original article

Exposure to adverse experiences in childhood

A research topic for health psychologists

Alina Cosma
Babes Bolyai University

"No violence against children is justifiable; all violence against children is

preventable".

(UN Global Study on Violence against Children, 2006)

Introduction

Violent manifestations are part of our everyday reality and have been present among people from the beginning of humanity. Despite these overwhelming facts, it is only in the last decades that the research community has directed their efforts in studying violence against children. Recent research findings indicate that violence can take several forms (physical, psychological, electronic), it can take place at different levels of human interaction and its effects can be long lasting throughout the lifespan (Pinheiro, 2006; Butchart, Phinney Harvey, Kahane, Furniss, 2006). The World Health Organization (WHO) defines child maltreatment as "all forms of physical and/or emotional ill-treatment, sexual neglect or negligent treatment commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power" (p. 16) (Krug, Dahlberg, Mercy, Zwi, Lozano, 2002). Children are considered to be one of the social categories who are the most vulnerable to abuse and maltreatment. They can be exposed to abuse at home, in schools, on the playground or in other public or private institutions. Also, the

abuser can vary, from a parent or other family members, to people who live in the same community, teachers, people who work in different childcare institutions, or even peers. The 2006 United Nations report on violence against children stresses that "no country is immune to this phenomenon, the violent manifestations cut across boundaries geography, race, class, religion and culture" (p.XI) (Pinheiro, 2006), thus emphasizing the wide spread nature and intensity of this phenomenon.

The prevention of child abuse and maltreatment is a priority worldwide (Krug et al., 2002; Pinheiro, 2006; Butchart et al., 2006; Sethi et al., 2013). The WHO Regional Office for Europe has recently released a new report which outlines the high burden of child maltreatment, its causes and consequences, and the costeffectiveness of prevention programs. In order to estimate the prevalence of child maltreatment in a combined analysis of community surveys available for the prevalence of child abuse and maltreatment have been aggregated. According to this data, prevalence of child physical abuse in Europe is 22.9% and child emotional abuse is 29.1%. The estimated prevalence of childhood sexual abuse in Europe is 9.6% (13.4% girls and 5.7% boys), and the prevalence of physical neglect is 16.3% and emotional neglect is 18.4%. Thus, at least 10% of European children experience some form of maltreatment. It is probable that the real prevalence of child abuse and maltreatment is due to problems associated underreporting (Norman, Byambaa, De, Butchart,

90 ehp volume 15 issue 4

Scott, Vos., 2012).

Immediate and long term consequences of maltreatment and neglect in childhood

The exposure to abuse and neglect throughout childhood and adolescence causes immediate and long term negative effects (Felitti VJ et al., 1998, Krug et al. 2002, Gilbert, 2009). Krug et al. (2002) emphasized that the amplitude of these negative effects could be influenced by the child's age when the abuse happened, the severity of the abuse, the type of the abuse, the child's relationship with the abuser, the time interval in which abuse occurred, and some other factors related with the social environment of the child.

The main source of information about the scale and impact of child maltreatment can be inferred from the official statistics on child deaths. Other important sources of data for child maltreatment represent the information offered by the child protection agencies, social institutions (hospitals, schools, police, primary care, social care services), and community surveys. The next section will focus on presenting the results from a wide scale retrospective survey which investigated the prevalence of adverse childhood experiences (ACE studies) and its relationship with mental and physical health. Previous studies based on ACE methodology showed that several abuse categories (physical abuse and nealect. psychological abuse and neglect, sexual abuse) co-occur with several household dysfunctions (domestic violence, substance abuse by a family member, mental illness, suicide attempts or criminal behavior of a family member). Moreover, using the same methodology, several studies indicated that there is a relationship between

exposure to multiple ACEs categories and health risk behaviors (smoking, substance abuse, risk sexual health behaviors, suicide attempts), and also between ACEs and several health complaints or health problems (chronic liver or heart dysfunctions, headaches, depression etc.) (Felitti et al., 1998; Ramiro, Madrid, Brown, 2010). The conclusions of these studies emphasized the fact that as the child is exposed to a higher number of ACE categories, it increases also the risk for developing health problems such as: chronic obstructive pulmonary disease (COPD), ischemic heart disease (IHD), liver disease, and fetal death (Felitti et al., 1998). Also, the exposure to more than one ACE category has been connected with higher chances for engagement in health risk behaviors such as: alcoholism and alcohol abuse (Dube, Miller, Brown, Giles, Felitti, et al., 2006), illicit drug use (Dube, Felitti, Dong, Chapman, Giles, et al. 2003), risk for intimate partner violence, multiple sexual partners, sexually transmitted diseases (STDs) (Hillis, Anda, Felitti, Nordenberg, Marchbanks, 2000), smoking, early initiation of smoking (Anda, Croft, Felitti, Nordenberg, Giles, et al. 1999), unintended pregnancies, early initiation of sexual activity, and adolescent pregnancy. Another important aspect is the fact the children who have experienced adverse experiences during childhood have a higher risk for developing mental health conditions such as: depression (as young adults, but also in late adulthood) (Chapman, Whitfield, Felitti, Dube, Edwards, et al., 2004) and/or to have suicide attempts/suicidal ideation (Dube, Anda, Felitti, Chapman, Williamson, et al. 2001). Nevertheless, the exposure to adverse childhood experiences was also associated with low health-related quality of life (Edwards, Holden, Felitti, & Anda, 2003; Dong et al., 2004).

The conclusions from a recent meta-analysis come in line with the previous presented ACE studies results and suggests the existence of a

december | 2013 ehp 91

casual relationship between non-sexual child maltreatment (physical abuse and emotional abuse, physical and emotional neglect) and mental health disorders (depression, anxiety), drug use, suicide attempts, sexually transmitted infections and risky sexual behaviors (Norman et al., 2012).

One possible mechanism that could explain the relationship between child maltreatment and later health problems has been revealed by recent neuroscience research emphasizing the effect of child abuse and maltreatment on brain development. Repeated exposure to stress alters function hypothalamus-pituitarythe of adrenergic system. Even if short term exposure to stress facilitates the development of new functional coping strategies, prolonged exposure to stress over-activates the body's response to stress. This over-activation alters the normal brain metabolic functioning, and its coping with normal daily stress. For example, children who have been abused tend to have higher cortisol levels (Twardosz & Lutzker, 2010).

It becomes critical to understand which factors predispose an individual to use abuse or neglect against children in order to develop intervention strategies. theoretical framework for understanding these factors is offered by Bronfenbrenner's ecological model (Bronfenbrenner, 1974), as the interplay between the individual characteristics of the child, parents, caregivers or other adults, together with the relationships within the families and communities and the society is accountable for child maltreatment (Pinheiro, 2006; Butchart et al., 2006; Sethi et al., 2013). According to Sethi et al. (2013), the main individual factors towards risk child maltreatment are, at child level: child's age and gender (males have a higher risk for physical abuse, Akmatov, 2011, and girls are more likely to report sexual abuse, Laaksonen et al., 2011), child disability and externalizing problems. At the perpetrator level, individual risk factors are: past childhood maltreatment, mental health problems, substance abuse, low educational achievement, poor parenting skills, reduced social support, parental stress and unemployment, and being a young or a single parent. At the relationship level, the main risk factors indentified are: family conflict, domestic violence, poor parenting behaviors, parental approval of corporal punishment, large family size, low socioeconomic status, non-biological parent in the home. At community level, socioeconomic disadvantage, poor social capital/social disorder, availability of alcohol and presence of drugs are considered to be the main risk factors. Cultural norms that are supportive towards violence, weak legislation for preventing child abuse, economic stress and societal conflict are considered to be the main risk factors at the societal level. On the other hand, factors such as: parental nurturing and attachment, knowledge of parenting and child development, parental resilience, strong social network for parents, social and emotional competence of children are considered to be the main protective factors against child abuse and maltreatment.

Main findings from ACE study in a Romanian university sample

In the last decade, violence against children has become an important topic for Romanian authorities, NGOs and civil society. There has been close collaborative work between the Ministry of Health and the WHO Regional Office for Europe on highlighting the problem of violence against children at the country level. This collaborative work culminated with the collaboration between the WHO Regional Office for Europe (coordinated by Dr. Dinesh Sethi), the

92 ehp volume 15 issue 4

WHO Romanian Office (coordinated by Dr. Victor Olsavszky) and Babes Bolyai University (coordinated by Prof. Adriana Baban) which aimed to investigate the prevalence of adverse childhood experiences and health problems among Romanian university students and their association with engagement in health risk behaviors and health problems in adulthood (Baban, Cosma, Balazsi, Dinesh, Olsavszky, 2013). The study was based on the methodology developed by CDC-WHO. The sample consisted of 2088 young adults (1343 females and 745 males) from 17 public universities in Romania. A stratified sampling strategy was employed according to two variables: the development region (there are eight development regions in Romania) and the type of the city (according to the number of inhabitants). The number of participants in each stratum (24 stratums) was estimated by taking into account the number of recorded students from higher education institutions from a specific city in a specific region. The final sample (N=2008) was a representative sample for Romanian young adults' student population with an error of +/-2.5 %.

The study findings show that exposure to violence and maltreatment during childhood has a high prevalence among Romanian university students. Specifically, 26.9% of participants reported that they have experienced physical abuse; emotional abuse was reported by 23.6% of participants, sexual abuse was reported by 12.7% by participants, physical neglect was reported by 16.5% of participants, and 26.3% reported emotional neglect. Female participants reported significantly more often being exposed to sexual and emotional abuse. Exposure to household dysfunctions was also common: 21.9% lived with an alcoholic parent, 17.4% witnessed violent mother. 15.6% had treatment of their experienced parental separation, and 12.9% reported that a household member had a mental

illness. An ACE score was computed by summing all the categories of abuse and household dysfunction that each participant was exposed too in the first 18 years of life. Overall, 18% of students reported that were exposed to four or more types of ACE. Exposure to adverse experiences during childhood were positively associated with engagement in health-risk behaviors in late adolescence and young adulthood, such as smoking, alcohol abuse, illicit drug usage, attempting suicide, running away from home, or multiple sexual partners. Moreover, the exposure to a higher number of ACEs increased the probability of having somatic complaints and mental health problems in adulthood (e.g. feeling depressed and suicide attempts).

Conclusions

Child maltreatment remains a widespread phenomenon and its devastating consequences impact on the life and development of young people. It is important to be aware that these situations can be prevented. There is a lot of research literature which presents which measures are valid and effective in combating child maltreatment and violence. Also, while many countries have implemented structured measures for prevention and intervention at different levels (universal approaches, selective and indicated programs), data on their effectiveness is lacking. In this context, it becomes critical that each intervention or prevention program must focus on developing evidence on their effectiveness, focusing on what measures work with which group in which context (Sethi et al., 2013).

december | 2013 ehp 93

References

- Akmatov MK. (2011) Child abuse in 28 developing and transitional countries results from the multiple indicator cluster surveys.

 International Journal of Epidemiology,
 40:219?227. dx.doi.org/10.1093/ije/dyq168
- Anda RF, Croft JB, Felitti VJ, Nordenberg D, Giles WH, et al. (1999) Adverse childhood experiences and smoking during adolescence and adulthood. *JAMA* 282: 1652-1658 dx.doi.org/10.1001/jama.282.17.1652
- Baban A, Cosma, A., Balazsi, R., Dinesh, S.,
 Olsavszky, V., (2013) Survey of adverse
 childhood experiences among romanian
 university students. Copenhagen, WHO
 Regional Office for Europe,
 (http://www.euro.who.int/__data/assets/pdf
 _file/0009/187713/e96846.pdf, accessed 25
 October 2013).
- Bronfenbrenner, U. (1974). Developmental research, public policy, and the ecology of Childhood, *Child Development*, 45, 1-5. dx.doi.org/10.2307/1127743
- Butchart A, Phinney Harvey A, Kahane T, Mian M, Furniss T (2006) Preventing child maltreatment: a guide to action and generating evidence. Geneva: World Health Organization and International Society for Prevention of Child Abuse and Neglect.
- Chapman DP, Whitfield CL, Felitti VJ, Dube SR, Edwards VJ, et al. (2004) Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders*, 82: 217-225, dx.doi.org/10.1016/j.jad.2003.12.013
- Dong M, Giles WH, Felitti VJ, Dube SR, Williams JE, et al. (2004) Insights into causal pathways for ischemic heart disease: adverse childhood experiences study. *Circulation* 110: 1761-1766.
 - dx.doi.org/10.1161/01.CIR.0000143074.5499 5.7F
- Dube SR, Anda RF, Felitti VJ, Chapman DP,

- Williamson DF, et al. (2001) Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the adverse childhood experiences study. *JAMA* 286: 3089-3096. dx.doi.org/10.1001/jama.286.24.3089
- Dube SR, Felitti VJ, Dong M, Chapman DP, Giles WH, et al. (2003) Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics* 111: 564-572.
- Dube SR, Miller JW, Brown DW, Giles WH, Felitti VJ, et al. (2006) Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence. *Journal of Adolescent Health* 38: 444.e441-444.e410, dx.doi.org/10.1016/j.jadohealth.2005.06.006
- Edwards VJ, Holden GW, Felitti VJ, Anda RF. (2003) Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: results from the adverse childhood experiences study. *American Journal of Psychiatry*.160: 1453-60.
- dx.doi.org/10.1176/appi.ajp.160.8.1453
 Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, et al. (1998) Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) study. American Journal of Preventive Medicine 14: 245-258
- Hillis SD, Anda RF, Felitti V, Nordenberg D, Marchbanks P (2000) Adverse childhood experiences and sexually transmitted diseases in men and women: a retrospective study. *Pediatrics* 106: E11.
 - dx.doi.org/10.1542/peds.106.1.e11
- Krug EG, Dahlberg LL, Mercy JA, Zwi A, Lozano R (2002) World report on violence and health. Geneva: World Health Organization.
- Laaksonen, T., Sariola, H., Johansson, A., Jern, P., Varjonen, M., von der Pahlen, B., ... &

94 ehp volume 15 issue 4

Santtila, P. (2011). Changes in the prevalence of child sexual abuse, its risk factors, and their associations as a function of age cohort in a Finnish population sample. *Child abuse & neglect*, 35(7), 480-490.

dx.doi.org/10.1016/j.chiabu.2011.03.004

Norman RE, Byambaa M, De R, Butchart A, Scott J, Vos, T. (2012) The Long-Term Health Consequences of Child Physical Abuse, Emotional Abuse, and Neglect: A Systematic Review and Meta-Analysis. *PLoS Med* 9(11): e1001349. doi:10.1371/journal.pmed.1001349

Pinheiro PS (2006) World report on violence against children. New York: United Nations

Ramiro LS, Madrid BJ, Brown DW (2010) Adverse childhood experiences (ACE) and health-risk behaviors among adults in a developing country setting. *Child Abuse and Neglect* 34: 842-855.

dx.doi.org/10.1016/j.chiabu.2010.02.012
Sethi, D, Bellis, M, Hughes K, Gilbert R, Mitis F,
Galea (2013) European report on preventing
child maltreatment. WHO Regional Office for
Europe, Copenhagen, Denmark

Twardosz S., Lutzker, J. (2010) Child maltreatment and the developing brain: A review of neuroscience perspectives. Aggression and Violent Behavior 201015, 59-68. dx.doi.org/10.1016/j.avb.2009.08.003



Alina Cosma

is a PhD. Candidate at the School of Psychology, Babes Bolyai University, Cluj Napoca, Romania

alinacosma@psychology.ro

december | 2013 ehp 95