı istiyor. (D)　　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐
　　　　　　　　　　　　　　　　Ediyorsa, ne kadar?
　　　　　　　　　　　　　　　　Az ( )　　Orta ( )　　Çok ( )

22. Bana en ufak bir şey olacak diye endişeleniyor. (D)　　(Y)

Bu beni rahatsız etmiyor.☐　　　　Bu beni rahatsız ediyor.☐

Ediyorsa, ne kadar?
Az ( ) Orta ( ) Çok ( )

23. Benim her şeyim ile o ilgileniyor. (D) (Y)

 Bu beni rahatsız etmiyor.☐ Bu beni rahatsız ediyor.☐
           Ediyorsa, ne kadar?
           Az ( ) Orta ( ) Çok ( )

24. Benden "ah bir kurtulsam" diye düşündüğü oluyor. (D) (Y)

 Bu beni rahatsız etmiyor.☐ Bu beni rahatsız ediyor.☐
           Ediyorsa, ne kadar?
           Az ( ) Orta ( ) Çok ( )

25. Huzursuz ve keyifsiz olduğumda anlıyor ve benden uzak duruyor. (D) (Y)

 Bu beni rahatsız etmiyor.☐ Bu beni rahatsız ediyor.☐
           Ediyorsa, ne kadar?
           Az ( ) Orta ( ) Çok ( )

26. Kendi işlerimi sıralı ve düzenli yapmam için beni sık sık ikaz ediyor. (D) (Y)

 Bu beni rahatsız etmiyor.☐ Bu beni rahatsız ediyor.☐
           Ediyorsa, ne kadar?
           Az ( ) Orta ( ) Çok ( )

27. Hastaneye yatmam onu perişan ediyor, benden ayrılamıyor. (D) (Y)

 Bu beni rahatsız etmiyor.☐ Bu beni rahatsız ediyor.☐
           Ediyorsa, ne kadar?
           Az ( ) Orta ( ) Çok ( )

28. Huyumuz suyumuzla birbirimize benzediğimizi düşünüyor. (D) (Y)

 Bu beni rahatsız etmiyor.☐ Bu beni rahatsız ediyor.☐
           Ediyorsa, ne kadar?
           Az ( ) Orta ( ) Çok ( )

29. Benim yanlışlarımı düzeltmemi istiyor. (D) (Y)

 Bu beni rahatsız etmiyor.☐ Bu beni rahatsız ediyor.☐
           Ediyorsa, ne kadar?
           Az ( ) Orta ( ) Çok ( )

30. Benimle iyi anlaştığını düşünüyor. (D) (Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

31. Aklı fikri hep bende, başka hiçbir şey düşünemiyor. (D)　　　(Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

32. Kendimi düzeltmem için beni sık sık eleştiriyor. (D)　　(Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

33. Benden uzak kalmak istiyor. (D)　　　　(Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

34. Başına bir sürü dert açtığımı düşünüyor. (D)　　(Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

35. Ben olmasam bütün işlerin yoluna gireceğini düşünüyor. (D)　(Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

36. Bir zorlukla karşılaşırsa başa çıkabileceğini düşünüyor. (D)　　(Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

37. Benim her şeyim ile ilgilenmek ona zevk veriyor. (D)　(Y)

Bu beni rahatsız etmiyor.☐

Bu beni rahatsız ediyor.☐
Ediyorsa, ne kadar?
Az ( )　　Orta ( )　　Çok ( )

38. Öfkelendiğimde benden uzak durmaz, beni yatıştırmaya çalışır. (D)　(Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                          Ediyorsa, ne kadar?
                                          Az ( )   Orta ( )   Çok ( )

39. Huzursuz ve keyifsiz olduğumda benimle sohbet etmeye çalışır. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                          Ediyorsa, ne kadar?
                                          Az ( )   Orta ( )   Çok ( )

40. Benim hastalığımı aborttığımı düşünüyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                          Ediyorsa, ne kadar?
                                          Az ( )   Orta ( )   Çok ( )

41. Benim moralim bozuk olduğunda genellikle o destek oluyor. (D)   (Y)

Bu beni rahatsız etmiyor.☐   Bu beni rahatsız ediyor.☐
                                          Ediyorsa, ne kadar?
                                          Az ( )   Orta ( )   Çok ( )

APPENDIX C

AİLE DEĞERLENDİRME ÖLÇEĞİ

Lütfen aşağıdaki her cümleyi dikkatle okuyup, sizin ailenize ne kadar uyduğuna karar veriniz. Her cümle için size uyan seçeneğe (X) işareti koyunuz. Her cümle için uzun uzun düşünmeyiniz. Önemli olan sizin ailenizi nasıl gördüğünüzdür. Mümkün olduğu kadar çabuk ve samimi cevaplar veriniz. Kararsızlığa düşerseniz aklınıza ilk gelen doğrultusunda hareket ediniz. Lütfen her cümleyi cevapladığınızdan emin olunuz.

	Aynen katılıyorum	Büyük ölçüde katılıyorum	Biraz katılıyorum	Hiç katılmıyorum
1. Ailece ev dışında program yapmada güçlük çekeriz, çünkü aramızda fikir birliği sağlayamayız.				
2. Günlük hayatımızdaki problemlerin hemen hepsini aile içinde hallederiz.				
3. Evde biri üzgünse, diğer aile üyeleri bunun nedenini bilir.				
4. Bizim evde, kişiler verilen her görevi düzenli bir şekilde yerine getirmezler.				
5. Evde birinin başı derde girdiğinde, diğerleri de bunu kendilerine fazlasıyla dert ederler.				
6. Bir sıkıntı ve üzüntü ile karşılaştığımızda, birbirimize destek oluruz.				
7. Ailemizde acil bir durum olsa, şaşıp kalırız.				
8. Bazen evde ihtiyacımız olan şeylerin bittiğinin farkına varmayız.				
9. Birbirimize karşı olan sevgi, şefkat gibi duygularımızı açığa vurmaktan kaçınırız.				
10 Gerektiğinde aile üyelerine görevlerini hatırlatır, kendilerine düşen işi yapmalarını sağlarız.				
11 Evde dertlerimizi, üzüntülerimizi birbirimize söylemeyiz.				
12 Sorunlarımızın çözümünde genellikle ailece aldığımız kararları uygularız.				
13 Bizim evdekiler, ancak onların hoşuna giden bir şeyler söylediğinizde sizi dinlerler.				
14 Bizim evde bir kişinin söylediklerinden ne hissettiğini anlamak pek kolay değildir.				
15 Ailemizde eşit bir görev dağılımı yoktur.				
16 Ailemiz üyeleri birbirlerine hoşgörülü davranırlar.				
17 Evde herkes başına buyruktur.				
18 Bizim evde herkes, söylemek istediklerini üstü kapalı değil de doğrudan birbirlerinin yüzüne söyler.				
19 Ailede bazılarımız, duygularımızı belli etmeyiz.				
20 Acil bir durumda ne yapacağımızı biliriz.				
21 Ailecek korkularımızı ve endişelerimizi birbirimizle tartışmaktan kaçınırız.				
22 Sevgi, şefkat gibi olumlu duygularımızı birbirimize belli etmekte güçlük çekeriz.				
23 Gelirimiz (ücret, maaş) ihtiyaçlarımızı karşılamaya yetmiyor.				
24 Ailemiz, bir problemi çözdükten sonra, bu çözümün işe yarayıp yaramadığını tartışır.				
25 Bizim ailede herkes kendini düşünür.				
26 Duygularımızı birbirimize açıkça söyleyebiliriz.				
27 Evimizde banyo ve tuvalet bir türlü temiz				

	durmaz.				
28	Aile içinde birbirimize sevgimizi göstermeyiz.				
29	Evde herkes her istediğini birbirinin yüzüne söyleyebilir.				
30	Ailemizde, her birimizin belirli görev ve sorumlulukları vardır.				
31	Aile içinde genellikle birbirimizle pek iyi geçinmeyiz.				
32	Ailemizde sert-kötü davranışlar ancak belli durumlarda kendini gösterir.				
33	Ancak hepimizi ilgilendiren bir durum olduğu zaman birbirimizin işine karışırız.				
34	Aile içinde birbirimizle ilgilenmeye pek zaman bulamıyoruz.				
35	Evde genellikle söylediklerimizle söylemek istediklerimiz birbirinden farklıdır.				
36	Aile içinde birbirimize hoşgörülü davranırız.				
37	Evde birbirimize, ancak sonunda kişisel yarar sağlayacaksak ilgi gösteririz.				
38	Ailemizde bir dert varsa, kendi içimizde hallederiz.				
39	Ailemizde sevgi, şefkat gibi güzel duygular ikinci plandadır.				
40	Ev işlerinin kimler tarafından yapılacağını hep birlikte konuşarak kararlaştırırız.				
41	Ailemizde herhangi bir şeye karar vermek her zaman sorun olur.				
42	Bizim evdekiler sadece bir çıkarları olduğu zaman birbirlerine ilgi gösterirler.				
43	Evde birbirimize karşı açık sözlüyüzdür.				
44	Ailemizde hiçbir kural yoktur.				
45	Evde birinden bir şey yapması istendiğinde mutlaka takip edilmesi ve kendisine hatırlatılması gerekir.				
46	Aile içinde herhangi bir problemin nasıl çözüleceği hakkında kolayca karar verebiliriz.				
47	Evde kurallara uyulmadığı zaman ne olacağını bilmeyiz.				
48	Bizim evde aklınıza gelen her şey olabilir.				
49	Sevgi, şefkat gibi olumlu duygularımızı birbirimize ifade edebiliriz.				
50	Ailede her türlü problemin üstesinden gelebiliriz.				
51	Evde birbirimizle pek iyi geçinemeyiz.				
52	Sinirlenince birbirimize küseriz.				
53	Ailede bize verilen görevler pek hoşumuza gitmez çünkü genellikle umduğumuz görevler verilmez.				
54	Kötü niyetle olmasa da evde birbirimizin hayatına çok karışıyoruz.				
55	Ailemizde kişiler herhangi bir tehlike karşısında (yangın, kaza gibi) ne yapacaklarını bilirler, çünkü böyle durumlarda ne yapılacağı aramızda konuşulmuş ve belirlenmiştir.				
56	Aile içinde birbirimize güveniriz.				
57	Ağlamak istediğimizde birbirimizden çekinmeden rahatça ağlayabiliriz.				
58	İşimize (okulumuza) yetişmekte güçlük çekiyoruz.				
59	Aile içinde birisi, hoşlanmadığımız bir şey yaptığında, ona bunu açıkça söyleriz.				
60	Problemlerimizi çözmek için ailecek çeşitli yollar bulmaya çalışırız.				

APPENDIX D

BİLGİLENDİRİLMİŞ ONAY FORMU

Psikiyatrik hastalığınız nedeni ile başvurduğunuz Ankara Numune Eğitim ve Araştırma Hastanesi 1. Psikiyatri Kliniği'nde tarafımdan yapılacak bir çalışmaya davet edilmektesiniz. Bu araştırma sırasında toplam iki kez kliniğimizi ziyaret etmeniz istenmektedir. Her ziyaretiniz sırasında hastalık belirtilerinin değerlendirilmesi amacıyla size bazı testler uygulanacaktır.

Bu çalışmanın amacı şizofreni hastalarının ve ailelerinin duygu dışavurum düzeyleri arasındaki ilişkiyi ve bu ilişkinin hastalık belirtileri üzerine etkisini incelemektir.

Bu araştırmaya gönüllü olarak katılıyorsunuz. Katılmayı tercih ederseniz, fikrinizi değiştirdiğinizde araştırmadan ayrılabilirsiniz. Bu durumda hastalığınızın gerektirdiği tıbbi bakım size hiçbir aksama olmadan verilecektir. Bu araştırmada kimliğiniz gizli tutulacaktır. Araştırma bulguları yayınlansa da kimlik bilgileriniz gizli tutulacaktır. Ancak yasal gereklerin yerine getirilebilmesi için, kimliğinizi içeren kayıtlara etik kurul üyeleri tarafından bakılabilir. Bu belgeyi imzalayarak buna izin vermektesiniz. Çalışma hakkında daha fazla bilgi almanız mümkündür. Bunun için Uzman Klinik Psikolog Gülbahar Baştuğ ile doğrudan görüşebilir ya da (0312) 310 30 30/5115 no'lu telefondan ulaşabilirsiniz.

<div align="right">

Gülbahar Baştuğ
Uzman Klinik Psikolog
Prof. Dr. A. Nuray Karancı
ODTÜ Psikoloji Bölümü

</div>

1. Yukarıdaki çalışma ile ilgili olarak, bilgilendirme formunu okudum ve aklıma takılan soruları sorabildim.	
2. Bu araştırmaya katılmanın gönüllülük esasına göre olduğunu anladım. İstediğim taktirde, herhangi bir neden göstermeksizin ve sonraki tıbbi bakımımın aksamayacağını bilerek bu çalışmadan çekilme kararı verebilirim.	
3. Bana ait kayıtların sağlık otoritelerince incelenebileceğini anladım ve bu kişilere izin veriyorum.	
4. Yukarıda belirtilen çalışmaya katılmayı kabul ediyorum.	

Gönüllü (hastanın) adı soyadı   Tarih   İmza
…………………………   ..../……/……
Gönüllü (hasta yakının) adı soyadı   Tarih   İmza
…………………………   ..../……/……

KİMLİK BİLGİLERİ VE DEMOGRAFİK ÖZELLİKLER

<u>HASTANIN</u>

Adı Soyadı:

Cinsiyeti: Kadın ( )   Erkek ( )

Doğum Yeri:_____   Doğum Tarihi:____/____/_____

Yaşı:_____

Medeni Durumu: Bekar ( )   Evli ( )   Dul ( )   Boşanmış ( )

Çocuğu var mı? Var ( )   Yok ( )

Varsa, sayısı_____

Ev Adresi:_____
_____

Telefon Numarası: _____

Ailenin Yaklaşık Geliri:
(Bu konuda bilgi verip vermemekte serbest olduğu hastaya bildirilir. İstenen bilgi, sadece hastanın değil, yaşadığı eve giren toplam gelirdir.)

● Eğitim Durumu:
      En son mezun olduğu okul: Okuma yazma bilmiyor   ( )
                               Okuma yazma biliyor   ( )
                               İlkokul mezunu   ( )
                               Ortaokul mezunu   ( )
                               Lise mezunu   ( )
                               Üniversite mezunu   ( )
                               Yüksek lisans/Doktora ( )

● İş Durumu:
      Şu anda çalışıyor mu?   Evet ( )   Hayır ( )

      Çalışıyorsa ne iş yapıyor?_____

      Çalışmıyorsa, işten ayrılma nedeni nedir?_____

      Ne kadar süredir çalışmıyor?_____

Sosyal Güvencesi var mı?   Var ( )   Yok ( )

Varsa, Sosyal Güvenlik Kurumu hangisidir?
        SSK ( )   Emekli Sandığı ( )   Bağ-Kur ( ) Yeşil Kart ( )

● Ev Ortamı:
    Yaşadığı ev kaç odalı?_____

    Evde kendisine ait odası var mı? Var ( )   Yok ( )

    Kimlerle birlikte yaşıyor? _____

● Hastalık Bilgisi:

    İlk kez kaç yaşındayken hasta olduğu_____

    Ne kadar zamandır hasta?_____

    Kaç yaşındayken hastalık tanısı aldığı?_____

    Kaç yaşındayken ilk tedaviye başlandığı?_____

    Bu hastalık nedeniyle toplam kaç yıldır tedavi olduğu?_____

    Hastaneye yatışı var mı? Var ( )   Yok ( )

    Hastaneye yatışı varsa, kaç kez yattığı?_____

    Son üç aydır düzenli kullandığı ilaç var mı? Var ( )   Yok ( )

    İlacın adı:_____

Aileniz içinde, gerektiğinde sizinle en çok ilgilenen, bakımınızı üstlenen kişi kimdir?

……………………………………….

PEES

Açıklama: Aşağıda ailenizin içinde sizinle en çok ilgilenen kişiyle olan ilişkilerinizi anlamaya yönelik bazı ifadeler bulunmaktadır. Her bir cümleyi dikkatle okuyup bu cümlenin sizin için doğru olup olmadığını işaretleyiniz.

1. Benim bazı şeyleri kasten yaptığımı düşünüyor ve öfkeleniyor. (D)   (Y)

2. Benim hasta olduğuma inanmıyor. (D)   (Y)

3. Benimle sohbet etmekten hoşlanıyor. (D)   (Y)

4. Onun için benim isteklerim diğer aile üyelerininkinden daha önemlidir. (D)   (Y)

5. Benimle ilgili her şeyi, bana özel konuları bile öğrenmeye çalışıyor. (D)   (Y)

6. Benim varlığım onu deli ediyor. (D)   (Y)

7. Ne hata yaptık da, o böyle oldu diye düşünüp düşünüp yanıyor. (D)   (Y)

8. Benim bazı yönlerimi beğeniyor ve takdir ediyor. (D)   (Y)

9. Bana sık sık öğüt veriyor. (D)   (Y)

10. Benimle uyuşamıyor. (D)   (Y)

11. Ne halin varsa gör diye beni bıraktı artık. (D)   (Y)

12. Aile içinde benim her şeyimle o ilgileniyor. (D)   (Y)

13. Bana kırılıyor, güceniyor. (D)   (Y)

14. Benim fikirlerimi sonuna kadar dinler. (D)   (Y)

15. Benim üstüme titrer. (D)   (Y)

16. Benimleyken başka şeyle ilgilenemiyor, ilgisi hep benimle oluyor. (D)   (Y)

17. Onun hayatını yaşamasına engel olduğumu düşünüyor. (D)   (Y)

18. Ben hasta oldum diye dünya başına yıkılmış gibi geliyor. (D)   (Y)

19. Benim yaptığım işleri beğenmiyor. (D)   (Y)

20. Benim giyim kuşamımı beğenmiyor ve bunu bana söylüyor. (D)   (Y)

21. Benden onun beklediği gibi davranmamı istiyor. (D)   (Y)

22. Bana en ufak bir şey olacak diye endişeleniyor. (D)   (Y)

23. Benim her şeyim ile o ilgileniyor. (D)   (Y)

24. Benden "ah bir kurtulsam" diye düşündüğü oluyor. (D)   (Y)

25. Huzursuz ve keyifsiz olduğumda anlıyor ve benden uzak duruyor. (D)   (Y)

26. Kendi işlerimi sıralı ve düzenli yapmam için beni sık sık ikaz ediyor. (D)   (Y)

27. Hastaneye yatmam onu perişan ediyor, benden ayrılamıyor. (D)   (Y)

28. Huyumuz suyumuzla birbirimize benzediğimizi düşünüyor. (D)   (Y)

29. Benim yanlışlarımı düzeltmemi istiyor. (D)   (Y)

30. Benimle iyi anlaştığını düşünüyor. (D)   (Y)

31. Aklı fikri hep bende, başka hiçbir şey düşünemiyor. (D)   (Y)

32. Kendimi düzeltmem için beni sık sık eleştiriyor. (D)   (Y)

33. Benden uzak kalmak istiyor. (D)   (Y)

34. Başına bir sürü dert açtığımı düşünüyor. (D)   (Y)

35. Ben olmasam bütün işlerin yoluna gireceğini düşünüyor. (D)   (Y)

36. Benim her şeyim ile ilgilenmek ona zevk veriyor. (D)   (Y)

37. Öfkelendiğimde benden uzak durmaz, beni yatıştırmaya çalışır. (D)   (Y)

38. Huzursuz ve keyifsiz olduğumda benimle sohbet etmeye çalışır. (D)   (Y)

39. Benim hastalığımı abarttığımı düşünüyor. (D)   (Y)

40. Benim moralim bozuk olduğunda genellikle o destek oluyor. (D)   (Y)

YAŞAM KALİTESİ ÖLÇEĞİ (WHOQOL-BREF)

Yönerge
Bu anket sizin yaşamınızın kalitesi, sağlığınız ve yaşamınızın öteki yönleri hakkında neler düşündüğünüzü sorgulamaktadır. **Lütfen bütün soruları cevaplayınız.** Eğer bir soruya hangi cevabı vereceğinizden emin olamazsanız, **lütfen size en uygun görünen cevabı** seçiniz. Genellikle ilk verdiğiniz cevap en uygunu olacaktır.

Lütfen kurallarınızı, beklentilerinizi, hoşunuza giden ve sizin için önemli olan şeyleri sürekli olarak göz önüne alınız. Yaşamınızın **son iki haftasını** dikkate almanızı istiyoruz.

Lütfen her soruyu okuyunuz, duygularınızı değerlendiriniz ve her bir sorunun ölçeğinde size en uygun olan yanıtın rakamını yuvarlağa alınız.

1. Yaşam kalitenizi nasıl buluyorsunuz?

Çok kötü	Biraz kötü	Ne iyi, ne kötü	Oldukça iyi	Çok iyi
1	2	3	4	5

2. Sağlığınızdan ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

Aşağıdaki sorular son iki hafta içinde kimi şeyleri **ne kadar** yaşadığınızı soruşturmaktadır.

3. Ağrılarınızın yapmanız gerekenleri ne kadar engellediğini düşünüyorsunuz?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede
1	2	3	4	5

4. Günlük uğraşlarınızı yürütebilmek için herhangi bir tıbbi tedaviye ne kadar ihtiyaç duyuyorsunuz?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede
1	2	3	4	5

5. Yaşamaktan ne kadar keyif alırsınız?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede

1	2	3	4	5

6. Yaşamınızı ne ölçüde anlamlı buluyorsunuz?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede
1	2	3	4	5

7. Dikkatinizi toplamada ne kadar başarılısınız?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede
1	2	3	4	5

8. Günlük yaşamınızda kendinizi ne kadar güvende hissediyorsunuz?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede
1	2	3	4	5

9. Fiziksel çevreniz ne ölçüde sağlıklıdır?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede
1	2	3	4	5

Aşağıdaki sorular son iki haftada kimi şeyleri ne ölçüde **tam olarak** yaşadığınızı ya da yapabildiğinizi soruşturmaktadır.

10. Günlük yaşamı sürdürmek için yeterli gücünüz, kuvvetiniz var mı?

Hiç	Çok az	Orta derecede	Çokça	Tamamen
1	2	3	4	5

11. Bedensel görünüşünüzü kabullenir misiniz?

Hiç	Çok az	Orta derecede	Çokça	Tamamen
1	2	3	4	5

12. İhtiyaçlarınızı karşılamaya yeterli paranız var mı?

Hiç	Çok az	Orta derecede	Çokça	Tamamen
1	2	3	4	5

13. Günlük yaşamınızda size gerekli bilgi ve haberlere ne ölçüde ulaşabiliyorsunuz?

Hiç	Çok az	Orta derecede	Çokça	Tamamen
1	2	3	4	5

14. Boş zamanları değerlendirme uğraşları için ne ölçüde fırsatınız olur?

Hiç	Çok az	Orta derecede	Çokça	Tamamen
1	2	3	4	5

Aşağıdaki sorularda, son iki hafta boyunca yaşamınızın çeşitli yönlerini ne ölçüde **iyi ya da doyurucu** bulduğunuzu belirtmeniz istenmektedir.

15. Bedensel hareketlilik (etrafta dolaşabilme, bir yerlere gidebilme) beceriniz nasıldır?

Çok kötü	Biraz kötü	Ne iyi, ne kötü	Oldukça iyi	Çok iyi
1	2	3	4	5

16. Uykunuzdan ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

17. Günlük uğraşlarınızı yürütebilme becerinizden ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

18. İş görme kapasitenizden ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

19. Kendinizden ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

20. Aileniz dışındaki kişilerle ilişkilerinizden ne derece hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

21. Cinsel yaşamınızdan ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

22. Arkadaşlarınızın desteğinden ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

23. Yaşadığınız evin koşullarından ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

24. Sağlık hizmetlerine ulaşma koşullarınızdan ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

25. Ulaşım olanaklarınızdan ne kadar hoşnutsunuz?

Hiç hoşnut değil	Çok az hoşnut	Ne hoşnut, ne değil	Epeyce hoşnut	Çok hoşnut
1	2	3	4	5

Aşağıdaki soru son iki hafta içinde bazı şeyleri **ne sıklıkla** hissettiğiniz ya da yaşadığınıza ilişkindir.

26. Ne sıklıkta hüzün, ümitsizlik, bunaltı, çökkünlük gibi olumsuz duygulara kapılırsınız?

Hiçbir zaman	Nadiren	Ara sıra	Çoğunlukla	Her zaman
1	2	3	4	5

27. Yaşamınızda size yakın kişilerle (eş, iş arkadaşı, akraba) ilişkilerinizde baskı ve kontrolle ilgili zorluklarınız ne ölçüdedir?

Hiç	Çok az	Orta derecede	Çokça	Aşırı derecede
1	2	3	4	5

Pozitif ve Negatif Sendrom Ölçeği İçin Yapılandırılmış Klinik Görüşme

SCI-PANSS

L.A. Opler, M.D., Ph.D., S.R. Kay, Ph.D., J.P. Lindenmayer, M.D., & A. Fiszbein,

M.D.

Hasta adı veya Kimlik
Numarası:_____
Görüşmeci: _____ Tarih: _____ / _____ /
_____

"Konuşmanın Kendiliğinden ve Akıcı Olmasının Kaybı" (N6), "İlişki Kurmada Güçlük" (N3) ve "Düşünce Dağınıklığı" (P2) ile ilgili veriler

Merhaba, ben .... Önümüzdeki 30-40 dakikayı sizinle ve sizin burada bulunma sebeplerinizle ilgili konuşarak geçireceğiz. Belki bana biraz kendiniz ve geçmişiniz ile ilgili bazı bilgiler vererek başlayabilirsiniz?

(Görüşmeciye not : Aşağıda sıralanan özgül sorulara geçmeden önce iyi bir ilişki kurabilmek için hastaya en az 5 dakikalık yönlendirici olmadığınız bir konuşma süresi tanıyın)

"Bunaltı" (G2) ile ilgili veriler

1.   "Geçen haftadan beri kendinizi kaygılı veya gergin hissettiniz mi?

_____

EĞER EVET ise, 3. soruya geçin . EĞER HAYIR ise, devam edin.

2.   Genel olarak sakin ve rahat olduğunuzu söyleyebilir misiniz?

_____

EĞER EVET ise, 8. soruya geçin . EĞER HAYIR ise, devam edin.

3.   Gergin (endişeli, huzursuz, rahatsız) hissetmenize neden olan nedir?

_____

4.   Tam olarak ne kadar gergin (kaygılı vs.) hissetmektesiniz?

_____

5.   Zaman zaman titrediğinizi ya da kalbinizin hızlı attığını hissettiğiniz oluyor

mu? ___

6.   Paniğe kapıldığınız oluyor mu?

_____

7.   Uykunuz, iştahınız ya da etkinliklere katılımınız etkileniyor mu?

_____

"Sanrılar (Genel)" (P1) ve "Olağandışı Düşünce İçeriği"(G9) ile ilgili veriler

8.   Sizin için işler yolunda gidiyor mu?

_____

9.   Son zamanlarda sizi rahatsız eden herhangi bir şey oldu mu?

_____

10. Yaşam ve yaşamın amacı ile ilgili bazı düşüncelerinizden bahseder misiniz? _____

11. Özel bir yaşam görüşünüz var mı? (özel kurallar, öğretiler veya dini görüşler)?

_____

12. Bazıları Şeytana inandıklarından bahsederler; siz ne düşünüyorsunuz?

_____

   EĞER HAYIR ise (yani şeytana inanmıyor), 14. soruya geçin.

   EĞER EVET ise (yani inanıyorsa), devam edin.

13. Bana bunu biraz daha anlatabilir misiniz?

_____

14. Diğer insanların akıllarını okuyabiliyor musunuz?

_____

   EĞER HAYIR ise, 16. soruya geçin.

   EĞER EVET ise, devam edin.

15. Nasıl oluyor bu?

_____

16. Diğer insanlar sizin aklınızı okuyabiliyor mu?

_____

EĞER HAYIR ise, 19. soruya devam edin.

EĞER EVET ise, devam edin.

17. Bunu nasıl yapabilirler?

_____

18. Birisinin aklınızdan geçenleri okumak istemesi için herhangi bir sebep var mı?

_____

19. Düşüncelerinizin kontrolü kimin elinde?

_____

"Şüphecilik/Kötülük Görme" (P6) ve "Dürtü Kontrolsüzlüğü" (G14) ile ilgili veriler

20. Bu günlerde vaktinizi nasıl geçiriyorsunuz?

_____

21. Yalnız olmayı tercih ediyor musunuz?

_____

22. Başkalarıyla etkinliklere katılıyor musunuz?

_____

EĞER EVET ise, 25. soruya geçin . EĞER HAYIR ise, devam edin.

23. Neden? … İnsanlardan korkuyor ya da onlardan hoşlanmıyor musunuz?

_____

EĞER HAYIR ise, 26. soruya geçin. EĞER EVET ise, devam edin.

24. Açıklayabilir misiniz?

_____

26. soruya geçin.

25. Bundan bahsedebilir misiniz?

_____

26. Çok arkadaşınız var mı?

_____

EĞER EVET ise, 30. soruya geçin . EĞER HAYIR ise, devam edin.

27. Peki birkaç tane?

_____

EĞER EVET ise, 29. soruya geçin . EĞER HAYIR ise, devam edin.

28. Hiç mi? Neden?

_____

32. soruya geçin.

29. Neden sadece birkaç tane arkadaşınız var?

_____

30. Yakın arkadaşınız var mı?

_____

EĞER EVET ise, 32. soruya geçin . EĞER HAYIR ise, devam edin.

31. Neden yok?

_____

32. Çoğu insana güvenebileceğinizi hissediyor musunuz?

_____

EĞER EVET ise, 34. soruya geçin . EĞER HAYIR ise, devam edin.

33. Neden güvenmiyorsunuz?

_____

34. Özellikle güvenmediğiniz insanlar var mı?

_____

EĞER 34. soru HAYIR ve 32. soru EVET ise, 41. soruya geçin.

EĞER 34. soru HAYIR ve 32. soru HAYIR ise, 36. soruya geçin.

EĞER 34. soru EVET ise devam edin.

35. Kim bunlar?

_____

36. İnsanlara (veya belirtilen kişinin adını söyleyin) neden güvenmiyorsunuz?

_____

EĞER "BİLMİYORUM" VEYA " SÖYLEMEK İSTEMİYORUM"

diyorsa

devam edin. Aksi takdirde 41. soruya geçin.

37. Güvenmemek için iyi bir sebebiniz var mı?

_____

38. ....'nun size yaptığı bir şey var mı?

_____

39. Belki .... size şimdi bir şey yapabilir mi?

_____

EĞER HAYIR ise, 41. soruya devam edin. EĞER EVET ise, devam edin.

40. Bana açıklayabilir misiniz?

_____

41. Başkalarıyla iyi geçinir misiniz?

_____

EĞER EVET ise, 43. soruya geçin . EĞER HAYIR ise, devam edin.

42. Sorun nedir?

_____

43. Çabuk öfkelenir misiniz? _____

44. Kavgalara karıştığınız olur mu?

_____

EĞER HAYIR ise, 48. soruya geçin. EĞER EVET ise, devam edin.

45. Bu kavgalar nasıl başlar?

_____

46. Bana bu kavgalardan bahsedin.

_____

47. Bu ne sıklıkla olur?

_____

48. Bazen kontrolünüzü kaybeder misiniz?

_____

EĞER HAYIR ise, 50. soruya geçin. EĞER EVET ise, devam edin.

49. Kontrolünüzü kaybettiğinizde ne oluyor?

_____

50. İnsanların çoğunu seviyor musunuz?

_____

EĞER EVET ise, 52. soruya geçin . EĞER HAYIR ise, devam edin.

51. Neden sevmiyorsunuz?

_____

52. Acaba sizi sevmeyen bazı kişiler var mıdır?

_____

EĞER HAYIR ise, 54. soruya geçin. EĞER EVET ise, devam edin.

53. Hangi nedenle? _____

54. Başkaları hakkınızda arkanızdan konuşuyor mu?

_____

EĞER HAYIR ise, 57. soruya geçin. EĞER EVET ise, devam edin.

55. Sizin hakkınızda ne diyorlar?

_____

56. Neden? _____

57. Birileri sizinle ilgili casusluk yapıyor ya da size komplo kuruyor olabilir mi?

_____

58. Kendinizi bazen tehlikede hissediyor musunuz?

_____

EĞER HAYIR ise, 64. soruya geçin. EĞER EVET ise, devam edin.

59. Hayatınızın tehlikede olduğunu söyler miydiniz? _____

60. Birisi size zarar vermeyi hatta belki de sizi öldürmeyi düşünüyor olabilir mi?

_____

61. Polisten yardım istediniz mi?

_____

62. Bazen meseleleri kendi başınıza halletmeye çalışır ya da size zarar verme

ihtimali olanlara karşı harekete geçer misiniz? _____

EĞER HAYIR ise, 64. soruya geçin. EĞER EVET ise, devam edin.

63. Neler yaptınız?

_____

"Varsanılarla İlgili Davranışlar" (P3) ve ilişkili sanrılar ile ilgili veriler

64. Arasıra garip ve olağandışı yaşantılar yaşadığınız oluyor mu?

_____

65. Bazen insanlar bana kafalarının içinde başkalarının duyamadığı sesler veya

konuşmalar duyduklarını söylerler. Siz böyle bir şey yaşadınız mı?

_____

EĞER EVET ise, 68. soruya geçin . EĞER HAYIR ise, devam edin.

66. Bazen radyodan veya televizyondan size özel mesajlar aldığınız olur mu?

_____

EĞER EVET ise, 68. soruya geçin . EĞER HAYIR ise, devam edin.

67. Tanrı veya Şeytandan?

_____

EĞER HAYIR ise, 83. soruya geçin. EĞER EVET ise, devam edin.

68. Neler duyuyorsunuz?

_____

69. Duyduğunuz bu sesler benim sesim kadar net ve yüksek mi?

_____

70. Bu konuşmaları, sesleri, mesajları vs. ne sıklıkla duyuyorsunuz? _____

71. Bu durum günün belli bir zamanında mı, yoksa sürekli mi

oluyor?_____

EĞER YANLIZCA SESLER DUYULUYORSA, 80. soruya geçin.

EĞER KONUŞMALAR DUYULUYORSA, devam edin.

72. Bunların kimin sesi olduğunu tanıyabiliyor musunuz? _____

73. Sesler ne diyor?

_____

74. Sesler iyi mi, kötü mü?

_____

75. Hoş mu, değil mi?

_____

76. Sesler, düşünmenize ya da eylemlerinize engel oluyor mu?

_____

77. Bazen size emirler veya komutlar veriyorlar mı?

_____

EĞER HAYIR ise, 80. soruya geçin. EĞER EVET ise, devam edin.

78. Örneğin?

_____

79. Bu emirlere (komutlara) genellikle uyuyor musunuz?

_____

80. Bu konuşmalardan (veya seslerden) ne anlam çıkarıyorsunuz; bunlar gerçekten

nereden geliyorlar?

_____

81. Bu yaşantıları neden yaşıyorsunuz? _____

82. Bu yaşantılar normal mi?

_____

83. Sıradan şeyler bazen gözünüze garip veya değişmiş görünüyor mu?

_____

84. Bazen başkalarının göremediği "görüntüler" veya şeyler gördüğünüz oluyor

mu? ____

EĞER HAYIR ise, 88. soruya geçin. EĞER EVET ise, devam edin.

85. Örneğin?

_____

86. Bu görüntüler size çok gerçek veya canlı gibi geliyor mu?

_____

87. Bu yaşantılar ne sıklıkla başınıza geliyor?

_____

88. Olağandışı veya başkalarının almadığı kokular aldığınız oluyor mu?

_____

EĞER HAYIR ise, 90. soruya geçin. EĞER EVET ise, devam edin.

89. Lütfen açıklar mısınız?

_____

90. Vücudunuzdan garip veya alışılmamış duyumlar geliyor mu?

_____

EĞER HAYIR ise, 92. soruya geçin. EĞER EVET ise, devam edin.

91. Biraz bundan bahseder misiniz?

_____

"Bedensel Kaygı"(G1) ile ilgili veriler

92. Sağlığınızın durumuyla ilgili nasıl hissetmektesiniz?

_____

EĞER 'İYİ' DEĞİLSE, 94. soruya geçin. EĞER "İYİ" ise devam edin.

93. Sağlığınızın mükemmel olduğunu düşünüyor musunuz?

_____

EĞER EVET ise, 95. soruya geçin . EĞER HAYIR ise, devam edin.

94. Sizi rahatsız eden nedir?

_____

95. Herhangi bir tıbbi rahatsızlık veya hastalığınız var mı?

_____

96. Vücudunuzun herhangi bir bölgesi size rahatsızlık veriyor mu?

_____

EĞER EVET ise, 98. soruya geçin . EĞER HAYIR ise, devam edin.

97. Başınız nasıl? Kalbiniz? Mideniz? Vücudunuzun geri kalanı?

_____

98. Açıklayabilir misiniz? _____

99. Başınız veya vücudunuzun şekli veya boyutu değişti mi?

_____

EĞER HAYIR ise, 102. soruya devam edin. EĞER EVET ise, devam edin.

100. Lütfen açıklayın.

_____

101. Bu değişikliklere yol açan nedir?

_____

"Depresyon"(G6) ile ilgili veriler

102. Geçtiğimiz hafta içinde duygudurumunuz nasıldı:çoğunlukla iyi, çoğunlukla kötü? __

EĞER "ÇOĞUNLUKLA KÖTÜ," ise 104. soruya geçin. EĞER " ÇOĞUNLUKLA İYİ," ise devam edin.

103. Geçtiğimiz hafta içinde üzgün veya mutsuz hissettiğiniz zamanlar oldu mu? _____

EĞER HAYIR ise, 114. soruya geçin. EĞER EVET ise, devam edin.

104. Sizi üzen belli bir şey var mı?

_____

105. Ne sıklıkla üzgün hissediyorsunuz?

_____

106. Ne kadar üzgün hissediyorsunuz?

_____

107. Son zamanlarda ağladığınız oluyor mu?

_____

108. Duygudurumunuz herhangi bir şekilde uykunuzu etkiledi mi?

_____

109. İştahınızı etkiledi mi?

_____

110. Duygudurumunuz nedeniyle etkinliklere katılımınız azaldı mı?

_____

111. Kendinize zarar vermekle ilgili herhangi bir düşünceniz oldu mu?

_____

EĞER HAYIR ise, 114. soruya geçin. EĞER EVET ise, devam edin.

112. Hayatınızı sonlandırmakla ilgili herhangi bir düşünceniz? _____

EĞER HAYIR ise, 114. soruya geçin. EĞER EVET ise, devam edin.

113. Hiç intihar girişiminiz oldu mu?   _____

"Suçluluk Duyguları"(G3) ve "Büyüklük Düşüncesi"(P5) ile ilgili veriler

114. Kendinizi ortalama birisiyle karşılaştırdığınızda nasıl nitelersiniz: daha iyi, belki

daha kötü, yaklaşık aynı?

_____

EĞER " DAHA İYİ," ise," 117. soruya geçin.
EĞER "HEMEN HEMEN AYNI," ise 118. soruya geçin.
Eğer " DAHA KÖTÜ," ise devam edin.

115. Ne bakımlardan daha kötü?

_____

116. Tam olarak kendinizle ilgili nasıl hissediyorsunuz?

_____

120. soruya geçin.

117. Ne bakımlardan daha iyi?

_____

120. soruya geçin.

118. Bazı bakımlardan özel misiniz?

_____

EĞER HAYIR ise, 120. soruya geçin. EĞER EVET ise, devam edin.

119. Ne bakımlardan?

_____

120. Bahşedilmiş özellikleriniz olduğunu düşünür müsünüz?

_____

121. Çoğu kişinin sahip olmadığı beceri veya yetenekleriniz var mı?

_____

EĞER HAYIR ise, 123. soruya geçin. EĞER EVET ise, devam edin.

122. Lütfen açıklayın.

_____

123. Bazı özel güçleriniz var mı?

_____

EĞER HAYIR ise, 126. soruya geçin. EĞER EVET ise, devam edin.

124. Nedir bunlar?

_____

125. Bu güçler nereden geliyor?

_____

126. Altıncı hissiniz var mı veya başkalarının düşüncelerini okuyabiliyor musunuz?

_____

127. Çok varlıklı mısınız?

_____

EĞER HAYIR ise, 129. soruya geçin. EĞER EVET ise, devam edin.

128. Lütfen

açıklayın._____

129. Çok akıllı biri olduğunuz düşünülebilir mi?

_____

EĞER HAYIR ise, 131. soruya geçin. EĞER EVET ise, devam edin.

130. Neden böyle derdiniz?

_____

131. Kendinizi ünlü olarak tanımlar mıydınız?

_____

132. "Bazı kişiler sizi TV, radyo veya gazeteden tanıyabilir mi?

_____

EĞER HAYIR ise, 134. soruya geçin. EĞER EVET ise, devam edin.

133. Bana bunu anlatabilir misiniz?

_____

134. Dindar bir insan mısınız?

_____

EĞER HAYIR ise, 140. soruya geçin. EĞER EVET ise, devam edin.

135. Tanrıya yakın mısınız?

_____

EĞER HAYIR ise, 140. soruya devam edin. EĞER EVET ise, devam edin.

136. Tanrı tarafından size özel bir rol veya amaç verildi mi? _____

137. Tanrının elçilerinden veya meleklerinden biri olabilir misiniz?

_____

EĞER HAYIR ise, 139. soruya geçin. EĞER EVET ise, devam edin.

138. Tanrının elçisi (meleği) olarak ne tür özel güçleriniz var?

_____

139. Kendinizi Tanrı olarak gördüğünüz olur mu?

_____

140. Yaşamda herhangi özel bir göreviniz var mı?

_____

EĞER HAYIR ise, 143. soruya geçin. EĞER EVET ise, devam edin.

141. Bu özel göreviniz nedir?

_____

142. Bu özel görevi size kim verdi?

_____

143. Kendinizi kötü veya suçlu hissettiğiniz yanlış bir şey yaptığınız oldu mu?

_____

EĞER HAYIR ise, 149. soruya geçin. EĞER EVET ise, devam edin.

144. Bu sizi şimdi ne kadar rahatsız ediyor?

_____

145. Bunun için cezalandırılmayı hak ettiğinizi düşünüyor musunuz?

_____

EĞER HAYIR ise, 149. soruya geçin. EĞER EVET ise, devam edin.

146. Ne tür bir cezalandırmayı hak ediyorsunuz?

_____ 147. Zaman zaman kendinizi

cezalandırmayı düşündünüz mü? _____

EĞER HAYIR ise, 149. soruya geçin. EĞER EVET ise, devam edin.

148. Bu kendini cezalandırma düşünceleri doğrultusunda davrandınız mı?

_____

"Yönelim Bozukluğu" (G10) ile ilgili veriler

149. Bana bu günün tarihini söyleyebilir misiniz (yani gün, ay ve yıl)?

_____

EĞER EVET ise, 151. soruya geçin . EĞER HAYIR ise, devam edin.

150. Bana bugünün haftanın hangi günü olduğunu söyleyebilir misiniz?

_____

151. Şimdi bulunduğunuz yerin ismini söyler misiniz?

_____

EĞER " HASTANEYE YATMAMIŞSA," 154. soruya geçin. EĞER "

HASTANEYE YATMIŞSA," devam edin.

152. Hangi servistesiniz?

_____

153. Şu anda bulunduğunuz yerin adresi nedir?

_____

EĞER "SÖYLEYEBİLİYORSA," 155. soruya geçin. EĞER "SÖYLEYEMİYORSA," devam edin.

154. Bana ev adresinizi söyleyebilir misiniz?

_____

EĞER " HASTANEYE YATMAMIŞSA," 156. soruya geçin. EĞER " HASTANEYE YATMIŞSA," devam edin.

155. Birinin size telefonla ulaşması gerekse hangi numarayı aramalı?

_____

156. Eğer birisi size evden ulaşmak istese hangi numarayı aramalı?

_____

157. Sizi tedavi eden doktorun adı nedir?

_____

EĞER " HASTANEYE YATMAMIŞSA," 159. soruya geçin. EĞER " HASTANEYE YATMIŞSA," devam edin.

158. Servis ekibinde başka kimlerin olduğunu ve ne yaptıklarını söyler misiniz?

_____

159. Şu andaki cumhurbaşkanının kim olduğunu biliyor musunuz? _____

160. Başbakanımız kimdir (vali vs.)? _____

161. Bu şehrin (ilçenin vs) belediye başkanı kimdir? _____

"Soyut Düşünme Güçlüğü" (N5) ile ilgili veriler

Şimdi size kelime çiftleri söyleyeceğim ve bana bunların en önemli benzerliklerini söylemenizi isteyeceğim. Başlayalım, örneğin "elma" ve "muz". Bu ikisinin ne tür bir benzerliği -ortak yönü var? **CEVAP 'HER İKİSİ DE MEYVEDİR' ŞEKLİNDE İSE, ŞÖYLE SOYLEYİN**: Güzel. Şimdi ya...? *(Ek A'da Benzerlikler listesinin farklı zorluk derecelerinden üç başka madde seçin.)*

EĞER VERİLEN CEVAP SOMUT, TEĞETSEL, VEYA GARİP İSE (ÖRNEĞİN 'HER İKİSİNİN DE KABUĞU VAR', "İKİSİ DE YENİR", "İKİSİ DE KÜÇÜKTÜR", VEYA "MAYMUNLAR ONLARI SEVER"), O ZAMAN ŞÖYLE SÖYLEYİN: PEKİ ama her ikisi de meyve. Şimdi, ya …. ve ….: Bunlar nasıl benzer? *(Ek A'daki Benzerlikler listesinden farklı zorluk düzeylerinde üç değişik madde seçin.)*

EK A
Soyut Düşünme Güçlüğünün değerlendirilmesinde kullanılabilecek Benzerlik maddeleri

Kullanılan Benzerlikleri Daire İçine Alın

1. Bir top ve portakal ne yönden benzeşirler?
2. Elma ve muz?
3. Kurşunkalem ve tükenmezkalem?
4. Kuruş ve lira?

5. Masa ve sandalye?
6. Kaplan ve fil?
7. Şapka ve gömlek?
8. Otobüs ve tren?

9. Kol ve bacak?
10. Gül ve lale?
11. Amca ve kuzen?
12. Ay ve güneş?

13. Resim ve şiir?
14. Tepe ve vadi?
15. Hava ve su?
16. Barış ve refah?

Ek A ile İlgili Not: Benzerlikler genellikle değişik zorluk derecelerinden örneklenen dört madde ile araştırılır (yani tüm grubun her bir çeyreğinden seçilen birer örnek ile). PANSS izlem için uzunlamasına kullanıldığında, tekrarlamaları en aza indirebilme amacıyla, birbirini izleyen görüşmelerde sistemli olarak farklı zorluk düzeylerinden değişik seçenekler yapılmalıdır.

Benzerlikler yanıtlarıyla ilgili notlar:
_____

Büyük olasılıkla "Ayağını yorganına göre uzat." deyimini duymuşsunuzdur. Bu ne anlama gelir? Çok eski bir deyiş vardır: "Sakla samanı gelir zamanı." Bu atasözünün esas anlamı nedir? *(Ek B'deki Atasözleri listesinden farklı zorlu düzeylerinde iki diğer atasözü seçin.)*

EK B
Soyut Düşünme Güçlüğü değerlendirmesinde kullanılabilecek ATASÖZÜ YORUMLANMASI maddeleri

Kullanılan Atasözlerini Daire İçine Alın

Şu deyiş ne anlama gelir?
1. "Görünen köy kılavuz istemez."
2. "Ayağını yorganına göre uzat."
3. "Bir elin nesi var iki elin sesi var."
4. "Gülü seven dikenine katlanır."

5. "Sakla samanı gelir zamanı".
6. "Damlaya damlaya göl olur."
7. "İşleyen demir ışıldar."
8. "Dereyi görmeden paçayı sıvama."

9. "Koyun can derdinde, kasap mal derdinde."
10. "Komşunun tavuğu komşuya kaz görünür."
11. "Her koyun kendi bacağından asılır."
12. "Doğru söyleyeni dokuz köyden kovarlar."

Ek B üzerine not: Atasözü yorumlanması genellikle değişik zorluk derecelerinden örneklenen dört maddeyle araştırılır (yani tüm grubun her bir çeyreğinden seçilen birer örnek ile). PANSS izlem için uzunlamasına kullanıldığında, tekrarlamaları en aza indirebilme amacıyla, birbirini izleyen görüşmelerde sistemli olarak farklı zorluk düzeylerinden değişik seçenekler yapılmalıdır.

13."Vakit nakittir."
14."Yuvarlanan taş yosun tutmaz."
15."Armut dibine düşer."
16."İğneyi kendine, çuvaldızı başkasına batır.

"Yargılama ve İçgörü Eksikliği" (G12) ile ilgili veriler

162. Ne kadar süredir hastanedesiniz (poliklinik vs...)?

_____

163. Neden hastaneye (polikliniğe vs...) geldiniz?

_____

164. Hastanede yatmanızı (polikliniğe gelmenizi vs...) gerektiren bir durum var

mıydı? __

EĞER EVET ise,167. soruya geçin . EĞER HAYIR ise, devam edin.

165. Tedavi gerektirecek bir sorununuz var mıydı?

_____

EĞER HAYIR ise, 169. soruya geçin. EĞER EVET ise, devam edin.

166. Psikiyatrik ya da ruhsal bir sorununuz olduğunu söyler miydiniz?

_____

EĞER HAYIR ise, 169. soruya geçin. EĞER EVET ise, devam edin.

167. Neden? ... psikiyatrik ya da ruhsal bir sorununuz olduğunu söylerdiniz?

_____

EĞER HAYIR ise, 169. soruya geçin. EĞER EVET ise, devam edin.

168. Bu sorununuz ve içeriğinden bana bahsedebilir misiniz? _____

169. Size göre, ilaç almaya ihtiyacınız var mı? _____

**EĞER EVET ise 171. soruya geçin.
EĞER HAYIR ise ve de <u>ilaç tedavisi almıyorsa</u>, 172. soruya geçin.
EĞER HAYIR ve de <u>ilaç tedavisi alıyorsa</u>, devam edin.**

170. O zaman neden ilaç alıyorsunuz?_____

172. soruya geçin.

171. Neden? İlaç size herhangi bir şekilde yardımcı oluyor mu?

_____

172. Şu anda herhangi bir psikiyatrik ya da ruhsal sorununuz var mı?

_____

EĞER EVET ise, 174. soruya geçin . EĞER HAYIR ise, devam edin.

173. Hangi nedenle hastanedesiniz (polikliniktesiniz vs...)?_____

175. soruya geçin.

174. Lütfen açıklayın. _____

175. Bu sorunlar tam anlamıyla ne kadar ciddi? _____

EĞER " HASTANEYE YATMAMIŞSA," 178. soruya geçin.
EĞER " HASTANEYE YATMIŞSA," devam edin.

176. Hastaneden taburcu olmaya hazır mısınız? _____

177. Taburcu olduktan sonra sorunlarınız için ilaç almaya devam edeceğinizi

düşünüyor musunuz?

_____

178. Gelecek için planlarınız nelerdir?

_____

179. Daha uzun vadeli hedefleriniz nelerdir?

_____

Peki, şimdilik size soracaklarım bu kadar. Bana sormak isteyebileceğiniz herhangi bir soru var mı? İşbirliğiniz için teşekkür ederim.

AÇIK UÇLU SORULAR

A.Hastalığınız konusunda sizi rahatsız eden şeyler nelerdir?

1.

2.

3.

Sizce, bunların içinde en önemlisi hangisidir?

B.Sizce hastalığınızla ilgili iyiye giden şeyler var mıdır? Varsa bunlar nelerdir?

Sizce hastalığınızla ilgili kötüye giden şeyler var mıdır? Varsa bunlar nelerdir?

C. Hastalığınızla ilgili en çok desteği kimden/kimlerden alıyorsunuz?

Neler yaparak size destek oluyorlar?

D. Hayatınızda son altı aydır karşılaştığınız güçlükler nelerdir?

 Bunlarla nasıl başa çıktınız?

HASTA YAKININIK KİMLİK BİLGİLERİ VE DEMOGRAFİK ÖZELLİKLERİ

● Yakınlık Derecesi:
  Eşi   ( )
  Annesi   ( )
  Babası   ( )
  Kardeşi   ( )
  Çocuğu   ( )
  Arkadaşı   ( )

Cinsiyeti: Kadın ( )   Erkek ( )

Yaşı:_____

● Medeni Durumu: Bekar ( )   Evli ( )   Dul ( )   Boşanmış ( )

● Eğitim Durumu:
  En son mezun olduğu okul: Okuma yazma bilmiyor   ( )
                             Okuma yazma biliyor   ( )
                             İlkokul mezunu   ( )
                             Ortaokul mezunu   ( )
                             Lise mezunu   ( )
                             Üniversite mezunu   ( )
                             Yüksek lisans/Doktora   ( )

● Şu anda çalışıyor mu?   Evet ( )   Hayır ( )

      Çalışıyorsa ne iş yapıyor?_____

● Hasta ile ilişkisi
      Günde kaç saat birlikte/yüz yüze olabiliyorlar?_____

EES

AÇIKLAMA: Aşağıda hastanızla aranızdaki ilişkinin bazı yönlerini tanımlayan cümleler vardır. Lütfen hastanızı düşünerek cümleleri okuyun ve tanımlanan durumlar size uygunsa doğruyu (D), uygun değilse yanlışı (Y) işaretleyin. Bunu yaparken son bir yılınızı düşünün.

1.Onun bazı şeyleri kasten yaptığını düşünüyor ve öfkeleniyorum. (D) (Y)

2.Onun hasta olduğuna inanmıyorum. (D) (Y)

3.Onunla sohbet etmekten hoşlanıyorum. (D) (Y)

4.Benim için onun istekleri, diğer aile üyelerininkilerden daha önemlidir. (D) (Y)

5.Onunla ilgili herşeyi, kendine özel konuları bile öğrenmeye çalışıyorum.(D) (Y)

6.Onun varlığı beni deli ediyor. (D) (Y)

7.Düşünüp düşünüp yanıyorum ne hata yaptık diye. (D) (Y)

8.Onun bazı yönlerini beğeniyor ve takdir ediyorum. (D) (Y)

9.Ona sık sık öğüt veriyorum. (D) (Y)

10.Onunla uyuşamıyoruz. (D) (Y)

11. Bıraktım artık ne hali varsa görsün. (D) (Y)

12.Aile içinde onun her şeyiyle ben ilgileniyorum. (D) (Y)

13.Ona kırılıyor, güceniyorum. (D) (Y)

14.Onun fikirlerini sonuna kadar dinlerim. (D) (Y)

15.Onun üstüne titrerim. (D) (Y)

16.Onunlayken başka şeyle ilgilenemiyorum, ilgim hep onunla oluyor. (D) (Y)

17.O benim hayatımı yaşamama engel oluyor. (D) (Y)

18.O hasta oldu diye dünya başıma yıkılmış gibi geliyor. (D) (Y)

19. Onun yaptığı işleri beğenmiyorum. (D) (Y)

20. Onun giyim kuşamını beğenmiyorum ve bunu ona söylüyorum. (D) (Y)

21. Ondan benim beklediğim gibi davranmasını istiyorum. (D) (Y)

22. Ona en ufak bir şey olacak diye endişeleniyorum.

23. Onun her şeyi ile ben ilgileniyorum. (D) (Y)

24. "Ondan ah bir kurtulsam" diye düşündüğüm oluyor. (D) (Y)

25. Huzursuz ve keyifsiz olduğunda anlıyor ve ondan uzak duruyorum. (D) (Y)

26. Kendi işlerini sıralı ve düzenli yapması için onu sık sık ikaz ediyorum. (D) (Y)

27. Hastaneye yatması beni perişan ediyor, ondan ayrılamıyorum. (D) (Y)

28. Huyumuz suyumuzla birbirimize benziyoruz. (D) (Y)

29. Onun yanlışlarını düzeltmesini istiyorum. (D) (Y)

30. Onunla iyi anlaşıyoruz. (D) (Y)

31. Aklım fikrim hep onda, başka hiçbir şey düşünemiyorum. (D) (Y)

32. Kendini düzeltmesi için onu sık sık eleştiriyorum. (D) (Y)

33. Ondan uzak kalmak istiyorum. (D) (Y)

34. Başıma bir sürü dert açıyor. (D) (Y)

35. O olmasa bütün işler yoluna girecek. (D) (Y)

36. Bir zorlukla karşılaşırsam başa çıkabiliyorum. (D) (Y)

37. Onun her şeyi ile ilgilenmek bana zevk veriyor. (D) (Y)

38. Öfkelendiğinde ondan uzak durmam, onu yatıştırmaya çalışırım. (D) (Y)

39. Huzursuz ve keyifsiz olduğunda onunla sohbet etmeye çalışırım. (D) (Y)

40. Onun hastalığını abarttığını düşünüyorum. (D) (Y)

41. Onun morali bozuk olduğunda genellikle ben destek oluyorum. (D) (Y)

AÇIK UÇLU SORULAR İÇİN PUANLAMA KATEGORİLERİ VE

ÖRNEK İFADELER

A. Hastalığınız konusunda sizi rahatsız eden şeyler nelerdir?

1) İlaç yan etkisi; ilaç kullanmaktan rahatsız olma: "İlaç alınca mutsuz oluyorum, yan etkileri olduğuna inanıyorum.", "hapa alışamadım, ağzımda kötü tadı oluyor."

2) Toplumun hastalığa bakış açısı(Stigmatization); Toplum ve aile tarafından dışlanmış olma; Hasta rolünü kabullenmeme, hasta rolü verilmesi, karışılması, bireyselliğin kaybı: "deli diyorlar, psikologla görüştüğüm için başka gözle bakıyorlar." "Herkes için gözden çıkarılmış gibiyim."

3) Sosyal işlev kaybı ve sosyal rol kaybı, geçmişin olumsuz algılanması; geçmişe göre kötü kıyaslama. "Hiçbir yere yalnız gidemiyorum.","Evde benim sözüm geçmiyor.", "Hayatımdan çalınan zaman."

4) Hastalığın fiziksel belirtileri: "Halsizlik", "Titreme", "Baş dönmesi"

5) Hastalığın psikolojik belirtileri, olumsuz duygular, sinirlilik, gelecek kaygısı: "Tekrar telepatik görüşme başlar, konuşurum diye korkuyorum.", "İyice düzeleceğime inanmıyorum.", "bazen kendime güvenimi kaybediyorum".

6) İletişim problemleri ve ilişki sorunları: "İlişki kuracak, muhabbet edecek insanları bulamıyorum.", "Arkadaşlarla dialog iyi, ama kalp kırmaktan çekiniyorum, yanlış bir şey yapmaktan korkuyorum."

7) Aileye yük olmaktan kaynaklı suçluluk duygusu ve aile üyelerinin etkilenmesi: "Çocuğuma mutluluk veremiyorum.", "Sürekli hastaneye gelip giderken hanım da arkamdan geliyor, onun gelmesini istemiyorum, zoruma gidiyor, ona eziyet ediyormuşum gibi."

8) Maddi problemler: "geçim sıkıntısı, paranın olmaması"

9) Bilmiyorum/ yok

B. Sizce hastalığınızla ilgili iyiye giden şeyler var mıdır? Varsa bunlar nelerdir?

1) İletişimin düzelmesi ve artması; aile desteği: "Ailem daha ilgileniyor.", "Artık insanlarla konuşabiliyorum" , "Çocuklarla iletişim kurabilmem."

2) Psikolojik olarak kendini iyi hissetme (Psychological well-being), psikolojik belirtilerde düzelme: "Kendimi iyi hissediyorum.", "Düşünceler daha olumlu, daha güzel şeyler olacağına inanıyorum."

3) Fiziksel belirtilerde düzelme: "Başım ağrımıyor.", "Uyuşukluk geçti", "Uykumu uyuyabiliyorum."

4) Geleceğe olumlu bakma: "Daha iyi olacağım."

5) Sosyal işlevsellikte artış."İşlerimi yapabiliyorum.", "Hayata adapte olabiliyorum."

6) İlaç ve dozunda azalma: "İlaçların etkisiyle hastalığım geçiyor."

7) Hastalığı kabullenme."Hastalığımı söylemekten çekinmiyorum, artık normal bir hastalık gibi geliyor. Hastalığı paylaşmak konusuna önem veriyorum.", "Hastalığımı kabulleniyorum."

8) Yok

Sizce hastalığınızla ilgili kötüye giden şeyler var mı? Varsa bunlar nelerdir?

1) Sosyal yaşantı kaybı, sosyal rol kaybı, Sosyal işlevsellikte bozulma. "Hayattan koptum. Sosyal yaşantım yok.", "Evde benim sözüm geçmiyor, ilişki kuracak insanları bulamıyorum.", "Toparlanıp da hayata adapte olamıyorum."

2) Psikolojik belirtilerde artış:"Daha karamsarım. Daha az konuşup çok fazla gülmek istemiyorum."

3) Fiziksel belirtilerde artış:"Kafamdaki kaynama, kulağımda çınlama.", "Titreme."

4) Geleceğe olumsuz bakış: "İyi olamayacağım diye sorun yaratıyorum."

5) Aileye yük olma duygusunda artış. "Bakan yok. Benim derdim ablamı yiyip bitiriyor."

6) İlaç yan etkisi. "İlaçlar kilo aldırıyor."

7) İletişim bozukluğu:"İlişki kuracak insan bulamıyorum."

8) Yok

C. Hastalığınızla ilgili en çok desteği kimden /kimlerden alıyorsunuz?

1) Annesi

2) Babası

3) Kardeşi

4) Eşi

5) Çocukları

6) Eşinin ailesi, akrabalar, yenge, hala, enişte

7) Arkadaşları

8) Doktorlar, psikologlar

9) Komşusu

10) Kendi kendine

11) Hiç kimse

12) Ailesi

Neler yaparak size destek oluyorlar?

1) İlgi, sevgi ve anlayış göstererek, acıyarak, konuşarak, moral vererek, yanında olarak; manevi destek: "'Kafana takma, her şey düzelecek, yoluna girecek' diyor." ,"Hep yanımda oldular, hastalığım geçsin diye destek verdiler.", "Anlayışlı davrandılar."

2) İlaç kontrolü ve tedavi yaparak: "Hapını zamanında iç, diyorlar", "İğne, ilaç alıyorlar.", "Oğlum işten gelince hapımı verir, eşim de yutmadı diye verir."

3) Hastaneye, doktora götürerek: "Hastaneye götürüyorlar."

4) Maddi destekte bulunarak.: "Para veriyor.", "Hapımı alıyor, üstümü, başımı alıyor.", "Hastalığımın tedavisini ve evin ihtiyaçlarını karşılıyor."

5) Günlük işleri paylaşarak ve yardım ederek, sosyalliği artırarak: "Beni aktif bir hayata geçirmeye çalışıyor.", "Günlük işler, yemek, çamaşırda yardım ediyor."

6) Her şeyi yaparak."Her işime destek oluyor."

7) Yok

D. Hayatınızda son altı aydır karşılaştığınız güçlükler nelerdir?

1) İletişim kuramama; insanlarla çatışma, başkalarını hastalık konusunda ikna etmek: "İşim gereği birebir halkla ilişkilerim iyi değil. İletişim kuramıyorum.", "Askerde komutanlar hasta olduğuma inanmadılar."

2) İşsizlik ve maddi sorunlar: "İş bulamamak", "Parasal güçlükler"

3) Hastanede karşılaşılan güçlükler: "Hastane kapılarında beklemek"

4) Hastalığın fiziksel ve psikolojik belirtileri, hastalığın kendisi: "sadece hastalığım, onun dışında güçlük olmadı", "Konuşamamak, ağzımdan başka kelimeler çıkıyor.", "Kendi kendime konuşmalarım güçlük yaratıyor, Olmasa keşke."

5) Akademik başarısızlık: "Okulda başarısızlık"

6) İşlev kaybı; günlük işleri yapmada sorunlar: "Ev işleri, dağınıklık."

7) İlaç kullanma ve yan etkileri: "İlaç sebebiyle gece uykusuzluk, gündüz uyuma hissi.", "İlaçların bana yaptığı yan etki, yordunluk, uyuşuk kalma. Clopixol'ün dölü yok etme yan etkisi var."

8) Sosyal destek kaybı; aile baskısı; bir yakının ölümü ya da evlenmesi yoluyla kaybı: "Babam çok dayak atıyor.", "Abimin evlenmesi.", "Eşimin yanımda olmaması.", "İşsizlikten dolayı çalışmam için ailemin baskısı.", "Babamı kaybettik."

9) Yok

Bunlarla nasıl başa çıktınız?

1) Olumlu düşünme ve kendi kendini telkin. "Daha olumlu düşünerek.", "Kendimi bırakmadım, düşündüğüm şeylerin saçma olduğuna kendimi inandırdım.", "Kendi kendimi teselli ediyorum."

2) Problem çözme yöntemi kullanma; mücadele etme; tartışma: "Akıl yoluyla üzerine giderek.", "Kendimi koy vermedim.", "Aynı hatayı tekrar yapmamak."

3) Sosyal destek kaynaklarını kullanma. "Ailemden destek aldım.", "Başkalarıyla gezerek.", "Babamlar yardım etti, yardım kuruluşlarından yardım aldım.", "Konuşarak."

4) Tıbbi yardım ve buna uyum: "Tedavi görerek.", "İlaçla geçti.", "Doktorlar ve ilaç sayesinde, kurtulmak için mücadele ettim."

5) Sabretme ve kabullenme:"Sabrettim.", "Kabullendim."

6) Dine sığınma:"Dua ettim.", "Allah'a başvurdum, Kur'an okudum, huzur istedim.".

7) Problemi yok sayma veya ondan kaçma; bir şey yapmama; başa çıkamama: "Unutmaya çalıştım."

TURKISH SUMMARY

Şizofreni, hasta ve ailelerini büyük ölçüde etkileyen kronik ruhsal bir hastalıktır. Şizofreninin tarihi insanlık tarihi kadar eskidir. Antik çağlarda tanrıların hastalıktan sorumlu olduğu düşünülürken, 15. yy da Avrupa'da bu hastalar şeytana karışmış ya da cadı olarak kabul edilip yakılmışlardır. Şizofreni terimi ilk kez 1908'de Bleuler tarafından ortaya atılmıştır. Bleuler affektif bozukluk, otizm, ambivalans ve asosiasyon bozukluğunu şizofrenin dört A belirtisi olarak tanımlamıştır. DSM-IV'e göre şizofreni ölçütleri şöyledir: (a) delirler, (b) varsanılar, (c) dezorganize konuşma, (d) dezorganize ya da katatonik davranış (e) negatif belirtilerden en az ikisinin 1 ay boyunca bulunması gerekir. Ayrıca en az altı aydır sosyal ve mesleki işlev bozukluğu olması da diğer bir ölçüttür. Kısa psikotik bozukluk, şizoaffektif bozukluk, delüzyonel bozukluk, duygulanım bozukluğu, madde kötüye kullanımına bağlı psikotik bozukluk gibi hastalıklardan şizofreninin ayırıcı tanısının yapılması gerekir. Ayırıcı tanı yaparken ayrıntılı öykü alınması, mental durum muayenesi, çeşitli fiziksel, nörolojik ve kimyasal araştırmaların yapılması yararlı olur.

Şizofreninin klinik özellikleri genel görünüm, konuşma, davranış, motivasyon, duygulanım, algı ve düşünce alanlarındaki bozuklukları içermektedir. Şizofreninin en belirgin belirtilerinden olan varsanılar özellikle işitsel olarak ortaya çıkmaktadır. Hatalı inanış olarak bilinen delüzyonlar ise kötülük görme, büyüklük, düşüncelerin çalındığı, yayıldığı vb. şeklindedir. Tardif diskinezi nöroleptik

kullanımına bağlı olarak ortaya çıkan yan etkilerden biri olup hareket bozukluğu şeklinde görülür.

Son yıllarda şizofrenide negatif ve pozitif belirti ayrımı araştırmalarda en sık kullanılan değişkenlerdendir. İlk kez McGlashan ve Fenton (1992) tarafından bu ayrım yapılmıştır. Varsanılar ve delirler pozitif belirtileri oluştururken, künt affekt ve konuşmada fakirlik negatif belirtileri ifade etmektedir.

Şizofreniye en sık eşlik eden psikiyatrik bozukluklar madde kötüye kullanımları ve depresyondur.

Şizofreni toplumda %1 oranında ve kadın ve erkeklerde eşit oranlarda görülen bir hastalıktır. Düşük sosyoekonomik koşullardan gelen insanlarda daha yüksek koşullardan gelenlere göre prevalansı daha yüksektir.

Etiyolojisi hala tam olarak bilinmeyen şizofrenide biyopsikososyal faktörlerin bir arada rol oynadığı düşünülmektedir. Stres-yatkınlık modeli Zubin ve Spring tarafından 1977'de ileri sürülmüş, daha sonra Nuechterlein ve Dawson tarafından geliştirilmiş etiyolojiye yönelik bir modeldir. Bu modele göre biyolojik, psikolojik ve psikososyal faktörler şizofreninin oluşumu ve ilerlemesinde rol oynamaktadır. Biyolojik ya da genetik yatkınlıkla gelen kişi, çevresel, ailesel, yaşam olayları gibi çeşitli stresörlerin işin içine karışmasıyla şizofreni geliştirmeye başlar.

Şizofreninin tedavisi de, tıpkı etiyolojisi gibi, çoklu faktörün benimsenmesini gerektirmektedir. En temel tedavi olan ilaç tedavisinde birinci basamakta tipik ve atipik antipsikotikler, daha sonra antikonvülsanlar, benzodiazepinler, antidepresanlar gibi çeşitli ilaç grupları kullanılmaktadır. Elektrokonvulsif terapi tedaviye dirençli vakalarda, ağır depresif durumun eşlik ettiği ya da katatonik belirtilerin olduğu durumlarda uygulanmaktadır. Psikososyal tedaviler bilişsel davranışçı terapi, grup terapi, sosyal beceri eğitimi gibi tedavi seçeneklerinden oluşmaktadır.

Bu çalışmanın ilgi odağını oluşturan duygu dışavurumu psikiyatrik bir hastaya karşı ailesinin ya da ailesindeki bir üyenin duygusal tutum ve davranışlarını ifade etmektedir. 1950'li yıllarda şizofreni tedavisinde, nöroleptiklerin keşfedilmesiyle birlikte, önemli gelişmeler olmaya başlamış, pozitif belirtilerin azalmaya başlamasıyla hastalar uzun yıllardır kaldıkları depo hastanelerden tekrar toplumda yaşamaya dönmüşlerdir. Ancak kısa süre sonra hastalığın yeniden alevlenip hastaların hastanelere yatmaya başladığı görülmüştür. Bunun üzerine araştırmacılar hastaların evlerinde, ailelerinde ne olduğu sorusunu sormaya başlamışlar ve Vaughn ve Leff (1976a) duygu dışavurumu kavramını ortaya atmışlardır. Duygu dışavurumu eleştirel ve düşmanca oluş ve duygusal aşırı iç içe geçme şeklinde iki faktörden oluşmaktadır. Duygu dışavurumunu ölçmek amacıyla ilk olarak Camberwell Aile Görüşmesi geliştirilmiş, ancak uygulanması ve puanlanması oldukça zaman alan ve özel eğitim gerektiren bu ölçek yerine daha sonra kendi kendine doldurulan ölçekler geliştirilmiştir. Yapılan çalışmalar sonucunda aileler yüksek ve düşük duygu dışavurumu olan aileler olarak ayrılmışlar ve şizofrenide depreşmenin (rölaps) daha çok yüksek duygu dışavurumu olan ailelerde yaşayan hastalarda görüldüğü bulunmuştur. Ayrıca duygu dışavurumu ile ilişkili olan faktörler de araştırılmış, bakım veren kişilerin özellikleri, bakım veren kişilerin duyarlılığı ve baş etme stratejileri gibi çeşitli faktörlerin etkili olduğu görülmüştür. Yapılmış çeşitli çalışmalar duygu dışavurumunun şizofrenili hastalarda depreşmenin iyi bir yordayıcısı olduğunu göstermiştir (Vaughn, Snyder, Jones, Freeman ve Fallon, 1984; Hogarty, Anderson, Reiss, Kornblith, Greenwald, Javna ve Madonia, 1986; Barrelet, Ferrero, Szigethy, Giddey ve Pellizer, 1990; Vaughan, Doyle, McConaghi, Blaszcynski, Fox ve Tarrier, 1992; Linszen, Dingemans, Nugter, Van der Does, Scholte ve Lenior, 1997; King ve Dixon, 1999; Marom, Munitz,

Jones, Weizman ve Hermesh, 2002; Yang, Phillips, Licht ve Hooley, 2004; Kopelowicz, López, Zarate, O'Brien, Gordon, Chang ve Gonzalez-Smith, 2006; Hooley, 2007). Ülkemizde bu konuda yapılmış sınırlı sayıda çalışma vardır (Berksun, 1992; Cansever, 1994; Özden, 1995; Karanci ve Inandilar, 2002).

Şizofreniden başka alkolizm, yeme bozuklukları, duygulanım bozuklukları, hiperaktivite bozukluğu, Alzheimer, travma sonrası stres bozukluğu gibi çeşitli psikiyatrik hastalıklarla duygu dışavurumunun ilişkisi incelenmiştir. Ayrıca diyabet, epilepsi, parkinsonizm, kolit ülseroz ve böbrek yetmezliği olan hastalarda duygu dışavurumu ile yapılmış çalışmalar vardır.

Ailelerin duygu dışavurumunun şizofreni üzerindeki etkisi yaygın biçimde kabul edilmektedir. Ancak, hastaların, ailelerinin duygu dışavurumunu nasıl algıladıkları ve bu algılamanın hastalığın gidişi üzerindeki etkisi tam olarak bilinmemektedir. Hastaların, ailenin duygu dışavurumunu nasıl algılayıp değerlendirdikleri kavramı algılanan duygu dışavurumu olarak tanımlanabilir. Algılanan duygu dışavurumu bu alanda nispeten yeni bir kavramdır. Bu konudaki ilk çalışmayı Hooley ve Teasdale (1989) depresif hastalarla yapmışlar ve hastaların algıladıkları eleştirel/düşmanca oluşun 9 aylık depreşme oranlarıyla anlamlı olarak birlikte olduğu anlaşılmıştır. Araştırmacılar hastaların algıladıkları eleştirel/düşmanca oluşun ailenin eleştiriciliğinden daha önemli olduğunu göstermişlerdir. Depresif hastalarla yapılan bu çalışmanın sonuçları şizofreniye genellenemeyeceği için, bu hasta grubuyla çalışmalar yapılmasına ihtiyaç duyulmuştur. Scott, Fagin ve Winter (1993) yaptıkları bir dizi çalışma ile hastaların bakış açısını depreşmenin en iyi yordayıcısı olduğunu bulmuşlardır.

Algılanan duygu dışavurumu şizofreni dışında obsesif-kompulsif bozukluk yeme bozukluğu, depresyon gibi çeşitli hastalıklarda da araştırılmıştır.

217

Bu çalışmada ikinci sonuç değişkeni olan yaşam kalitesi, Dünya Sağlık Örgütü tarafından "kişinin kendi durumunu kültürü ve değerler sistemi içinde algılayış biçimi" olarak tanımlanmıştır. Yaşam kalitesi kavramı içinde fiziksel sağlık, psikolojik sağlık, sosyal ilişkiler ve çevre etkenleri öznellik temelinde yer alır. Şizofrenide sonuç değişkeni olarak yaşam kalitesini inceleyen çeşitli çalışmalar yapılmıştır (Xiang, Weng, Leung, Tang ve Ungvari, 2007; Ritsner, Modai, Endicott, Rivkin, Nechamkin, Barak, Goldin ve Ponizovsky, 2000). Şizofrenide algılanan duygu dışavurumu, yaşam kalitesi ve depreşme arasındaki ilişkiyi inceleyen araştırma sayısı oldukça azdır.

Şizofreni düzenli ilaç tedavisine rağmen, depreşmelerin görüldüğü, bu nedenle depreşmeyi önlemenin önemli olduğu bir ruhsal hastalıktır. Ailelerin tedavi dışında bırakıldığı yöntemlerin başarısı düşük olmakla birlikte, ailelerin nasıl ele alınacağı tam olarak bilinememektedir. Hastanın bakış açısından ailelerin duygu dışavurumu araştırma alanında yeni bir konudur. Bu araştırmanın amacı, ailelerin duygu dışavurumunu hastaların algılamalarını yansıtacak bir ölçek olan Algılanan Duygu Dışavurumu Ölçeği'ni geliştirmektir. Araştırmanın genel amacı ise şizofren hastaların, ailelerinin duygu dışavurumu ile hastaların algıladıkları duygu dışavurumunun yaşam kalitesi ve belirti düzeyi üzerindeki rollerini incelemektir. Bu amaçlara ulaşmak için on dokuz araştırma hipotezi oluşturulmuştur. Bunlardan bazıları şöyledir:

Algılanan Duygu Dışavurumu Ölçeği, Duygu Dışavurumu Ölçeği ile benzer bir yapıya sahip olacaktır.

Algılanan eleştirel/düşmanca oluş ve duygusal aşırı iç içe geçme Aile Değerlendirme Ölçeği'nin problem çözme, iletişim, roller, duygusal tepkisellik,

duygusal iç içe geçme, davranışsal kontrol ve genel işlevsellik alt alanlarıyla ilişkili olacaktır.

Hastaların algıladıkları duygu dışavurumu, yakınların duygu dışavurumuna göre, yaşam kalitesinin fiziksel sağlık, psikolojik sağlık sosyal ilişkiler ve çevre alt alanlarında ve PANSS'ın pozitif ve negatif belirtiler, genel psikopatoloji ve toplam puanları üzerinde daha güçlü bir etkiye sahip olacaktır.

Temel bakım veren kişilerin duygu dışavurumunun PANSS'ın pozitif ve negatif belirtiler, genel psikopatoloji ve toplam puanlarından daha yüksek puan almaları beklenecektir.

Temel bakım veren kişilerin duygu dışavurumunun yaşam kalitesinin fiziksel sağlık, psikolojik sağlık sosyal ilişkiler ve çevre alt alanlarından daha yüksek puan almaları beklenecektir.

Yüksek algılanan eleştirel/düşmanca tutumu olan hastalar, düşük algılanan eleştirel/düşmanca tutumu olan hastalara göre, PANSS pozitif, negatif belirtilerde daha yüksek puana sahip olacaktır.

Yüksek algılanan duygusal aşırı iç içe geçme tutumu olan hastalar, düşük duygusal aşırı iç içe geçme tutumu olan hastalara göre, PANSS pozitif, negatif belirtilerde daha yüksek puana sahip olacaktır.

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Yüksek algılanan eleştirel/düşmanca oluş tutumu olan hastalar, düşük eleştirel/düşmanca tutumu olan hastalara göre, yaşam kalitesinin fiziksel sağlık, psikolojik sağlık, sosyal ilişkiler ve çevre alanından daha yüksek puan alacaktır.

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Bu amaçla ilk olarak Algılanan Duygu Dışavurumu Ölçeği'nin geliştirilmesi için bir pilot çalışması yapılmıştır. Pilot çalışmanın örneklemi 28 kadın ve 47 erkek olmak üzere toplam 75 şizofren hastadan oluşmuştur. Yaşları 19 ile 54 arasında değişen bu hastalar DSM –IV'e göre tanı konmuş akut alevlenme içinde olmayan ve zihinsel geriliği olmayanlardan seçilmiştir. Hastalara sosyodemografik verileri toplamak üzere oluşturulmuş bir form, Algılanan Duygu Dışavurumu Ölçeği, Aile Değerlendirme Ölçeği uygulanmıştır. Algılanan Duygu Dışavurumu Ölçeği, hastanın ailedeki duygu dışavurumunu nasıl algıladığını anlamak amacıyla Berksun'un (1992) Duygu Dışavurumu Ölçeğinin "o" formuna dönüştürülmesiyle elde edilmiştir. Duygu Dışavurumu Ölçeği aile içindeki duygu dışavurum düzeyini ölçmek üzere geliştirilmiş, 41 maddeden ve 2 faktörden (eleştirel/düşmanca oluş, duygusal aşırı iç içe geçme) oluşmaktadır.

Algılanan Duygu Dışavurumu Ölçeğinin maddelerinin anlaşılabilir olup olmadığını anlamak amacıyla pilot çalışmadan önce 5 hastaya ölçek uygulanmıştır. Madde 28 ("Birbirimize benzediğimizi düşünür") fiziksel benzerlik olarak algılandığı için "Huyumuzla suyumuzla birbirimize benzediğimizi düşünür." olarak değiştirilmiştir. Ayrıca hastalardan her maddeden rahatsızlık duyup duymadıkları ve duyuyorlarsa ne kadar rahatsız olduklarını ifade etmeleri istendi.

Aile Değerlendirme Ölçeği Epstein ve ark. (1983) tarafından geliştirilmiş, farklı alanlarda ailelerin işlevselliğinin nasıl olduğunu anlamak amacıyla 60 maddeden oluşturulmuştur. Aile içindeki sağlıklı ve sağlıksız işlevselliği ayırt etmek için oluşturulan bu ölçekte yüksek puanlar sağlıksız işlevselliği göstermektedir. Problem çözme, iletişim, roller, duygusal tepkisellik, duygusal iç içe geçme, davranışsal kontrol ve genel işlevler olarak yedi alt alandan oluşmaktadır.

Pilot çalışma 2005 yılı ağustos ve ekim ayları arasında yapılmıştır. Olağan kontrolleri için polikliniğe başvuran hastalar, belirtilerinin aktif olup olmadığı hakkında bilgi verilerek, psikiyatrist tarafından araştırmacıya yönlendirilmiştir. Araştırmacı kendisini tanıtıp çalışma hakkında bilgi verdikten sonra onay formunu imzalatmıştır. Sosyodemografik bilgi toplama formu doldurulduktan sonra. Algılanan Duygu Dışavurumu Ölçeği ve Aile Değerlendirme Ölçeği hastalara uygulanmıştır. Algılanan Duygu Dışavurumu Ölçeğini doldururken hastalardan temel bakım veren aile üyesini düşünerek yanıtlamaları istenmiştir. Bunun için evde en çok kiminle yüz yüze temasta oldukları ve ailedeki hangi üyenin bakımlarını üstlendikleri sorulmuştur. Uygulamalar yaklaşık yarım saat sürmüştür.

Yapılan faktör analizi sonucuna göre madde 36'nın faktör yükü .35'ten düşük olduğu için daha sonraki analizlerden çıkarılmıştır. 21 maddeden oluşan

eleştirel/düşmanca oluş ve 19 maddeden oluşan duygusal aşırı iç içe geçme şeklinde iki faktör belirlenmiştir.

Aile Değerlendirme Ölçeğinin Cronbach alpha sonuçları Bulut'un çalışmasıyla (1990) benzer bulunmuştur. Algılanan Duygu Dışavurumu Ölçeği ve Aile Değerlendirme Ölçeği arasındaki ilişkiyi incelemek için Pearson Korelasyon analizi yapılmıştır. Analiz sonuçlarına göre eleştirel/düşmanca oluş, Aile Değerlendirme Ölçeğinin problem çözme dışındaki tüm alt ölçekleri ile pozitif olarak ilişkiliydi. Hastanın algıladığı eleştirel/düşmanca oluş arttıkça tüm bu alt ölçeklerde aile işlevselliği hasta tarafından sağlıksız olarak algılanmaktaydı. Öte yandan duygusal aşırı iç içe geçme problem çözme ile negatif, duygusal iç içe geçme ile pozitif olarak ilişkili bulunmuştur. Hastaların algıladıkları duygusal iç içe geçme arttıkça ailedeki problem çözme becerilerini hastanın sağlıklı olarak algıladığı, diğer yandan hastanın ailede duygusal iç içe geçmede aşırı biçimde sağlıksız işlevsellik algıladığı saptanmıştır. Bu sonuçlara göre eleştirel/düşmanca oluş, duygusal aşırı iç içe geçmeye göre daha zararlı bir unsurdur.

Algılanan Duygu Dışavurumu Ölçeğine eklenen rahatsızlık boyutu ile ilgili yapılan çalışmada hastaların algıladıkları eleştirel/düşmanca oluş ile bu boyuttaki rahatsızlık düzeyi arasında yüksek korelasyon saptanmıştır. Bu bulgu eleştirel/düşmanca oluşun daha olumsuz bir unsur olduğu şeklindeki literatür bilgisiyle tutarlıdır.

Tüm bu sonuçlara göre, Algılanan Duygu Dışavurumu Ölçeği ana çalışmada kullanılabilecek geçerli ve güvenilir bir ölçek olarak bulunmuştur.

Şizofren hastalarının yaşam kalitesi ve belirti düzeyleri üzerinde yakınların duygu dışavurumu ve hastaların algıladıkları duygu dışavurumunun göreceli etkilerini incelemek için ana çalışma yapılmıştır. Bu amaçla altı ay ara ile iki kez

222

ölçüm yapılmıştır. Birinci ölçüm 2006 yılının mart ve haziran ayları arasında yapılmıştır. 46'sı kadın 70'i erkek 116 şizofren hasta ve yakını araştırmanın örneklemini oluşturmuştur. Birinci ölçümde hastalar Ankara Numune Eğitim ve Araştırma Hastanesi psikiyatri kliniklerine ayaktan ya da yatan hasta grubundan seçilmiştir. Yatan hasta dosyalarından kayıtlarına ulaşılan hastalar telefonla bağlantı kurularak araştırmaya davet edilmiştir. Araştırmacı kendisini tanıttıktan ve arama amacını anlattıktan sonra temel bakım veren kişinin kim olduğunu tespit etmek için sorular sorulmuştur. Hasta ve temel bakım veren kişi için uygun zamana randevu verilmiştir. Diğer hasta toplama kaynağı ise ayaktan hasta grubu olmuştur. Rutin kontrollerini yaptırmak için hastaneye başvuran hastalar görevli psikiyatrist tarafından araştırmacıya yönlendirilmiştir. Hasta ve yakını görüşme odasına alındıktan sonra araştırmacı kendisini tanıtmış, çalışmanın amacı ve prosedür hakkında bilgi verildikten sonra onay imzası alınmıştır. Birinci ölçümde hastalara sosyodemografik bilgi formu, Algılanan Duygu Dışavurumu Ölçeği, Pozitif ve Negatif Semptom Ölçeği (PANSS), Yaşam Kalitesi Ölçeği (WHOQOL-BREF) ve açık uçlu soru formu, temel bakım veren kişiye ise Duygu Dışavurumu Ölçeği uygulanmıştır. Sosyodemografik bilgi formu doldurulduktan sonra, yakını dışarı çıkartılmış, Algılanan Duygu Dışavurumu Ölçeği, PANSS, WHOQOL-BREF ve açık uçlu soru formu araştırmacı tarafından birebir uygulanmıştır. Hastanın işi bittikten sonra odaya temel bakım veren yakını alınmış ve ona da Duygu Dışavurumu Ölçeği birebir uygulanmıştır. Uygulamalar yaklaşık 1,5 saat sürmüştür.

Yaşam Kalitesi Ölçeği (WHOQOL-BREF) Dünya Sağlık Örgütü tarafından geliştirilmiş, 26 maddeden ve fiziksel sağlık, psikolojik sağlık, sosyal ilişkiler ve çevre alt alanlarından oluşan bir ölçektir. Türkçeye adaptasyon çalışması Fidaner ve ark. (1999) tarafından yapılmıştır. PANSS ise Kay ve ark. (1987) tarafından

geliştirilmiş, 16'sı genel psikopatoloji, 7'si pozitif belirti, 7'si negatif belirti olmak üzere toplam 30 maddeden oluşan bir ölçektir. Kostakoğlu ve ark. (1999) tarafından Türk örneklemle geçerlik ve güvenirlik çalışması yapılmıştır. PANSS yarı yapılandırılmış bir ölçek olduğu için uygulayıcıdan kaynaklı yanlılığın dışlanması gerekmektedir. Bu nedenle uygulayıcılar arası güvenirliği test etmek için, ölçek üç hastaya uygulanmış, bu uygulamalar sırasında deneyimli bir psikiyatrist tarafından bu uygulamalar gözlenmiş ve araştırmacı ve psikiyatrist birbirlerinden bağımsız olarak uygulamaları değerlendirmişlerdir. Bu değerlendirmeler Cohen'in kappa analizi ile test edilmiş ve anlamlı sonuç bulunmuştur. Bu demektir ki ölçeğin uygulayıcılar arası güvenirliği yüksek bulunmuştur.

Birinci ölçüm sırasında hastaların hastalıklarına ilişkin düşüncelerini araştırmak amacıyla aşağıdaki açık uçlu sorular sorulmuştur:

A.Hastalığınız konusunda sizi rahatsız eden şeyler nelerdir? Sizce, bunların içinde en önemlisi hangisidir?

B.Sizce hastalığınızla ilgili iyiye giden şeyler var mıdır? Varsa bunlar nelerdir? Sizce hastalığınızla ilgili kötüye giden şeyler var mıdır? Varsa bunlar nelerdir?

C. Hastalığınızla ilgili en çok desteği kimden/kimlerden alıyorsunuz? Neler yaparak size destek oluyorlar?

D. Hayatınızda son altı aydır karşılaştığınız güçlükler nelerdir? Bunlarla nasıl başa çıktınız?

Birinci ölçüm tamamlandıktan sonra her hastaya altı ay sonrasına randevu verilmiş ve bu süre içinde rutin kontrollerine gelmeleri hatırlatılmıştır. Her hastaya randevu gününden önce hatırlatmak amacıyla telefon edilmiştir. İkinci ölçüm için çağrılan 116 hastadan 13'ü çeşitli nedenlerle ikinci değerlendirmeye katılmamıştır. Bu 13 hastanın çeşitli değişkenler açısından ortak bir özelliği olup olmadığını

anlamak için t-test yapılmıştır. Bu hastaların tümünün işsiz olmak dışında başka bir ortak özellikleri olmadığı görülmüştür. İkinci ölçüm 2006 yılının Eylül ve Aralık ayları arasında yapılmıştır. İkinci ölçüme katılan 103 hastanın 41'i kadın 62'si erkekti. Hastaların yalnızca 5'inin ilk değerlendirmeden sonra hastaneye yatırıldığı anlaşılmıştır. İkinci ölçümde ise yalnızca hastalara Pozitif ve Negatif Semptom Ölçeği (PANSS) ve Yaşam Kalitesi Ölçeği (WHOQOL-BREF) uygulanmıştır. Birinci ölçümdeki prosedürün aynısı ikinci ölçümde de izlenmiştir.

Verilerin istatistik analizi SPSS (Green, Salkind ve Akey, 1997) paket programı ile yapılmıştır. Algılanan Duygu Dışavurumu Ölçeği ve Duygu Dışavurum Ölçeği'nin faktör analizleri yapılmış ve her iki ölçeğin de eleştirel düşmanca oluş ve duygusal aşırı iç içe geçme olmak üzere iki faktörü olduğu bulunmuştur. Ayrıca her iki ölçeğin Cronbach alfa güvenirlik katsayıları yüksek çıkmıştır. Bu iki ölçekten elde dilen faktör yapılarının birbirine benzer olup olmadığını anlamak için target rotasyon analizi yapılmıştır. Elde edilen katsayılar bu iki ölçekten elde edilen faktörlerin özdeş olduğunu ve daha sonra yapılacak karşılaştırmalarda kullanılabileceğini göstermiştir. Çalışmada kullanılan tüm değişkenlere ait ortalama, standart sapma ve ranjlar hesaplanmıştır. Hasta ve yakını arasındaki ve faktörler (eleştirel/düşmanca oluş ve duygusal aşırı iç içe geçme) arasındaki farkları ve etkileşimsel (interactional effect) etkiyi araştırmak için tekrarlı iki yönlü (repeated two way) Anova yapılmıştır. Duygu dışavurumu faktörleri arasında hasta ya da yakını olma açısından etkileşimsel etki bulunmuştur. Gruplar arasındaki farkın nereden kaynaklandığını anlamak için, tukey test yapılmış ve yakınların duygusal aşırı iç içe geçmesinin hastaların algıladığı duygusal aşırı iç içe geçmeden, hastaların algıladığı eleştirel/düşmanca oluşun yakınların eleştirel/düşmanca oluşundan anlamlı olarak daha yüksek olduğu bulunmuştur. Ayrıca hastaların algıladığı duygusal aşırı iç

225

içe geçme hastaların algıladığı eleştirel/düşmanca oluştan, yakınların duygusal aşırı iç içe geçmesi yine yakınların eleştirel/düşmanca oluşundan daha yüksek olarak bulunmuştur.

Araştırmada kullanılan değişkenler arasındaki Pearson korelasyon katsayılarına bakılmış ve hastanın algıladığı eleştirel/düşmanca oluş birinci ölçümdeki PANSS pozitif, negatif belirtiler ve toplam puanlarıyla, ikinci ölçümdeki PANSS pozitif belirtiler ve toplam puanlarıyla, temel bakım veren kişilerin duygusal aşırı iç içe geçmesi ve eleştirel/düşmanca oluşuyla pozitif yönde anlamlı olarak ilişkili bulunmuştur. Ancak hastaların algıladıkları eleştirel/düşmanca oluş, birinci ölçümdeki WHOQOL-BREF'in fiziksel sağlık, psikolojik sağlık, sosyal ilişkiler ve çevre alt alanlarıyla negatif yönde anlamlı olarak ilişkili bulunmuştur. Hastaların algıladıkları duygusal aşırı iç içe geçme birinci ölçümdeki WHOQOL-BREF'in çevre alanıyla, ikinci ölçümdeki WHOQOL-BREF'in sosyal ilişkiler ve çevre alanıyla pozitif yönde ilişkili olarak bulunmuştur. Öte yandan, temel bakım veren kişilerin eleştirel/düşmanca oluşu birinci ölçümdeki PANSS'ın pozitif, negatif belirtiler, genel psikopatoloji ve toplam puanlarıyla pozitif yönde anlamlı, yine birinci ölçümdeki WHOQOL-BREF'in sosyal ilişkiler alanıyla negatif yönde ve anlamlı olarak ilişkili bulunmuştur. Temel bakım veren kişilerin duygusal aşırı iç içe geçme tutumu, birinci ölçümdeki PANSS pozitif belirtiler puanıyla ve yakınların eleştirel/düşmanca oluşuyla pozitif olarak anlamlı olmuştur.

Birinci ve ikinci ölçümlerdeki PANSS ve WHOQOL- BREF'in alt ölçekleri üzerinde temel bakım veren kişilerin duygu dışavurumu ve hastaların algıladığı duygu dışavurumunun göreceli etkilerini araştırmak için tekrarlı Anova analizi yapıldı. Bu analiz için, duygu dışavurumu ve algılanan duygu dışavurumunun eleştirel/düşmanca oluş ve duygusal aşırı iç içe geçme puanları, median split yöntemi

226

ile, hasta ve bakım veren kişileri yüksek ve düşük olarak gruplandırmada kullanılmıştır. Bu gruplandırmadan sonra, birinci ve ikinci ölçümlerdeki PANSS pozitif, negatif belirtileri, genel psikopatoloji ve toplam puanları üzerinde temel bakım veren kişilerin eleştirel/düşmanca oluş ve hastaların algıladığı eleştirel/düşmanca oluşun temel ve etkileşimsel etkilerini araştırmak için dört adet son faktörde tekrarlı 2x2x2 Karışık Desen Anova analizi yapıldı. Birinci ve ikinci ölçümlerdeki PANSS pozitif, negatif belirtileri, genel psikopatoloji ve toplam puanları üzerinde temel bakım veren kişilerin duygusal aşırı iç içe geçme ve hastaların algıladığı duygusal aşırı iç içe geçmenin temel ve etkileşimsel etkilerini araştırmak için dört adet son faktörde tekrarlı 2x2x2 Karışık Desen Anova analizi yapıldı. Birinci ve ikinci ölçümlerdeki WHOQOL-BREF'in fiziksel sağlık, psikolojik sağlık, sosyal ilişkiler ve çevre puanları üzerinde temel bakım veren kişilerin eleştirel/düşmanca oluş ve hastaların algıladığı eleştirel/düşmanca oluşun temel ve etkileşimsel etkilerini araştırmak için dört adet son faktörde tekrarlı 2x2x2 Karışık Desen Anova analizi yapıldı. Birinci ve ikinci ölçümlerdeki WHOQOL-BREF'in fiziksel sağlık, psikolojik sağlık, sosyal ilişkiler ve çevre puanları üzerinde temel bakım veren kişilerin duygusal aşırı iç içe geçme ve hastaların algıladığı duygusal aşırı iç içe geçmenin temel ve etkileşimsel etkilerini araştırmak için dört adet son faktörde tekrarlı 2x2x2 Karışık Desen Anova analizi yapıldı. Yapılan on altı adet Anova analizi özetlenecek olursa, PANSS'ın pozitif ve negatif belirtileri ve toplam puanı üzerinde hastaların algıladığı eleştirel/düşmanca oluşun temel etkisi saptanmıştır. Temel bakım verenlerin eleştirel/düşmanca oluşunun temel etkisi yalnızca PANSS toplam puanı üzerinde anlamlı olmuştur. Hastaların algıladığı duygusal aşırı iç içe geçmenin temel etkisi PANSS'ın pozitif belirtileri, genel psikopatoloji ve genel toplam puanları üzerinde, WHOQOL-BREF'in sosyal ilişkiler

ve çevre alanları üzerinde anlamlı bulunmuştur. Birinci ve ikinci ölçümlerdeki WHOQOL-BREF'in psikolojik sağlık alanı üzerinde temel bakım veren kişilerin duygusal aşırı iç içe geçme ve hastaların algıladığı duygusal aşırı iç içe geçmenin anlamlı etkileşimsel etkisi bulunmuştur.

Şizofren hastaların hastalıkları hakkındaki görüşlerini incelemek amacıyla sorulan açık uçlu sorulara verilen yanıtlar, araştırmacı tarafından çeşitli kategorilere ayrılmıştır. Bu kategorilere genel bir ad verilmiştir. Daha sonra açık uçlu sorulara verilen yanıtları değerlendirmek için ilk olarak birbirinden bağımsız bir şekilde araştırmacı ve tez danışmanı tarafından tüm yanıtlar kodlanmıştır. Uygulayıcılar arası güvenirlik katsayısı, yani kappa katsayısı hesaplanmıştır. "Hastalığınız konusunda sizi rahatsız eden şeyler nelerdir? Sizce, bunların içinde en önemlisi hangisidir?" sorusuna verilen yanıtlar ilaç yan etkisi, etiketleme, hastalığın psikolojik belirtileri, hastalığın fiziksel belirtileri, sosyal işlev bozukluğu, iletişim bozukluğu, aileye yük olmaktan dolayı kendini suçlama, maddi problemler ve "bir fikrim yok" olarak kategorilere ayrılmıştır. Bu soruya en çok verilen yanıtlar, psikolojik belirtiler, etiketleme, sosyal işlev bozukluğu ve fiziksel belirtiler olmuştur.

"Sizce hastalığınızla ilgili iyiye giden şeyler var mıdır? Varsa bunlar nelerdir?" sorusuna verilen yanıtlar iletişimde düzelme, kendini iyi hissetme, fiziksel belirtilerde düzelme, geleceğe olumlu bakış, sosyal işlevsellikte artış, ilaç dozunda azalma, hastalığı kabul ve "bir fikrim yok" olarak kategorilere ayrılmıştır. Kendini iyi hissetme, sosyal işlevsellikte artış, iletişimde düzelme ve fiziksel belirtilerde düzelme en sık verilen yanıtlar olmuştur. "Sizce hastalığınızla ilgili kötüye giden şeyler var mıdır? Varsa bunlar nelerdir?" sorusuna verilen yanıtlar sosyalleşme eksikliği ve sosyal işlev kaybı, psikolojik belirtilerde artış, fiziksel belirtilerde artış, geleceğe olumsuz bakış, aileye yük olma duygusunda artış, ilaç yan etkileri, iletişim

228

problemleri ve "bir fikrim yok" olarak gruplandırılmıştır. Hastaların neredeyse tümü bu soruya "bir fikrim yok" şeklinde yanıt vermişlerdir. Bu yanıttan sonra en sık verilen yanıt psikolojik belirtilerde artış olmuştur.

"Hastalığınızla ilgili en çok desteği kimden/kimlerden alıyorsunuz?" sorusuna verilen yanıtlar anne; baba; kardeş; eş; çocuk; teyze, amca gibi diğer akrabalar; arkadaşlar; doktor ve psikologlar; komşu; kendisi; tüm aile ve hiç kimse olarak kategorize edilmiştir. Anneler, yakın aile üyeleri en sık destek veren kişiler olarak bildirilmiştir. "Neler yaparak size destek oluyorlar?" sorusuna hastaların verdikleri yanıtlar moral destek, ilaç kontrolü ve tedavi sağlama, hastaneye ve doktora götürme, maddi yardım, ev işlerini paylaşma, her şeyi yapma ve "bir fikrim yok" olarak gruplandırılmıştır. En sık verilen destek türü moral destek olmuştur.

"Hayatınızda son altı aydır karşılaştığınız güçlükler nelerdir?" sorusuna iletişim problemi, işsizlik ve maddi problemler, hastanede karşılaşılan güçlükler, hastalığın kendisi, hastalığın psikolojik ve fiziksel belirtileri, akademik başarısızlık, günlük işleri yapamama, ilaç tedavisi ve yan etkileri, sosyal destek eksikliği ve "bir fikrim yok" şeklinde kategorize edilen yanıtlar verilmiştir. Hastaların büyük kısmı son altı ay içinde hiçbir problemle karşılaşmadıklarını bildirmişler, geri kalanın büyük kısmı işsizlik ve maddi problemler ile hastalığın kendisini güçlük olarak göstermişlerdir. "Bunlarla nasıl başa çıktınız?" sorusuna verilen yanıtlar olumlu düşünme, problem çözme teknikleri, sosyal desteği kullanma, tıbbi tedavi, sabırlı olup kabullenme, dine sığınma ve baş edememe olarak sınıflandırılmıştır. Hastaların çoğunluğu bu güçlüklerle baş edemediklerini belirtirken diğerleri sosyal destek, problem çözme teknikleri ve tıbbi tedavi ile bu sorunlarla başa çıktıklarını belirtmişlerdir.

Bu araştırmadan elde edilen verilerin sonuçları yukarıda belirtildikten sonra, bundan sonraki kısımda bu bulgular literatür ışığında tartışılacaktır. Algılanan Duygu Dışavurum Ölçeği'nin geliştirilmesi amacıyla gerçekleştirilen pilot çalışma sonucunda eleştirel/düşmanca oluş ve duygusal aşırı iç içe geçme olmak üzere iki faktör belirlenmiştir. Bu sonuç orijinal ölçek olan Duygu Dışavurum Ölçeği ile benzerlik göstermektedir. Algılanan Duygu Dışavurum Ölçeği ile Aile Değerlendirme Ölçeği'nin alt ölçekleri arasındaki korelasyon, hastaların algılanan eleştirel/düşmanca oluşunun Aile Değerlendirme Ölçeği'nin tüm alt ölçekleri ile anlamlı biçimde pozitif yönde ilişkili olduğunu göstermiştir. Bu alanlardaki işlev bozukluğundaki artış algılanan eleştirel/düşmanca oluştaki artışla ilişkili bulunmuştur. Bu bulgu eleştirel/düşmanca oluşun daha toksik bir unsur olduğunu göstermekte olup literatürdeki diğer çalışmalarla uyumludur. Öte yandan hastaların algıladıkları duygusal aşırı iç içe geçme, Aile Değerlendirme Ölçeği'nin problem çözme alt ölçeği ile negatif, duygusal iç içe geçme alt ölçeği ile pozitif yönde ilişkili bulunmuştur. Hastaların algıladıkları duygusal aşırı iç içe geçme arttıkça aile içindeki problem çözme becerilerini sağlıklı olarak algıladıkları görülmüştür. Ancak hastaların algıladıkları duygusal aşırı iç içe geçme arttıkça aile içindeki duygusal iç içe geçme tutumunu gereğinden aşırı olarak algıladıkları bulunmuştur. Böylece hastaların algıladıkları duygusal aşırı iç içe geçme eleştirel/düşmanca oluşa göre daha az zararlı bir unsur olarak görülmüştür.

Ayrıca pilot çalışmada ölçeğe eklenen rahatsızlık boyutunu anlamaya yönelik değerlendirme soruları incelendiğinde, algılanan eleştirel/düşmanca oluşun en çok rahatsızlık duyulan boyut olduğu ortaya çıkmıştır. Bu bulgu, yaptıkları çalışmada, düşük duygu dışavurumu olanlara göre, yüksek duygu dışavurumu olan yakınlarla ilişki içinde olunduğunda hastaların daha fazla stres yaşadıklarını gösteren Cutting,

230

Aakre ve Docherty (2006)'nin bulgularıyla uyumlu olmuştur. Pilot çalışmanın sonuçlarına göre Algılanan Duygu Dışavurum Ölçeği'nin geçerli ve güvenilir bir ölçek olduğu tespit edilmiştir.

Ana çalışmanın amaçlarını gerçekleştirmek için, belirti düzeyi ve yaşam kalitesi üzerinde temel bakım veren kişilerin duygu dışavurumu ve hastaların algıladıkları duygu dışavurumunun göreceli etkileri incelenmiştir. Bu bulgulara göre, belirti düzeyi ve yaşam kalitesi açısından hastaların algılanan duygu dışavurumunun, temel bakım verenlerin duygu dışavurumuna göre daha güçlü bir faktör olduğu görülmüştür. Algılanan Duygu Dışavurum Ölçeği ile Duygu Dışavurum Ölçeği'nin karşılaştırılması ile elde edilen bulgulara göre, hastalarla kıyaslandığında temel bakım verenler kendilerini daha düşük eleştirel/düşmanca tutum ve daha yüksek duygusal aşırı iç içe geçme tutumu içinde olarak bildirmişlerdir. Bu sonuçlar Türkiye'de Özden (1995) tarafından yapılan çalışma bulgularıyla tutarlıdır.

Bu çalışmada bakım verenlerin duygu dışavurumu yalnızca PANSS toplam puanları üzerinde anlamlı etkiye sahip olarak bulunmuştur. Oysa literatürde şizofren hastaların hastalığının depreşmesi ve belirtilerin düzeyi üzerinde en çok etkiye sahip faktör eleştirel/düşmanca oluştur. Bakım veren kişilerin duygusal aşırı iç içe geçme faktörünün PANSS'ın ve WHOQOL-BREF'in herhangi bir alt ölçeği üzerinde anlamlı bir etkiye sahip olmadığı saptanmıştır.

Depreşme üzerinde duygusal aşırı iç içe geçmenin rolü literatürde çok tartışılmış bir konu değildir. Yalnızca Gutierrez (1988) yaptığı çalışmada bu bulgudan söz etmiştir. Diğer çalışmalarda duygusal aşırı iç içe geçme daha az güçlü bir faktör olarak ortaya çıkmaktadır. Türkiye her ne kadar batılı özellikleri barındırsa da doğulu bir ülke olması nedeniyle, bu çalışmanın bulguları tartışılırken doğu ülkelerinden yapılmış çalışmalarla kıyaslanması uygun olacaktır. Hindistan'daki

231

ailelerde yüksek duygu dışavurumu daha az görülmekte olup bu bulgu ailelerin daha az eleştirel/düşmanca ve daha az duygusal aşırı iç içe geçme tutumu gösteriyor olmalarıyla bağlantılı bulunmuştur (Wig, Menon, Bedi, Ghosh, Kuipers, Leff, Korten, Day, Sartorius, Ernberg ve Jablensky, 1987). Katar ve Mısır'da yapılmış çalışmalarda (El İslam, 1979; Okasha, El Akabawi, Snyder, Wilson, Youssef ve El Dawla, 1994) geniş aile sistemi içinde hastaların zaten korunup kollandıkları ve aileye düşen yükün daha fazla olduğu bildirilmiştir.

Duygu dışavurumu hasta ile bakım veren kişi arasındaki karşılıklı bir etkileşimi gerektirdiği için, ailelerin tutumları kadar, hastaların bunu nasıl algıladığı da önemli olmaktadır. Son yıllara kadar, bu konuda yapılmış çalışmaların sayısı oldukça azdır. Scott, Fagin ve Winter (1993) depreşmenin en iyi yordayıcısının ailelerinin onları nasıl algıladığı hakkındaki hastaların beklentileri olduğunu göstermişlerdir. Lebell ve ark. (1993) yaptıkları çalışmada yalnızca hastaların algılamalarının sonucu yordadığını bulmuşlardır. Thompson ve ark (1995) algılanan duygusal aşırı iç içe geçmenin psikotik alevlenmeyi yordamadığını, ama algılanan eleştiriciliğin sonucu yordadığını bildirmişlerdir.

Bu çalışmanın sonuçlarına göre, algılanan duygu dışavurumunun eleştirel/düşmanca oluş faktörü zararlıdır. Algılanan eleştirel/düşmanca oluş faktörü yüksek olan hastalar, düşük olanlara göre, PANSS pozitif, negatif belirtiler ve toplam puan üzerinde daha yüksek puan almışlardır. Öte yandan, eleştirel/düşmanca oluş faktörüyle karşılaştırıldığında, duygusal aşırı iç içe geçme faktörü daha koruyucu bir faktör olmuştur. Algılanan duygusal aşırı iç içe geçme faktörü düşük olan hastalar PANSS'ın pozitif belirtileri, genel psikopatoloji ve toplam puan üzerinde yüksek puan almışlardır. Bu durumda algılanan duygu dışavurumun düşük olması belirti düzeyinde zararlı etkiye sahip olarak bulunmuştur. Ancak, WHOQOL-BREF'in

sosyal ilişkiler ve çevre alt alanlarında, algılanan duygusal aşırı iç içe geçme faktörü yüksek olan hastalar düşük olanlara göre daha yüksek puan almışlardır. Bu alanlarda algılanan duygu dışavurumu yüksek olduğunda koruyucu bir faktör olarak işlev görmektedir.

Bu çalışmanın en önemli bulgularından birisi de, WHOQOL-BREF'in psikolojik sağlık alanında duygusal aşırı iç içe geçmesi yüksek olan temel bakım veren kişiler için algılanan aşırı iç içe geçmesi yüksek olan hastalar düşük olan hastalara göre anlamlı olarak daha yüksek puan elde etmişlerdir. Bu demek oluyor ki yaşam kalitesinin psikolojik sağlık alanında en iyi birliktelik yakınların yüksek aşırı iç içe geçme bildirdikleri ve hastaların da aşırı iç içe geçmeyi yüksek algıladıkları durumda olmuştur. En kötü birliktelik ise hastalar yüksek aşırı iç içe geçme algıladıklarını bildirirken yakınlarının bunu düşük olarak bildirdikleri durumda görülmüştür.

Bu çalışmada tartışılması gereken başka bir sonuç ise birinci ölçüm ile ikinci ölçüm arasında belirti düzeyinin düşmüş olmasıdır. PANSS'ın pozitif belirtiler, genel psikopatoloji ve toplam puanları, birinci ölçümde, ikinci ölçüme göre daha yüksek olmuştur. Belirti şiddetindeki bu iyileşme beklenmeyen bir durum olup geçen süre içinde hastaların sürekli ilaç kullanması ile açıklanabilir. Ayrıca bu araştırma yoluyla hastalarla düzenli görüşme yapılması hastalarda kendileriyle ilgilenildiği ve destek olunduğu duygusunu oluşturup belirtilerin azalmasına yol açmış olabilir.

Bu çalışmanın tartışma kısmında, hastaların hastalıklarına ilişkin görüşlerini anlamak için sorulan açık uçlu sorular da ayrıca ele alınmıştır.

Bu çalışmanın ana amacını gerçekleştirmek için çeşitli hipotezler oluşturulmuştur. Elde edilen verilerin analizi sonucunda bu hipotezlerin bazıları desteklenirken, bazıları desteklenmemiş, bazıları da kısmen desteklenmiştir. En

önemli hipotez olan "Hastaların algıladığı duygu dışavurumu, yakınların duygu dışavurumuna göre yaşam kalitesi ve belirti düzeyi alt ölçekleri üzerinde daha fazla etkiye sahip olacaktır" hipotezi kısmen karşılanmıştır.

Bu çalışmanın bazı sınırlılıkları vardır. İlk olarak depreşmeyi araştırmak amacıyla birinci ve ikinci ölçüm arasında altı aylık zaman aralığı konmuş olması bir sınırlılıktır. Literatürde genel olarak dokuz ila on iki aylık zaman aralığı konmaktadır. Ancak bu çalışmada altı aylık zaman aralığı konması pratik nedenlerle gerekliydi. Çalışmanın başka bir sınırlığı ise, literatürde tüm aile üyeleriyle araştırma yapılırken, burada sadece hastayla en çok ilgilenen aile üyesi araştırma kapsamına alınmıştır. Bu araştırmanın başka bir sınırlılığı yaşam kalitesi değerlendirmesinin öznel (kendi kendini değerlendirme) bir temele dayanmış olmasıdır.

Son olarak hastaların seçiminin tek bir hastaneden yapılmış olması örneklemin temsil yeteneğiyle ilgili sınırlığa yol açmış olabilir. Çalışma örnekleminin büyük çoğunluğu düşük ve orta sosyoekonomik düzeyden gelen hastalardan oluşmuştur. Bu durum bulguların değerlenmesiyle ilgili sorun oluştururken öte yandan örneklemin büyülüğü bu sorunu biraz hafifletiyor olabilir.

Bu çalışma Türk şizofren hastalardan oluşan bir örneklemde temel bakım veren kişilerin duygu dışavurumu ile hastaların algıladıkları duygu dışavurumu incelemek için gerçekleştirilmiş kapsamlı bir araştırmadır. Böylece bu çalışma şizofren hastalara hizmet vermede rehberlik yapabilir. Şizofren hastalara uygun tedavi seçeneklerini belirlemede ailenin ve hastanın algıladığı duygu dışavurumunun etkilerini değerlendirmek önemlidir. Bu çalışmada kullanılan ölçekler ve modeller diğer psikotik bozukluklar ve psikiyatrik hastalıklarla da kullanılabilir. Ancak farklı hastalık grupları için gerekli düzenlemelerin yapılması gerekebilir. Duygu dışavurumu araştırmalarında en sık kullanılan ölçek olan Camberwell Aile

Görüşmesi özel bir eğitim gerektiren ve çok zaman alıcı bir yöntemdir. Onun yerine Berksun'un Duygu Dışavurum Ölçeği bu çalışmada kullanılmıştır. Ve ondan türetilmiş olan Algılanan Duygu Dışavurum Ölçeği ileriki çalışmalarda farklı hasta gruplarıyla kullanılabilecek yararlı bir ölçek olmuştur.

Bu çalışmanın bulguları hastalar ve ailelerle çalışan klinisyenlere ışık tutabilir. Aile psikoeğitim programları yoluyla, hastaların algıladıkları ve ailede var olan eleştirel/düşmanca oluş azaltılabilir. İlerideki çalışmalar için başka bir araştırma konusu hastaların hangi mesajları ve davranışları yüksek eleştirel/düşmanca oluş olarak algıladıklarını belirleyerek bunları bilişsel yeniden yapılandırma teknikleriyle düzeltme olabilir. Aynı şekilde hastaların hangi mesaj ve davranışları yüksek duygusal aşırı iç içe geçme olarak algıladıklarını belirleyip bunları pekiştirme de başka bir araştırma konusunu oluşturabilir. Açık uçlu sorulardan sağlanan bilgiler de klinik uygulamalar, tedavi ve genel sağlık politikası için yararlı verilerden oluşmuştur. Bu hastalar ve ailelerini içeren herhangi bir psikoeğitim programı şizofreninin fiziksel ve psikolojik bilgileri hakkında bilgi içermelidir. Bu yolla hastaların yaşadıkları stres azaltılabilir. Ayrıca bu çalışmada ailedeki en destekleyici üye, hastalar tarafından anneleri olarak gösterilmiştir. Aile müdahaleleri yoluyla yükün tek bir üyedense tüm aile üyeleri arasında eşit biçimde dağıtılması gerektiği anlatılabilir. Hastalar açık uçlu sorularda en önemli desteğin moral destek olduğunu belirtmişlerdir. Bu bulgu şizofren hastalar için psikolojik destek sağlamanın önemini göstermektedir. Sonuç olarak bu çalışma hastaların algıladıkları eleştirel/düşmanca oluşu azaltmayı ve duygusal iç içe geçmeyi arttırmayı amaçlayan tedavinin hastaların yaşam kalitelerini ve iyilik hislerini arttıracağı fikrini ileri sürmektedir. Bilişsel terapi yoluyla hastaların eleştirel tutumları abartmaları ve aşırı iç içe geçmenin önemini azaltma şeklinde hastalarda var olan yanlı düşünceye odaklanılabilir.

CIRRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Baştuğ, Gülbahar
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EDUCATION

Degree	Institution	Year of Graduation
MS	Ankara University Faculty of Lettters, Psychology, Ankara	2000
BS	Ankara University Faculty of Letters, Psychology, Ankara	1984
High School	Bahçelievler Deneme High School, Ankara	1980

WORK EXPERIENCE

Year	Place	Enrollment
1985- Present	Ankara Numune Education and Research Hospital, Psychiatry Clinic	Clinical Psychologist

FOREIGN LANGUAGES

Advanced English

PUBLICATIONS

1. Yorulmaz, O., Karancı, A.N., Dirik, G., Baştuğ, G., Kısa, C., Göka, E., & Burns, G.L. (in press). Padua Inventory-Revision of Washington State University: Psychometric Characteristics of Turkish Revision. Türk Psikoloji Yazıları

2. Yorulmaz, O., Karancı, A. N., Baştuğ, B., Kısa, C., & Göka, E. (in press). Responsibility, thought-action fusion and thought suppression in Turkish patients with OCD. Journal of Clinical Psychology.