

Received: 17.10.2009
Accepted: 23.11.2009

Disruptive Behavior Disorders in 8 to 14 Years Old Offspring's of Opium and Heroin Dependent Parents: a Case-Control Study

Mahin Eslami Shahrabaki MD^{*}, Hassan Ziaaddini MD^{**},
Hamdollah Saieedi MD^{***}, Nouzar Nakhaiee MD^{****}

^{*} Child and Adolescent Psychiatrist, Assistant Professor, Beheshti Hospital, School of Medicine, Kerman University of Medical Sciences, Kerman, Iran.

^{**} Associate Professor of Psychiatry, School of Medicine and Neuroscience Research Center, Kerman University of Medical Sciences, Kerman, Iran.

^{***} Psychiatrist, Kerman University of Medical Sciences, Kerman, Iran.

^{****} Associate Professor, Kerman University of Medical Sciences and Kerman Neuroscience Research Center, Kerman, Iran.

| | |
|---|--|
| <p>Background:</p> <p>Methods:</p> <p>Findings:</p> <p>Conclusion:</p> <p>Key words:</p> | <p>Abstract</p> <p>Drug abuse is usually associated with behavioral disorders in children especially conduct disorder. This study investigated the behavioral disorders of children whose parents were opium or heroin dependent in compare with children whose parents were non-addicts to find the effects of drug abuse on offspring's behavior disorders by adjusting intervening factors.</p> <p>This case-control study, compared the behavioral disorders of 128 students (aged 8 to 14 years) in two groups of opium or heroin dependent parents and non-dependent parents (n = 64 in both groups) using Child Behavior Checklist (CBCL) questionnaire. Parents of both groups were checked not to have any significant psychiatric disorder (such as personality disorder or mood disorder), major health problem, and history of divorce. To compare percentages of the two groups, chi square and if required exact test were used.</p> <p>There was no statistically significant difference between the two groups in subscales of oppositional behavior problems and problems disorders.</p> <p>According to the results, in case there is no psychiatric co-morbidity associated with opium and heroin abuse, drug dependency does not seem to have any effect on disruptive bahavior disorder of children. Due to study limitations, the results cannot be generalized without conducting the study on a bigger population.</p> <p>Disruptive behavior disorders, Opioid, Child behavior checklist (CBCL), Heroin, Opium.</p> |
| <p>Page count:</p> <p>Tables:</p> <p>Figures:</p> <p>References:</p> <p>Address of Correspondence:</p> | <p>6</p> <p>1</p> <p>0</p> <p>16</p> <p>Mahin Eslami Shahraki MD, Child and Adolescent Psychiatrist, Assistant Professor, Beheshti Hospital, School of Medicine, Kerman University of Medical Sciences, Kerman, Iran. E-mail: mahineslami@yahoo.com</p> |

Introduction

Oppositional and aggressive behaviors in children are the commonest cause of psychiatric health referral.¹ According to DSM-IV-TR, oppositional defiant disorder and conduct disorder are considered disruptive behavioral disorders. Behavioral disorders disrupt educational and social performance of children and they are different from disobeying parents which are associated with growth in severity and frequency of disruptive behaviors. Most scholars believe that several factors including biological, temperamental, psychological, and learning factors play role in stable patterns of disruptive behavior.¹

According to DSM-IV-TR, drug dependency can lead to stopping important social, career and entertaining activities.² Various studies have shown the behavior disorder in offspring of drug dependents.^{1,3,4}

Outcomes of drug abuse include spending lots of time to obtain and consume, less supervision on the family, poverty which leads to social drift, family and social relationship destruction, and divorce. These outcomes are independently related to offspring's behavior disorders including conduct disorders. 90% of opioid dependents have some other psychiatric co-morbidity, among which major depressive disorder, alcoholism, anti-social personality disorder and anxiety disorders are the commonest.

There are few studies on the association of offspring's behavior disorder and opium or heroin dependency of parents. Most studies on this field observed association with axis I and II disorder, which is independently related to child behavior disorder (such as alcoholism and antisocial personality disorder). In two asynchronous, but similarly designed studies in the US, 60% of school children whose mothers were opioid or cocaine dependents had psychiatric disorders including oppositional defiant disorder (23% and 18%). But the mothers themselves also had comorbid of alcohol dependency, multi-drug abuse, and depression.⁴ In a study by Ziaadini et al on primary school students in Kerman, psychiatric disorders of parents including drug abuse had no significant relationship with conduct disorder of children.⁵ In another study, offspring of opiate dependent and depressed parents had a high risk of conduct disorder compared to offspring of opiate dependent parents who had no depression and offspring of parents who were not opiate depend-

ent and not depressed. There was no difference between daughters of opiate dependents without depression with offspring of parents who were not drug dependent and not depressed and the difference between sons of the two groups were very small.⁶

Considering the effects of opium and heroin abuse outcomes and associated psychiatric disorders on offspring's behavior disorders, this study tried to remove these factors and investigate the relationship between opium or heroin dependency of parents and disruptive behavior disorder of their children.

Methods

This was a case-control study on 128 male and female students of public and private schools of Kerman city in educational year of 2008-2009. The age range of students was 8 to 14 years. These students were divided into two groups of offspring of opium or heroin dependents ($n = 64$) and offspring of non-dependent parents ($n = 64$). To select the sample,⁷ private withdrawal centers in the city were asked for help. The objectives and methodology of study as well as entry and exclusion criteria were explained to the centers' psychologists.

Out of 150 parents who had opium or heroin dependency based on DSM-IV-TR, 61 were excluded because of their not-willing to participate, having major diseases or having antisocial personality disorder. The rest (89 persons) were received two questionnaires of GHQ-28, one questionnaire of Child Behavior Checklist (CBCL) and a form of consent. Parents completed the two questionnaires of General Health Questionnaire (GHQ-28) about themselves and the CBCL about their children. If they had more than one child, one of them would be selected randomly by the psychologist. Twenty five cases were excluded from the study because of $GHQ > 6$ and 64 entered the study. Then, the schools of the children in the study were determined by the parents' report. Based on the list and educational scholars, the schools were divided into four groups of deprived, semi-prosperous, prosperous and private in primary and mid levels. For the control group also, 64 students who were matched with the case group in age, sex and school group were selected. To do this, permission from education office was obtained and 16 schools based on the above mentioned groups were selected randomly from the list of schools. Considering the possibility of drop-

outs, 263 packages of questionnaires were given to the extra-curricula of schools to be given to the students randomly selected from the list of students. To prove non-dependency to substances, we trusted parents self-report. Reliability and validity of self-report is acceptable in studies if the secrecy of data is assured and data collection is secure.⁸ Studies in Iran also consider self-report data acceptable.⁷

In the consent form, parents were asked to complete the questionnaires and return them to schools if they were willing and had no major disease (hypertension, ischemic heart disease (IHD), renal failure, and epilepsy), major psychiatric disorders (major depressive disorder, anxiety disorders, and personality disorders), or a divorce history. Sixty seven parents did not return the questionnaires. Twenty six had not completed them and 50 had GHQ > 6. The rest were 120 who had the entry criteria and 64 of them were selected randomly and were matched with the case group. For example, if in the opium or heroin dependent group, there were two female students of 9 years old in deprived primary school, 2 female students of the same age and school were selected randomly for the control group. The inclusion criteria for opium/heroin dependent group included one parent's dependency to opium or heroin and for the other group was lack of dependency to opium or heroin. The exclusion criteria for both groups included having major medical disorder and major psychiatric disorder including antisocial personality disorder and divorce. Opium/heroin dependent parents were checked by a psychiatrist assistant or an educated psychologist. The GHQ-28 was used for screening depression and anxiety disorder. The cell phone of the psychiatrist assistant was given to parents of both groups to contact if they had any question about questionnaires. The study was planned in steps and directly supervised by a child and adolescent psychiatrist.

Research instruments

1. Child Behavior Checklist (Aschenbach 1991): In this study, CBCL (parents reporting form) is used. This form includes two sections. The first section contains 13 questions assessing children's competence in four areas of education, society, activities, and overall competence. Part II is about behavioral and emotional problems in past 6 months and includes 113 items which are scores as: 0 for incorrect, 1 for correct to some extent, 2 for mostly or completely correct. This section assesses problems in 12 subscales. Aschenbach in 2001 adjusted some of the questions with DSM criteria.

In this study, subscales of oppositional defiant behaviors and conduct problems were used. The raw scores of each subscale were converted to T scores based on software and the child would be categorized in one of the normal, borderline and clinical groups based on the T score of each subscale. CBCL has a reliability of 90% and also have a high validity.⁹ The reliability and validity of this questionnaire is proved in Iran.¹⁰

2. GHQ-28 contains four subscales and 28 questions and used for screening depression, anxiety, physical disorders and impairment in performance of past month. In bimodal scale, the scoring system is 1,1,0,0 and the maximum would be 6. Both parents completed this questionnaire about themselves. Reliability and validity of this questionnaire is proved in Iran.¹¹ To compare percentages of the two groups, chi square and if needed exact test were used.

Results

The two groups were matched in age and sex. The mean age of the opiate dependent group was 11.1 ± 1.6 and in the other group was 11.2 ± 1.6 (P = 0.779) and in both groups, 34 students were female (53.1%).

Comparing the frequency of subscales of oppositional problems and conduct problems are presented in table 1. There was no significant difference between the two groups.

Table 1. Comparing subscales based on DSM form of CBCL in offspring of opiate dependent and non-dependent parents

| P | Non-dependent (n = 64) | | | Dependent (n = 63) | | | Subscale |
|-------|------------------------|------------|-------------|--------------------|-------------|-------------|--------------------------|
| | Clinical | borderline | normal | Clinical | borderline | normal | |
| 0.515 | 6 9.4% | 2 1.3% | 56 87.5% | 5 7.9% | 5 7.9% | 53 84.1% | Confrontational problems |
| 0.217 | 6 9.4 % | 4 6.3% | 54 84.4% | 4 6.3% | 10 15.9% | 49 77.8% | Conduct problems |

Discussion

The results of this study showed no significant difference between the subscales of oppositional problems and conduct problems of the two groups. Several studies have shown an association between parents' drug abuse and children's behavioral disorder.^{1, 4, 12, 13} It means that the results of this study is against the expected results. There are several possibilities in this regard:

1. Comorbidity of psychiatric disorders in 90% of opiate dependents and the outcomes of drug abuse can independently cause behavioral disorders in children.¹ In this study, parents entered the two groups had no simultaneity in psychiatric disorders and drug abuse outcomes. In this case, the study results are the same as similar studies with similar structure. In Nunes et al study, sons of depressed opiate dependents had a higher risk of conduct disorder compared to the sons of not-depressed opiate dependents. Daughters of not-depressed opiate dependents, had no difference with controls and sons had just a small difference.⁶

In a similar study, also, there was no obvious relationship between alcoholism of parents who did not have antisocial personality disorder with conduct disorder and scales of child behavior checklist.¹³ In a study by Ziaadini et al in Iran, also, no relationship was seen between parents' psychological disorders (including drug abuse) and children's conduct disorder.⁶

2. Having strong link with at least one of parents is a protective factor in antisocial behaviors.¹³ In this study, the role of mothers is very significant. In Iranian culture, the role of mothers in bringing up children is very strong and can decrease the stress in the family. Families entered this study had mothers who took care of children while tolerating drug dependency. Close relationship with mother is a very effective protective factor.

3. According to scientific texts, some of drug abuse outcomes include economic problems due to high expenses (even hundreds of dollars per day) and loss of social and family functioning,¹ which are related to children's behavior disorder. In Iran, the issue is a little bit different. Because opium is the most abused substance and 1 out of 17 consume opium.¹⁴

Iran is among the countries with high consumption of opium per capita in the world.¹⁵ for some reasons including increase of industrial

substances abuse the taboo of opium consumption is weakening now.¹⁶ On the other hand, low expenses of opium and easy access to it play a role. It seems that opium consumption in Iran is not associated with economic and family problems and as a result has less co-morbidity.

Limitations: Urine test for morphine to prove non-dependency of parents in control group was not conducted because of possible lack of cooperation by parents. Instead, self-report by parents were used.

Considering the high number of questionnaires increases the possibility of lack of cooperation by non-dependent parents, the antisocial personality disorder test was not done for these parents. However, the prevalence of this disorder in men was very low and about 3%.

Conflict of interest: The Authors have no conflict of interest.

Conclusion

This study puts a warning and two strategies in front of us. The warning is that the taboo of opium dependency and abuse is waning. One of the important causes of that is the gradual change toward using illegal manufactured substances such as heroin and semi-amphetamines. The strategy is to improve social skills and promote art and exercise skills and emphasize on the role of mothers to reduce the risk of children's antisocial behavior.¹

Projects such as "school-based prevention" by widespread use of psychologists and psychiatrists for teaching problem solving and compromise solutions in schools as a course can strengthen social and emotional skills and reduce aggressive behaviors.¹

A second strategy is to consider treatment for co-morbidities, because co-morbidities in drug dependents are associated with behavior disorder of their children. Even if patients are not expressive, they should be questioned about the existence of such disorders and recommend appropriate treatments.

Generalizing the results of this study cannot be done without repeating it in a bigger statistical population, considering the limitations. Further studies are suggested on the personalities of drug dependents' spouses and on the problem solving and compromise solutions in these families.

Acknowledgement

Special thanks to the parents and their children who participated in this study and also to the authorities of education office, principals and

teachers of the schools, physicians and psychologists of withdrawal centers, who sincerely cooperated in this study.

References

1. Sadock VA. Kaplan and Sadock's synopsis of psychiatry: behavioral sciences/clinical psychiatry. 10th ed. Philadelphia: Lippincott Williams & Wilkins; 2007. p. 1218-24, 1302, 444-5.
2. Sadock VA. Kaplan and Sadock's comprehensive textbook of psychiatry. 8th ed. Philadelphia: Lippincott Williams and Wilkins; 2004. p. 1139.
3. Merikangas KR, Dierker LC, Szatmari P. Psychopathology among offspring of parents with substance abuse and/or anxiety disorders: a high-risk study. *J Child Psychol Psychiatry* 1998; 39(5): 711-20.
4. Weissman MM, McAvay G, Goldstein RB, Nunes EV, Verdeli H, Wickramaratne PJ. Risk/protective factors among addicted mothers' offspring: a replication study. *Am J Drug Alcohol Abuse* 1999; 25(4): 661-79.
5. Ziaaddini H, Amirkafi A, Nakhaie N. Prevalence of conduct disorder in students of primary schools in the city of Kerman in educational year of 2003-4. *Hormozgan Medical Journal* 2007; 11(2): 221-8.
6. Nunes EV, Weissman MM, Goldstein RB, McAvay G, Seracini AM, Verdeli H, et al. Psychopathology in children of parents with opiate dependence and/or major depression. *J Am Acad Child Adolesc Psychiatry* 1998; 37(11): 1142-51.
7. Abnet CC, Saadatian-Elahi M, Pourshams A, Boffetta P, Feizzadeh A, Brennan P, et al. Reliability and validity of opiate use self-report in a population at high risk for esophageal cancer in Golestan, Iran. *Cancer Epidemiol Biomarkers Prev* 2004; 13(6): 1068-70.
8. Harrison L. The validity of self-reported drug use in survey research: an overview and critique of research methods. *NIDA Res Monogr* 1997; 167: 17-36.
9. Achenbach TM, Dumenci L. Advances in empirically based assessment: revised cross-informant syndromes and new DSM-oriented scales for the CBCL, YSR, and TRF: comment on Lengua, Sadowksi, Friedrich, and Fischer (2001). *J Consult Clin Psychol* 2001; 69(4): 699-702.
10. Minaei A. Adaptation and standardization of Eschenbach's child behavior questionnaire, self-report questionnaire and teachers' report form. *Research on special children field* 2006; 6(19): 529-58.
11. Ebrahimi A, Muosavi H, Muosavi GH, Bornamanesh AR, Yaaghoubi M. Psychometric features, factor structure of clinical cut-off point, sensitivity and specificity of GHQ-28 in Iranian patients with psychiatric disorders. *Journal of Research in Behavioral Sciences* 2007; 5(1): 5-12.
12. Moss HB, Baron DA, Hardie TL, Vanyukov MM. Preadolescent children of substance-dependent fathers with antisocial personality disorder: psychiatric disorders and problem behaviors. *Am J Addict* 2001; 10(3): 269-78.
13. Schuckit MA, Smith TL, Radzimirski S, Heyneman EK. Behavioral symptoms and psychiatric diagnoses among 162 children in nonalcoholic or alcoholic families. *Am J Psychiatry* 2000; 157(11): 1881-3.
14. Razzaghi EM, Rahimi A, Hosseini M, Madani S, Chatterjee A. Rapid situation assesment (RSA) of drug abuse in Iran (1998-99). Tehran: Prevention Department, State Welfar Organization, Tehran, IRAN and United Nations International Drug Control Program; 1999.
15. Razzaghi EM, Movaghar AR, Green TC, Khoshnood K. Profiles of risk: a qualitative study of injecting drug users in Tehran, Iran. *Harm Reduct J* 2006; 3: 12.
16. Nakhaee N, Jadidi N. Why do some teens turn to drugs? a focus group study of drug users' experiences. *Journal of Addictions Nursing* 2009; 20(4): 203-8.

مقایسه اختلالات رفتار ایدایی در فرزندان 8-14 ساله والدین

وابسته به تریاک یا هروئین نسبت به گروه شاهد

دکتر مهین اسلامی شهر بابکی*، دکتر حسن ضیاءالدینی**،

دکتر حمدا... سعیدی گرگری***، دکتر نوذر نخعی****

* فوق تخصص روان پزشکی کودک و نوجوان، استادیار روان پزشکی، دانشکده علوم پزشکی کرمان، دانشگاه علوم پزشکی کرمان، کرمان، ایران.

** دانشیار روان پزشکی، دانشکده پزشکی و مرکز تحقیقات علوم اعصاب، دانشگاه علوم پزشکی کرمان، کرمان، ایران.

*** روان پزشک، دانشکده پزشکی، دانشگاه علوم پزشکی کرمان، کرمان، ایران.

**** دانشیار روان پزشکی، دانشکده پزشکی، دانشگاه علوم پزشکی کرمان، کرمان، ایران.

تاریخ دریافت: 88/7/25

تاریخ پذیرش: 88/9/2

چکیده

به طور کلی سوء مصرف مواد با بروز اختلالات رفتاری به ویژه اختلال سلوک در کودکان ارتباط دارد. پژوهش حاضر تنها به بررسی اختلالات رفتار ایدایی در فرزندان والدین وابسته به تریاک و هروئین و مقایسه آن با این اختلالات در فرزندان والدین غیر وابسته به تریاک یا هروئین پرداخت تا میزان تأثیر مصرف این مواد بعد از حذف عوامل مخدوش کننده، در بروز اختلالات رفتاری فرزندان معلوم گردد.

مطالعه از نوع مورد-شاهدی بود. اختلالات رفتاری در 128 نفر دانش آموز 8-14 ساله در دو گروه فرزندان والدین وابسته به تریاک یا هروئین (n = 64) و فرزندان والدین غیر وابسته به تریاک و هروئین (n = 64) با پرسش نامه چک لیست رفتاری کودکان (CBCL) مورد بررسی قرار گرفت. والدین هر دو گروه فاقد اختلالات روانی عمده (مثل اختلال شخصیت، اختلالات خلقی)، اختلال طبی عمده و سابقه طلاق بودند. جهت مقایسه درصدها بین دو گروه از آزمون χ^2 و در صورت نیاز آزمون دقیق استفاده شد.

بین دو گروه از نظر زیر مقیاس های مشکلات رفتار مقابله ای و مشکلات سلوک اختلاف معنی داری دیده نشد.

با توجه به این مطالعه، در صورت نداشتن اختلال روان پزشکی همراه، به نظر نمی رسد صرف مصرف اپیوم و هروئین تأثیری در بروز اختلالات رفتار ایدایی در کودکان داشته باشد و تعمیم داده های این مطالعه با توجه به محدودیت ها نیاز به تکرار در جامعه آماری بیشتری دارد.

اختلالات رفتار ایدایی، اپیونید، چک لیست رفتاری کودکان (CBCL)، تریاک، هروئین.

مقدمه:

روش ها:

یافته ها:

نتیجه گیری:

واژگان کلیدی:

تعداد صفحات: 6

تعداد جدول ها: 1

تعداد نمودارها: -

تعداد منابع: 16

دکتر مهین اسلامی شهر بابکی، فوق تخصص روان پزشکی کودک و نوجوان، استادیار روان پزشکی، دانشکده علوم پزشکی کرمان، دانشگاه علوم پزشکی کرمان، کرمان، ایران.

E-mail: mahineslami@yahoo.com