

Psychiatric symptoms of adolescents reared in an orphanage in Ankara

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SUMMARY: Kanbur N, Tüzün Z, Derman O. Psychiatric symptoms of adolescents reared in an orphanage in Ankara. Turk J Pediatr 2011; 53: 281-284.

This study compared male adolescents in an orphanage with adolescents raised by their families in terms of psychiatric symptoms, using the Brief Symptom Inventory. Anxiety, depression, negative self, hostility, and Global Severity Index points were significantly higher in adolescents in the orphanage, although they did not reach pathological levels except with respect to hostility. Adolescents reared in orphanages scored high points for hostility, reaching pathological levels.

Key words: adolescent, orphanage, psychiatric symptoms, Brief Symptom Inventory.

The care of needy children and adolescents who are wards of the state has been a serious public health concern for many years. There are several care models, like institutional care, foster family or adoption, in different countries depending on their cultural structure and socioeconomic needs.

In Turkey, it is reported that 92% of children and adolescents who were wards of the state lived in institutions in 2005, whereas only 4% lived with legal guardians and 4% were adopted. Institutional care (95 child care centers and 107 orphanages) provided services to 20,000 children in 2005, and many children and adolescents live in orphanages¹.

Undoubtedly, these institutions provide shelter and assistance to fulfill an important social function. However, they often fail to address issues that are fundamental to psychological development². A large body of medical knowledge about the adverse effects of being reared in an orphanage on the social and psychological development of children has been noted in the literature³. While the research evidence considers the impact of institutional care on brain growth, attachment, social behavior, and cognitive development in young children, adolescents living in orphanages are not represented in most of these studies³.

The aim of this study was to evaluate the psychiatric symptoms among male

adolescents living in an orphanage and to compare adolescents in institutional care with adolescents raised by their families, in terms of these symptoms.

Material and Methods

Subjects

Fifty-two male adolescents aged between 13 and 17 years who were living in an orphanage in Ankara were included in this study. Fifty-five age-matched adolescent boys who presented with minor problems to the outpatient clinic of the Division of Adolescent Medicine, Hacettepe University İhsan Doğramacı Children's Hospital between May - September 2006 and expressed their willingness to participate in this study formed the control group. Adolescents with known psychiatric disorders, mental retardation, organic brain diseases, or with chronic organic problems were excluded.

Permission to conduct the study was granted by the Social Services and Child Protection Institution of the Prime Ministry. Written informed consent was obtained from the adolescents living in the orphanage. For the control group, written informed consents were obtained from both the adolescents and their parents.

Brief Symptom Inventory

Brief Symptom Inventory (BSI), which measures the psychiatric symptoms under the categories of anxiety, depression, negative self, somatization, and hostility were given to all subjects. The BSI was reconstructed from Symptom Check List-90⁴, translated into Turkish, and standardized for Turkish adolescents, and a cut-off point for psychopathology was found as Global Severity Index (GSI) = 1.0⁵.

Responses on the BSI range from “none” to “very much”, which are rated from “0” to “4”, respectively. The subjects were asked to read and answer questions alone, taking into consideration the last week. The scores were grouped in 5 subsets including: “Anxiety”, “Depression”, “Negative self”, “Somatization” and “Hostility”⁴. The total scores of these subsets were divided by 53, the total number of questions, and the final scores were obtained. The cut-off point for pathology was accepted as 1.0 according to BSI measurements. For pathologic psychiatric symptom analysis, the GSI was calculated by adding all the points and dividing by 53; results >1.0 indicated psychopathological symptoms, while patients with scores <1 were accepted as having no psychopathological symptoms.

Statistics

This is a cross-sectional survey study and the variables are reported in a descriptive fashion (mean \pm standard deviation for continuous variables). Independent t-test was used to evaluate the statistical difference of psychometric scores of the study group and the control group as per BSI. Pearson Correlation Analysis was used for adjustment of correlations between age and psychometric scores in both the study and control groups. This was carried out with commercially available statistics software, SPSS 11.0.

Results

There was no statistical difference in age between the study group (mean age: 14.4 \pm 1.19 years) and control group (mean age: 14.7 \pm 0.98 years) ($t = -1.453$, $p = 0.149$). Psychometric scores of the study group and the control group based on the BSI are shown in Table I.

Anxiety, depression, negative self, hostility, and GSI points were significantly higher in the study group compared to the control group ($p \leq 0.05$) (Table I) (Fig. 1), although they did not reach pathological levels except in the hostility subset. The study group scored high points for hostility, reaching pathological levels (1.14 \pm 0.65) (Fig. 1). Somatization showed no significant difference between the study and control groups (Table I).

Somatization scores were significantly correlated with age in the study group ($p = 0.027$; Pearson correlation coefficient 0.306), but not in the control group. The other psychometric scores were not significantly correlated with age in either the study or control groups.

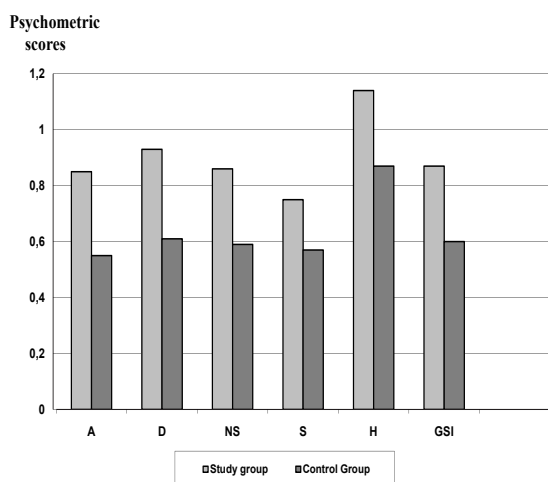
Discussion

In the literature, there are many studies³ about emotional and behavioral development of younger children living in orphanages, but the studies about the psychological effects of institutional care on adolescents are limited⁶⁻⁸ and were conducted with the ex-institutional adolescents.

Goldfarb⁶ measured capacity of relationships in adolescents between 10-14 years who had spent their early infancy in institutional care but who had subsequently been fostered. In comparison to the age-matched adolescents who were in foster care since birth, the institutionally raised adolescents were found emotionally withdrawn

Table I. Psychometric Scores of the Study and Control Groups Based on BSI (mean \pm standard deviation) and the Differences Between These Groups Compared with T-Test

	Study Group	Control Group	T	P
Anxiety	0.85 \pm 0.69	0.55 \pm 0.42	2.649	0.010*
Depression	* 0.93 \pm 0.69	0.61 \pm 0.49	2.743	0.007*
Negative self	* 0.86 \pm 0.69	0.59 \pm 0.46	2.370	0.020*
Somatization	0.75 \pm 0.56	0.57 \pm 0.49	1.822	0.071
Hostility	1.14 \pm 0.65	0.87 \pm 0.60	2.247	0.027*
GSI	0.87 \pm 0.57	0.60 \pm 0.42	2.789	0.006*



A: Anxiety. D: Depression. NS: Negative self.

S: Somatization. H: Hostility. GSI: Global severity index.

Fig. 1. The average psychometric scores of adolescents in the study and control groups (cut-off psychometric score for pathology = 1.0).

in relationships, craving affection and socially less mature⁶. Hodges and Tizard⁷ measured social relationships and behavioral adjustment of ex-institutional adolescents raised until at least the age of 2 in a residential nursery, at 16 years of age. Both the adopted adolescents and the adolescents restored to their natural families were found to have more difficulties and fewer close relationships with peers than the control group⁷, and adopted adolescents were reported to display signs of anxiety⁸.

In a recent study, psychopathology by type of placement among children and adolescents (aged 5-17 years) looked after by local authorities in Britain was examined using the "Development and Well-Being Assessment" survey, and results were compared with children living in private households⁹. It was found that British children and adolescents who were looked after by the local authorities had a higher prevalence of both psychosocial adversity and psychiatric disorder than the most socioeconomically disadvantaged children and adolescents living in private households and that care-related variables were strongly related to mental health⁹.

In this study, we compared adolescent boys living in an orphanage versus those living with their families with regards to the psychiatric symptoms using the BSI. The scores of internalized problems, which consisted of

anxiety, depression and negative self, were significantly higher in adolescents living in the orphanage compared to those living with their families, whereas somatization - another internalized problem - showed no significant difference between the two groups. The scores of hostility, as the externalized problem, were significantly higher in adolescents living in the orphanage as well, but more importantly, hostility was the only symptom above the cut-off point for BSI, which indicated pathological levels. One cause of externalization problems was suggested to be the separation of a child from his/her parents at an early age and the related attachment problems¹⁰.

Attachment is an enduring emotional bond between two individuals and is commonly manifested in efforts to seek proximity and contact to the attachment (Fig. 1), especially when the individual is under stress¹¹. A basic principle of the attachment theory is that an attachment relationship is important throughout a person's life span^{12,13}. Allen and his colleagues¹⁴ examined the meaning and functioning of attachment styles and their relations to some domains of psychosocial functioning among a group of 131 risky adolescents. They found that secure type of attachment style is related to competence with peers, lower levels of internalizing behaviors and lower levels of deviant behavior, whereas insecure type of attachment style is related to higher levels of both internalizing and deviant behavior.

The findings of this study are in agreement with the recently published national comparative study of the epidemiology of emotional and behavioral problems in children and adolescents (6-18 years of age) reared in orphanages in Turkey¹⁰. Simşek et al.¹⁰ used the Child Behavior Checklist, the Teacher's Report Form and the Youth Self-Report Form for data collection, and reported that institutional care increased internalization problems (anxiety, depression and somatic disorders) by a factor of 1.7- 3.4, and increased externalization problems (aggressive behaviors and rule-breaking sub-scales) by a factor of 2.5-2.9. The authors concluded that there is an urgent need to develop alternative care models and routine screening of mental health in children and adolescents in institutional care. We

suggest BSI as a “screening tool” for this particular group of adolescents for determining the psychiatric symptoms, thereby ensuring more professional mental health support would be possible for those with symptoms. Furthermore, BSI as a screening tool would be helpful in the follow-up of the intervention and prevention programs for mental health in these institutions.

The limitation of our study was that we do not present any demographic data of these adolescents. This study is a self-report survey. We actually queried some of the biological parents regarding some demographic data and information, since some of the adolescents had parents or siblings but were still reared in the orphanage. Some of the adolescents did not want to answer these questions but agreed to the BSI survey; therefore, we thought that we should respect their confidentiality and agreed that we would only ask questions about the symptoms using the BSI. However, at the end of the survey, professional and confidential mental health support was provided for those having symptoms at pathological levels.

In conclusion, adolescents living in an orphanage are in a higher risk group for psychopathology than the adolescents living with their families. We suggest the BSI for screening psychiatric symptoms in this vulnerable group of adolescents who need greater and professional mental health support.

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