Published in final edited form as:

J Subst Use. 2019 ; 24(3): 341–345. doi:10.1080/14659891.2019.1572804.

Circumstances of Substance Use by Street Youth in Egypt Support the Case for Intervening to Prevent Adverse Childhood Experiences

Sania Amr, MD, MS¹, Magdy Garas, MD², Dina N. K. Boulos, PhD³, Doa'a A. Saleh, MD, PhD⁴, Irene A. Jillson, PhD⁵, Christopher A. Loffredo, PhD⁵

Sania Amr: samr@som.umaryland.edu; Magdy Garas: magdy_garas@hotmail.com; Dina N. K. Boulos: dnkamel@med.asu.edu.eg; Doa'a A. Saleh: doa_a_saleh@kasralainy.edu.eg; Irene A. Jillson: iaj@georgetown.edu; Christopher A. Loffredo: cal9@georgetown.edu

¹University of Maryland School of Medicine, Baltimore, Maryland, USA

²Caritas-Egypt, Cairo, Egypt

³Ain Shams University, Cairo, Egypt

⁴Cairo University, Cairo, Egypt

⁵Georgetown University, Washington, DC, USA

Abstract

Background: Egyptian street youth use substances including tobacco, illicit drugs, and pharmaceutical drugs. To understand the circumstances, including adverse childhood experiences, that place adolescents at risk for engaging in substance use, we conducted in-depth interviews among a sample of Egyptian street children.

Methods: From youth residing at or attending Caritas, a non-profit organization, which provides shelter and education to street youth, seven girls and twelve boys, aged 12 to 18 years, participated in open-ended, in-depth interviews.

Results: Eight out of the 19 participants reported family history (early exposure) to substance use; and seven of them were initiated by either a family member (sibling), friend or coworker. Most of the participants reported a history of conflict with or abuse (verbal or physical) by their parents or siblings, or stressful situations at home; they used substance(s) to alleviate their stress. Few attended school, and some were forced to work and help their family.

Conclusions: Among Egyptian youth, adverse childhood experiences, such as poverty, child abuse, and family substance use, challenge somewhat susceptible youths and lead them to the path of substance use and addiction. Prevention intervention should be multifaceted, culturally adaptable, and primarily targeting the social environment during childhood.

Introduction

Worldwide, substance use and subsequent **addiction** require, not only treatment and social rehabilitation of affected individuals, but also science-based interventions in early childhood to prevent initiation and hamper its transition to addiction among adolescents and young adults (UNDOC, 2016). Such intervention should rely on the combination of different elements; namely child skill development and self-efficacy, lack of exposure opportunity to **drugs**, and having a supportive social and economic environment (NIDA, 2016).

Pentz et al. used a framework based on person-situation-environment interaction to develop and implement a community-based program to prevent drug use (Pentz et al., 1989). More recently, training youth to acquire skills representing the 'executive function' (Pentz & Riggs, 2013; Riggs & Pentz, 2016), which allows them to control their impulses and make healthy decisions, was found to improve prevention intervention for substance use (Gewin & Hoffman, 2016; Pentz et al., 2016; Pentz et al., 2015). Most of these prevention studies focused on education and schoolchildren; yet, substance use is highly prevalent among street children particularly in resources-constrained settings (Embleton et al., 2013).

In this review of 50 studies from 22 countries, the authors found that little is known about the risk factors behind street youth initiation and subsequent transition to addiction (Embleton et al. 2013). Indeed, several investigators (Van Ryzin et al., 2012; Liao et al., 2013; Aslam et al., 2014; Loffredo et al., 2017) examined the correlates of substance use by surveying schoolchildren. Studies of the contributing risk factors to initial substance use and addiction are paramount to developing prevention interventions (UNDOC, 2016); yet few studies were performed among street youth.

Furthermore, adverse childhood experiences, such as child abuse and family dysfunction, negatively impact child development and subsequent behavior (CDC, 2018; Hertzman, 2013; Szilagyi & Halfon, 2015). They lead to poor mental and physical health outcomes (Chapman et al., 2004; Felitti et al., 1998; Traub & Boynton-Jarrett, 2017), substance abuse in adolescents and young adults (Dube et al., 2003), and even unemployment and poverty in adulthood (Meltzer et al., 2017).

Egyptian youth use various substances including cannabis (UNODC, 2016), tobacco, illegal drugs, and over-the-counter medications (El-Kouny, 2017; Hamdi et al., 2013); and street youths are most susceptible (UNODC, 2018). To gain further insights on the role of the social environment (including adverse childhood experiences) that places street children at risk for engaging in substance use in Egypt, we conducted in-depth interviews among a sample of youth residing at or attending Caritas: a non-profit organization that provides diverse programs to youth and adults, including education, housing, and detoxification and rehabilitation services to drug addicts. We present a summary of their stories that reveal the circumstances leading to substance use and ultimately addiction.

Methods

The face-to-face in-depth interviews, held between November 2013 and April 2014, were approved by the institutional review boards of Georgetown University and the Ethical committee of Caritas-Egypt.

Caritas counselors, whom we trained on how to conduct in-depth interviews and use semi-structured interview form with open-ended questions (Table 1), approached the youths, who were either living in Caritas shelters or attending Caritas daily activities in Cairo or Alexandria, and informed them about the study. Signed assents and informed consent forms were obtained from those who agreed to participate and their parents or guardians, respectively.

The one-on-one interactions were held in a quiet environment at Caritas, and audio-recorded. Each recording was transcribed and translated to English by two investigators. In addition, two investigators reviewed the youth stories and extracted the pertinent information as it related to Pentz's model components (person-situation-environment) (Pentz et al., 1989).

The presence or absence of adverse childhood experiences was based on the information the youth provided on their social environment.

Further, key findings from the analysis of street youth interviews were compared to corresponding items that were collected for the previously reported survey among Egyptian school youth (Loffredo et al. 2017).

Results

Seven girls and twelve boys, aged 12 to 18 years, were interviewed. Some youth were reserved in telling their stories and needed more probing than others, who were forthcoming telling about their circumstances and providing pertinent information about their experiences and their environments; therefore, the interview length varied from 15 to 45 minutes.

Based on the stories of the participants, we extracted the information pertaining to the person, the situation and the environment. Eleven of the 12 boys who consented to be interviewed were runaways from home and one did not mention his home, while six the seven girls who agreed to participate reported living at home. Among the girls, only one reported attending school, another one never did, three quit going, and the last two never mentioned school in their stories. Among the boys, four never attended school, five mentioned working, and the rest never mentioned school. Some youth were forced to work by their parents, because the father was either not working, in jail, or dead; one girl reported selling drugs, while acknowledging its harmful consequences; she was not able to find a remunerated job.

Most, if not all, of the adolescents interviewed (both boys and girls) reported a history of conflict with or abuse (verbal or physical) by either one or both parents, stressful situations at home (divorced parents, father in jail, having a stepmother) or difficult circumstances

(fight with the neighbor or with a sibling). The ‘*suffocating*’ environment, as described by one of the boys, was the reason for leaving home. One 18-y-old girl attributed her running away from home to her parents’ fault: ‘*they want us to go to work and come home, ... we want to live with parents but not be insulted or fight with them all the times*’. Although most of the girls did not leave home, their environments were not less stressful than the one to which the boys were exposed. They alleviated their stress by smoking and/or using substance in hiding places. A 17-y-old girl was not happy/comfortable with her family because they ignored her; she stated ‘*when I use hashish I feel happy, I feel all my problems are gone*’.

Smoking cigarette, hashish (a compressed and purified form of cannabis), or bango (an Egyptian term for the unrefined leaves and stems of the cannabis plant) were the main substances regularly used by the youth. Some used ‘*pills*’, which referred to *Tramadol* (a highly addictive synthetic opioid-like pain medication sold under various trade names), and few drank wine or beer.

The recurrence of substance use by the youth was primarily motivated by the diverse feelings it generated. As per their words, they experienced ‘*flying high in the sky*’; ‘*no pain*’; ‘*courage to fight*’; ‘*happiness*’; ‘*oblivion to their surroundings*’; or ‘*strength and ability to steal*’. The youth continued smoking tobacco and/or cannabis and using drugs, despite their knowledge about the adverse physical and mental health effects of these substances; seven out of 19 mentioned either coughing, dizziness, chest heaviness, cancer, or abnormal behaviors. Several youths reported their inability to stop using.

There were ample opportunities to be exposed to substance use, whether at home, on the street, or even in the workplace. Of the 19 participants, eight reported a family history of substance use; in their home environment, children were primarily exposed to cigarette and waterpipe smoking, and few reported either a parent or a sibling used illicit or pharmaceutical drugs. Seven of those with early exposure to substance use were initiated by either a family member (older sibling), friend or coworker; initiation to cigarette smoking that progressed to smoking *hashish* and using *pills*. Two participants (one boy and one girl) were initiated by their respective siblings at the young age of 9 and 10 years.

To have access to cigarettes, illicit or pharmaceutical drugs, youth relied on their friends, and occasionally they stole money from their parents and others, as a last resort.

Discussion

Interactions between a stressful situation and an enabling social environment, indicative of adverse childhood experiences, appeared to be the primary risk factors that led this group of Egyptian street youth to the path of substance abuse and addiction. Substance use was somewhat legitimized when youth grew up in an environment where adults are users, and more so when a family member or friend initiated them. Individuals with a family history of substance use are at a greater risk than those without it, of being exposed to stressors and thus more susceptible to, not only initiation of substance use (Charles et al., 2015), but also

for developing substance-using habits (Ryan et al., 2016). Family and peer influences are important risk factors (Jadidi & Nakhaee, 2014).

In the present study most participants reported a stressful home situation that forced them to be on the street where ample opportunities to access drugs were available; the substance(s) used generated numbness and euphoria, diverse feelings for which the youth relentlessly continued using them, partly as stress and violence coping mechanisms. Their social environment, not only failed to provide adequate child care, but it also fostered conflict and abuse.

Interestingly enough, the primary reason for substance use, given by both male and female street youth, was to seek relief from psychological trauma. This is somewhat different from what we found among Egyptian youths attending school (Loffredo et al., 2017). The main reason for using/trying reported by male school youth was '*friend using*' (17–42%, depending on the substance); whereas to feel better and to relieve stress were more frequently reported by girls (9–14% and 15–24%; respectively) than by boys (5–8%). Most of the street youths never attended or had stopped attending school, and thus missed the opportunity to be in a nurturing and protective environment.

Parenting style that leads to unreasonable expectations of the parents from their adolescent children was reported to affect the onset of addiction among the latter (Hojjat et al., 2016). Parents with substance use disorders were found to have infants with temperament disturbances, which in turn predicted their substance use between the ages of 10–12 years (Horner et al., 2015). Combinations of family and peer risk factors (Tsering & Pal, 2009), in addition to constitutional predisposition (Blackson & Tarter, 1994) and adverse life events (Swadi, 1999) contribute to substance initiation and abuse among youth.

Among schoolchildren we found that, compared to living with both parents, living with just one parent, or living with non-parents increased the odds of smoking cigarettes, waterpipes, and *hashish* (Loffredo et al., 2017). In the present study, street youth reported either a broken home or conflict with household members, and thus the '*unbearable situation*' as the main reason for being on the street or living at Caritas. Indeed, one of the risks of engaging in substance abuse for adolescents is frequent conflict with their parents (Parker & Benson, 2004; Loke & Mak, 2013). Therefore, having both parents available may not be sufficient to prevent youth from substance use; there is a need for a loving and nurturing environment, as stated by some youth, e.g. '*beating people does not help; talking to them might especially if they love you they will listen to you*'; '*if someone loves someone else they can make them stop using*'. The distressing home environment reported by the street youth is consistent with the concept that adverse childhood experiences lead to substance abuse and ultimately ill health.

In our focus groups study, youth told the moderators that fear of parents and family members is a deterrent for substance use (Loffredo et al., 2015). Among schoolchildren (Loffredo et al., 2017), 67–80% of the girls reported such a fear as the reason for not using, but only 18–22% of the boys did; religious reasons for not using cigarettes were reported by 69% of the boys and 93% of the girls attending school (data not published). In the present study, the

youths were exposed to substance users in their household, and a family member initiated several of them. To smoke or use drugs, they either hid or left their homes altogether.

In the schoolchildren survey, the average age at initiation for substance use varied from 13.6 years to 14.4 (Loffredo et al., 2017). In the present study, one boy left home at age 8 and two (one boy and one girl) were initiated to smoking by their respective siblings at ages 9 and 10. Schoolchildren's concerns about their health prevented them from smoking cigarettes or using illicit substances (63–71% of the boys and 78–88% of the girls), but most of the street youth were knowledgeable about the adverse health effects of one or more substances, yet they were not deterred from using them.

Finally, yet importantly, it seems that cigarettes and illicit substances were readily available. Indeed, even among schoolchildren users we found that 66% of the girls bought their cigarettes and 48% of the boys bought their *Tramadol*, whereas 46% of the boys were given *bango* and 52% of the girls were given *hashish* by someone in their environment (data not published). And the opportunities to be exposed and initiated to substance use, and to ultimately develop addiction were not lacking for street youth in Egypt.

Prevention intervention for substance use was reported to significantly benefit from training youth to acquire skills representing the 'executive function' (Pentz & Riggs, 2013; Riggs & Pentz, 2016) and thus allowing them to deal with adversity and make healthy decisions (Gewin & Hoffman, 2016; Pentz et al., 2016; Pentz et al., 2015). However, these prevention studies focused on education and schoolchildren, not street youth. Furthermore, our findings from interviewing Egyptian street youth provide evidence for an intervention that should primarily target the social environment and prevent adverse childhood experiences. Indeed, to minimize lifelong adverse health outcomes, including prevention of substance use, focus on reducing early childhood adversity has been strongly recommended (Hertzman, 2013; Bethell et al., 2017; Biglan et al., 2017), particularly for disadvantaged children and families (Shonkoff, 2017).

Conclusions

These street youth stories revealed a combination of stressful situations in insalubrious environments challenging children and young individuals and leading them to the path of substance use and addiction in Egypt. Prevention intervention should be multifaceted, culturally adaptable, and primarily targeting the adverse childhood experiences.

References

- Aslam SK, Zaheer S, Rao R, & Shafique K (2014). Prevalence and determinants of susceptibility to cigarette smoking among school students in Pakistan: secondary analysis of Global Youth Tobacco Survey. *Substance Abuse Treatment, Prevention, and Policy*, 9:10.
- Bethell CD, Solloway MR, Guinosso S, Hassink S, Srivastav A, Ford D, & Simpson LA (2017). Prioritizing Possibilities for Child and Family Health: An Agenda to Address Adverse Childhood Experiences and Foster the Social and Emotional Roots of Well-being in Pediatrics. *Acad Pediatr*, 17(7S), S36–S50. [PubMed: 28865659]
- Biglan A, Van Ryzin MJ, & Hawkins JD (2017). Evolving a more nurturing society to prevent adverse childhood experiences. *Acad Pediatr*, 17, S150–S157. [PubMed: 28865649]

- Blackson TC, & Tarter RE (1994). Individual, Family, and Peer Affiliation Factors Predisposing to Early-Age Onset of Alcohol and Drug Use. *Alcoholism Clinical and Experimental Research*, 18, 813–821.
- CDC. Centers for Disease Control and Prevention. Adverse childhood experiences. Available at: www.cdc.gov/violenceprevention/acestudy. Accessed June 30, 2018.
- Chapman DP, Whitfield CL, Felitti VJ, Dube SR, Edwards VJ, & Anda RF (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders*, 82(2), 217–225. [PubMed: 15488250]
- Charles NE, Ryan SR, Acheson A, Mathias CW, Liang Y, & Dougherty DM (2015). Childhood stress exposure among preadolescents with and without family histories of substance use disorders. *Psychology of Addictive Behaviors*, 29, 192–200. [PubMed: 25134029]
- Dube SR, Felitti VJ, Dong M, Giles WH, & Anda RF (2003). The impact of adverse childhood experiences on health problems: evidence from four birth cohorts dating back to 1900. *Prev Med*, 37, 268–277. [PubMed: 12914833]
- El-Kouny N (2017). Outcast: Egypt's growing addiction problem. *Ahram*. <http://english.ahram.org/NewsContent/1/151/133715/Egypt/Features/Outcast-Egypt-s-growing-addiction-problem-.aspx>
- Embleton L, Mwangi A, Vreeman R, Ayuku D, & Braitstein P (2013). The epidemiology of substance use among street children in resource-constrained settings: a systematic review and meta-analysis. *Addiction*, 108, 1722–1733. [PubMed: 23844822]
- Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, ... & Marks JS (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med*, 14(4), 245–258. [PubMed: 9635069]
- Gewin AM, & Hoffman B (2016) Introducing the cultural variables in school-based substance abuse prevention. *Drugs: Education, Prevention and Policy*, 23(1), 1–14.
- Hamdi E, Gawad T, Khoweiled A, Sidrak AE, Amer D, Mamdouh R, ... & Loza N (2013). Lifetime prevalence of alcohol and substance use in Egypt: A community survey. *Substance Abuse*, 34(2), 97–104. [PubMed: 23577901]
- Hertzman C (2013). The significance of early childhood adversity. *Paediatr Child Health*, 18, 127–128. [PubMed: 24421672]
- Hojjat SK, Golmakanie E, Khalili MN, Smaili H, Hamidi M, & Akaberi A (2016). Personality Traits and Irrational Beliefs in Parents of Substance-Dependent Adolescents: A Comparative Study. *Journal of Child & Adolescent Substance Abuse*, 25, 340–347.
- Horner MS, Reynolds M, Braxter B, Kirisci L, & Tarter RE (2015). Temperament disturbances measured in infancy progress to substance use disorder 20 years later. *Personality and Individual Differences*, 82, 96–101. [PubMed: 26900197]
- Jadidi N, & Nakhaee N (2014). Etiology of Drug Abuse: A Narrative Analysis. *Journal of Addiction*, Article ID 352835, 6 pages.
- Liao Y, Huang Z, Huh J, Pentz MA, & Chou CP (2013) Changes in friends' and parental influences on cigarette smoking from early through late adolescence *Journal of Adolescent Health*, 53 (1), 132–138. [PubMed: 23583505]
- Loke AY, & Mak Y (2013). Family Process and Peer Influences on Substance Use by Adolescents. *International Journal of Environmental Research and Public Health*, 10(9), 3868–3885. [PubMed: 23985772]
- Loffredo CA, Boulos DN, Saleh DA, Jillson IA, Garas M, Loza N, ... & Amr S (2015). Substance Use by Egyptian Youth: Current Patterns and Potential Avenues for Prevention. *Substance Use and Misuse*, 50(5), 609–618. [PubMed: 25629955]
- Loffredo CA, Shaker YE, Jillson IA, Boulos DN, Saleh DA, Garas M, ... & Amr S (2017). Prevalence and Correlates of Substance Abuse by Egyptian School Youth. *International Journal of Alcohol and Drug Research*, 6(1), 37–51.
- Metzler M, Merrick MT, Klevens J, Ports KA, & Ford DC (2017). Adverse childhood experiences and life opportunities: Shifting the narrative. *Children and Youth Services Review*, 72, 141–149.
- Parker JS, & Benson MJ (2004). Parent-adolescent relations and adolescent functioning: self-esteem, substance abuse, and delinquency. *Adolescence*, 39(155), 519–530. [PubMed: 15673227]

- Pentz MA, Dwyer JH, MacKinnon DP, Flay BR, Hansen WB, Wang EYI, & Johnson CA (1989). A Multicommunity Trial for Primary Prevention of Adolescent Drug Abuse Effects on Drug Use Prevalence. *JAMA*, 261(22), 3259–3266. [PubMed: 2785610]
- Pentz MA, & Riggs NR (2013). Longitudinal relationships of executive cognitive function and parent influence to child substance use and physical activity. *Prevention Science*, 14 (3), 229–237. [PubMed: 23345012]
- Pentz MA, Riggs NR, & Warren CM, (2016). Improving substance use prevention efforts with executive function training. *Drug & Alcohol Dependence*, 163(Suppl 1), S54–S59. [PubMed: 27306732]
- Pentz MA, Shin HS, Riggs NR, Unger JB, Collison KL, & Chou C-P (2015) Parent, peer, and executive function relationships to early adolescent e-cigarette use: A substance use pathway? *Addictive Behaviors*, 42, 73–78. [PubMed: 25462657]
- Riggs NR, & Pentz MA (2016) Inhibitory control and the onset of combustible cigarette, e-cigarette, and hookah use in early adolescence: the moderating role of socioeconomic status. *Child Neuropsychology*, 22(6), 1–13. [PubMed: 25355013]
- Ryan SR, Acheson A, Charles NE, Lake SL, Hernandez DL, Mathias CW, & Dougherty DM (2016). Clinical and Social/Environmental Characteristics in a Community Sample of Children with and Without Family Histories of Substance Use Disorder in the San Antonio Area: A Descriptive Study. *Journal of Child & Adolescent Substance Abuse*, 25, 327–339. [PubMed: 28936105]
- Shonkoff JP (2016). Capitalizing on advances in science to reduce the health consequences of early childhood adversity. *JAMA Pediatr*, 170, 1003–1007. [PubMed: 27548291]
- Swadi H Individual risk factors for adolescent substance use. (1999) *Drug & Alcohol Dependence*, 55, 209–224. [PubMed: 10428362]
- Szilagy M, & Halfon N (2015). Pediatric Adverse Childhood Experiences: Implications for Life Course Health Trajectories. *Acad Pediatr*, 15, 467–4688. [PubMed: 26344714]
- Traub F, & Boynton-Jarrett R (2017). Modifiable resilience factors to childhood adversity for clinical pediatric practice. *Pediatrics*, 139, e20162569 [PubMed: 28557726]
- Tsering D, & Pal R (2009). Role of Family and Peers in Initiation and Continuation of Substance Use. *Indian Journal of Psychological Medicine*, 31(1), 30–34. [PubMed: 21938088]
- United Nations Office on Drugs and Crime (UNODC) (2016). World Drug Report 2016. Retrieved from <http://www.eurad.net/en/World+Drug+Report+2016.9UFRHYXF.ips>
- United Nations Office on Drugs and Crime (UNODC) (2018). Egypt: Street children and substance abuse. Retrieved from <http://www.unodc.org/newsletter/en/perspectives/0601/page006.html>
- Van Ryzin MJ, Fosco GM, & Dishion TJ (2012) Family and peer predictors of substance use from early adolescence to early adulthood: An 11-year prospective analysis. *Addictive Behaviors*, 37(12), 1314–1324. [PubMed: 22958864]

Table 1.**Semi-structured Interview Form**

<p>Person</p> <ul style="list-style-type: none"> • I would like you to tell me <u>your story</u>, whether or not you use substance(s). • Are you smoking tobacco? • Are you drinking alcohol and/or using drugs? • Did you try to stop?
<p>Situation</p> <ul style="list-style-type: none"> • Are you going to school? • Are you working? • How and why did you start using? • What happened between you and your family and between you and your friends? • Why are you not using substances? • What do you think helped you stop or would have helped you stop using? • How did you end up coming to CARITAS?
<p>Environment</p> <ul style="list-style-type: none"> • Where do you live? and who do you live with? • Is there someone you can go to for help? • What does your family think about smoking and using drugs? • Do you feel safe and comfortable with your family? • Do you know of addicts who were treated? And, if yes, do you know how and where? • How about your friends who smoke, drink, or use drugs: what do you think can help them stop? Or help them never start? • Are there any TV programs to stop young people from smoking or using drugs? And, if yes, what do you think about these programs?