Original article (Araştırma Makalesi)

Zihinsel Engelliliği Olan Çocuklarda Komorbid Psikiyatrik Hastalıklar ile Annelerinin Anksiyete Depresyon Düzeyleri Arasındaki İlişki

The Relationship between Comorbid Psychiatric Disorders and Mothers' Anxiety Depression Levels in Children with Intellectual Disability

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Öz

Amaç: Bu çalışmada zihinsel engellilik (ZE) tanısı alan çocuklarda komorbid psikiyatrik hastalıkların ve komorbid psikiyatrik hastalıklarla annelerin anksiyete depresyon düzeyiyle ilişkisinin değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntemler: Çalışmaya Zihinsel Engellilik tanısı alan 0-18 yaş aralığındaki 80 olgu ve anneleri ile herhangi bir kronik fiziksel ve psikiyatrik hastalığı olmayan sağlıklı 0-18 yaş aralığındaki 60 olgu ve anneleri dahil edildi. Hasta grubundaki olgularla komorbid psikiyatrik hastalık olup olmadığını belirlemek amacıyla DSM-5 tanı kriterlerine göre psikiyatrik görüşme yapıldı. Her iki gruptaki olgulara sosyodemografik veri formu ve annelerin anksiyete depresyon düzeyini belirlemek için Beck Depresyon Ölçeği ve Beck Anksiyete Ölçeği verildi.

Bulgular: ZE grubundaki annelerin anksiyete ve depresyon düzeylerinin sağlıklı kontrollerin annelerine göre daha yüksek olduğu belirlendi (her ikisi için p<0.001). Ayrıca ZE grubundaki olguların %55.6'sında ek psikiyatrik hastalık olduğu saptandı. Ek psikiyatrik hastalığı olanların annelerinde komorbid psikiyatrik tanısı olmayanlarınkine göre daha yüksek anksiyete depresyon skorları saptandı (her ikisi için p<0.001).

Tartışma: Bu çalışmada ZE tanılı çocuklarda yüksek oranda komorbid psikiyatrik hastalık oranları saptandı. Bununla birlikte komorbid psikiyatrik hastalığı olanların annelerinde anksiyete depresyon düzeyleri daha yüksekti. Eşlik eden psikiyatrik hastalıklar anneler üzerinde daha fazla ruhsal yüke sebep olmakta olup bu çocukların bu açıdan değerlendirilip gerekli müdahalelerin yapılması önem arz etmektedir.

Anahtar Kelimeler: Zihinsel engellilik, komorbidite, anne, depresyon, anksiyete

Abstract

Objective: The aim of this study was to assess the comorbid psychiatric disorders in children with intellectual disabilities (ID) and to evaluate the relationship between comorbid psychiatric disorders and mothers' anxiety depression level.

Materials and Methods: 80 participants and their mothers whose ages are between 0-18 years and are diagnosed with intellectual disability and 60 healthy participants aged between 0-18 years without any chronic physical and psychiatric disease and their mothers were included in the study. A psychiatric interview according to DSM-5 diagnostic criteria was conducted to determine if there is a comorbid psychiatric disease with the cases in the patient group. A sociodemographic data form and Beck Depression Scale and Beck Anxiety Scale were given to the subjects in both groups in order to determine the anxiety depression level of the mothers.

Results: The anxiety and depression levels of the mothers in the ID group were found to be higher than those healthy and controlled mothers (p<0.001 for both). In addition, 55.6% of the cases in the ID group were detected to have comorbid psychiatric disease. Mothers with comorbid psychiatric disorders had higher anxiety depression scores than those without comorbid psychiatric diagnosis (p<0.001 for both).

Conclusion: In this study, a high rate of comorbid psychiatric disease was found in children with ID. However, anxiety depression levels were higher in mothers of patients with comorbid psychiatric disorders. Comorbid psychiatric diseases cause more psychological burden on the mothers, therefore it is important that these children be assessed in this respect and to make the necessary interventions.

Key Words: Intellectual disability, comorbidity, mother, depression, anxiety

INTRODUCTION

Intellectual disability (ID) is described as staying below the average of general intellectual functioning for the individual with the emergence of deficiencies at least in two of the abilities in the fields of social relationships, practical subjects, the use of social opportunities, taking initiative, work, using the recreation time, such as intellectual capabilities regarding the concept, communication, self-care, interpersonal skills, domestic life (1, 2). In the Diagnostic and Statistical Manual of Mental Disorder (DSM) -V, when determining the level of insufficiency, it has been reported that the functionalities of the areas with adjustment disorder should also be assessed, not only according to the intelligence quotient (3). There are genetic, biological, psychological and social factors in the etiology of ID (4, 5). The prevalence of ID in the world is between 1% to 3%. The ratio of male and female is about 1.5, it is more frequently seen in both child and adolescents males as well as adult males (6). The most common ID is observed in mild. The rates of both psychiatric and physical comorbidity of ID patients are high. The most common psychiatric comorbid diseases are conduct disorder (CD), stereotyped behaviours, attention deficit hyperactivity disorder (ADHD), autism

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spectrum disorder (OSB), mood disorders, generalized anxiety disorder (GAD), psychotic disorder and eating disorders. Physical comorbid conditions include epilepsy, visual disturbances, hearing loss, speech and language problems, cerebral palsy (CP), hypothyroidism and syndromic diseases (1). Depending on comorbid conditions in patients with ID, the need for drug treatment may arise, thus the follow-up and treatment process of the patient also changes.

Research shows that parents (especially mothers) who have children with intellectual or physical disabilities are more stressed and have more psychological problems than parents who do not have children with disabilities (7, 8). It is traumatic for a family to learn that their child has intellectual disability. Mentally handicapped children are dependent on their parents at varying degrees, depending on the severity of their disability level. This situation is a very important source of stress for the family (9). Intellectual disability and accompanying problems are difficult to change and permanent situations. This is a source of stress that needs to be constantly handled for the parents and causes them to have difficulties in coping with it (10). Having a mentally handicapped child is a difficult situation that requires parents to make restrictions in many areas of their lives. Such as lack of knowledge of the community and the society about intellectual disabilities, prejudices and attitudes of the society, difficulties in participating in the social activities and lack of social support, family tensions, economic difficulties due to health problems, etc. are indicated as the basic difficulties to be handled by families of children with intellectual disabilities (11, 12). When we look at the roles within the family, it is stated that the mother plays a more active role and puts more effort than the father in coping with the problems of the child (13). Families often fail to cope with this intense stressful, long-term problem and are experiencing a variety of behavioural and emotional problems. In particular, it is stated that mothers reported more psychological distress than fathers, and most of them had depressive complaints (14). It is obvious that having a disabled child brings many difficulties. In addition to these difficulties, the presence of comorbid psychopathology makes it difficult to take care of the child, and it also increases the mental psychological burden on the mother.

In this study, the rate of comorbid psychiatric diseases in children with intellectual disabilities, and the relationship between comorbid conditions and the anxiety depression levels of mothers were aimed to be investigated.

MATERIALS AND METHODS

The 80 cases aged between 0-18 years who were diagnosed with ID and who were admitted to Muğla Sıtkı Koçman University Medical School Hospital Child Psychiatry Polyclinic and their mothers, and 60 cases aged between 0-18 years that don't have any chronic physical and psychiatric disease and their mothers were included in the study. The cases in both groups were given the socio-demographic data form questioning the age, gender, educational level of the mother and father, the income level of the family, and the mother were given Beck Depression Scale and Beck Anxiety Scale to determine their anxiety and depression levels. A psychiatric interview according to DSM-5 diagnostic criteria was conducted to determine if there is a comorbid psychiatric disease with the cases in the patient group. In order to determine the level of intellectual disability in the patient group, Ankara Developmental Screening Inventory (ADSI) was applied to the children before 6 years of age in addition to the psychiatric interview and Weschler Intelligence Scale for Children (WISC-R) was applied to children aged 6 years and older. For the study, approval of the Muğla Sıtkı Koçman University Medical Faculty Clinical Research Ethics Committee was taken (03.22.2018-03 / XI).

In accordance with the Helsinki Declaration, all parents were informed about the study and an informed consent form was obtained.

Ankara Developmental Screening Inventory (ADSI): Development and skills of children aged between 0-6 years are evaluated according to the information obtained from mothers, fathers, or the caregivers, who are closely watching the development of the child and well acquainted with the child. The application of the inventory is completed in about 30-45 minutes, even if it depends on the child's calendar age and skills. The inventory that is organized according to different age ranges consists of 4 developmental fields as the language-cognitive, fine and gross motor skills and social skill-self-care including 154 items answered as "Yes, No, I do not know" by the caregiver, and the total development score is obtained (15).

WISC-R: It was first developed by D. Wechsler in 1949 to identify the general mental development levels of children between the ages of 6-16. It is widely preferred in researches related to IQ measurement and cognitive developmental stages. In 1974, Wechsler reorganized the scale by renaming it as WISC-R. Turkish standardization of the test and validity and reliability studies were made by Savaşır and Şahin (16). The test, which includes the questions that increasingly get harder and can measure different mental functions, is composed of 2 sections and 12 sub-tests as verbal and performance.

Beck Depression Scale: The scale developed by Beck and his friends has been translated into Turkish by Hisli. This scale consists of 21 questions, each scoring between 0-3, which measures emotional, somatic, cognitive and motivational markers seen in depression. The highest score you can get is 63. The fields of question assessed in the Beck Depression Scale are unhappiness, self-reproach, feeling of failure, irritability, crying, social withdrawal, body image changes, indecisiveness, fatigue, insomnia, loss of appetite, weight loss, somatic works and decreased libido. In the end, the assessment is made according to total score obtained from all the questions. In this scale, it was determined that the scores at 17 and over can distinguish the depression that will require treatment with an accuracy greater than 90% (17-19).

Beck Anxiety Scale (BAS): A self-assessment scale developed by Dr. Aaron T. Beck and colleagues in 1988. It is used to measure anxiety severity and assess the frequency of anxiety symptoms. Scoring in the Beck

Anxiety Scale (BAS) is a Likert-type scale consisting of 21 items, scored between 0-3, with the choices of "no", "mildly", "moderate" and "severe". The score range in BAS is between 0-63 and the level of the total score indicates the severity of the anxiety experienced by the individual.

Statistical Analysis

For the statistical analysis, Package for the Social Sciences (SPSS) for Windows 22.0 program was used. The numbers were given as mean ± standard deviation, percent frequencies and tables. The presence and degree of intellectual disability and sociodemographic data, age group, gender and its distribution according to the complaints, comorbid psychiatric were analysed using the descriptive analysis and chi-square test.

RESULTS

No statistically significant difference was found between the ID group and the control group in terms of age, gender, education, maternal age, father age, mother education level and father education level (p> 0.05) (Table 1).

59 (73.75%) of the patients were diagnosed with ID at mild level; 6 of them were diagnosed with ID (7.5%) at moderate level, 1 (1.25%) with low level ID, and 14 (17.5%) of them had general developmental delay diagnosis.

The rate of comorbid psychiatric disease was found as 55.6% (n: 45). The most common psychiatric comorbid diseases were ADHD, Enuresis nocturna, Oppositional Defiant Disorder, conduct disorder and depression. 8 of the cases with comorbid psychiatric disorders had two accompanying psychiatric disorders, 5 had 3 different psychiatric disorders, and 1 had 4 different psychiatric disorders (Table 2).

When the patient and control groups were compared in terms of scale scores, BDS and BAS scores were higher in the ID group and this difference was statistically significant (p<o.oo1, for both) (Table 3). In the ID group, according to the comparison results of scale scores of those with and without comorbid psychiatric diseases, BDS and BAS scores were higher in the mothers of the patients with comorbid psychiatric patients than others (p<o.oo1, for both) (Table 4).

As the level of intellectual disability get severe in the ID group, the increase of BAS scores of the mothers

Table1. Patient and Control Group Demographic Data

	Patient Group	*Control Group*	*P*
Age (mean ± SS)	*8:03 ± 2.90*	*8.98 ± 2.60*	*0.100*
Gender			
Female n(%)	*28 (35)*	*15 (25)*	*0.204*
Male, n(%)	*52 (65)*	*45 (75)*	
Maternal age (mean ± SS)	*33.98 ± 4.85*	*35.50 ± 3.95*	*0.051*
Father age (mean ± SD)	*36.63 ± 4.68*	*37.90 ± 3.83*	*0.091*
Maternal Education Level			
Not literate n(%)	*2 (2.5)*	*0 (0)*	
Elementary n(%)	*43 (53.75)*	*23 (38.33)*	
Secondary n(%)	*29 (36.25)*	*27 (45)*	*0.169*
High School n(%)	*5 (6.25)*	*3 (13.3)*	
College n(%)	*1 (1.25)*	*2 (3.3)*	
Paternal Level of Education			
Not literate n(%)	*2 (2.5)*	*0 (0)*	
Elementary n(%)	*31 (38.75)*	*20 (33.3)*	*0.193*
Secondary n(%)	*29 (36.25)*	*20 (33.3)*	
High School n(%)	*17 (21.25)*	*15 (25)*	
College n(%)	*1 (1.25)*	*5 (8.33)*	

Table 2. Comorbid Psychiatric Diseases in Children with Mental Disability

Comorbid diagnosis		**(n)**	**(%)**
ADHD		31	38.75
Enuresis Nocturne		10	12.5
ODD		9	11.25
CD		8	10
Depression		7	8.75
Anxiety Disorder		4	5
ASD		2	2.5
No comorbid diagnosis		35	43.75

CD: Conduct Disorder, ADHD: Attention Deficit Hyperactivity Disorder, ASD: Autistic Spectrum Disorder, ODD: Oppositional Defiant Disorder.

Table 3. Patient and Control Group BDS and BAS Scores

	Patient Group	*Control Group*	*P*
BDS	*17.80 ± 5.12*	*7.50 ± 2.98*	*<0.001*
BAS	*18.52 ± 6.03*	*9.05 ± 3.06*	*<0.001*

BDS: Beck Depression Scale, BAS: Beck Anxiety Scale

was found to increase, and this increase was found to be statistically significant (p <0.05).

DISCUSSION

Table 4. Scale Scores According to Comorbid Psychiatric Disease Status in the Intellectual Disability Group

	Individuals with Comorbid Psychiatric Disorder	Individuals without Comorbid Psychiatric Disease	P
BDS	20.22 ± 4.35	14.68 ± 4.33	<0.001
BAS	20.88 ± 5.78	15.48 ± 4.92	<0.001

BDS: Beck Depression Scale, BAS: Beck Anxiety Scale

In this study, which assessed depression and anxiety levels of mothers' of 80 cases with intellectual disability and, and mothers' of 60 cases who don't have any chronic physical and psychiatric disease, the anxiety and depression levels of the mothers in the ID group were found to be higher. In addition, 55.6% of the cases in the ID group were detected to have comorbid psychiatric disease. Mothers with comorbid psychiatric disorders had higher anxiety depression scores than those without comorbid psychiatric diagnosis.

A family with an ID child faces many problems that will challenge the family both economically and emotionally, such as disruptions in social programs, recurrent physical and emotional crises, and problems in family interactions (20). Having a child with ID often requires the reorientation and reassessment of family goals, responsibilities and relationships. The high levels of stress or mental health problems experienced by parents of children with ID may be related to subjective factors such as social isolation and dissatisfaction with life (21). The parents of these children have to struggle with many emotions over the years and often feel guilty due to logical or illogical reasons that cause the child to be injured in some way (22). The reasons such as disappointment, embarrassment, and social isolation caused by the inability to have the child they dreamed of can also be among the factors that negatively affect the mental health of parents who have children with ID. The need for mental health services and support for parents of children with ID, including anxiety, depression, or both, appears to be quite high. It is reported that approximately 50% of parents have severe anxiety and approximately two-thirds have clinical depression (23). In their study, Azeem et al. have indicated that 89% of mothers with mentally disabled children had anxiety or depression or both anxiety and depression, after all 35% of the mothers meet the criteria for anxiety, 40% of them meet the criteria of depression and 13% meet the criteria for both anxiety and depression (14). In our study, similarly to these studies, the anxiety and depression scores of mothers with ID children were higher than the anxiety and depression scores of healthy mothers. Since the high anxiety and depression scores in the mothers will make the child's care more difficult as well as other difficulties with intellectual disability, it is important to psychologically assess and support families.

It is stated that the rate of disability plays an important role in the acceptance of the child's disability. In their study conducted by Şengül et al. in 2012, they examined the anxiety and depression levels of 50 ID children's mothers and 50 healthy children's mothers and found that anxiety and depression scores increased as the disability rate increased (10). In our study, there was also a statistically significant relationship between maternal anxiety scores and child's level of intelligence -mild, moderate and severe-. Whereas children with mild to moderate mental retardation may be relatively able to do their own care, children with severe mental retardation often lead a life dependent on their mothers. This increases the load on the mothers and, as a result, the

risk of psychological problems is increasing.

It is thought that as ID decreases the ability to cope with the problems in individuals who have adjustment disorder, these individuals get more psychiatric problems. It has been reported in the studies that mental problems are observed between the rates of 27%-71%. Psychopathology in children with mental disability was found to be approximately 3-6 times more than children with normal intelligence (24, 25). In the studies conducted by Arıcı et al. (2017), the rate of comorbid mental illnesses in ID children was found as 81.1% (26). The most common psychiatric comorbid diseases in the same study were reported to be 23.2% in conduct disorder (CD) and 20.5% in attention deficit hyperactivity disorder (ADHD). Similarly to other studies, the rate of comorbid psychiatric illnesses in ID children was found to be high in our study.

Having an ID child implies a psychological burden for the parents, and also comorbid behavioural problems increase psychological distress in parents. In the conducted studies, it has been emphasized that having a child with developmental retardation has a negative impact on family and parental stress, and that child behaviour problems are strongly related to parental stress in mothers and fathers; in fact, that behavioural problems account for the majority of the relationship between developmental delay and parenting stress (27, 28). In some studies carried out with children with Autism Spectrum Disorder, it has been stated that when the child's behavioural problems are controlled, the mothers' mental well-being is not different from the mother who has a healthy child (29, 30). In our study, anxiety and depression scores of mothers with ID children diagnosed with co-morbid psychiatric diseases were detected to be higher than those of mothers without diagnoses. The cross-sectional design of the study and the small sample group, and the fact that the anxiety depression levels of mothers after treatment of patients with comorbid psychiatric diagnosis are not evaluated were regarded as the limitations of the study. However, the fact that a semi-structured interview scale was not used when evaluating the comorbid psychiatric diagnoses in the patient group was also considered as a limitation. In addition, the fact that the psychiatric examination of the subjects in the control group was not performed and their consideration as healthy according to the information given by their mothers was regarded as a limitation of study.

As a result; in this study it was determined that the anxiety and depression levels of the mothers in the ID group were higher than the anxiety depression levels of mothers with healthy children. In addition, 55.6% of the cases in the ID group were detected to have comorbid psychiatric disease. We found that mothers with comorbid psychiatric disorders had higher anxiety depression scores than those without comorbid psychiatric diagnoses. According to our knowledge, the number of studies dealing with the comorbid psychiatric diagnoses in children is inadequate in studies evaluating the psychological problems of parents of children with ID in our country. It should be taken into consideration that the comorbid behavioural problems rather than the child's developmental disorder negatively affect mothers' psychological health and that the evaluation and treatment of behavioural problems in these children has an important role on parental psychological health and that timely interventions should be undertaken. We think that this study is important in terms of contributing to the future studies related to ID individuals in our country and to our knowledge in this field as child psychiatrists.

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