

Emotional and Physical Abuse in Family: Survey among High School Adolescents

Neda Aberle^{1,2}, Violeta Ratković-Blažević², Dubravka Mitrović-Dittrich², Renata Coha², Antun Stoić³, Joško Bubić², Milivoj Boranić²

¹Josip Juraj Strossmayer
University School of Medicine,
Osijek, Croatia

²Department of Pediatrics, Dr
Josip Benčević General Hospital,
Slavonski Brod, Croatia

³Mechanical Engineering Faculty
of the Josip Juraj Strossmayer
University,
Slavonski Brod, Croatia

> **Correspondence to:**

Neda Aberle
Department of Pediatrics
Dr Josip Benčević General Hospital
Andrije Štampara 42
35000 Slavonski Brod
neda.aberle@inet.hr

> **Received:** December 6, 2006

> **Accepted:** March 28, 2007

> **Croat Med J. 2007;48:240-8**

Aim To determine the prevalence of different forms of child abuse among high school pupils in Slavonski Brod, Croatia.

Method The study included 2140 first and fourth-grade pupils aged between 14 and 18 years from all 10 high schools in Slavonski Brod and the area (4 grammar and 6 vocational schools). The pupils were asked to complete an anonymous structured questionnaire during a 45-minute class. The questionnaire, developed for the needs of this study, collected basic demographic data on family life and experience of emotional or physical abuse.

Results First-grade pupils were more satisfied with their family life than fourth-grade pupils (96.9% vs 91.3%, $P < 0.001$, χ^2 test). The feeling of being insufficiently loved or unloved was reported by 17.5% of the first-grade and 24.6% of the fourth-grade pupils and a greater percentage of pupils whose parents were divorced or who had a step-parent. Almost 80% of pupils had been verbally or nonverbally punished for disobedience. Emotional abuse was significantly associated with female sex (Nagelkerke $R^2 = 0.87$, $\beta = 0.474$, $P = 0.028$), younger age ($\beta = 1.263$, $P < 0.001$), and alcoholism in the family ($\beta = 2.037$, $P < 0.001$). Physical punishment for disobedience was reported significantly more often by first-grade than fourth-grade pupils (15.6% vs 12.9% $P = 0.021$, χ^2 test). Physical abuse was significantly associated (Nagelkerke $R^2 = 0.69$) with younger age ($\beta = 0.379$, $P < 0.012$), emotional abuse ($\beta = 0.665$, $P < 0.002$), alcoholism in the family ($\beta = 1.791$, $P < 0.001$) and the lack of parental love ($\beta = -0.645$, $P < 0.001$). Possible sexual molestation was admitted by 6.0% boys and 3.3% girls.

Conclusion Most high school pupils in Slavonski Brod were satisfied with their life at home. Disobedience was usually punished verbally or by aggressive behavior of the parents. Physical punishment was less common and usually did not result in serious injuries.

Unfit parents negatively affect the child's emotional development, which leads to behavioral problems (1-4). Most parents have no intention to hurt their child on purpose, but sometimes they do it out of lack of experience or parenting skills (1). Unfit parents quite often acquired dysfunctional behavior patterns in their childhood (1).

Main forms of child abuse include physical, emotional, and sexual harassment, and neglect (5,6). The signs of physical abuse are usually visible. Emotional abuse may take many forms, such as ignoring, belittling, or intimidation. It negatively affects the development, distorts the positive self-image of the child, leaves long-term consequences, and may lead to risky or aggressive behavior in adolescence or adulthood (5). Abuse is defined as a permanent type of behavior that "erodes and corrodes" the child's integrity (7). In the strict sense, the term does not include occasional spanking, or "losing patience" with the child. Fit mothers react inadequately in 10% of total time spent with the child, as opposed to unfit mothers who do so in 80%-90% of the time (7).

Long-term negative family conditions are predictive of aggressive behavior, anxiety, depression, delinquency, and social problems in adolescence or adult life (8), for example adolescent pregnancy (9,10), risky sexual behavior and drug addiction (11-13), emotional vulnerability (14), lower verbal intelligence quotient (15), alcoholism, suicidal behavior, and job abandonment (11,16-18). According to the US Department of Health and Human Services, the prevalence of abuse in the USA for the year 2000 was about 12.3/1000 children (19). More than 60% of children were neglected, 20% were physically, 10% sexually, and 7% emotionally abused. The highest percentage of victims were infants and children up to 3 years of age, more often girls than boys, and more than 80% of abusers were parents (19).

According to a retrospective study from the United States that involved 1000 adults, about 30% of women and more than 40% men reported to have experienced some form of abuse in childhood; 5% reported to have been sexually and as many as 19% physically abused (20). In Thailand, as many as 77% of sixth graders in the elementary school were physically punished by whipping or lashing with a belt, and 95% were emotionally harassed by being yelled at or humiliated in various ways (21). In Croatia, the number of abused children has increased by 74% over the last 10 years, and the prevalence of sexual child abuse has tripled (22). According to the Croatian Ministry of Internal Affairs, 13 698 cases of child abuse were recorded in the period between 1991 and 1995, and only 10% of the abused children were physically examined and treated in health care institutions (22).

A study among Croatian elementary school children in 2004 showed that 35% were victims of various forms of abuse and school violence, 19% were passive victims, 8% provocative victims, and 8% were bullies (23). In Sisačkomoslavačka County, 10%-20% of high school pupils experienced some form of harassment in childhood (24).

According to the 2001 census, Slavonski Brod and its surroundings had 124 349 inhabitants and was the sixth largest town in Croatia. Before the war 1991-1995, it was a prosperous industrial and agro-industrial center with developed social services, but during the war it suffered considerable infrastructural damage and hosted many refugees from adjacent Bosnia, part of which took permanent residence. Post-war recession took its toll and nowadays Slavonski Brod has become one of the most impoverished towns in Croatia (25). Such socio-economic situation opens the possibility for increased violence and child abuse. The aim of this study was to determine the frequency of adolescent abuse in Slavonski Brod.

Participants and methods

Participants

The study included 2140 first- and fourth-grade pupils from all 10 high schools in Slavonski Brod and the surrounding area. Slavonski Brod is an industrial and trade town and the administrative center of the Brodsko-Posavska County. It has 4 grammar high schools (mathematical, linguistic, classical, and general) and six vocational schools (technical, economy, industrial, agricultural, chemical, and craft). Two-thirds of pupils included in the study were first-graders and one-third were fourth-grades (Table 1). There were 855 boys (40%) and 1272 girls (60%), aged between 14 and 18 years (for 9 pupils data on gender is missing) (Table 1). Equal proportions of the pupils lived in the town and in the surrounding area. More than a half of their parents had high school education (54.9% mothers and 62.2% fathers), and almost a quarter had college or university education (21.1% mothers and 23.4% fathers). The majority of the pupils (88.1%) lived with both parents, 4.9% lived with a divorced parent, and 6.3% had lost one of the parents (Table 2).

Table 1. Characteristics of high school pupils in the first and fourth-grade and their parents' education level

Characteristic	No. (%) of pupils	
	first grade (n = 1343)	fourth grade (n = 797)
Sex:		
boys	554 (41.3)	301 (37.8)
girls	785 (58.5)	491 (61.6)
missing data	4 (0.3)	5 (0.6)
Place of residence:		
urban	644 (48.0)	443 (55.6)
rural	694 (51.7)	347 (43.5)
missing data	5 (0.4)	7 (0.9)
Mother's education:		
elementary school	272 (20.3)	151 (19.0)
high school	714 (53.2)	441 (55.3)
college	152 (11.3)	98 (12.3)
university	111 (8.3)	83 (10.4)
missing data	93 (6.9)	24 (3.0)
Father's education:		
elementary school	123 (9.2)	57 (7.2)
high school	840 (62.6)	492 (61.7)
college	152 (11.3)	114 (14.3)
university	133 (9.9)	103 (12.9)
missing data	95 (7.1)	31 (3.9)

Table 2. Family parental structure as reported by the pupils*

Living with:	No. (%) of pupils		
	first grade (n = 1343)	fourth grade (n = 797)	total
both parents	1186 (88.1)	699 (88.2)	1885 (88.1)
divorced parent	62 (4.6)	42 (5.3)	104 (4.9)
widowed parent	90 (6.7)	45 (5.7)	135 (6.3)
no answer	9 (0.7)	7 (0.9)	16 (0.8)

*First vs fourth-grade pupils, $P=0.658$, χ^2 test.

The investigation was approved by Ethical Committee of the Slavonski Brod General Hospital and endorsed by school authorities.

Method

The study was carried out during February 2005 and involved all first- and fourth-grade pupils of all ten high schools in Slavonski Brod. The principal investigator obtained an approval from the school authorities to conduct the study. Two pediatricians participating in the study contacted class masters and explained them the purpose and methods of the study. Two to four classes were covered per day. The class master explained the aims and purpose of the study to the pupils, assured them that the results would be used for scientific purposes only, distributed the questionnaire, and asked the pupils to complete it anonymously and without looking at their neighbors' answers. The time to complete the questionnaire was 45 minutes, ie a regular school hour. Completed questionnaires were placed into a sealed box and delivered directly to the principal investigator.

Questionnaire

The questionnaire was created for the needs of this study and was divided into three parts (web extra material). The first part collected demographic data, such as age, sex, place of residence (town or village), and education and employment status of the parents. The second part inquired about the family structure (living with both parents, divorced, or widowed parent), family atmosphere, alcoholism of one of the parents, and pupil's relationship with the parents (feeling

loved, spending time with parents, and quality of relationship between the parents). The third part of the questionnaire consisted of questions about parental punishment, type of parental punishment, physical punishment, and a consequent need for medical help.

The questions were yes/no type and multi-choice, or with Likert-type answers where appropriate. If the Likert-type answers were unsuitable or insufficient for the analysis, as was the case with physical punishment, the responses were recorded into yes/no format.

Statistical analysis

The answers were presented on an ordinal scale, entered into MS Excel sheets, and analyzed with descriptive statistical methods, χ^2 test, and logistic regression analysis. Statistical analysis was carried out with the Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, USA). Regression analysis included emotional or physical abuse and perception of parental love as critical variables vs family structure, parental level of education, and alcohol abuse as predictor variables. The level of significance was set at $P < .05$.

Results

Family atmosphere and parental love

A large majority of pupils (94.8%) responded they felt good at home (Table 3). Significantly more first-grade than fourth-grade pupils felt good at home (96.9% vs 91.3%, $P < 0.001$). Only 3.5% of pupils felt uncomfortable at home. Over three-quarters of all pupils reported that they felt that their parents loved them very much, whereas the rest felt they could be loved more or felt unloved (Table 3). Significantly more fourth-grade than first-grade pupils reported that life at home was not pleasant (Table 3). Significantly more first-grade than fourth-grade pupils reported their satisfaction with the degree of parental sympathy they received. Pupils who lived with both

Table 3. Pupils' perception of life at home and parental love and attention*

Pupils' perception	No. (%) of pupils		
	first grade (n = 1343)	fourth grade (n = 797)	total
Life at home:			
pleasant	1301 (96.9)	728 (91.4)	2029 (94.8)
unpleasant	14 (1.0)	60 (7.5)	74 (3.5)
no answer	28 (2.1)	9 (1.1)	37 (1.7)
total	1343 (100.0)	797 (100.0)	2140 (100.0)
Feeling loved:			
very much	1108 (82.5)	578 (72.5)	1686 (78.8)
not enough	212 (15.8)	170 (21.3)	382 (17.9)
not at all	23 (1.7)	26 (3.3)	49 (2.3)
no answer	0	23 (2.9)	23 (1.1)
total	1343 (100.0)	797 (100.0)	2140 (100.0)

*First vs fourth-grade pupils, $P < 0.001$, χ^2 test.

parents more often reported that they felt that their parents loved them very much than pupils who lived with a single parent, either divorced or widowed, or with a step-parent (Table 4). First-grade pupils living with both parents more often reported that they felt loved than fourth-grade pupils (83.8% vs 73.9%, $P < 0.001$, χ^2 test).

Table 4. Pupils' perception of parental love with respect to parental family structure

Pupils' perception	No. (%) of pupils* (n = 2195†) living with		
	both parents (n = 2028)	divorced or widowed parent (n = 104)	step-parent (n = 63)
Feeling loved:			
very much	1628 (80.3)	72 (69.2)	34 (54.0)
not enough	346 (17.1)	21 (20.2)	16 (25.5)
not at all	39 (1.9)	8 (7.7)	6 (9.5)
no answer	15 (0.7)	3 (2.9)	7 (11.1)
Total	2028 (100.0)	104 (100.0)	63 (100.0)

* $P < 0.001$ for all three groups, pupils with both parents vs pupils with a single parent, and pupils with both parents vs pupils with a stepparent, χ^2 test.

†Total number (2195) is greater than the total number of pupils (2140) because some answered affirmatively to both the first and the third question ("living with both parents" and "having a step-parent").

Parental abuse of alcohol

Abuse of alcohol by either the mother, or father, or both parents was reported by 97 (4.5%) of 2140 pupils, ie 17 (1.3%) of 1343 first-grade pupils and 80 (10.0%) of 797 fourth-grade pupils. Forty-two (4.0%) pupils from rural and 39 (3.6%) pupils from urban areas reported that the father consumed alcohol. There was no significant difference in the education level of these pu-

pils' fathers (elementary or high school) or difference with respect to the place of residence (1041 from rural and 1087 from urban areas, 40.3% vs 35.9%, $\chi^2=0.289$, $P=0.591$).

Punishment

Around 80% pupils received verbal or non-verbal punishment for disobedience (Table 5). The most common forms of punishment in both groups were verbal offense and humiliation. Significantly more first-grade pupils than fourth-grade pupils reported having been punished for disobedience (84.7% vs 79.9%; $\chi^2_1=7785$; $P=0.005$). There were 49 (3.7%) first-grade pupils and 35 (4.4%) fourth-grade pupils who reported having been punished in childhood, mostly by confining to a dark room and threatened by physical punishment or abandonment (Table 5).

Table 5. Pupils who were ever punished for disobedience and type of punishment

Mode of punishment	Affirmative answers (%)	
	first grade (n = 1343)	fourth grade (n = 797)
Presently:		
verbal offense	91.4	87.8
humiliation	90.8	89.8
instigation of feeling of unworthiness	90.4	89.1
instigation of guilt feelings	84.7	81.4
scorn	76.6	66.1
yelling	74.0	65.1
pondered average	84.7	79.9
In childhood:		
confinement in dark	5.9	3.4
threats with		
personal injury	4.2	7.7
abandonment	3.9	6.6
injury to a pet	2.7	3.9
injury to a beloved person	2.5	2.5
tethering	3.0	2.3
pondered average	3.7	4.4

As many as 80% reported they had never been physically punished (Table 6). First-grade pupils reported having been physically punished significantly more often than fourth-grade pupils (Table 6).

Severe physical punishment resulting in bruises or other forms of injuries was acknowledged by 96 (4.5%) of pupils, more often by

Table 6. The frequency of physical punishment as reported by pupils

Physical punishment*	No. (%) of pupils*		
	first grade (n = 1343)	fourth grade (n = 797)	total
Never	1066 (79.4)	669 (83.9)	1735 (81.1)
Seldom	184 (13.7)	84 (10.6)	268 (12.5)
Often	26 (1.9)	19 (2.4)	45 (2.1)
No answer	67 (5.0)	25 (3.1)	92 (4.3)

*First vs fourth-grade pupils, $P=0.021$, χ^2 test.

those from rural (62, 2.9%) than from town families (34, 1.6%).

Logistic regression analysis

Pupils' perception of parental love and attention, as well as emotional or physical abuse was analyzed with logistic regression analysis with respect to sex, age, parental marital status, and alcoholism. The feeling of being loved by the parents was significantly associated with younger age (Nagelkerke $R^2=0.49$, odds ratio [OR], 1.59; 95% confidence interval [CI], 1.25-2.03), absence of alcoholism in the family (OR, 0.39; 95% CI, 0.25-0.63), and absence of physical abuse (OR, 0.61; 95% CI, 0.43-0.86). Emotional abuse was significantly associated with female sex ($R^2=0.87$, OR, 1.08; 95% CI, 0.68-1.74), age (OR, 1.67; 95% CI, 0.97-2.89), and no alcoholism in the family (OR, 0.00; 95% CI, 0.00-2.39). Physical abuse was significantly associated ($R^2=0.69$) with younger age (OR, 0.59; 95% CI, 0.43-0.80), no emotional abuse (OR, 0.39; 95% CI, 0.12-1.27), alcoholism in family (OR, 3.25; 95% CI, 1.99-5.32), and the lack of parental love (OR, 0.46; 95% CI, 0.33-0.64).

Linear regression analysis also showed significant association between the paternal and maternal level of education ($R^2=0.24$, $P<0.001$). Paternal level of education was not associated with emotional or physical abuse ($B=0.05$, $P=0.488$ and $B=0.06$, $P=0.260$, respectively). Maternal level of education was significantly associated with their spouses' level of education and also with physical abuse ($R^2=0.24$, $P<0.001$). Mothers with higher education had spouses with

higher education ($B=0.15$, $P=0.006$), and in such families physical abuse was less likely to occur ($B=0.52$, $P=0.001$). Emotional abuse was not associated with maternal educational level of ($B=0.05$, $P=0.569$).

Sexual harassment or abuse

For ethical reasons, a single question addressed the matter of sexual harassment and it was not explicit (Appendix). Affirmative answer was given by 6.0% of the boys and 3.3% of the girls. The percentage of affirmative answers was significantly higher among first-grade pupils (11.0% boys and 3.9% girls) than among fourth-grade pupils (3.2% boys and 2.9% girls) ($\chi^2 = 13.858$, $P < 0.001$).

Discussion

Our study showed that fourth-grade high school pupils were less satisfied with life at home and parental love and attention they received than first-grade pupils. This may be the result of the normal process of maturation and individuation during adolescence or of adolescents' interpreting some parental actions as the lack of love and understanding (4). Dissatisfaction with family life and the amount of parental attention was most often reported by fourth-grade pupils living in rural areas. Insufficient communication with parents may have been interpreted by older adolescents as the lack of parental attention. This could explain the dissatisfaction and feeling of being insufficiently loved that many pupils from formally integral families shared. Positive perception of parental care was shown to be associated with reduced psychiatric and somatic symptoms in adult life (26).

In our study, dissatisfaction with parental love and attention was reported by one-fifth of pupils, particularly those from incomplete or disrupted families. Also, one-fifth of the pupils whose parents were divorced felt insufficiently loved or unloved. Fourth-grade pupils expressed

such feelings more often than first-grade pupils, possibly because their period of deprivation lasted longer. Parental divorce is a stressful experience for the child who may develop guilt feelings, insecurity, and low self-esteem, and feel unprotected or unloved. The feeling of rejection is associated with depression of the divorced mother and concurrent conflict with the father (27). Furthermore, adolescents from divorced families are likely to develop state anger (28). Parental divorce is also associated with lower quality of father-child relationships, yet with positive outcomes for mother-child relationships, social support, independence, and reduced anxiety in personal relationships (29). Children in fatherless families experience more interaction with mothers, and boys show more feminine but not less masculine characteristics of gender role behavior (30). Father-adolescent conflicts are also more strongly related to adolescent depression than mother-adolescent conflicts (31). Stressful experience related to parental divorce has been reported to increase risk of cancer in later life (32). In our study, pupils living with stepmother/stepfather missed parental love and attention more often than pupils who had either both parents or a single parent. Step-parent may disregard or even dislike the stepchild or impose strict discipline, causing the adolescent feel unloved and not understood (33). Research by Garnefski and Diekstra (33) in the Netherlands showed that adolescents from divorced families who lived with a stepmother/stepfather had considerably lower self-esteem than those who lived with both parents. They were more anxious and lonesome, experienced depressive moods, and had suicidal thoughts and attempts. Boys who lived with a stepmother/stepfather had more emotional problems in comparison with those who lived with only one parent. On the other hand, girls who lived with a single parent had more emotional problems than girls who lived with a stepmother/stepfather (33).

In our study, 6.3% of pupils had lost one of the parents. Such losses affect basic feelings of security and increase the attachment to the remaining parent, who him/herself is grieving and sometimes finds it hard to adjust to new conditions. His or her upbringing skills may suffer. Thus, single parents may encounter difficulties with disciplining, guiding, and supporting the child.

In our study, emotional abuse was associated with the female sex, younger age, and alcoholism in the family. Emotional abuse by adults decreases self-respect and elicits guilt feelings in children (34,35). Abused children often think nobody loves them and become aggressive or self-destructive (18,34,35).

Prevalence of emotional abuse has not been sufficiently documented. Data obtained in different studies are not fully comparable because emotional abuse has not been unambiguously defined and is evaluated on the basis of different indicators. According to the assessment of the American Humanitarian Association for the period 1987-1997, 11% of (reported) abused children were mistreated emotionally (2). In our survey, 80%-85% of pupils reported having been yelled at, scorned, intimidated, humiliated, or exposed to other forms of emotional abuse by their parents. A study of abuse and harassment among university students in Croatia showed that, by the age of fourteen, about a quarter of pupils experienced emotional abuse (36). A roughly equal percentage witnessed emotional abuse in the family.

Intimidation is a form of emotional abuse that causes fear or panic, for example threats to physical integrity, threats with abandonment or suicide and harsh disciplinary methods, such as tethering, confinement to dark room, etc. In our study, intimidation was reported to a lesser degree. However, it is possible that pupils provided biased answers because of shame or intent suppression.

Physical abuse in a wider sense means inflicting injury. Prevalence of neglect and physical abuse is increasing. MacMillian et al (37) reported that as many as 25% of the questioned persons experienced physical abuse in childhood. Edwards et al (38) found that almost a half of abused children experienced one form of abuse and over a third, two or more forms (emotional and/or physical). Children are exposed to physical abuse most frequently between 4 and 8 years of age, but many parents are reported to beat children at the younger or older age (22,39). According to the US National Clearinghouse on Child Abuse and Neglect (19), over three-quarters of reported deaths of children younger than 4 years were attributable to physical abuse. In most cases, the perpetrators were the parents, more often young than old ones, and more often fathers than mothers. Physically abused children were likely to develop depressive symptoms and suicidal behavior (40).

In our study, around 15% of pupils reported that they had been or were physically punished by the parents, which is less than in the previous studies in Croatia (36,39). This difference may reflect the situation in Slavonski Brod County and be attributed to a relatively favorable educational level of the parents' population and to traditional values that persisted in spite of worsened socioeconomic condition. On the other hand, their responses could be biased. Cole et al (31) in a study of family subsystems pointed out that adolescents' reports need not be fully reliable.

In our study, physical punishment for disobedience was more often inflicted by mothers with elementary education from the rural area and by fathers with college degree from the urban area. This pattern reflects the educational structure of the parental sample as a whole and not a specific causative relationship. Physical punishment resulting in bruises or serious injuries was associated with higher educational level of the perpetrators (college degree), but the data are too scarce for a reliable conclusion.

According to our results, physical abuse was also associated with younger age, alcoholism in the family, lack of parental love, and emotional abuse. Improper parental behavior toward the children is often a result of alcoholism or other addiction, mental illness, poverty, or unemployment (41,42). Parental abuse of alcohol predisposes adolescents and young adults for introjective depression and aggressive defenses (43). In our study, the number of children reporting physical abuse and alcohol consumption in the family was small, but more frequent among older pupils who were obviously more able to recognize behavioral influences of alcohol. This finding could be attributed to an insufficient insight of young adolescents into manifestations of alcoholism, or neglect, or perhaps to conscious concealment of data. Yet, physical abuse was significantly associated with alcoholism in the family. Alcohol consumption was more frequently reported in parents with low education level from the rural area and those with college education from the town.

The limitations of our study are associated with typical limitations of questionnaire-based studies among adolescent population. Cole et al (31) point out that adolescents' self-reports need not be fully reliable. Response biases that could have influenced our results cannot be excluded. Also, we cannot say if the adolescent population in Slavonski Brod was representative of the adolescent population of Croatia, so the results of our study may have a limited generalizability. It should be noted, however, that the recent unfavorable socio-economic conditions in a population that had seen "better days" did not take its toll in the form of high rates of child abuse.

In conclusion, we found that a considerable proportion of high school pupils in Slavonski Brod and the area were essentially content with life at home and parental care they received. Their parents were relatively well educated. Unfavorable family conditions, such as parental divorce, step-parent, or parental alcoholism resulted more

often in pupils' discontent. Disobedience was usually punished verbally or by aggressive behavior of the parents, and less often physically. Frequent physical punishment and alcoholism in the family were not prominent findings in our study, which may reflect a positive state of the population. On the other hand, it may be attributed to a concealment of embarrassing information by the pupils. Further investigations should address more explicitly the questions of sexual abuse and include adolescent population from different areas in Croatia.

Acknowledgment

The authors appreciate the help and cooperation of the school authorities and teachers.

References

- 1 Lacković-Grgin K: Stress in children and adolescents. Sources, mediators and effects [in Croatian]. Jastrebarsko: Naklada Slap; 2000.
- 2 Riggs S, Alario AJ, McHorney C. Health risk behaviors and attempted suicide in adolescents who reported prior maltreatment. *J Pediatr.* 1990;116:815-21. [Medline:2329431](#)
- 3 Claussen AH, Crittenden PM. Physical and psychological maltreatment: relations among types of maltreatment. *Child Abuse Negl.* 1991;15:5-18. [Medline:2029672](#)
- 4 Ljubotina D, Galić J. Family relations and drug consumption in the adolescent population of the city of Zagreb [in Croatian]. *Ljetopis Studijskog Centra Socijalnog Rada.* 2002;9:207-33.
- 5 Killen K. Betrayed: abused children are responsibility of us all [in Croatian]. Zagreb: Društvo za psihološku pomoć; 2001.
- 6 Manly JT, Cicchetti D, Barnett D. The impact of subtype, frequency, chronicity, and severity of child maltreatment on social competence and behavior problems. *Dev Psychopathol.* 1994;6:121-43.
- 7 American Humane Newsroom Fact Sheets. Emotional abuse. Available at: http://www.americanhumane.org/site/PageServer?pagename=nv_fact_sheets_childemotionalabuse. Accessed: October 26, 2006.
- 8 Barnow S, Lucht M, Freyberger HJ. Influence of punishment, emotional rejection, child abuse, and broken home on aggression in adolescence: an examination of aggressive adolescents in Germany. *Psychopathology.* 2001;34:167-73. [Medline:11549925](#)
- 9 Hillis SD, Anda RF, Dube SR, Felitti VJ, Marchbanks PA, Marks JS. The association between adverse childhood experiences and adolescent pregnancy, long-term psychosocial consequences, and fetal death. *Pediatrics.* 2004;113:320-7. [Medline:14754944](#)
- 10 Romano E, Zoccolillo M, Paquette D. Histories of child maltreatment and psychiatric disorder in pregnant adolescents. *J Am Acad Child Adolesc Psychiatry.* 2006; 45:329-36. [Medline:16540818](#)

- 11 Peters DK, Range LM. Childhood sexual abuse and current suicidality in college women and men. *Child Abuse Negl.* 1995;19:335-41. [Medline:9278733](#)
- 12 Silvern L, Waelder LC, Baughan BM, Karyl J, Kaersvang LL. Two formats for eliciting retrospective reports of child sexual and physical abuse: effects on apparent prevalence and relationships to adjustment. *Child Maltreat.* 2000;5:236-50. [Medline:11232270](#)
- 13 Rodgers CS, Lang AJ, Laffaye C, Satz LE, Dresselhaus TR, Stein MB. The impact of individual forms of childhood maltreatment on health behavior. *Child Abuse Negl.* 2004;28:575-86. [Medline:15159071](#)
- 14 Massie H, Szajnberg N. My life is a longing: child abuse and its adult sequelae. Results of the Brody longitudinal study from birth to age 30. *Int J Psychoanal.* 2006;87:471-96. [Medline:16581587](#)
- 15 Saigh PA, Yasik AE, Oberfield RA, Halamandaris PV, Bremner JD. The intellectual performance of traumatized children and adolescents with or without posttraumatic stress disorder. *J Abnorm Psychol.* 2006;115:332-40. [Medline:16737397](#)
- 16 Glaser D. Emotional abuse and neglect (psychological maltreatment): a conceptual framework. *Child Abuse Negl.* 2002;26:697-714. [Medline:12201163](#)
- 17 Rich DJ, Gingerich KJ, Rosen LA. Childhood emotional abuse and associated psychopathology in college pupils. *Journal of College Student Psychotherapy.* 1997;11:13-28.
- 18 Čosić I, Buljan-Flander G, Karlović A. The relationship between childhood abuse and some aspects of the psychological functioning of adolescents [in Croatian]. *Suvremena Psihologija.* 2002;5:191-205.
- 19 Leicht T, Madigan H. Emerging practices in the prevention of child abuse and neglect, 2003. *Child Welfare Information Gateway. Child Maltreatment 2004: summary of key findings.* Available at: <http://www.childwelfare.gov/pubs/factsheets/canstats.cfm>. Accessed: November 16, 2006.
- 20 Scher CD, Forde DR, McQuaid JR, Stein MB. Prevalence and demographic correlates of childhood maltreatment in an adult community sample. *Child Abuse Negl.* 2004;28:167-80. [Medline:15003400](#)
- 21 Isaranurug S, Chansatitporn N, Auewattana P, Wongarsa C. Violence against children by parents. *J Med Assoc Thai.* 2002;85:875-80. [Medline:12403207](#)
- 22 Stanić I. Violence and child abuse [in Croatian]. *Narodni zdravstveni list.* Available at: <http://www.zzjzpgz.hr/nzl/5/zlostavljanje.htm>. Accessed: October 26, 2006.
- 23 Summary of results of research in Croatia. First research on violence in schools [in Croatian]. Available at: http://unicf.interactive1.hr/upload/file/111/55878/FILENAME/Sazetak_rezultata_prvo_istrizivanje.pdf. Accessed: October 21, 2006.
- 24 Fabijanić S, Buljan-Flander G, Karlović A. Epidemiological study on the incidence of childhood abuse experiences among secondary school pupils of Sisačko-Moslavačka County [in Croatian]. *Paediatrica Croatica.* 2002;4:115-20.
- 25 Republic of Croatia – Central Bureau of Statistics. *Statistical yearbook 2006.* Available from: <http://www.dzs.hr>. Accessed: April 10, 2007.
- 26 Russek LG, Schwartz GE, Bell IR, Baldwin CM. Positive perceptions of parental caring are associated with reduced psychiatric and somatic symptoms. *Psychosom Med.* 1998;60:654-7. [Medline:9773773](#)
- 27 Sbarra DA, Emery RE. Coparenting conflict, nonacceptance, and depression among divorced adults: results from a 12-year follow-up study of child custody mediation using multiple imputation. *Am J Orthopsychiatry.* 2005;75:63-75. [Medline:15709851](#)
- 28 Mahon NE, Yarcheski A, Yarcheski TJ. Anger, anxiety, and depression in early adolescents from intact and divorced families. *J Pediatr Nurs.* 2003;18:267-73. [Medline:12923737](#)
- 29 Riggio HR. Parental marital conflict and divorce, parent-child relationships, social support, and relationship anxiety in young adulthood. *Pers Relatsh.* 2004;11:99-114.
- 30 Maccallum F, Golombok S. Children raised in fatherless families from infancy: a follow-up of children of lesbian and single heterosexual mothers at early adolescence. *J Child Psychol Psychiatry.* 2004;45:1407-19. [Medline:15482501](#)
- 31 Cole DA, McPherson AE. Relation of family subsystems to adolescent depression: Implementing a new family assessment strategy. *J Fam Psychol.* 1993;7:119-33.
- 32 Hemminki K, Chen B. Lifestyle and cancer: effect of parental divorce. *Eur J Cancer Prev.* 2006;15:524-30. [Medline:17106333](#)
- 33 Garnefski N, Diekstra RF. Adolescents from one parent, stepparent and intact families: emotional problems and suicide attempts. *J Adolesc.* 1997;20:201-8. [Medline:9104655](#)
- 34 Bensley LS, Van Eenwyk J, Spieker SJ, Schoder J. Self-reported abuse history and adolescent problem behaviors. I. Antisocial and suicidal behaviors. *J Adolesc Health.* 1999;24:163-72. [Medline:10195799](#)
- 35 Glaser D. Emotional abuse and neglect (psychological maltreatment): a conceptual framework. *Child Abuse Negl.* 2002;26:697-714. [Medline:12201163](#)
- 36 Vranić A, Karlović A, Gabelica D. The incidence of child abuse in the sample of students from Zagreb University [in Croatian]. *Suvremena Psihologija.* 2002;5:53-69.
- 37 MacMillan HL, Fleming JE, Trocme N, Boyle MH, Wong M, Racine YA, et al. Prevalence of child physical and sexual abuse in the community. Results from the Ontario Health Supplement. *JAMA.* 1997;278:131-5. [Medline:9214528](#)
- 38 Edwards VJ, Holden GW, Felitti VJ, Anda RF. Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: results from the adverse childhood experiences study. *Am J Psychiatry.* 2003;160:1453-60. [Medline:12900308](#)
- 39 Buljan-Flander G, Kocijan-Hercigonja D. Child abuse and neglect [in Croatian]. *Zagreb: Marko M;* 2003.
- 40 Finzi R, Ram A, Shnit D, Har-Even D, Tyano S, Weizman A. Depressive symptoms and suicidality in physically abused children. *Am J Orthopsychiatry.* 2001;71:98-107. [Medline:11271722](#)
- 41 Ethier LS, Lemelin JP, Lacharite C. A longitudinal study of the effects of chronic maltreatment on children's behavioral and emotional problems. *Child Abuse Negl.* 2004;28:1265-78. [Medline:15607769](#)
- 42 Ethier LS, Couture G, Lacharite C. Risk factors associated with the chronicity of high potential for child abuse and neglect. *J Fam Violence.* 2004;19:13-24.
- 43 Jarmas AL, Kazak AE. Young adult children of alcoholic fathers: depressive experiences, coping styles, and family systems. *J Consult Clin Psychol.* 1992;60:244-51. [Medline:1592954](#)