

Child Abuse, Autism and Excessive Alcohol Consumption

Keywords: Autism; Autism spectrum disorder; Alcoholism; Child abuse; Bullying

Summary

This report describes a co-occurrence of child abuse, autistic symptoms, impulsivity, hyperactivity and excessive alcohol consumption in the victim's adolescence and early adulthood. The conclusion is that environmental factors such as physical and psychological abuse may contribute to development of autistic symptoms. Some children with autistic traits may be physically abused ADHD children or initially healthy ones. In the atmosphere of domestic violence and bullying, ADHD manifestations such as impulsivity and hyperactivity may be regularly punished. Abnormal behaviors partly compatible with the ASD may be adaptive. Alcohol is consumed by some adolescents with autistic traits to overcome communications barriers. Besides, loitering with groups of adolescent alcohol abusers is a way of escape from domestic violence.

Introduction

There is considerable evidence demonstrating associations between childhood trauma, including physical, sexual and emotional abuse, with negative mental health, physical health and social outcomes, deficient communicative skills, antisocial behavior, substance abuse and, in particular, misuse of alcohol in a victim's later life; further details and references are in [1-3]. Detection of the abuse and exposure of perpetrators often depends on the victim. It is easy to expose a socially unprotected abuser, for example an alcoholic or a mentally abnormal individual. Otherwise, different tools can be applied to prevent a disclosure: denial of facts and accusations of slander, threats, intimidation or subornation of the victim, appeals to preservation of honor and reputation of the family, nation, etc. It should be mentioned that over 99% of publications on child maltreatment have been based on research conducted in more developed countries [4], while in less developed societies the child and elder abuse can persist without much publicity.

The prevalence of the substance use disorder among individuals with autism was reported to be relatively low [5]; however, there may be an underestimation [6]. Persons with high-functioning autism without intellectual disability may drink alcohol to cope with anxiety, to maintain friendships and gain access to new relationships [6,7]. Furthermore, the youth with ASD were found to be at a higher risk of victimization and bullying [8-12]. Given the association of autistic traits in adults with the abuse in their childhood, studies identifying causal mechanisms can improve preventive efforts [13]. Here is presented a case illustrating a combination of the above-named symptoms and factors, followed by a discussion of potential cause-effect relationships.

Case Report

When Sergei (S.) was three years old, his parents were divorcing, while he was sent with a nanny to a suburb village (Figure 1).



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They spent there also two subsequent summers, having almost no contact with other children. The boy sat on a sofa or bench for a long time, which did not contribute to his physical development and communicative skills. Sergei (S.) recalls an episode that his father later confirmed. The father came unexpectedly; little Sergei (S.) is running toward him: "Daddy, daddy comes!" - stumbles and falls down. Then the father is shaking him and asking: "What did you drink?" - and then argues with the nanny. Back in Moscow, the boy asks for cough syrup. The mother gives him some mixture from the pharmacy but the boy is wining and asking for the "true" syrup. The nanny gave him sweat fortified wine as cough syrup, probably to calm him down and not to be disturbed at night. There was also some kind of sexual engagement under the guise of hygienic smearing of genital area with vegetable oil etc., which later resulted in "exhibitionist" behavior by the little child, leading to punishments and bullying.

At the age of about 6-7 years, Sergei (S.) was noticed to have autistic traits such as communication deficits, failure to develop peer relationships and motor clumsiness. Some symptoms compatible with the ADHD (Attention Deficit Hyperactivity Disorder) were observed as well: inattention, impulsivity and hyperactivity, the latter being more pronounced in a familiar environment. Appearance of the



Figure 1: Sergei and his nanny, year 1957.

autistic symptoms coincided with the time when the socially unskilled child was exposed to bullying; the symptoms further aggravated in parallel with the physical abuse at home. During the school time, Sergei (S.) exhibited fixated interests deemed unusual by some pedagogues: profound study of history, of several foreign languages etc. Besides, it should be mentioned that Sergei (S.) has a relative macrocephaly (head circumference at an adult age approximately 60.5 cm), similarly to his mother and father, who both were professors. An increased prevalence of macrocephaly has been described in children with ASD [14,15]. Some researchers reported a higher level of functioning in children with ASD and macrocephaly in comparison to those with average head circumference [16]. Moderately expressed marfanoid features (long limbs, arachnodactyly, hypermobility of some joints, hiatal hernia in a later life) were noticed in Sergei (S.) and some maternal relatives. An association of macrocephaly, Marfan-like ligamentous laxity and Asperger's syndrome has been reported [17].

It should be mentioned without implying cause-effect relationships that the onset of behavioral abnormalities coincided with the UHF therapy for allergic rhinitis and tonsillitis. The therapy with ultra high frequency (UHF) electromagnetic fields has been officially recommended in the former SU and broadly used in otorhinolaryngological conditions since the early 1960s [18,19]. Last time, the extremely high frequency (EHF) waves have also been used for respiratory and allergic conditions in children, while absence of contraindications has been pointed out [20]. At the same time, reports on non-thermal and non-cancer effects of electromagnetic radiation from anthropogenic sources, in particular, functional derangements of the nervous system, have been appearing [21,22], although substantiation remained doubtful [23]. However, doses of thermal intensity used in the UHF therapy are higher than those from the environment. Considering anatomical proximity of the tonsils, nasal cavity and neural structures especially in children, there have been concerns about such use of microwaves, the more so as excessive exposures and imprecise focusing may occur in the therapeutic practice. Subsequently, at the age of 6-7 years, Sergei (S.) underwent tonsillectomy and adenoidectomy with inadequate local anesthesia and questionable indications. Later it has become evident that he had allergic rhinitis. Interestingly, larger head sizes were reported to be associated with allergic disorders in patients with autism [24]. As for the family history, Sergei's maternal grandfather misused alcohol, paternal grandfather died of renal failure presumably in consequence of a professional poisoning by mercury, and maternal grandmother, a radiologist, died of cancer in her thirties. Sergei's mother, an orphan, had been adopted (and occasionally maltreated) by her aunt.

When Sergei (S.) was 7 years old, his mother married a 13 years younger person. The following risk factors of child maltreatment were present [25]: poor social support, presence of a younger child, family history of abuse: the abuser had been beaten by his father. The abuse was administered by slapping in the face and head as well as beating with a belt, often under the pretext of punishment, but sometimes without any pretext. Episodes of violence went along with intimidation by gestures and grimaces as well as verbal abuse. There are statements in the literature that abusive encounters are heavily laden with emotion [26]. In this case, it could have been so in the beginning, but later the scenes of abuse became somewhat theatrical and less emotional on the part of the perpetrator. Apparently,

violence has become the abuser's habit and obsession. The abuse sometimes occurred in front of spectators: the mother, relatives or friends. On rare occasions, the mother participated in battering, which is in agreement with the data that mothers tend to abuse their children at higher rates when their partners are not fathers of the victims [27]. A motive could have been squaring of accounts with the disloyal partner in the person of his son probably on the background of dissociation as the maternal affection was present and spontaneously returned during the earlier childhood. Apart from irregular nourishment now and again, an example of neglect was a deprivation of training clothes during the earlier school time. The boy was regularly sent to gymnastics lessons inappropriately dressed, so that his genitals could be seen during exercises, in spite of written reprimands from the teacher. This was one of the immediate causes of the bullying as well as delayed physical development: the teacher left the boy sitting on a bench during gymnastics lessons. An ethnic factor played a role: the abuser was of Jewish descent, while Sergei (S.) used to stress his Russian ethnicity. Having a Jewish stepfather, who even worked for some period at his school, Sergei (S.) was often treated by the social environment as a member of the ethnic minority. It was expressed by bullying, sometimes visibly inspired by adults including some teachers and other children's relatives. It is known that bullying happens at schools, where children do not feel safe to report bullies [28]. The author does not intend to say that Jewish children were generally bullied at Soviet schools. Many of them were not, because they had been prepared by their families and did not deny their difference. On the contrary, Sergei (S.) behaved ambitiously, involuntarily provoking his environment. Sergei (S.) himself participated in bullying other children, his role thus being classified as bully-victim, reportedly more at risk of substance use than pure bullies or victims [29]. As usual in such cases, Sergei (S.) was ashamed to tell to anybody about the abuse at home. Once he answered affirmatively a question of a teacher whether he had been physically punished; it had no consequences. Another teacher, surprised by xenophobic remarks made by Sergei (S.) at school, came with a home visit, which was followed by a discontinuance of the abuse for several months accompanied by an improvement of his progress in school studies; further details are in [2].

Apart from occasional participation in parties at home and drinking up to a bottle of beer with a schoolmate, Sergei (S.) did not consume alcohol till the age of 13. That summer he drank a 0.75 l bottle of fortified wine with an older boy. During the subsequent year, his alcohol consumption increased up to 250 ml of vodka with beer or a 0.75 l bottle of fortified wine at one sitting. An opportunity to stay away from domestic violence was provided by a drinking company of schoolmates including older boys inspiring alcohol purchase and consumption. During the following years, he was several times detained by the police (militia) and spent at least two nights at a sobering-up station. At the age of 13.5 years, Sergei (S.) ran away from the everyday's violence first to his grandmother and then lived about 2 years in a small apartment together with the new family of his father. Thereafter he was manipulated to return to the mother's flat. After the admission to a university, a separate room was rented for Sergei (S.). Next year, because of drunkenness and absenteeism, he was dismissed from the university and served 2 years with the army;

his education was interrupted for 4 years. The immediate cause of the dismissal was as follows. Having worked 2 months with a student construction brigade (stroyotriad), after a provocation from the social environment and excessive alcohol intake, Sergei (S.) went with a companion to a Black Sea resort, he was robbed and remained without money for a return ticket. Despite repeated telegrams and telephone calls, he received money with a delay, which resulted in about 2 weeks' tardiness at the university. At the age of about 22.5 years, Sergei (S.) underwent an implantation of a disulphiram preparation Esperal, which was followed by a period of abstinence about 8 months long. After that he resumed alcohol consumption: 2-3 binges monthly with dosages as described above or higher. Sergei (S.) discontinued the alcohol misuse at the age of about 35 years, when it has become incompatible with his professional duties. Later he did not resume the excessive alcohol consumption in spite of provocations from the social environment. With time, subconscious motives of the alcohol intake have become clear: alcohol helped him to overcome communication barriers. It was, however, associated with risks: not possessing sufficient social skills, his rhetoric and actions under the impact of alcohol were sometimes precarious [30], which resulted e.g. in misdemeanors (minor hooliganism and public nuisance, petty larceny, drunk driving) and detentions by the police. This illustrates a mechanism contributing to the alcohol consumption not only in autistic persons: becoming "insider" through drinking with peers. This mechanism was exploited: in workers', students' and intelligentsia companies, the ringleaders were observed, who manipulated others towards alcohol intake, while non-drinkers were sometimes stigmatized [31].

Discussion

In the former Soviet Union, the child abuse and neglect has been rarely discussed. Public organizations and authorities sometimes did not react to known cases of domestic violence: for example, Sergei's grandmother wrote letters to the authorities about this case of abuse, which had no consequences. A part of the society seems to be opposed to a public discussion of violence in families. Dimensions of the problem are difficult to assess as there are no reliable statistics [32]. There is no generally agreed attitude to the problem and no consequent policy, which is complicated by a shortage of adequately educated personnel and limited use of the foreign professional literature [33,34]. Scenes of violence and death are often shown on the Russian TV today, distracting the public attention from less spectacular offenses including child and elder abuse. Violence towards children is sometimes discussed by the mass media as a norm. For example, the famous filmmaker Nikita Mikhalkov said on 28 May 2014 from the TV screen without a trace of disapproval that his father Sergey Mikhalkov, the well known writer, slapped him in the face, which can cause additional cases of concussion in children. Celebrities are often copied. Note that a man's hand is weighty. By the given impulse, the damage might be higher in cases of macrocephaly, which is associated with the ASD [15].

The ASD cases are often marked by symptoms consistent with ADHD [35-37]. In the case presented here, ADHD symptoms were observed especially during the early childhood: inattention, impulsivity and hyperactivity, the latter being more prominent in a familiar environment. Emergence and further exacerbation of

the autistic symptoms coincided with the time when the socially unskilled child was exposed to bullying and domestic violence. In the author's opinion, physical abuse is an undervalued cause of autism. Some children with autistic symptoms are probably abused ADHD children or initially healthy ones, possibly having unusual traits predisposing to the bullying. In the atmosphere of bullying and domestic violence, ADHD manifestations such as impulsivity and hyperactivity may be regularly punished. Abnormal behaviors seem to be a kind of adaptation in some cases, a consciously or subconsciously implemented strategy to avoid the trauma. Such behaviors might be compatible with ASD e.g. failure to respond to social interactions, poorly integrated communication, abnormalities of eye contact, deficits of developing and maintaining relationships (DSM-5). Deranged relationship with parents such as the reduced sharing of emotions or interests (DSM-5) can in some cases be explained by the child abuse. An association of both the ASD and ADHD with deranged relationships with parents, maternal stress and child abuse has been reported [13,38,39]. Other features compatible with the ASD may be secondary to a deficit in relationships with peers and family members or result from sublimation as a defense mechanism against anxiety or psychological trauma e.g. fixated interests such as the study of special subjects beyond the school program [35].

According to the hypothesis discussed here, some ASD cases may be caused by intrinsic factors while others are induced or reinforced by environmental factors such as the physical abuse and bullying. ADHD, ASD and social anxiety disorder have partly overlapping symptoms [36,37,40,41]. A differentiation may depend on external factors: in an environment permitting impulsivity and hyperactivity, the child would preserve ADHD features or develop in a typical way. In conditions of bullying and/or domestic violence, regularly punishing impulsivity and hyperactivity, the child might be "trained" towards abnormal behaviors aimed at avoidance of the trauma. It can be also hypothesized that children with macrocephaly are consciously or subconsciously more preoccupied with protection of their heads. On the other hand, macrocephaly, "giftedness" [42], marfanoid or other unusual features might predispose to the bullying. The cause-effect relationship may be bidirectional: autistic symptoms can enhance the risk of domestic violence and bullying while the violence would induce or reinforce abnormal behaviors. In this connection, the heritability of the ASD has a non-genetic explanation in some cases. The child abuse is associated with inadequate parenting [43]; children of deviant parents, exposed to the maltreatment, acquire as a result deviant features themselves. In conclusion, the child abuse and bullying may be causative factors of atypical behaviors compatible with the ASD.

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