The coping scale item, separate from other subscales of the FoP-Q, inquires into whether patients can access help from various sources, such as relaxation or pleasant activities, and whether they can talk to doctors about concerns and fears (4). The high coping points obtained by patients with HbA1c ≤7 may indicate that DM patients could benefit from supportive interventions for blood glucose control. This result supports studies in the literature emphasizing the positive relationship between HbA1c levels and anxiety values (5). As a result, we believe that developing the coping skills of DM patients may indirectly provide a protective effect on blood sugar levels and thus on possible complications that may develop in the future.

Our study is the first in our country researching the fear of disease progression in DM patients. While we believe it to be an important contribution to the literature, there are some limitations. Our patient numbers are low and it is a single-center study, making it difficult to generalize our findings. This topic requires broader and multi-centered studies. Another limitation is that validity and reliability studies of the scale have not been completed in Turkey. Cosar et al. continue to work on this topic.

CONCLUSION: There is a positive relationship between the stress coping skills of a person and blood sugar control. The FoP-Q coping subscale points of patients with HbA1C ≤7 were higher than in the HbA1C >7 group. This shows that if the coping skills of individuals with a chronic disease like DM can be developed, if the worries of the person related to disease are reduced, this may contribute to blood sugar regulation. In chronic diseases like DM, instead of using scales based on the general population or psychiatric diseases, the use of the FoP-Q scale to identify worries related to situations that are more true to the real life of patients or that affect quality of life may be a good marker of psychiatric interventions for the clinician.

Keywords: diabetes mellitus, fear of progression, HbA1C

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Oxidative stress and DNA damage in drug-naive first-episode psychosis in adolescents

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INTRODUCTION: Oxidative stress has been implicated in the psychopathology of schizophrenia, with abnormal activity of antioxidant enzymes, decreased antioxidant levels and increased lipid peroxidation all being demonstrated in patients with schizophrenia1. There are, however, discrepancies between studies. Studies of adolescents with First-Episode Psychosis (FEP) showed lower total antioxidant (TAS) and glutathione (GSH) levels, and a relationship has been suggested between GDH deficiency and the loss of cortical gray matter over two years2. The aim of the present study is to evaluate the level of oxidative stress and the presence of DNA damage in first-episode psychosis in adolescents. Furthermore, the study investigates the presence of a relationship between the severity of psychotic symptoms and oxidative stress and DNA damage.

METHOD:
Study Sample: The study was conducted in the Department of Child Psychiatry at Dicle University, using data that was collected between February and November 2014. The study included 20 adolescent patients aged between 11 and 17 years, all of whom had been diagnosed with psychosis according to DSM-4 criteria and who had received no previous psychiatric therapy, as the patient group, and 20 age-matched healthy adolescents with no medical or neurological disorders as the control group. Patients with an intelligence score developed.
of less than 70 points, those with marked neurological and medical problems, taking oral contraceptives, having undergone previous or current cortisol therapy or taking vitamins, those with morbid obesity, active infections or a history of substance abuse within the last 6 months were excluded from the study due to possible interference with the biochemical parameters. The parents of the patients provided informed consent for all study participants. The study was reviewed and approved by the Non-Interventional Clinical Research Ethics Committee at Dicle University, issue date 13.02.2012, number 395.

**Study Procedures:** The sociodemographic features of the participants were obtained and a clinical data form was completed. Structured psychiatric interviews were conducted with the patients (K-SADS-PL and PANSS), with the Clinical Global Impressions (CGI) scale used to evaluate disease severity. The Clinical Global Impression Scale is a standardized evaluation tool used to rate disease severity, disease course over time and drug effects, considering the clinical condition of the patient and the severity of side effects. CGI-I is rated on a 7-point scale from 1 (normal) to 7 (most severe patients).

**Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version (K-SADS-PL):** This scale was originally developed by Kaufman et al. and was adapted into the Turkish language by Gökler et al. in 2004. K-SADS-PL is administered during an interview with the parents and the child, and the final evaluation is made using input from all data sources.

**Positive and Negative Symptom Scale (PANSS):** This is a semi-structured interview tool developed by Kay et al. in 1987, evaluated for its reliability and validity by Kostakouglu et al. in 1999. The scale consists of 30 items evaluating positive and negative symptoms and providing information about the general status of the psychopathological condition.

**Clinical Global Impression Scale (CGI):** The Clinical Global Impression Scale is a standardized evaluation tool used to rate disease severity, disease course over time and drug effects, considering the clinical condition of the patient and the severity of side effects. CGI-I is rated on a 7-point scale from 1 (normal) to 7 (most severe patients).

**Biochemical Analysis:** The blood samples were obtained in the morning between 09:00 am and 12:00 noon and were collected into gel tubes. After withdrawal, the blood samples were allowed to rest for 15 minutes to clot, after which they were centrifuged at 5000 rpm for 6 minutes. The sera were transferred to 1.5 ml polypropylene tubes and stored at -80°C until the analysis. GPx, SOD, CoQ and 8-OHdG levels were evaluated using the ELISA.

**Statistical Analysis:** The statistical analysis was performed using the SPSS 15.0 software package. A p value < 0.05 was considered statistically significant.

**RESULTS:** The mean age was 14.5±1.6 years in the FEP group (M/F: 8/12) and 14.4±1.5 years in the control group (M/F: 8/12). There was no difference between the groups in terms of age and gender, and no difference in terms of employment status of the parents and family history of alcohol and substance abuse. Of patients in the FEP group, eight (40%) had a history of psychiatric disorders in the immediate family and first-degree relatives, while no patient in the control group had such a family history (p<0.01). The rate of consanguineous marriage between the parents was significantly higher in the FEP group (p<0.01), while there was no difference between the groups in terms of smoking status.

The mean PANSS positive score was 19.4±6.8, the mean PANSS negative score was 28.1±9.5, and the mean PANSS general psychopathology score was 31.6±5.5. The mean CGI score was 4.6±1.0, while the mean age of disease onset was 14.1±1.9 years. The mean duration of psychosis before treatment was 13.1±14.3 months.

There was no difference between the patient and the control group in terms of SOD, GPx or 8-OHdG values; and no significant relationship was identified between the PANSS and CGI scores of the patient group and the SOD, GPx, CoQ and 8-OHdG values.

**DISCUSSION:** One of the most important findings of the present study is the lack of any significant difference between patients with FEP and the healthy controls in terms of oxidative stress. Studies of both adolescent and adult patients with FEP have reported deficiencies mostly in antioxidant defense mechanisms (enzymatic, non-enzymatic) and have implicated oxidative stress in the pathophysiology of schizophrenia (particularly with regard to negative symptomatology and cognitive functioning). The study of 102 children and adolescents by Micó et al. reported a decrease in total antioxidant defense glutathione levels and an increase in GPx activity, catalase and SOD activity; while the study of 48 children and adolescents by Fraguas et al. found a relationship between the decrease in glutathione levels and the loss of cortical gray matter in two years. The study of 105 children and adolescents by Martínez-Cengotitabengoa et al. reported lower total antioxidant and glutathione levels and a direct relationship between antioxidant defense capacity and global cognition at baseline and after a two-year follow-up period. The present study of patients with EOS found no difference in terms of oxidative stress, and therefore does not support study results that suggest a role of oxidative stress in the psychopathology of schizophrenia. Studies of adult patients with schizophrenia reported changes in antioxidant enzyme levels, although there are discrepancies between studies. The GPx level was reported to be higher in a study of patients with first-episode schizophrenia, while another study reported lower GPx levels. The SOD level was reported to be lower in one study conducted of patients with treated and untreated schizophrenia, while another study reported higher SOD levels.

Another important finding of the present study is the lack of difference between the groups in terms of DNA damage. To the best of our knowledge, there has been no study to date evaluating DNA damage in adolescent patients with FEP, although studies of adult patients with FEP and schizophrenia have reported increased DNA damage, and this finding was interpreted as a molecular connection between schizophrenia and an accelerated aging process. An increase in 8-OHdG levels, indicating oxidative DNA damage, and telomere shortening, indicating direct DNA damage, has in the past been reported in patients with schizophrenia. This finding was considered to be an indication of the lack of oxidative DNA damage in early disease periods in patients with EOS and for an association of DNA damage...
with a chronic disease course.
In conclusion, there was no difference between the patients with FEP and the control group in terms of oxidative stress and DNA damage; and furthermore, no relationship was identified between symptom severity, oxidative stress, and DNA damage. Future studies should evaluate more comprehensively the factors that contribute to the development of oxidative stress, as the present study revealed no change in the levels of oxidative stress in the early periods of disease, and there are studies that have reported higher oxidative stress in later disease stages.

**Keywords:** DNA damage, early onset schizophrenia, oxidative stress

**References:**

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[Abstract:0291] **Post-traumatic stress disorder**

Examining the levels of BDNF and cortisol in children and adolescent victims of sexual abuse

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**INTRODUCTION:** Glucocorticoids act through glucocorticoid receptors (GR) found in high concentrations in the amygdala and the hippocampus. In GR-mediated molecular activation, the brain-derived neurotropic factor (BDNF)-mediated signal pathway is required for memory consolidation. BDNF expression in the central nervous system is modified by various brain traumas including stress, ischemia, epileptic seizures, and hypoglycemia. Glucocorticoids play a role in the regulation of BDNF. In the rat hippocampus, stimulation of mineralocorticoid receptors (MR) increases the level of BDNF, while stimulation of glucocorticoid receptors (GR) decreases the BDNF levels. As mentioned above, trauma affects growth factors and the HPA axis. There are limited studies in the literature that have investigated the relationship between cortisol and BDNF levels in child and adolescent victims of sexual abuse. The present study compares the levels of BDNF, cortisol, and ACTH between child and adolescent victims of sexual abuse with those who have no trauma history.

**METHOD:**

**Study Sample:** The study was conducted in the Department of Child Psychiatry at Dicle University. The study included a total of 44 children (M/F: 12/32) between the ages of 8 and 17 years who had experienced child sexual abuse and 42 age- and gender-matched children (M/F: 12/30) as control group. The study data were collected between December 2011 and April 2012. Children who achieved an intelligence score below 70 points, who had significant neurological or medical disorders, who received oral contraceptives, had previous or current cortisol therapy, vitamins, and those who showed morbid obesity or active infection were excluded in order to prevent interference with the biochemical parameters. The patients were evaluated by two psychiatrists. The parents provided informed consent in order for their children to participate in the study. Approval for the study was obtained from the Non-Interventional Clinical Research Ethics Committee at Dicle University Faculty of Medicine. Sociodemographic features of the participants were obtained and a clinical data form was completed. This was followed by collection of a 2 ml venous blood sample for biochemical tests.

**Sociodemographic Data and Clinical Data Form:** This form included questions about age, gender, education level, age of the parents, number of siblings, history of psychiatric disorders or substance abuse in the relatives, height, weight, and body mass index (BMI), type of abuse, duration and frequency of abuse, relationship with the abuser, and abuse history.

**Biochemical Analysis:** The blood samples were obtained in the morning between 10:00 and 12:00 AM. Cortisol, ACTH, and BDNF levels were evaluated using the ELISA.

**Statistical Analysis:** The statistical analysis was performed using SPSS 15.0 software package. A p-value below 0.05 was considered statistically significant.

**RESULTS:** The mean age was 13.1±2.7 years (range: 8-17 years) among the victims of sexual abuse. In the control group, the mean age was 13.8±2.9 years (range: 8-17 years). The sexual abuse group consisted of 12 males and 32 females, and the control group consisted...