



ORIGINAL ARTICLE

Comparison of Psychiatric Disorders Between Children with a History of Parental Divorce and Parental Death

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ABSTRACT

Objective: This study is aimed to compare the rate of psychiatric diagnoses between children and adolescents with parental death and parental divorce. The study additionally examines the differences in psychiatric diagnosis of children between pre- and post-parental divorce.

Methods: The files of 4,160 children and adolescents referred to child psychiatry outpatient clinic between September 2014 and September 2016 were examined retrospectively. Six hundred thirty eight children and adolescents with parental divorce or parental death were compared in terms of psychiatric disorders. The relationship between age, gender, living with mother or father, parental remarriage and psychopathology in children and adolescents was evaluated. Psychiatric diagnoses were compared in cases with parental divorce before and after the divorce.

Results: There were no significant differences between groups in terms of current psychiatric disorders. In both groups, disruptive behavior disorders were the most common diagnosis, followed by internalizing disorders such as depression and anxiety disorders. Younger age and living with the father were factors associated with psychiatric disorder in children.

Discussion: Supportive approaches towards children with younger age and living with the father and their parents may be especially important in reducing the risk of developing psychiatric disorders

Keywords: Parental death, parental divorce, psychopathology, children, adolescents

INTRODUCTION

Parental divorce (PDv) is a major risk factor for internalizing and externalizing problems in children and adolescents (1). Cross-sectional and longitudinal studies show that children with married parents report less psychological maladjustment than children with divorced parents (2). A large body of research has revealed that children of divorced parents exhibited a heightened prevalence of behavioral problems (3), anxiety and

depression symptoms (4). Additionally there are studies indicating that children with PDv have academic difficulties and low academic success (5, 6).

Parental death (PDt) is a stressful life event that has short term and long term risks for mental health (7, 8). Depending on death type, it might cause complicated grief or post-traumatic stress disorder (9). Different studies reported that bereaved children had an increased risk of school failure, self injury, low self-esteem, internalizing disorders such as generalized anxiety, separation anxiety and depression, compared to non-bereaved children (10, 11).

Some parents-related factors can have effects on the child's mental health in children and adolescents with PD

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tor PDv. Probable difficulties of living with a single parent were summarized as follows: reduction in child's quality of life, inappropriate care by stressful parent, decrease in supervision and time spent with child, exposure to parental conflicts after divorce, adaptation to new parents in case of parental re-marriage (12). It is emphasized that there is a negative relationship between the quality of mother-child relationships and children's behavior problems in children living with a single parent (13).

The relationship between mental health problems in children and parental conflict is a separate subject of scrutiny as much as divorce's effect on children. Studies, which examine the impact of child psychiatric or neurodevelopmental disorders on parental divorce have shown particular relationship with PDv and attention deficit hyperactivity disorder (ADHD), and autism (14, 15).

The prenet study aimed to compare the psychiatric diagnosis in children and adolescents with PDt and PDv. We also aimed to determine whether living with mother or father and parental re-marriage are related to the child's psychopathology and which psychiatric disorders in children are related to PDv.

METHODS

Participants

The files of 4,160 children and adolescents brought to child and adolescent psychiatry outpatient clinic in Tekirdağ State Hospital between the dates September 1st, 2014 and September 30th, 2016 were examined retrospectively. Six hundred thirty eight children and adolescents who had PDv or PDt were included in this study. Information about existence of divorce or death was taken from the parent who brought the child to the interview. Children and adolescents who lost one of their parents after the divorce (n=8) and lost both parents (n=3) were excluded from the study.

Procedure

Informations about psychiatric diagnosis of children and adolescents, living with mother or father and presence of

parental re-marriage were obtained from files. Children and adolescents were diagnosed with psychiatric semi-structured interviews based on DSM-IV conducted by child psychiatrist. The diagnosis of ADHD, oppositional defiant disorder, and conduct disorder were grouped as disruptive behavior disorder (DBD), depression, anxiety disorders and somatization disorders as internalizing disorders, enuresis and encopresis as elimination disorders (16).

Statistical analysis

The data were analyzed by SPSS version 17.0 for Windows. Chi-square test was used to evaluate the categorical data. Mann-Whitney U test was used while evaluating means for age. Logistic regression analysis was used to examine the factors contributed to the presence of psychiatric diagnosis. All hypotheses were examined using one-tailed tests, as all were uni-directional. The results were evaluated at 95% confidence interval and 0.05 significance level.

RESULTS

Fifteen percent of 4,160 (n=638) children and adolescents who presented to Tekirdağ State Hospital during two years had a history of PDv or PDt. Presence of PDt at least in one parent was 28.4% (n=181). The mean age of cases was found as 10.2 ± 3.7 (min age 4, max age 17, median age 10). While there were no significant differences in means of age, gender, rates of living with mother or father, and distribution of psychiatric diagnoses between groups, rate of parental re-marriage was higher in the PDv than the PDt group (Table 1).

The presence of psychiatric disorder according to age, gender, living with mother or father, presence of parental remarriage are shown in Table 2. The mean age was lower in children with psychiatric disorder than children without psychiatric disorder ($p < 0.001$). Sample was divided into two age groups; one was under age 11 and the other equal and above 11 in terms of being the beginning of adolescence. Distributions of psychiatric diagnosis were examined according to the age groups.

Table 1: Parent related variables and distribution of psychiatric diagnoses according to the groups

	Parental divorce (n=457)	Parental death (n=181)	p
	N (%)	N (%)	
Age, Mean (SD)	10.17±3.77	10.60±3.79	0.196
Male	276 (60.4)	108 (59.7)	0.866
Living with only mother	318 (80.5)	98 (76)	0.269
Presence of parental remarriage	102 (28.6)	16 (12.7)	0.001*
Disruptive Behavior Disorders	122 (46)	55 (50)	
Internalizing Disorders	90 (33.9)	33 (30)	
ASD+ Mental Retardation	33 (12.4)	13 (11.8)	0.863
Tic Disorders+ OCD	7 (2.6)	4 (3.6)	
Elimination Disorders	14 (5.2)	5 (4.6)	

*p<0.01. ASD: Autism Spectrum Disorders. OCD: Obsessive compulsive disorder.

Table 2: Presence of psychiatric disorders in children according to age, gender, and parent-related variables on the combined group of divorce and death

	Psychiatric Diagnosis		p
	No (n=262) n (%)	Yes (n=376) n (%)	
Age, Mean (SD)	11.41±3.85	9.51±3.53	0.000**
Male	164 (62.6)	220 (58.5)	0.3
Living with mother or father			
Living with only mother	135 (35.6)	244 (64.4)	0.032*
Living with only father	24 (24.2)	75 (75.8)	
Parental remarriage			
No	110 (32.6)	227 (67.4)	0.757
Yes	38 (34.2)	73 (65.8)	

*p<0.05. **p<0.001

Table 3: Variables are related to presence of psychiatric disorders in children and adolescents on the combined group of divorce and death

	B	S.E.	Wald	Sig.	Exp(B)	95% C.I.
Living with mother or father	0.533	0.261	4.185	0.041*	1.705	1.023-2.842
Age	-0.098	0.027	13.134	0.000**	0.906	0.859-0.956
Constant	1.042	0.425	6.007	0.014	2.834	

*p<0.05. **p<0.001

Seventy one percent of the younger group (n=231) and 45.9% of the older group (n=145) had one psychiatric disorder at Axis I. There was a significant difference between two age groups according to DBD and mental retardation or autism (33.3% and 7.8%; 22.2%, and 6.7%; respectively). According to gender, 31% of boys (n=119) and 22.8% of girls (n=58) had DBD while 13.3% of boys

(n=51) and 28.3% of girls (n=72) internalizing disorders (p<0.001). Children and adolescents living with father had higher rates of psychiatric diagnosis than children living with mother (p=0.03, Table 2). Smaller age and living with father were variables that resulted in a significant increased risk of psychiatric disorders in children and adolescents as a result of logistic regression analysis (Table 3).

Table 4: Distribution of psychiatric disorders in children and adolescents before and after parental divorce

	Before divorce n (%)	After divorce n (%)	p
Disruptive Behavior Disorders	89 (53.0)	79 (47.0)	0.029*
Internalizing Disorders	29 (29.9)	68 (70.1)	0.000***
ASD+ Mental Retardation	28 (81.4)	3 (18.6)	0.000***
Elimination Disorders	2 (10.5)	17 (89.5)	0.002**

*p<0.05. **p<0.01. ***p<0.001. ASD: Autism Spectrum Disorders.

There were significant differences between the rates of psychiatric diagnoses of children and adolescents before and after divorce ($p<0.05$, Table 4). While 81.4% of children with autism and mental retardation and 53% of children with DBD were diagnosed before divorce, 89.5% of children with elimination disorders and 70.1% of children with internalizing disorders were diagnosed after divorce.

DISCUSSION

In this study, our first aim was to compare the rates of psychiatric diagnoses between children and adolescents with PDt and those with PDv. The second aim was to determine factors such as age, gender, living with mother or father, presence of parental remarriage that predict psychiatric disorders in both groups. The third aim was to examine whether there was a difference in psychiatric diagnoses before and after divorce in PDv group.

Our main findings demonstrated that there were no significant differences between groups in terms of current psychiatric disorders. Studies comparing psychiatric disorders between PDv and PDt groups are very limited. A study comparing PDt and PDv in terms of mental problems in adolescents revealed that separation from a parent had more negative outcomes on adolescent's mental health than loss of a parent. The researchers stated that the adolescents perceived death as an inevitable condition for parent while perceived separation as a voluntary decision of parents (17). A study comparing the effects of PDt and PDv on adult psychopathology showed that PDv had broader and stronger effects on adult psychopathology (18). There was no study comparing PDv and PDt cases in terms of childhood psychiatric impairments.

In this present study; the distributions of psychiatric diagnoses were similar in both groups, the most frequent

diagnosis was disruptive behavior disorder followed by internalizing disorders as depression and anxiety disorders. A study also reported that behavioral problems were more common in children aged 5-18 with PDv than children with undivided parents (3). Another research showed that PDv predicted DBD symptoms in children (19). In addition, there are studies reporting that the frequency of depression and anxiety disorder in divorced family children is higher than that of children in intact families (4, 20, 21). It is not clear which psychiatric disorders are more common in children with PDv. Some studies reported that internalizing disorders were more frequent (21, 22), others reported that externalizing disorders were more frequent, similar to our study (23, 24). The sample of two studies, showing that internalizing problems are more common, was composed of children aged 6-7 years (21, 22). In contrast, we found that children with PDv under age 11 had higher rates of externalizing disorders compared to the children above age 11. Studies, showing that externalizing problems are more common, are composed of children with a broader age range similar to our study (3, 25). A study examining the first 2 years after PDt reported higher percentage of psychopathology in children between 6-7 ages than community controls. According to this study, parental loss is an important source of stress and the depression of the surviving parent causes an increased risk of depression in the child (26). There were no research studies examining the relationship between PDt and childhood DBD.

We also found that the average age of children with psychiatric diagnoses was lower than those without any psychiatric diagnoses similar to a study (27). This result can be explained by the possibility that younger children might need more support and protection and divorced parents may not be able to support their children

psychosocially sufficient enough due to socioeconomic and psychological difficulties they encounter.

Consistent with previous studies, our study showed that children living with the mother had a lower psychopathology ratio than children living with the father (28–30). Otowa et al. studied separation from mother and father in 2,605 adult male twins and found that separation from mother was related to phobias and alcohol addiction in later adulthood (18). A study examining the relationship between father's behaviors and child's psychopathology found that the quality of father-child interaction was markedly related to the emotional and behavioral states of children both in early and further stages of childhood (31). We did not find any relationships between presence of parental re-marriage and psychopathology in children and adolescents. In contrast to our study, it was reported that parental re-marriage was associated with a greater propensity for children to have psychological distress in a meta-analysis of 61 studies (32).

We compared the psychiatric diagnoses of children before and after divorce in the PDv group. DBD was the most frequent diagnosis in children before and after divorce. The second frequent disorders were neurodevelopmental disorders such as autism and intellectual disability (intellectual developmental disorder) before divorce and internalizing disorders after divorce. In literature, studies examined the role of the existing psychopathology in children on PDv. Wymbs et al. reported that parents of children with ADHD had higher rates of divorce than parents of children without ADHD and comorbid oppositional defiant and conduct disorder predicted presence of PDv (14). There are other studies showing that DBD in children are associated with PDv (33, 34). However, in contrast to our study, it was reported that conduct disorder in adolescents had no effects on PDv in another study (35). Similar results of our work in studies evaluating psychological effects of parental divorce on children have also been reported. In a review, the children were reported to have feelings of unhappiness, loneliness, and anger in parents immediately after the divorce (36). The most common problems in children were irritability, inability to cope with problems,

and impulsivity in a study examining children's coping processes, 2 years after the parental divorce (37).

There are also studies investigating the effects of neurodevelopmental disorders on PDv. Hartley et al. showed that divorce rates increased at 23.5% in parents of children with autism (15). In a recent study, it was reported that parents of children diagnosed with ADHD or autism were more likely to separate than control parents (38). Freedman et al. suggested that autism alone in children had no effect on PDv, comorbid psychiatric disorders were important risk factors for not being able to live with both parents (39). Namkung et al. reported that developmental delay alone in children with autism and/or intellectual disability (intellectual developmental disorder) did not increase divorce rate, having more children was a protective factor for families of children with neurodevelopmental disorders (40).

This present study has certain limitations. First, the retrospective cross-sectional nature of the study presents a limitation. Second, parental death and divorce groups were only determined based on parental reports. Assessment scales were not used. It did not contain informations about genetic and enviromental factors affecting divorce, cause of parental loss, and parental psychopathology. There were no comparisons with the control group without PDt or PDv. Finally, this study was conducted only on children and adolescents who presented to the child psychiatry outpatient clinic and did not have a population sample.

CONCLUSIONS

In sum, some striking findings of our study will present implications for future research in this field. Although there are certain limitations, the results of our study has an importance of being one of the rare studies comparing PDv and PDt in terms of childhood psychopathology. Psychosocial interventions should be enhanced for the group in early childhood and the group living with fathers after divorce because these groups may be highly at risk in developing psychiatric disorders. There were no significant differences in terms of psychiatric diagnosis rates between PDt and PDv groups. Living with the

mother and older age were protective factors for psychiatric disorder in children and adolescents with PDV or PDt. Children with DBD and neurodevelopmental disorder in our sample were diagnosed at a higher rate before divorce than after PDv. On the contrary, children with internalizing and elimination disorders were diagnosed at a higher rate after divorce. Supportive therapeutic approaches should be recommended to families of children and adolescents with DBD and neurodevelopmental disorders to protect family integrity.

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Conflict of Interest: There is no conflict of interest with any financial organization regarding the materials discussed in the manuscript.

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