



## Perceived parental acceptance/rejection, some family characteristics and conduct disorder in adolescents

Opazanje roditeljskog prihvatanja/odbacivanja, neke karakteristike porodice i poremećaj ponašanja adolescenata

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### Abstract

**Background/Aim.** Conduct disorder is characterized by repetitive and persistent presence of dissocial, aggressive and defiant behavioral patterns, thus represents important public issue with comprehensive and far-reaching consequences both for the individual and society. The aim of this study was to investigate the differences in sociodemographic family characteristics and the prominence of parental acceptance/rejection dimensions in groups of adolescents with and without conduct disorder, as well as to examine the connection between parental acceptance/rejection dimensions and externalizing symptoms in the group of adolescents with conduct disorder. **Methods.** This research was conducted on 134 adolescents, aged 15 to 18, using the Parental Acceptance/Rejection Questionnaire (PARQ child), Youth Self-Report (YSR), and a questionnaire constructed for the purpose of this survey. **Results.** The results showed that the number of adolescents with conduct disorder coming from divorced families was significantly higher than from complete families (44.8% vs 13.4%, respectively;  $p < 0.001$ ). Also, in this group of adolescents there was a statistically significantly higher number of parents suffering from psychiatric disorders compared to the controls (31.3% vs 8.9%; respectively;  $p = 0.001$ ). The perceived rejection dimension and the total index of maternal acceptance/rejection were

significantly higher in adolescents with conduct disorder than in those with no such disorder ( $132.30 \pm 38.05$  vs  $93.91 \pm 26.29$  respectively;  $p < 0.001$ ). Similar results were found for paternal acceptance/rejection dimension ( $129.40 \pm 39.58$  vs  $86.10 \pm 15.95$  respectively;  $p < 0.001$ ). Adolescents with conduct disorder and severe perceived maternal and paternal rejection showed a significantly higher average score on the subscale of externalizing symptoms ( $14.55 \pm 4.45$  and  $13.27 \pm 5.05$ ) compared to adolescents with conduct disorder and lower total index of parental acceptance/rejection ( $8.32 \pm 5.05$  and  $8.28 \pm 5.08$ ). **Conclusion.** The results suggest that adolescents with conduct disorder perceive their parents as more rejecting and less warm and supportive compared to adolescents without conduct disorder. The perception of significant and severe parental rejection was associated with a significantly higher averaged score on the subscale of externalizing symptoms in the group of adolescents with conduct disorder compared to those with no such disorder. It was found that adolescents with conduct disorder most often come from large families, have divorced parents or parents with multiple psychiatric disorders.

**Key words:** conduct disorder; adolescent; family; risk factors; socioeconomic factors; questionnaires.

### Apstrakt

**Uvod/Cilj.** Poremećaji ponašanja karakterišu se ponavljanjem i trajnim disocijalnim, agresivnim i devijantnim ponašanjem, pa tako predstavljaju važan društveni problem sa sveobuhvatnim i dalekosežnim posledicama za pojedince i društvo. Cilj ovog rada bio je da se ispituju razlika u sociodemografskim karakteristikama porodica adolescenata i izraženosti dimenzija roditeljskog prihvatanja/odbacivanja između grupa adolescenata sa i bez poremećaja ponašanja, kao i ispitivanje povezanosti dimenzija roditeljskog prihvatanja/odbacivanja sa eksternalizacionim simptomima u grupi adolescenata sa poremećajem ponašanja. **Metode.** Ispitivanje je obuhvatilo

134 adolescenata, starosti od 15 do 18 godina. Primenjeni su: Upitnik roditeljskog prihvatanja/odbacivanja (*Parental Acceptance/Rejection Questionnaire*, PARQ child), Upitnik za samoprocenu mladih od 11 do 18 godina (*Youth Self-Report*, YSR), kao i opšti upitnik sačinjen za potrebe ovog istraživanja. **Rezultati.** U grupi sa poremećajem ponašanja statistički značajno više adolescenata potiče iz razvedenih porodica u odnosu na kompletne porodice (44,8% vs 13,4%;  $p < 0,001$ ), a u istoj grupi statistički je značajno više roditelja sa psihičkim bolestima (31,3% vs 8,9%;  $p = 0.001$ ) u odnosu na grupu adolescenata bez poremećaja ponašanja. Dimenzije percipiranog odbacivanja kao i totalni indeks prihvatanja/odbacivanja za majku su statistički značajno veće u grupi adolescenata sa

poremećajem ponašanja u odnosu na one bez poremećaja ponašanja ( $132,30 \pm 38,05$  vs  $93,91 \pm 26,29$ ;  $p < 0.001$ ). Slični rezultati dobijeni su i za dimenzije prihvatanja/odbacivanja za oca ( $129,40 \pm 39,58$  vs  $86,10 \pm 15,95$ ;  $p < 0.001$ ). Adolescenti sa poremećajem ponašanja i ozbiljnim percipiranim odbacivanjem majke i oca pokazuju znatno veći prosečni rezultat na supskali eksternalizacionih simptoma ( $14,55 \pm 4,45$  and  $13,27 \pm 5,05$ ) u odnosu na adolescente sa poremećajem ponašanja i nižim totalnim indeksom prihvatanja/odbacivanja za oba roditelja ( $8,32 \pm 5,05$  and  $8,28 \pm 5,08$ ). **Zaključak.** Rezultati istraživanja ukazuju da adolescenti sa poremećajem ponašanja percipiraju svoje

roditelje kao više odbacujuće i manje tople i podržavajuće u odnosu na adolescente bez poremećaja ponašanja. Percepcija značajnog i ozbiljnog odbacivanja od strane roditelja bila je povezana sa višim prosečnim skorom eksternalizacionih simptoma u grupi adolescenata sa poremećajem ponašanja. Nađeno je da adolescenti sa poremećajem ponašanja dolaze iz porodica koje karakteriše mnogočlanost, učestali razvodi roditelja i više psihijatrijskih oboljenja kod roditelja.

**Ključne reči:**  
**ponašanje, poremećaji; adolescent; porodica; faktori rizika; socioekonomski faktori; upitnici.**

## Introduction

According to ICD-10, conduct disorder is characterized by repetitive and persistent presence of dissocial, aggressive and defiant behavioral patterns<sup>1</sup>. Such behavior, when at its most extreme for the individual, should amount to major violations of age-appropriate social expectations, and is therefore more severe than ordinary childish mischief or adolescent rebelliousness. The diagnosis is based on the following behavior examples: excessive fights and bullying, cruelty to people and animals, severe destructiveness to property, arson, theft, repeated lying, truancy from school and running away from home, unusually frequent and severe temper tantrums, defiant, provocative behavior and persistent severe disobedience. All these forms of behavior, if prominent, may be sufficient for diagnosis only if they persist over a period of time (minimum of 6 months)<sup>1</sup>.

In relation to the severity of the disorder and according to current classification systems, conduct disorder is graded as mild, moderate and severe<sup>2</sup>. This classification is important both for diagnostic and psychosocial interventions because, theoretically speaking, it is possible that a child who lies, runs away from home and skips school has the same diagnosis as a child who has robbed a bank with a gun or raped someone. In relation to the onset of conduct disorder symptoms there are two subgroups: childhood-onset group and adolescent-onset group<sup>2</sup>. Children in childhood-onset group often begin showing severe conduct problems in childhood as opposed to those whose onset of severe antisocial behavior coincides with the onset of puberty. Moffitt<sup>3</sup> and Moffitt and Caspi<sup>4</sup> has proposed that problem behavior in childhood-onset group is developed through a transactional process involving a difficult and vulnerable child (impulsive, with verbal deficit, attention deficit disorder and hyperactivity or difficult temperament) who experiences an inadequate rearing environment (severe family dysfunction, parental antisocial behavior, poor parental supervision, poor quality schools).

In contrast, children in the adolescent-onset group engage in antisocial and delinquent behaviors as a misguided attempt to obtain a subjective sense of maturity and adult status in a way that is maladaptive (e.g. breaking societal norms) but encouraged by an antisocial peer group<sup>3,4</sup>. However, these adolescents may still have impairments that per-

sist into adulthood due to the consequences of their adolescent antisocial behavior (e.g. criminal record, dropping out of school, substance abuse)<sup>4</sup>.

Conduct disorder represents important public issue with comprehensive and far-reaching consequences both for the individual and society. The most recent prospective longitudinal Cambridge Study in Delinquent Development reports that boys with dissocial behaviour aged 8–10 exhibit the same pattern of behavior at the age of 14, and 43% of them show the same behavior at the age of 18<sup>5</sup>. Some studies suggest that about 50% of children with conduct disorders develop dissocial personality disorder in adulthood<sup>6</sup>, and are at risk of developing a wide range of other maladaptive outcomes, including substance abuse, termination of education, mental disorders<sup>7</sup>, prison sentences, work and family problems and physical health deterioration manifested in a higher injury rate, hospitalization, sexually transmitted diseases, smoking and chronic respiratory diseases, and violent death<sup>8</sup>.

Risk factors for the development of conduct disorders are classified as personal, family or environmental (relating to peers, school and wider community). In the context of family risk factors, studies suggest that inadequate parenting, expressed through tough and inconsistent parental discipline, poor parental monitoring and supervision, low levels of positive parental involvement and parental rejection, is significantly associated with externalizing behavior of children and adolescents<sup>9,10</sup>. Other factors in the etiology of child behavior problems include family conflict, the number of parents present, family size, socioeconomic status, criminality in parents, parental psychiatric disorder, child abuse<sup>11–13</sup>. Nevertheless, even after controlling these factors, parental rejection continues to be significantly associated with behavior problems<sup>13</sup>.

Parental Acceptance/Rejection Theory (PARTheory) by Rohner et al.<sup>14</sup> emphasizes the impact of parental rejecting and accepting behavior on child's behavioral, cognitive and emotional development. Parental acceptance and rejection refers to the emotional and affective relationship between parents and children, and the physical, verbal and symbolic behaviors parents use to express their feelings for their children.

Parental acceptance and rejection together form a "warm" dimension of the upbringing approach designed as a bipolar dimension. At one pole there is parental acceptance

relating to warmth, affection, care, support and, in general, love that a child may experience in relationship with parents or caregivers. At the other pole there is rejection and lack of parental warmth and emotionality, which may be perceived as any combination of four basic rejection expressions: parents' physical or verbal hostility, indifference or neglect, and undifferentiated parental rejection. Hostility includes a range of emotions from objection and disapproval to anger, reservation and resentment, while indifference implies a lack of concern and affection for the child. Undifferentiated rejection represents such kind of rejection due to which the child feels unaccepted without clear perception of aggression and neglect by parents.

Cross-cultural studies indicate that unipolar depression, depressive affect, behavioral problems including conduct disorder, externalizing symptoms, delinquency and substance abuse are universal correlates of parental acceptance/rejection regardless of cultural, gender, racial and socioeconomic differences<sup>13</sup>.

The aim of the study was to examine some characteristics of the family (structure, size, parental disorders) in groups of adolescents with and without conduct disorder, to investigate perceived parental acceptance/rejection in groups with and without conduct disorder, to investigate the relationship between perceived parental acceptance/rejection and externalizing symptoms in the group with conduct disorder.

## Methods

The study was conducted at the Department of Children and Adolescent Psychiatry, Mental Health Clinic, Clinical Center Niš, Serbia in 2011/2012. It included 134 adolescents, aged 15 to 18. The examined group consisted of 67 outpatient or hospitalized adolescents, with conduct disorders. The diagnosis of conduct disorder was based on clinical interviews and existing criteria for conduct disorder<sup>1</sup>. The subjects with the following comorbid diagnoses were excluded from the study: attention deficit disorder and activity disorder, mental insufficiency under 80 on the basis of standard psychological tests, acute psychotic disorder and drug addiction. The group without conduct disorder (the control group) consisted of 67 high school students. Both groups were matched for sex, age and place of residence. Subjects and parents/caregivers gave informed consent to participate in research.

Questionnaire designed for study purposes consisted of questions relating to sociodemographic features of examinees: gender, age, the number of household members, mari-

tal status of parents, and the presence of parental mental illness. The questionnaire was filled out by the researcher based on interviews with adolescents and parents and data from the medical records or polyclinic records.

Parental Acceptance-Rejection Questionnaire Child Version (Child PARQ)<sup>14</sup> is a self-report questionnaire designed to measure individual perceptions of parental acceptance/rejection. The questionnaire contained four subscales which measured four dimensions of parenting: parental warmth/acceptance (W/A), parental hostility/aggression (H/A), parental indifference/neglect (I/N), parental undifferentiated rejection (U/R). Each questionnaire statement contained a description of parental behavior. The examinees were asked to choose one of the answers on the Likert scale ranked from 1 (almost never true) to 4 (almost always true), depending on the extent to which they agree or disagree with the given statement related to parental behavior. The result of each examinee can be expressed on individual subscale and as a total PARQ (sum of all four scales, with the entire warmth scale reverse scored). The total score ranges from 60 to 240, whereby results equal to or greater than 150 indicate a perception of significant and severe parental rejection.

The Youth Self-Report (YSR)<sup>15</sup> is a scale of emotional problems and behavior problems. The questionnaire has two parts: competence scale and the scale of problems with 112 items, which are grouped into eight syndrome scales. The seventh and eighth scale referred to the group of externalizing problems – aggressive behavior (behavior aimed at drawing attention, passive aggressive and open aggressive behavior), and rule breaking behavior (morality aspect, violation of the legal norms, socially immature and maladapted behavior) that represent symptoms of behavioral disorders. The examinees were supposed to assess the extent to which they could relate to a particular problem on the Likert scale. Responses ranged from 0 (not true) to 2 (completely true). The results of the study were statistically analyzed on the scales in relation to the study objective (the sum of scores on the seventh and eighth syndrome scales).

Comparisons between groups were made by *t*-test, Mann-Whitney test or  $\chi^2$ -test. A *p* value < 0.05 was considered statistically significant. Statistical analyses were done with SPSS 16.0 for Windows.

## Results

Sociodemographic characteristics of adolescents with and without conduct disorders are shown in Table 1. There

**Table 1**  
**Sociodemographic characteristics of the adolescents with and without conduct disorders**

Parameters	With conduct disorder	Without conduct disorder	<i>p</i>
Age (years), $\bar{x} \pm SD$	17.15 $\pm$ 0.97	17.19 $\pm$ 0.68	
Gender (M/F), n	30/37	28/39	0.673
The number of children in the family, n			
1	13	10	0.008
2	33	50	
> 2	21	8	
Divorced parents, n	30	9	< 0.001
Parental psychiatric disorders, n	21	6	0.001

M/F – male/female.

was no significant difference in age in the groups of adolescents with conduct disorder compared to the control group. Statistically significant difference was found referring to the number of children in the examined groups ( $p = 0.008$ ). In the group of subjects with conduct disorder there was statistically significant number of adolescents coming from divorced families compared to controls: 44.8% vs 13.4% ( $p < 0.001$ ). Also, the number of parents suffering from psychiatric disorders was found to be significantly higher in the adolescents with conduct disorder compared to controls: 31.3% vs 8.9% ( $p = 0.001$ ).

The YSR questionnaire showed that adolescents with conduct disorder had a significantly higher averaged score on the subscale of externalizing problems ( $12.43 \pm 4.66$ ) compared to the control group ( $5.40 \pm 3.46$ ;  $p < 0.001$ ).

The results showed a statistically significant difference between the two examined groups in all dimensions of perceived parental acceptance/rejection relating to both father and mother (Table 2). Dimensions of maternal warmth/acceptance

Analysis of the questionnaire scores of paternal acceptance/rejection showed that the dimension of perceived paternal warmth (W/A) was significantly higher in the subjects without symptoms compared to those with conduct disorder. The other three dimensions of perceived paternal rejection (H/A, I/N, U/R) were significantly higher among the subjects with conduct disorder, as well as a total index of parental acceptance/rejection (Figure 2). Scores were lower for fathers than mothers: H/A dimension had the highest score, I/N dimension had lower score, U/R dimension had the lowest score.

In 20 of the patients (29.85%) with conduct disorder the total index of maternal acceptance/rejection was above 150, which indicated serious and significant perceived maternal rejection. Twenty six subjects (38.81%) from the same group had the total index of paternal acceptance/rejection above 150.

The adolescents with conduct disorder and serious perceived maternal rejection (total index of maternal ac-

Table 2

Acceptance-rejection dimensions for the mother and the father of adolescents with and without conduct disorders

Acceptance-rejection dimensions	Mother ( $\bar{x} \pm SD$ )			Father ( $\bar{x} \pm SD$ )		
	with conduct disorder	without conduct disorder	<i>p</i>	with conduct disorder	without conduct disorder	<i>p</i>
W/A	54.43 ± 15.19	65.22 ± 11.26	< 0.001	57.82 ± 14.86	69.65 ± 8.04	< 0.001
H/A	32.36 ± 11.77	22.22 ± 7.63	< 0.001	33.46 ± 11.34	21.93 ± 4.66	< 0.001
I/N	31.55 ± 9.21	22.37 ± 6.96	< 0.001	29.97 ± 10.37	19.75 ± 4.20	< 0.001
U/R	22.82 ± 7.64	14.54 ± 4.28	< 0.001	23.79 ± 7.21	14.07 ± 2.84	< 0.001
Total	132.30 ± 38.05	93.91 ± 26.29	< 0.001	129.40 ± 39.58	86.10 ± 15.95	< 0.001

W/A – parental warmth/acceptance; H/A – parental hostility/aggression; I/N – parental indifference/neglect; U/R – parental undifferentiated rejection; Total – total Parental Acceptance/Rejection Questionnaire score.

were significantly higher in the subjects without symptoms compared to those with conduct disorder. The other three dimensions of perceived rejection (H/A, I/N, U/R) and the total index of maternal acceptance/rejection were significantly higher in the patients with conduct disorder (Figure 1). The H/A dimension had the highest score, I/N had lower score, and U/R dimension had the lowest score.

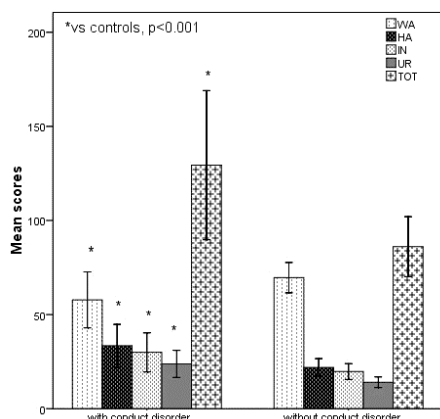


Fig. 1 – Mean values of perceived maternal acceptance/rejection in the adolescents with and without conduct disorder.

W/A – parental warmth/acceptance; H/A – parental hostility/aggression; I/N – parental indifference/neglect; U/R – parental undifferentiated rejection; TOT – total Parental Acceptance/Rejection Questionnaire score.

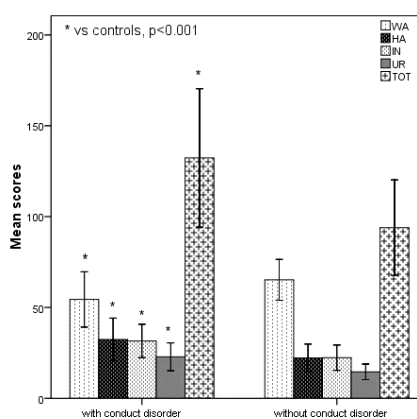


Fig. 2 – Mean values of perceived paternal acceptance/rejection in the adolescents with and without conduct disorder.

W/A – parental warmth/acceptance; H/A – parental hostility/aggression; I/N – parental indifference/neglect; U/R – parental undifferentiated rejection; TOT – total Parental Acceptance/Rejection Questionnaire score.

ceptance/rejection above 150) showed a significantly higher average score on the subscale of externalizing symptoms compared to adolescents with conduct disorder and lower total index of maternal acceptance/rejection. The analysis of the results of paternal acceptance/rejection and externalizing symptoms showed that the average value on the subscale of rule breaking behavior was significantly higher in the ado-

lescents with conduct disorder and perception of severe paternal rejection (a total index of paternal acceptance/rejection was above 150) (Table 3).

group. Perceived acceptance and rejection enables individuals to interpret parental behavior through their own cultural and individual filters, thus avoiding the possibility of

**Table 3**  
**Externalizing symptoms in the adolescents whose total PARQ score for the mother and the father is less than or above 150**

Externalizing symptoms	Mother ( $\bar{x} \pm SD$ )		Father ( $\bar{x} \pm SD$ )		<i>p</i>
	total PARQ less than 150	total PARQ above 150	total PARQ less than 150	total PARQ above 150	
Rule breaking behavior	2.69 ± 1.95	5.15 ± 1.69	2.68 ± 1.99	4.62 ± 1.81	< 0.001
Aggressive behavior	5.63 ± 3.51	9.40 ± 3.25	5.60 ± 3.49	8.65 ± 3.64	< 0.001
Total	8.32 ± 5.05	14.55 ± 4.45	8.28 ± 5.08	13.27 ± 5.05	< 0.001

PARQ – Parental Acceptance/Rejection Questionnaire.

The results showed statistically significant differences in scores for rule-breaking behavior ( $p = 0.030$ ) in the adolescents with total PARQ score above 150 for both mothers and fathers. There were no statistically significant differences in scores for the other two parameters (Table 4).

misinterpreting the meaning of parental behavior. Although adolescents' reports and their response to perceived parental behavior most likely involve some permanent and momentary characteristics of the respondents, it also relies on how they experience and remember their parents' behavior, which

**Table 4**  
**Externalizing symptoms in the adolescents whose total PARQ score for both mother and father is above 150**

Externalizing symptoms	PARQ score lower than 150 ( $\bar{x} \pm SD$ )	PARQ score above 150 ( $\bar{x} \pm SD$ )	<i>p</i>
Rule-breaking behavior	4.32 ± 1.51	5.54 ± 1.81	0.030
Aggressive behavior	8.38 ± 3.33	9.09 ± 4.08	0.805
Externalizing	12.61 ± 4.35	14.64 ± 5.50	0.324

PARQ – Parental Acceptance/Rejection Questionnaire.

## Discussion

The largest number of studies indicated that broken families and divorce significantly increased the risk of developing emotional and behavioral problems<sup>11</sup>. In our study 44.8% of the subjects with conduct disorders had divorced parents. It was highlighted that the risk factors for such disorders included not only the very act of divorce, separation or the establishment of new family but also the context of divorce and separation as well: poor communication, conflict, and physical altercations, triangulation of children, parental anxiety and stress, poor financial conditions and adaptation to new partners.

A greater number of adolescents with conduct disorder live in large families, which is in accordance with other studies indicating that big families represent a risk factor for the development of conduct disorder<sup>16</sup>.

Parental psychopathology was more frequent in the subjects with conduct disorder. It was the parental dissociative behavior (parental criminality, alcohol and substance addiction) and maternal depression that represented a significant predictor of behavioral disorders in childhood and adolescence<sup>17, 18</sup>. This could be explained by the intergenerational continuity of exposure to multiple risk factors, the mediation of environmental factors (eg, poor monitoring of children) and/or genetic transmission mechanisms of aggressive behavior<sup>17</sup>.

The results of our study show a statistically significant difference in perceived parental acceptance/rejection among adolescents with conduct disorder compared to the control

is indicative of the model of parental behavior to which they are exposed<sup>14</sup>.

The adolescents with conduct disorder perceived their mother more often as hostile, aggressive (physical, verbal or non-verbal aggressive gestures) and discarding. Our results were consistent with the results found in other studies<sup>13, 19</sup>.

On the other hand, the role of the father in upbringing of a child may represent support to mother or important factor affecting the development and socialization of children, boys, in particular. In our study, subjects with conduct disorder perceived behavior of their fathers as more rejecting compared to the control group. The highest average value was obtained on the subscale of perceived paternal aggression/hostility that was, however, lower than the perceived maternal aggression.

Studies on the connection between parental rejection and behavioral disorders of children report that the contribution of parents and children in the development of conduct disorder is equal<sup>13</sup>. Parental rejection leads to children's hostile and aggressive behavior, and if such behavior continues parents show less warmth and support to them. Regardless of this reciprocal relationship, researchers wanted to know whether it was possible to determine the dominant direction of causality. It turned out that parental rejection preceded the development of conduct disorder<sup>13</sup>.

The way in which hostile and aggressive parents encourage aggressiveness in children is explained through a number of theoretical models: identification with aggressor<sup>20</sup>, model learning<sup>21</sup>, or imitating the one "who has the

power”<sup>22</sup>. This leads to the formation of relationships that causes and supports violence and to the adoption of elements of parental distorted and violent style as legitimate ways of interaction between people. Therefore, it is believed that the aggressive behavior adopted in early childhood remains relatively stable throughout the whole life<sup>23</sup>.

The perception of serious and significant parental rejection proved to be associated with larger self-assessed values of externalizing symptoms in the group of subjects with conduct disorder. The expressed perceived paternal rejection was associated with higher mean values on the subscale of rule violations. Our finding is consistent with the findings of other authors<sup>13, 19, 24</sup> who state that the low level of perceived parental warmth and high levels of perceived parental rejection are associated with prominent externalizing symptoms in children. The observed relationship may be interpreted within the specific development of those individuals who perceive themselves seriously and significantly rejected by their parents or other affectionate figures. They develop specific personal disposition expressed in terms of hostility, aggression, emotional coldness, low self-esteem and emotional instability, negative views of themselves and tend to perceive life events and reactions of other people in the negative and hostile way<sup>14</sup>. Theoretically, these personal dispositions are expected to be based on expressed aggression and violations of legal norms, socially maladapted and immature behavior. A recent research suggests that young people with conduct disorder and callous-unemotional interpersonal trait (lack of empathy, egocentrism, superficial charm, and rejecting guilt and remorse) form a special subgroup that is characterized by persistent and severe models of aggressive and delinquent behavior and higher instrumental aggression<sup>25-27</sup>. Etiological trajectory traits of callousness/unemotionality are the subject of numerous studies. Some studies report that parental rejection, particularly serious perceived maternal rejection, is a significant predictor of callous/unemotional trait<sup>28, 29</sup>. Pardini et al.<sup>29</sup> examined a connection between parental emotional warmth and callous/unemotional trait in children 9 to 12 years of age who expressed moderate and severe aggression. The children who perceived their parents as warm and “in-

volved” in the upbringing tended to decrease the expression of intrapersonal traits and dissocial behavior in general. The same authors concluded that the quality of children’s “inner” concept of parent-child relationship was an essential precursor of callousness/unemotionality in childhood.

Effective parenting can be a powerful protective factor that surpasses other family, school or community risk factors. Therefore, it is not surprising that nowadays there is a growing number of training programs for the development and improvement of parenting skills and the promotion of positive parenting.

This study has several limitations: it is based on a relatively small sample of respondents and their self-assessment and conclusions relating to the parental influence on a child neglecting individual and gender differences among adolescents that may be important determinants of parental behavior as well. However, having in mind the specificity of this problem, it is emphasized that respondent’s subjective experience is very important for the study of parental acceptance/rejection.

### Conclusion

There are significant differences in the perceived parental acceptance/rejection between the group of adolescents with conduct disorder and the control group. The adolescents with conduct disorder came from large families or families with higher incidence of parental divorce and parents with psychiatric disorders. They significantly perceive their parents as more aggressive, neglecting and rejecting compared to adolescents without conduct disorder. Parental rejection was associated with higher self-assessed values on the subscale of externalizing symptoms in the group of adolescents with conduct disorder. Further research in the field of parenting and conduct disorders may enable better understanding of parental risk and protective factors in the development of disorders, as well as the development of prevention and treatment programs for adolescents with conduct disorder and their parents.

### R E F E R E N C E S

1. *World Health Organization*. The ICD-10 classification of mental and behavioural disorders: Diagnostic criteria for research. Geneva: World Health Organization; 1992.
2. *American Psychiatric Association*. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Washington: American Psychiatric Association; 1994.
3. *Moffitt TE*. Life-course-persistent and adolescence-limited antisocial behavior: A 10-year research review and a research agenda. In: *Labey BB, Moffitt TE, Caspi A*, editors. Causes of conduct disorders and juvenile delinquency. New York: Guilford Press; 2003. p. 49–75.
4. *Moffitt TE, Caspi A*. Childhood predictors differentiate life-course persistent and adolescence-limited antisocial pathways among males and females. *Dev Psychopathol* 2001; 13(2): 335–75.
5. *Piquero AR, Farrington DP, Blumstein A*. Key Issues in Criminal Career Research: New Analyses of the Cambridge Study in Delinquent Development. Cambridge: Cambridge University Press; 2007.
6. *Loeber R, Burke JD, Labey BB*. What are adolescent antecedents to antisocial personality disorder. *Crim Behav Ment Health* 2002; 12(1): 24–36.
7. *Piquero AR, Daigle LE, Gibson C, Piquero NL, Tibbetts SG*. Research Note: Are Life-Course-Persistent Offenders At Risk for Adverse Health Outcomes. *J Res Crime Delinq* 2007; 44(2): 185–207.
8. *Manghan B, Rutter M*. Antisocial children grown up. In: *Hill J, Manghan B*, editors. Conduct disorders in childhood and adolescence. Cambridge child and adolescent psychiatry. Cambridge: Cambridge University Press; 2001. p. 507–52.
9. *Rothbaum F, Weisz JR*. Parental caregiving and child externalizing behavior in nonclinical samples: A meta-analysis. *Psychol Bull* 1994; 116(1): 55–74.

10. Frick PJ, Lohrey BB, Loeber R, Stouthamer-Loeber M, Christ MA, Hanson K. Familial risk factors to oppositional defiant disorder and conduct disorder: parental psychopathology and maternal parenting. *J Consult Clin Psychol* 1992; 60(1): 49–55.
11. Huurre T, Junkkari H, Aro H. Long-term psychosocial effects of parental divorce: a follow-up study from adolescence to adulthood. *Eur Arch Psychiatry Clin Neurosci* 2006; 256(4): 256–63.
12. Goldstein SE, Davis-Kean PE, Eccles JS. Parents, peers, and problem behavior: a longitudinal investigation of the impact of relationship perceptions and characteristics on the development of adolescent problem behavior. *Dev Psychol* 2005; 41(2): 401–13.
13. Rohner RP, Britner PA. Worldwide mental health correlates of parental acceptance-rejection: Review of cross-cultural and intracultural evidence. *Cross-Cult Res* 2002; 36: 16–47.
14. Rohner R, Khaleque A, Courmoyer DE. Introduction to Parental Acceptance-Rejection Theory, methods, evidence, and implications. 2009. [cited 2011 December 27]. Available from: <http://www.csparr.uconn.edu/>
15. Achenbach TM, Rescorla LA. Manual for the ASEBA school-age forms and profiles. Burlington: University of Vermont, Research Center for Children, Youth and Families; 2001.
16. Meltzer H, Gatward R, Goodman R, Ford T. Mental health of children and adolescents in Great Britain. *Int Rev Psychiatry* 2003; 15(1–2): 185–7.
17. Farrington DP. The integrated cognitive antisocial potential (ICAP) theory. In: Farrington DP, editor. *Integrated Developmental and Life-Course Theories of Offending*. New Brunswick: Transaction; 2005. p. 73–92.
18. Kim-Cohen J, Moffitt TE, Taylor A, Pawlby SJ, Caspi A. Maternal depression and children's antisocial behavior: nature and nurture effects. *Arch Gen Psychiatry* 2005; 62(2): 173–81.
19. Muris P, Meesters C, Morren M, Moorman L. Anger and hostility in adolescents: Relationships with self-reported attachment style and perceived parental rearing styles. *J Psychosom Res* 2004; 57(3): 257–64.
20. Papazian B. Brief analytic essay on unconscious forces facilitating transgenerational repetition of physical or sexual abuse. *Psychiatr Infant* 1994; 37(2): 353–60. (French)
21. Bandura A. *Social learning theory*. New York: General Learning Press; 1977.
22. Gallimore T. Unresolved Trauma: Fuel for the Cycle of Violence and Terrorism. In: Stout C, editor. *Psychology of Terrorism: Coping With the Continuing Threat*. Westport, CT: Praeger; 2004. p. 67–93.
23. Ajduković M. The impact of neglect and abuse in the family on psychosocial development of children. *Dijete i društvo* 2001; 3(1–2): 59–75. (Serbian)
24. Muris P, Meesters C, van den Berg S. Internalizing and externalizing problems as correlates of self-reported attachment style and perceived parental rearing in normal adolescents. *J Child Family Studies* 2003; 12(2): 171–83.
25. Frick PJ, Cornell AH, Barry CT, Bodin DS, Dane HE. Callous-unemotional traits and conduct problems in the prediction of conduct problem severity, aggression, and self-report of delinquency. *J Abnorm Child Psychol* 2003; 31(4): 457–70.
26. Frick PJ, Marsee MA. Psychopathy and developmental pathways to antisocial behavior in youth. In: Patrick CJ, editor. *Handbook of psychopathy*. New York: Guilford; 2006. p. 355–74.
27. Viding E, Blair JR, Moffitt TE, Plomin R. Evidence for substantial genetic risk for psychopathy in 7-year-olds. *J Child Psychol Psychiatry* 2005; 46(6): 592–7.
28. Eremsoy CE. How do parental, familiar, and child characteristic differentiate conduct disorder children with and without psychopathic tendency [thesis]. Ankara: Middle East Technical University; 2007.
29. Pardini DA, Lochman JE, Powell N. The development of callous-unemotional traits and antisocial behavior in children: are there shared and/or unique predictors? *J Clin Child Adolesc Psychol* 2007; 36(3): 319–33.

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