method. Despite this disadvantage of ROI approach, it has advantages of better registration over voxel-based approach. It should be kept in mind that we investigated certain areas of brain to test our hypothesis. Therefore, it would be premature to conclude that there is no regional GMV differences between MDD and controls.

One strength of this study is to include the mothers and their daughters as couples in both arm of the comparison. On the other hand, the main limitation was small subject number in each group. Obtaining our data from female subjects also limits us to generalize our findings for male high-risk population.

As a conclusion, we provide evidence for GMV alterations in high-risk populations for familial depression. As those regional GMV alterations were not observed in depressed mothers, these regional alterations might help the young women at risk to be depressed free. Longitudinal follow-up studies are needed to interpret the high-risk data and determine the anatomical alterations related to vulnerability and resilience to disease.

**Keywords:** anterior cingulate cortex, familial depression, resilience

**References:**


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[Abstract:0822] **Addiction**

**Relations between attachment to people, attachment to god, perception of God and addiction severity in an islamic population in Turkey**

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**INTRODUCTION:** Alcohol and drug dependency are becoming a serious problem worldwide. While alcohol and drug addiction prevalence varies among countries, addiction prevalence rates have been reported as high as 4-9% in the USA. Lifelong addiction/abuse rates are estimated to be 13.8% for alcohol and 6.2% for drugs. Addiction increases mortality 4.25-fold in intravenous drug use, and drug users are more prone to contract HIV and genital infections. Recently in our country, mortality events are increasing due to use of “bonsai”, which is a local mixture of various addictive drugs. In alcohol/drug abusers, suicidal events are frequent (up to 16-71%), often accompanied by psychiatric disorders such as antisocial personality disorder, schizophrenia, or bipolar mood diseases.

Although Edlund could not find a relationship between drug addiction and religious beliefs, there are many studies reporting an inverse relationship between alcohol / drug addiction and religious faith. Kelly found a higher treatment response among religious cases in their studies, but the mechanism is not clear. Religious people have been found to have a low prevalence of drug and alcohol abuse because almost all religions have a negative attitude towards addiction and abuse.

Studies involving religious living and belief in God in psychiatric diseases are limited in Muslim countries. In our study, we aimed to investigate the influence of religious beliefs on drug/alcohol addiction severity and psychopathologic dynamics among patients.

**METHODS:** We studied 139 patients who had been admitted consecutively to the outpatient clinic for Alcohol and Drug Research, Treatment and Training Center (AMATEM) at Ankara Numune Hospital in Turkey between May and July 2013 with a diagnosis of drug and alcohol dependency. We performed a cross-sectional study. Instruments we used for the study were Addiction Profile Index (API), God Perception Scale (GPS), Attachment to God Scale (AGS), and Adult Attachment Scale (AAS).

**Addiction Profile Index:** API is a self-report questionnaire consisting of sociodemographic data containing 37 items. API involves the following 5 subscales: characteristics of substance use; diagnosis of dependency; effects of substance use on the user; craving; motivation to quit using substances. Development, validity and reliability assessments of the scale were made by Ogel et al.
We found higher craving rates among cases with negative adult attachment pattern, negative God attachments, and negative God attachment in an Islamic population.

In particular, we can think that a punitive God perception may have a stronger impact on a person’s adult expectations and emotional religious feelings, while persons with an avoidant attachment pattern frequently avoid having close emotional life. They have stronger social relations and more optimistic approaches. According to the Attachment Theory, persons with disorders, especially in addiction. It is believed that persons who are attached to God in a secure pattern live a more positive social and negative God attachment patterns. Hence the influence of God attachment may exhibit a positive impact on dealing with psychiatric findings for persons having secure attachments. Such a result suggests a role of negative adult attachment patterns in the formation of addiction profiles. Cases with anxious/ambivalent adult attachment had high addiction profiles. Patients with secure and avoidant adult attachments did not exhibit such a relation. A review reported a study with 71 German opiate using, drug dependent adolescents (DDAs) and 39 non-clinical controls. Fearful attachment was predominant in DDAs, while controls were predominantly secure. Severity of drug use was positively correlated with fearful attachment. Our results were in accordance with this study.

The addicts with anxious/ambivalent God attachments showed high addiction profiles, which is not encountered in cases with secure God attachment in this study. Similarly, Horton examined 328 college students and showed that secure attachment to God was not inversely associated with recent alcohol or marijuana use or any other substance use. Avoidant and anxious attachment to God are associated with higher levels of addiction.

The Attachment Theory was first suggested by Bowlby, who is a pediatric psychoanalyst. This theory says that the attachment fashion, which is formed early in the infancy period between mother and baby, does extend into adult life and influences cognitive and emotional development. The attachment pattern between mother and baby determines the person’s future self-confidence, social attitudes, self-respect, occupation selection, and marital status. This theory may be applied to religious beliefs and may be used as a tool for explaining of psychologic disorders. Kirkpatrick and Shave tried to bring together attachment theory and spirituality in their study. The correspondence hypothesis of Kirkpatrick makes direct relation between religious attachment and childhood mother attachment.

When we evaluate our results, cases with punitive/fear based God perception showed high addiction profiles, in contrast to low addiction profiles of cases with loving/love based perceptions, as we expected. Almost all schools like the school of subject associations, the transpersonal school, and the phenomenological school in psychotherapy tried to explain the relationship between God perception and the perception of self and the world according to their point of view. As a result, perception of God and its positive or negative fashion is a result of a person’s environment, information, and religious background.

In our study, we found a relationship between anxious adult attachments and negative God attachment patterns. However, we could not find this for persons having secure attachments. Such a result suggests a role of negative adult attachment patterns in the formation of negative God attachment patterns. Hence the influence of God attachment may exhibit a positive impact on dealing with psychiatric disorders, especially in addiction. It is believed that persons who are attached to God in a secure pattern live a more positive social and emotional life. They have stronger social relations and more optimistic approaches. According to the Attachment Theory, persons with a lovely/merciful attachment to God have higher self-confidence and self-respect. Persons with anxious attachment to God seek and expect stronger and more emotional religious feelings, while persons with an avoidant attachment pattern frequently avoid having close relations with God and beliefs. In particular, we can think that a punitive God perception may have a stronger impact on a person’s adult attachment in an Islamic population.

We found higher craving rates among cases with negative adult attachment pattern, negative God attachments, and negative God attachments.
perception in both alcohol and drug users. Thorberg et al. found that anxious attachment partially mediated the relationship with craving in a heavily drinking population. Thus, abusers which attach anxiously probably require a secure field or need unconsciousness to divert in their lives.

While attachment theory may be applied to many other psychologic conditions, our study showed, similar to many previous studies, a probable link between attachment theory and religious perceptions. Negative religious attachments were more linked to severity of alcohol/drug addictions than positive attachments. The attachment starts with the mother-baby relation and probably influences the relation with God and determines our beliefs. According to our study, the addiction pathology was related to religious perceptions, and the type of addictive drug was found related with addiction severity. We also suggest a complete approach in addiction treatment consisting of family life, religious perceptions, and general psychopathology. Such an approach may also be applied to government policies and future studies.

Keywords: addiction, attachment, religion

References:


[Abstract:0827] Mental health, economics and services research

Relationships between psychiatric symptoms and levels of serum serotonin and salivary cortisol in healthy subjects

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OBJECTIVES: Healthy individuals may experience Psychiatric symptoms (PS) due to the effect of various stressors. Particularly, fluctuation of serotonin (5-HT) and cortisol levels contribute to psychiatric disorders and their etiologies ad hoc. 5-HT and cortisol levels both influence the etiology and also affect the emergence of psychiatric disorders. In some studies, 5-HT and 5-HT agonists caused to secrete corticotropin-releasing hormone by stimulating the hypothalamo-pituitary-adrenergic axis from the hypothalamus, and interactions with the levels and number of 5-HT receptors have been shown. PSs which do not affect functionality and are encountered in healthy subjects usually have been classified in symptoms checklists. The purpose of this study is to investigate the relationship between PSs and levels of serum serotonin and salivary cortisol in healthy individuals.

METHODS: For this study, 320 subjects, including 156 males and 164 females, who do not have a history of psychiatric illness or psychiatric treatment and follow-up were enrolled. The subjects were between 20 and 45 years of age. Participants were informed that the investigation aimed to establish the relationship between PSs and levels of serum serotonin and salivary cortisol. They were interviewed face to face by a psychiatrist. Subsequently, the participants were given the sociodemographic form and the SCL-90-R. In order to collect salivary samples, we asked them to brush their teeth, not to smoke and not to take any drinks other than water for 8 hours before sampling. On the sampling day, we collected blood and saliva samples from the participants. For the measurements of 5-HT and cortisol, the ELISA method was used. Global symptom index (GSI) was used to assess the cases. If GSI is under or equal to one, psychiatric symptom scores are not assumed psychopathologic. But if it is above 1, they are admitted as psychopathologic. Participants were divided into two groups according to GSI ≤1 and GSI >1 and were compared with sociodemographic subgroups. Data were assessed with SPSS 15.0 version.

RESULTS: Baseline characteristics are: 51.2% (n=164) were women, 54.4% (n=174) were single, 55.0% (n=175) had been enrolled in school