

Original Article

Prevalence of child abuse in child and adolescent clinical population referred to psychiatric facilities in Tabriz University of Medical Sciences, Iran

Seyyed Gholamreza Nourazar¹, Mohammad Rahim Kakaie^{*2}, Fatemeh Ranjbar³, Homayoun Sadeghi-Bazargani⁴, Mostafa Farahbakhsh⁵

¹ Assistant Professor, Department of Psychiatry, Child and Adolescent Psychiatrist, Clinical Psychiatry Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

² Resident, Department of Psychiatry, School of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

³ Associate Professor, Department of Psychiatry, School of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

⁴ Assistant Professor, Department of Epidemiology, School of Health, Road Traffic Injury Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

⁵ Resident, Department of Psychiatry, School of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

Article info

Article History:

Received: 07 May, 2014

Revised: 15 May, 2014

Accepted: 29 June, 2014

ePublished: 31 Aug, 2014

Keywords:

Child Abuse,
Prevalence,
Clinical Population

Abstract

Introduction: The present study was designed to evaluate the prevalence of child abuse in a child and adolescent psychiatric clinical population.

Methods: This cross-sectional study was conducted in a clinical population of children and adolescents aged 8-18 years. 80 out-patients and 94 in-patients were selected according to probability proportional to size sampling. Kiddie schedule for affective disorder and schizophrenia questionnaire, a demographic questionnaire, and child abuse self-report scale were filled for each subject. Data were analyzed by using Stata software.

Results: Among the out-patient subjects, 50 were male (62.5%) and 30 were female (37.5%); for in-patient these subjects numbers were 76 (80.9%) and 18 (19.1%), respectively. The mean age of subjects was 15.2 years in the in-patient group and 11.7 years in the out-patient group. In 66.1% of abuse cases the perpetrators were parents, 5.2% siblings, and 28.7% someone else. Among in-patient subjects, summed up prevalence rates of severe and very severe psychological abuse, neglect, physical abuse, and sexual abuse were 11.7, 33.0, 2.1, and 0.0%, respectively; for out-patient subjects these values were 3.8, 11.2, 3.8, and 0.0%, respectively. Moreover, among in-patient subjects, prevalence rates of moderate psychological abuse, neglect, physical abuse, and sexual abuse were 27.7, 27.7, 24.5, and 4.3%, respectively; and for out-patient subjects these values were 30.0, 27.5, 11.2, and 0.0%, respectively. Subjects with attention-deficit/hyperactivity disorder (ADHD) suffered a higher rate of physical abuse, whereas, subjects with bipolar mood disorder (BMD) suffered a higher rate of sexual abuse.

Conclusion: The prevalence of child abuse is highly prevalent in children and adolescents with psychiatric disorders. It is recommended that this population be screened routinely for child abuse.

Citation: Nourazar SGh, Kakaie MR, Ranjbar F, Sadeghi-Bazargani H, Farahbakhsh M. Prevalence of child abuse in child and adolescent clinical population referred to psychiatric facilities in Tabriz University of Medical Sciences. *J Anal Res Clin Med* 2014; 2(3): 87-93.

Introduction

Child maltreatment remains a terrible misfortune for millions of children and families. Child maltreatment injures

youngsters of all ages and all social classes, ethnic groups, and religions. Even now, the recognition of child maltreatment is being compromised by pervasive denial.¹ By all

* Corresponding Author: Mohammad Rahim Kakaie, Email: kakaie100@gmail.com

© 2014 The Authors; Tabriz University of Medical Sciences

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

standards of measurement, the problem of child maltreatment is enormous in terms of both its cost to the individual, and its cost to society.² The somewhat terse classification system provided by Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV), Text Revision lists physical abuse of child, sexual abuse of child, and neglect of child.¹ Child abuse is defined as any physical, psychological or sexual damage and neglectful or violent behavior to children, committed by a person who is responsible for their caretaking in a way that endangers the child's health and welfare.^{3,4}

Child abuse is classified to the following subtypes: psychological/emotional abuse; neglect; physical abuse; and sexual abuse.² Victims of abuse comprise a significant proportion of all child psychiatric admissions, with lifetime incidence of physical and sexual abuse estimated at 30.0% among child and adolescent out-patients,⁵ and as high as 55.0% among psychiatric inpatients.⁶ While not all abused children develop difficulties, many experience a chronic course of psychopathology.⁷ When compared with community controls, maltreated children have significantly more disturbances in attachment relations in infancy, delays in autonomous functioning and deficits in frustration tolerance in toddlerhood, and problems with self-esteem and peer relations in later childhood.^{8,9} Problems in language development and school performance have also been reported.¹⁰

The present study was designed to evaluate child abuse and some of its related factors in a child and adolescent psychiatric clinical population. Considering high rates of child maltreatment in previous studies in psychiatric clinical populations, in numerous sites and countries, and a tangible lack of similar studies in Iran, this study was designed and conducted in Tabriz University of Medical Sciences, Iran. The present study aims to evaluate this important issue in the psychiatric clinical population as a first necessary step toward its management; of

course, the obtained data could be used to administer appropriate interventions and to subsequently achieve possible prevention of grave sequelae of child abuse.

Methods

This cross-sectional study was conducted in a clinical population of children and adolescents aged 8-18 years referred to child and adolescent psychiatric facilities in Tabriz University of Medical Sciences, Iran. Considering the prevalence of 55.0% among in-patient and 30.0% among out-patient populations, for child abuse, in similar studies ($d = 0.01$, $\alpha = 0.05$) sample size of 80 for out-patients and 94 for inpatients were calculated. In the case of out-patients cluster sampling was employed, based on the defined temporal clusters; the average number of patients in each clinic was calculated for each day of the week or shifts and during the study 16 clusters of five strong each, were selected according to probability proportional to size sampling. Regarding the inpatient populations all the admitted patients were included until the calculated number of 94 achieved. Sampling was done from September 2013 to March 2014.

Inclusion criteria

- Subjects aged 8-18 years old
- Referred to child and adolescent psychiatric facilities in Tabriz University of Medical Sciences
- Written informed consent to participate in a non-interventional study

Exclusion criteria

- Mental retardation
- Acute phase of psychosis
- Any acute state that significantly impaired patient's cooperation in the study

Two questionnaires of demographic variables and child abuse self-report scale (CASRS) were filled for each subject. The socioeconomic status was determined according to variables such as income level, location of residence, and parents' occupation. Regarding psychiatric disorders subjects were evaluated by a psychiatrist through Kiddie schedule for affective disorder and

schizophrenia-present and life time (K-SADS-PL) questionnaire and interviewing.

CASRS questionnaire is designed and validated by Mohammadkhani et al. at the University of Welfare and Rehabilitation Sciences.¹¹ The scale measures four types of the abuses, psychological (14 items), neglect (11 items), physical (8 items), and sexual (5 items) on a Likert basis (0-3 points each). Range of scores for abuse subtypes are as the following: psychological 0-42, neglect 0-33, physical abuse 0-24, and sexual abuse 0-15. Internal consistency of the questionnaire was satisfactory (Cronbach's alpha = 0.95 for psychological abuse and 0.87 for sexual abuse). The scale's reliability was 0.89 and its validity was comparable with standard questionnaires of child abuse.¹¹

In the present study, internal consistency of the questionnaire was confirmed (Cronbach's alpha = 0.95). Given that this questionnaire does not include sharp cut-off points and favors a more dimensional approach, authors standardized the raw scores to a 0-100 scale. The authors categorized the child abuse states based on standardized scores into four severity groups, as follows:

- 0-25 scores: mild or no child abuse
- 26-50 scores: moderate
- 51-75 scores: severe
- > 75 scores: very severe

The prevalence for each severity level was then estimated.

K-SADS-PL questionnaire

This questionnaire is a semi-structured diagnostic interview designed in accordance with DSM-IV criteria that includes multiple questions developed to investigate episodes of disorders (either current or past) in children and adolescents and is completed via interviews with the patients and their parents by a psychiatrist. Ghanizadeh et al. in Iran reported the reliability of Persian Version of K-SADS-PL to be 0.81 in test-retest and the inter-rater reliability as 0.69. In their study, the sensitivity and specificity of the Persian version of K-SADS-PL was high.¹²

For analysis of numeric measures mean and standard deviations (SDs) were calculated.

Regarding categorized variables, frequency and relative frequency were reported along with 95% confidence interval. To compare child abuse scores between the two groups the independent t-test was used. To compare means among more than two groups, one way ANOVA was applied. In all stages of analysis statistical significance was considered $P < 0.050$. Data analysis was performed using Stata software (version 11 for Windows). Before entering the study, detailed information was provided to the patients and their parents or guardians, followed by obtaining their written informed consent for non-interventional studies. Collected data were kept strictly confidential and no personal identification data were mentioned during the analysis.

Results

Among the out-patient subjects 50 were male (62.5%) and 30 were female (37.5%); regarding the inpatient subjects these numbers were 76 (80.9%) and 18 (19.1%), respectively. The mean age of subjects was 15.2 years ($SD = 2.7$) in the inpatient group and 11.7 years ($SD = 3.5$) in the out-patient group. Comparing the mean age between the two groups there was a statistically significant difference ($P < 0.005$). The mean educational level of inpatient subjects' fathers and mothers was 6.5 and 5.3 years, respectively; while these values for the out-patient subjects were 9.5 and 8.9, respectively. There was a statistically significant difference between the two groups regarding this variable, ($P < 0.005$). In the in-patient group, 43.5% of the patients' families had a moderate socioeconomic status, while this was 50.0% for out-patients (Figure 1).

This indicates a statistically significant difference ($P = 0.011$). Out of the in-patient subjects, 87.2% of the children were living with both of parents, 4.3% with one parent and 8.5% with someone other than their biological parents; in the out-patient group these values were 86.2, 13.8, and 0.0%, respectively. The average of schooling years was 6.97 and 5.37 years for in-patient and out-patient subjects, respectively.

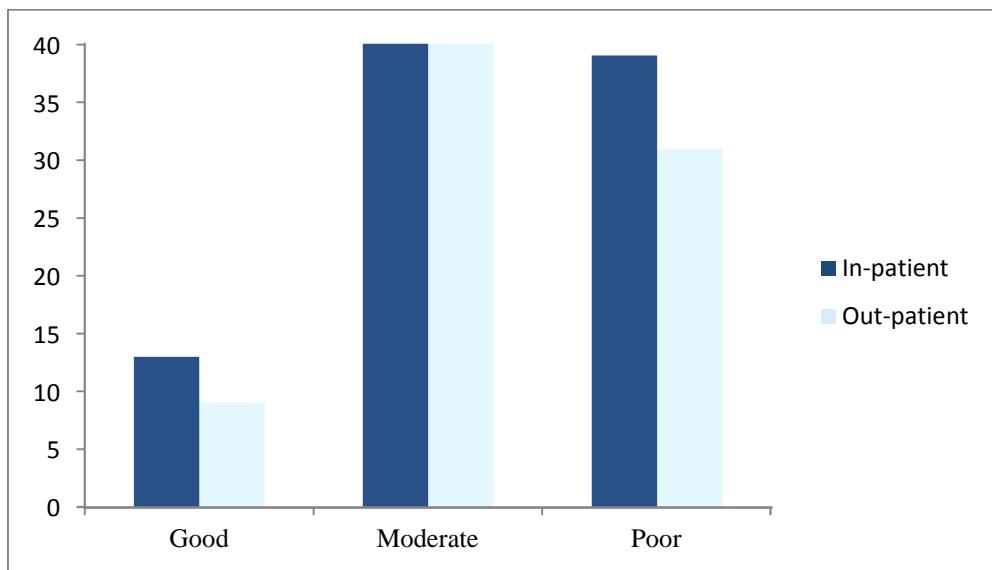


Figure 1. Frequency of socioeconomic status in the inpatient and out-patient groups

Among in-patient subjects, summed up prevalence rates of severe and very severe psychological abuse, neglect, and physical abuse were 11.7, 33.0, 2.1, and 0.0%, respectively; for out-patient subjects these values were 3.8, 11.2, 3.8, and 0.0%, respectively.

Moreover, among in-patient subjects, prevalence rates of moderate psychological abuse, neglect, physical abuse and moderate sexual abuse were 27.7, 27.7, 24.5, and 4.3%, respectively; for out-patient subjects these values were 30.0, 27.5, 11.2, and 0.0%,

respectively (Figure 2 and Table 1).

Regarding diagnosis, 79 subjects (45.4%) had a diagnosis of attention-deficit/hyperactivity disorder (ADHD), 42 (24.0%) bipolar mood disorder (BMD), 10 (5.7%) obsessive-compulsive disorder, 8 (4.6%) schizophrenia, and the rest suffered from other psychiatric disorders.

Regarding co-morbidities, 60 subjects (34.3%) had one diagnosis, 92 (52.6%) had two diagnoses and 22 (13.1%) had three or more diagnoses. In 66.1% of abuse cases the perpetrator was a parent, 5.2% siblings, and

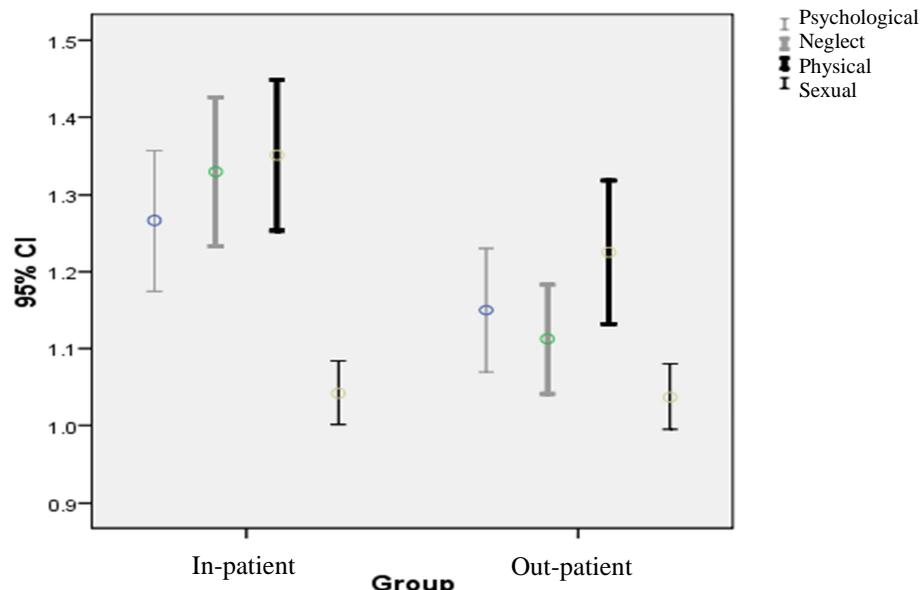


Figure 2. Error bar of child abuse subtypes

CI: Confidence interval

Table 1. Prevalence of four child abuse subscales regarding group and gender

Child abuse types Group	Mild or no abuse, N (%)	Moderate, N (%)	Severe, N (%)	Very severe, N (%)
In-patient				
Psychological	57 (60.6)	26 (27.7)	7 (7.4)	4 (4.3)
Neglect	37 (39.4)	26 (27.7)	25 (26.6)	6 (6.4)
Physical	69 (73.4)	23 (24.5)	2 (2.1)	0 (0.0)
Sexual	90 (95.7)	4 (4.3)	0 (0.0)	0 (0.0)
Overall	55 (58.5)	35 (37.2)	4 (4.3)	0 (0.0)
Out-patient				
Psychological	53 (66.2)	24 (30.0)	3 (3.8)	0 (0.0)
Neglect	49 (61.2)	22 (27.5)	9 (11.2)	0 (0.0)
Physical	68 (85.0)	9 (11.2)	3 (3.8)	0 (0.0)
Sexual	80 (100)	0 (0.0)	0 (0.0)	0 (0.0)
Overall	59 (73.8)	21 (26.2)	0 (0.0)	0 (0.0)
Gender				
Female				
Psychological	33 (68.8)	12 (25.0)	3 (6.2)	0 (0.0)
Neglect	26 (54.2)	15 (31.2)	7 (14.6)	0 (0.0)
Physical	37 (77.1)	8 (16.7)	3 (6.2)	0 (0.0)
Sexual	44 (91.7)	4 (8.3)	0 (0.0)	0 (0.0)
Overall	36 (75.0)	12 (25.0)	0 (0.0)	0 (0.0)
Male				
Psychological	77 (61.1)	38 (30.2)	7 (5.6)	4 (3.2)
Neglect	60 (47.6)	33 (26.2)	27 (21.4)	6 (4.8)
Physical	100 (79.4)	24 (19.0)	2 (1.6)	0 (0.0)
Sexual	126 (100)	0 (0.0)	0 (0.0)	0 (0.0)
Overall	78 (61.9)	44 (34.9)	4 (3.2)	0 (0.0)

28.7% someone else. There was not a significant difference between the two groups regarding the offender.

Among subjects with ADHD, 29 subjects (38.6%) had experienced psychological abuse, and for neglect, physical abuse, and sexual abuse the prevalence was 36 (45.7%), 20 (25.3%), and 0 (0.0%), respectively; this indicates a significant higher prevalence of physical abuse in ADHD subjects ($P = 0.003$). Among subjects with BMD, 21 subjects (50.0%) had experienced psychological abuse, and for neglect, physical abuse and sexual abuse the prevalence was 26 (61.9%), 10 (23.8%), and 4 (9.5%), respectively; this indicates a significant higher prevalence of sexual abuse in BMD subjects ($P = 0.010$).

Discussion

Among in-patient subjects, summed up prevalence rates of severe and very severe psychological abuse, neglect, and physical abuse were 11.7, 33.0, 2.1 and 0.0%, respectively; for out-patient subjects these values were 3.8, 11.2, 3.8, and 0.0%,

respectively. Moreover, among in-patient subjects, prevalence rates of moderate psychological abuse, neglect, physical abuse and moderate sexual abuse were 27.7, 27.7, 24.5, and 4.3%, respectively; for out-patient subjects these values were 30.0, 27.5, 11.2, and 0.0%, respectively.

Victims of abuse comprise a significant proportion of all child psychiatric admissions, with lifetime incidence of physical and sexual abuse estimated at 30.0% among child and adolescent out-patients,⁵ and as high as 55.0% among psychiatric inpatients;⁶ these are compatible in our study regarding high rates of child maltreatment in psychiatric patients as well as its being more common among inpatient groups. Psychological abuse and neglect were more common in males and their correlation with gender was statistically significant ($P = 0.010$ and $P = 0.030$, respectively); but sexual abuse was more common in females ($P = 0.040$). Psychological abuse and neglect were more common in the in-patient group ($P = 0.040$ and $P < 0.005$, respectively); the overall abuse

score was also higher in the in-patient group ($P = 0.020$) (Table 2).

In America in 2006, the prevalence of child abuse in the general population was reported as 12.1 per 1000 children. These were distributed as follows: 64.0% neglect, 15.0% physical abuse, 9.0% sexual abuse, and 7.0% emotional/psychological maltreatment.¹ Ben-Natan et al. reported that the most common form of abuse is physical abuse and sexual abuse is more common in girls,¹³ this finding is compatible with our study.

In a study conducted on the grade-school students in Tehran prevalence of slight physical, severe physical, neglect and psychological abuse were reported to be 38.1, 35.9, 20.5, and 62.5%, respectively.¹⁴ According to a study in Kerman (Iran) in high school students, 20.0% of the students suffered from physical abuse, 24.6% suffered from neglect, and 33.2% suffered from emotional abuse.¹⁵ In Canada, child abuse was reported in 2.1% of children out of which 45.0% of cases were substantiated;¹⁶ of course, this is considerably lower than rates of our study, but this study was done in general population and similar studies in clinical populations are scarce in the literature.

In the present study, psychological, neglect and physical abuse in boys and sexual abuse in girls was higher. A study conducted in southern China on high school students, child abuse was associated with gender.¹⁷ A study in America showed that in most cases of child abuse, boys and girls were similarly victimized, but the rate of sexual abuse is more common in girls.¹ These are also compatible with our study. However, a study in Denmark reported that all trauma types were experienced by a greater

percentage of females compared to males with the exception of physical abuse,¹⁸ which is in contrast with our study regarding the correlation of child abuse and gender.

In 66.1% of abuse cases the perpetrators were a parents, 5.2% siblings, and 28.7% someone other. There was not a significant difference between the two groups regarding the offender; this finding is in accordance with a study in Tehran, which reported 30.0% of abused children were abused by their mothers.¹⁹ We found a significant higher prevalence of physical abuse in ADHD subjects ($P = 0.003$), which is also similar to previous studies, which reported that there were significantly higher rates of abuse for girls with ADHD,²⁰ and parents of children with ADHD used corporal punishment significantly more than the parents of control children do.²¹

Limitations

- Due to age limitations of the child abuse questionnaire used, we excluded children under age of eight
- Our study included just the psychiatric clinical population
- We studied only the patients visited at academic clinics

Conclusion

The present study indicates that child abuse is highly prevalent in children and adolescents with psychiatric disorders and it requires paying special attention. It is recommended that children be screened routinely for child abuse and maltreatment. Taking into account, the risk factors for child abuse, health care providers should identify and screen high risk children to administer appropriate interventions and the possible prevention of child abuse grave sequelae.

Table 2. Means of child abuse subtype scores on a 0-100 scale basis

Child abuse subtype	Gender		P	Group		P
	Male	Female		Inpatient	Out-patient	
Psychological abuse	23.30	15.6	0.010	23.8	18.20	0.040
Neglect	33.10	25.8	0.030	36.9	24.30	< 0.005
Physical abuse	15.00	13.5	0.580	16.3	12.60	0.110
Sexual abuse	0.68	3.3	0.040	2.0	0.75	0.130

Conflict of Interests

Authors have no conflict of interest.

Acknowledgments

This paper was prepared from the dissertation for receiving specialty degree in psychiatry, presented by Mohammad R. Kakaie in Tabriz University of Medical

Sciences. We thank clinical psychiatry research center of Tabriz University of Medical Sciences for sponsoring our study. We are very grateful to all the patients who voluntarily participated in this study, and also appreciate the respected psychiatry residents, who assisted us in some steps of this study.

References

1. William B. Child maltreatment. In: Sadock BJ, Sadock VA, Ruiz P, Editors. Kaplan and Sadock's Comprehensive Textbook of Psychiatry. 9th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2009. p. 3792-805.
2. Joan K. Child Abuse and neglect. In: Martin A, Volkmar FR, Lewis M, Editors. Lewis's Child and Adolescent Psychiatry: A Comprehensive Textbook. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins, 2007. p. 692-701.
3. Alexander RC, Levitt CJ, Smith WL. Abusive head trauma. In: Reece RM, Ludwig S, Editors. Child abuse: medical diagnosis and management. 2nd ed. Philadelphia, PA: Lippincott Williams & Wilkins, 2001. p. 123-56.
4. World Health Organization. Prevention of child maltreatment [Online]. [cited 1999]; Available from: URL: http://www.who.int/violence_injury_prevention/violence/activities/child_maltreatment/en
5. Lanktree C, Briere J, Zaidi L. Incidence and impact of sexual abuse in a child outpatient sample: the role of direct inquiry. *Child Abuse Negl* 1991; 15(4): 447-53.
6. McClellan J, Adams J, Douglas D, McCurry C, Storck M. Clinical characteristics related to severity of sexual abuse: a study of seriously mentally ill youth. *Child Abuse Negl* 1995; 19(10): 1245-54.
7. Molnar BE, Buka SL, Kessler RC. Child sexual abuse and subsequent psychopathology: results from the National Comorbidity Survey. *Am J Public Health* 2001; 91(5): 753-60.
8. Cicchetti D, Toth SL. A developmental psychopathology perspective on child abuse and neglect. *J Am Acad Child Adolesc Psychiatry* 1995; 34(5): 541-65.
9. Myers JEB. The APSAC handbook on child maltreatment. 1st ed. Washington DC: Sage Publications; 2002.
10. Stahmer AC, Leslie LK, Hurlburt M, Barth RP, Webb MB, Landsverk J, et al. Developmental and behavioral needs and service use for young children in child welfare. *Pediatrics* 2005; 116(4): 891-900.
11. Mohammadkhani P, Mohammadi MR, Nazari MA, Salavati M, Rzaghi OM. Development, validation and reliability of child abuse self report scale (CASRS) in Iranian students. *Medical journal of the Islamic Republic of Iran* 2003; 17(1): 51-58.
12. Ghanizadeh A, Mohammadi MR, Yazdanshenas A. Psychometric properties of the Farsi translation of the Kiddie Schedule for Affective Disorders and Schizophrenia-Present and Lifetime Version. *BMC Psychiatry* 2006; 6: 10.
13. Ben-Natan M, Sharon I, Barbashov P, Minasyan Y, Hanukayev I, Kajdan D, et al. Risk factors for child abuse: quantitative correlational design. *J Pediatr Nurs* 2014; 29(3): 220-7.
14. Khooshabi K, Habibi Asgarabadi M, Farzadfar Z, Mohammadkhani P. Investigating prevalence of child abuse among guidance school students, Tehran, 1385-1386. *Social Welfare Quarterly* 2007; 7(27): 115-38. [In Persian].
15. Miri S, Foroough Ameri G, Mohammad Alizadeh S, Forood Nia F. Prevalence of child abuse in high school students of Bam city (Kerman/Iran) in 2003. *J Kerman Univ Med Sci* 2005; 13(1): 43-50. [In Persian].
16. Trocmé N, MacMillan H, Fallon B, Marco R. Nature and severity of physical harm caused by child abuse and neglect: results from the Canadian Incidence Study. *CMAJ* 2003; 169(9): 911-5.
17. Leung PW, Wong WC, Chen WQ, Tang CS. Prevalence and determinants of child maltreatment among high school students in Southern China: A large scale school based survey. *Child and Adolescent Psychiatry and Mental Health* 2008; 2: 27.
18. Christoffersen MN, Armour C, Lasgaard M, Andersen TE, Elklit A. The prevalence of four types of childhood maltreatment in Denmark. *Clin Pract Epidemiol Ment Health* 2013; 9: 149-56.
19. Sahbaie F, Davach A, Najafi Z. Surveying the relationship between family, emotional, and social factors and child abuse in girl primary schools in Tehran. *Med Sci J Islamic Azad Univ Tehran Med Branch* 2006; 16(1): 43-8. [In Persian].
20. Briscoe-Smith AM, Hinshaw SP. Linkages between child abuse and attention-deficit/hyperactivity disorder in girls: behavioral and social correlates. *Child Abuse Negl* 2006; 30(11): 1239-55.
21. Alizadeh H, Applequist KF, Coolidge FL. Parental self-confidence, parenting styles, and corporal punishment in families of ADHD children in Iran. *Child Abuse Negl* 2007; 31(5): 567-72.