

Unraveling the dynamic interplay between family functioning and substance use among adolescents: An Indian perspective

Anuj Khandelwal¹, Sonal Khandelwal¹, Avinash Desousa²

¹Consultant Psychiatrist, Private Practice, Mumbai, Maharashtra, India, ²Department of Psychiatry, Lokmanya Tilak Municipal Medical College, Mumbai, Maharashtra, India

Correspondence to: Avinash Desousa, E-mail: avinashdes888@gmail.com

Received: November 15, 2016; **Accepted:** December 09, 2016

ABSTRACT

Substance abuse is a common problem seen in adolescents all over the world. It has been noted that the early antecedents of substance abuse in adolescents include dysfunctional family environments and broken or disrupted families. The family systems theory is reviewed to elucidate the optimal and abnormal functioning of a family and the difference between normal and postdivorce and single parent families are considered. There is a theory built based on available literature regarding the process that causes a transition from broken families and single parent families to substance abuse in adolescence. Adolescence is a period of stress and along with hormonal and physical changes any other turmoil during the middle years of life shall serve to push the adolescent into either internalizing behavior leading to anxiety and depression or externalizing behavior manifesting as conduct problems and aggression which may soon progress to substance abuse and other forms of dangerous behavior. This trajectory for the development of substance abuse in adolescents must be considered when planning out the long-term treatment and management of such patients.


KEY WORDS: Adolescents; Substance Abuse; Postdivorce Families; Single Parent Families; Adolescent Substance Abuse; Family Functioning

INTRODUCTION

Among the various problems of epidemic proportion in India today, two stands out and are worth exploration which include first, the issues of adverse childhood experiences (ACEs) in reference to parent-child relationships, divorce and single parenting and second, substance use among adolescents. ACEs are closely linked to dysfunctional family environments and thus what seems prudent is to first understand the family functioning in such cases.^[1,2]

THE FAMILY UNIT AND SYSTEMS THEORY

The family forms the fundamental unit of any society, and thus, its individual characteristics influence the acquisition of moral values and the rules and roles played by a person.^[1] Moreover, a family unit is the medium to pass on spiritual and cultural heritage of one's society to the individual.^[3] In the study of families, various researchers most commonly use the general systems theory^[4] which when applied to families, views the family as a constellation of shared memories and relationships, aspirations, successes, and failures.^[5] It views the family as a complex system composed of several components or subsystems, namely the parental subsystem, parent-child subsystems, and the sibling subsystems. Many authors go further by making a distinction even between the marital and the co-parental subsystem.^[6-8] The analysis gets more complex when systems theory is applied to postdivorce families as those are characterized by a further number of subsystems.^[9]

Access this article online	
Website: http://www.ijmsph.com	Quick Response code 
DOI: 10.5455/ijmsph.2017.1266809122016	

International Journal of Medical Science and Public Health Online 2017. © 2017 Avinash Desousa et al. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), allowing third parties to copy and redistribute the material in any medium or format and to remix, transform, and build upon the material for any purpose, even commercially, provided the original work is properly cited and states its license.

In the Indian context, rate of remarriage or cohabitation is low, and thus it seems valid to consider that the children in postdivorce families in India mainly belong to single parent families and do not come across newer family relationships when compared to the intact families.^[10] All the subsystems in a family are interlinked such that a change in one causes a change in the rest leading to a ripple effect.^[11] Thus parental divorce and growing up in a postdivorce family has huge impact on a child. The child is exposed to a greater number of risk factors that may lead to negative developmental outcomes.^[12-17] To get an insight into the child's functioning and behavior in an intact family or in a postdivorce or a single parent family, one needs to examine the entire family system and its component subsystems.^[18,19]

SPILLOVER AND COMPENSATORY PERSPECTIVES

Associations among various family subsystems can be viewed by either the spillover perspective or the compensatory perspective.^[20] Most of the studies in literature support the use of spillover perspective to study the family dynamics.^[21,22] The spillover perspective advocates the spill of emotions and behavior from one family subsystem into other subsystems. Thus, all the subsystems in a family are connected and interlinked in such a way that any change in one produces changes elsewhere. This is evident in literature which advocates a strong link between the quality of family relationships and psychosocial adjustment of children.^[23,24] Parent child relationship quality and connectedness affects psychosocial adjustment of children which in turn may influence substance use in a child or an adolescent.^[25-28]

SOCIAL PRESSURE AND ALCOHOL USE

Given the social pressure to have alcohol, the issue becomes even more salient as parents and adolescents themselves may wish to have an independent decision-making and self-determination, but unsupported and nonguided adolescent decision-making could lead the adolescent down the slippery slope of addiction and worsen his/her well-being.^[29] In a prospective study of 5 years duration from 2000 to 2005 in postprimary school students, McCann and others studied the association between parental control, parent-child attachment, and parental solicitation on adolescent alcohol use. The study results clearly indicated a strong inverse relationship between parental control and adolescent alcohol drinking behavior, wherein a greater parental control was associated with less frequent adolescent alcohol drinking. Contrary to most studies they found only a little influence of parent-child attachment and parental solicitation on alcohol use.^[30]

SINGLE PARENT VERSUS INTACT FAMILIES

While the importance of parent-child relationship and parental control in regards to adolescent's problem behavior or adolescent's problem drinking is quite evident. This gets even more obvious and visible when an intact family situation is compared to single parent family. In a study in Netherlands, significantly less problem behavior was noted in children of 88 intact families when compared with those of 50 divorced single mother families.^[31] Similar findings have been replicated in many other studies in literature^[32,33] and thus it warrants a greater focus on single parent families in the society. The problem looks even bigger when we consider the divorce statistics over the past few decades which clearly show an upsurge in the rates of divorce all over the world, and thus there is a considerable change in the concept of family constellations today. With an increase in divorce rates, there is also a rise in single parent families and thus it forms an important aspect of social change which is worth exploring. Divorce and marital separation are among the most stressful life events when calibrated on Social Readjustment Rating Scale (a widely used measurement tool for life events causing stress).^[34,35] This is because apart from the catastrophic acute impact of separation, there are many long-lasting stressors associated with the event which include ongoing conflicts between ex-partners and financial and social problems that may ensue.^[36,37] A high amount of parental stress is observed in a single parent family because the absence of one parent marks lack of emotional support, lack of assistance in child rearing, lack of sharing of daily responsibilities and presence of stresses associated with raising a child.^[38,39] Inherent to the high parenting stress in a single parent family are lower quality of the family relationships, less adaptive parenting behavior, and adjustment problems in children.^[40-43] Thus divorce or marital separation are not just single negative events for a family, but rather are chronic series of negative events taking a huge toll on each subsystem in the family. It negatively affects the postdivorce adjustment of children because it is a major stressful life event associated with chronic stressors.^[44-48] The separation from one parent is detrimental, but if separation involves both the parents than it gets even more devastating for the child.^[49]

ADOLESCENCE: A CRITICAL PHASE IN LIFE

Stress which is inherent to relationship dissolution often marks the difference between the child upbringing in an intact family or a postdivorce family.^[50] Childhood and adolescence are always the most crucial periods for healthy physical and mental outcomes later in life.^[51-55] It is a period when these raw adolescent brains for the first time negotiate through difficult social, cognitive, and emotional challenges in life. Thus guidance and support from parents along with a healthy supportive family environment is a must for youth to live these difficult times.^[56]

ADVERSE CHILDHOOD EVENTS AND ALCOHOL OR SUBSTANCE USE IN ADOLESCENTS

A dysfunctional family environment and/or ACEs interferes with the ability of adolescents to cope in a better way with these difficult times of life and makes them feel insecure, lonely, with lack of power or control. These children face difficulty in finding their place in society and thus suffer either with internalizing disorders like anxiety disorder/depressive disorder or externalizing disorders like oppositional or conduct problems.^[57] Studies suggest that ACEs or childhood trauma changes the trajectory of the brain development by epigenetic mechanisms. These mechanisms cause changes in gene expression and thereby changes in structure and function of the brain, neuroendocrine, autonomic, and immune functions of an individual, thus influencing the way an individual responds to stress.^[58-60] It is not only the biological response to the stress which is affected, ACEs also increase the probability of an adolescence or an adult to engage self in health-risk behaviors^[61,62] because it adversely affects the person's coping skills and emotional functioning.^[63,64] Thus, the traumatized adolescent during stressful life events may leave the interpersonal frame and for want of emotional regulation may move toward substance use which provides a quick fix for stress. Thus, ACEs particularly at the middle school years are quite risky as it is at this period when substance use may culminate and rapidly develop into a firmly rooted problem. Another noteworthy point in this age group children is that they begin to have more affiliation for peers than their families, and receive less supervision and monitoring from their parents.^[65] There are many risk factors responsible for adolescent or adult substance use but among all, childhood life experiences play the key role and thus deserve exploration.^[66-70]

The ACEs include family dysfunction, multiple types of abuse (physical, sexual, and psychological), and neglect.^[71,72] Divorce of parents, domestic violence, physical and sexual abuse, neglect, poor parent-child relationship, unstructured family and family history of drug addiction, all are associated with higher risk of alcohol and substance use.^[73,74] Most adolescents continue with substance use into their adulthood and thus substance use in adolescence is a predictor of future substance-related health problems in the society.^[75,76] Furthermore, it leads to a high amount of interpersonal violence linked with social problems and economic problems.^[77]

SINGLE PARENTHOOD IN THE INDIAN CONTEXT

Acknowledging the Indian culture with people having immense respect for sanctity of marriage and social ethics, it's not surprising to find the divorce rate in India ranking lowest throughout the world. However, the noticeable aspect about the divorce rate in India is it's rise over the past decade,

from 1/1000 Indian marriages to 13/1000.^[78,79] The increase in divorce rate is by 350% in Kolkata for the period between 2003 and 2011, while almost a double increase in a 4 year span from 2010 till 2014 in Mumbai.^[80] Statistics thus support the idea of substantial change in family life with more and more couples all over the country opting out of unhappy alliances. Now the people do not subscribe to the rigid notions of marriage or of it being a sacrosanct union.^[81] No longer are women groaning under the fetters of the illusion of perpetuity of marriage. On the brighter side, we see an upshot in women getting employed and empowered to take charge of their life by filing petitions for dissolution of unhappy, abusive marriage. However, the grim aspect of this change is that now divorce is seen as an easy way out to escape the problems arising from marriage without any effort to save it. Thus, there is a rise in single parenthood in India which is a matter of serious concern.

In a study of single mothers conducted in four metropolitan cities of India, partner death accounted for the majority of single parent families. The percentage share of partner death was 54%, separated were 25%, deserted or abandoned were 15%, and only 6% were legally divorced.^[82] Childhood parental loss by death, divorce or separation of parent differs at many preceding variables but all have in common the transition from a two parent to a single parent household.^[83]

SUBSTANCE USE IN CHILDREN AND ADOLESCENTS IN INDIA

An alarming rate of increase in substance use in school going adolescents in India has been noted.^[84,85] A nationwide, cross-sectional, comprehensive, multi-site survey was conducted in India by NCPCR in collaboration with AIIMS which aimed at collecting information on family factors, peer factors, stress factors, psychological factors, physical health, and legal aspects associated with substance use among children. A large sample size of 4024 children using substances and belonging to diverse populations of 29 states/union territories and 135 cities and towns of India was studied. All kinds of substances from tobacco to alcohol to inhalants to cannabis, etc., were reported to be used by child substance users. The major family factors associated with child substance use that surfaced during the study were as follows in their descending order of occurrence - A family member with substance use as 57%, fights/altercations in the family as 46.6%, physical/verbal abuse history as 45.3%, and single parent/no parent families as 25%.^[86]

Another study conducted across 13 Indian states on child abuse revealed astonishing information on substance use. Nearly one-third of children below 18 years of age had use alcohol, ganja/bhang, opioids, and other forms of narcotics. It was also discovered that 70% of these children were first exposed or introduced to substance use by their relatives or friends. Out of which in about 12% children, parents were the one who exposed them to substance for the first time.^[87]

A study among street children in New Delhi found peer pressure as the predominant reason for starting to use of substances by children, while a few reported dysfunctional family environment as the causal factor. Substance use history in family was found to be associated with duration of substance use. In this study also the family factors were found to be significant predictors of child substance use.^[88]

Thus the studies with large-scale population surveys in India clearly throw light on the urgency to act for controlling the speedily spreading substance addiction in younger age groups. Because India has the second largest population size in world, completely uprooting the problem of substance addiction is next to impossible. However, despite the task being challenging and daunting, some simulations involving implementation of a nationwide legal drinking age of 21 years instead of 18 years gives evidence that the problem can at least be reduced by a significant percentage.^[89]

EFFECTS OF CULTURE

Historically, the Indian culture is known for its joint family system and strong family bonds, with the whole family taking responsibility for the upbringing of children and taking care of widows, disabled and the old. This gives a sense of support and togetherness which lowers the chances of loneliness in a child's life. Thus, the mental health of children/adolescents in India has not gained much attention in the past. However, over a few decades there has been a paradigm shift from extended/joint to nuclear family system, rural areas to urbanization, housewives to entrepreneurs with more and more women empowerment, migratory movements for opportunities and more freedom among the younger generation, and loss of the warmth, connectedness and experience advantage of old members in the family. Each person has created his own virtual world of gadgets and goals which do not allow him to create emotional buffer for self and others for times of stress. Increased stress and pressure on such vulnerable families cause emotional problems and disorders.^[90]

Marital discord and divorces are thus seen on a rise and the same rise is evident with child/adolescent problem behaviors especially substance use behavior. Visible to us is the fact that child abuse, parental discord or parental loss by any means is a major ACE, which causes a loss in warmth and connectedness, predisposing a child/adolescent to a range of psychiatric disorders.^[91] These act as a powerful motivator and rocket fuel for the need to feel better or escape the reality. This is where substance use cons an adolescent by providing escape from reality and makes the pain look more distant. Alcohol and drugs provides with a sense of relief from pain of life and thus awards a temporary sense of peace, control, calmness.^[92] This issue calls for an urgent action as India is estimated to have the largest child population and largest population of street children in the world.^[93] Worldwide there is an enormous amount of literature on this topic and their

shared interactions, but in Indian context, we find ourselves far behind with just sparse amount of literature on the same. Except for few of the existing programs in the area of substance addiction control, rests have failed to curb the menace of substance use in adolescent Indian population.^[94] This is because of the scarce amount of literature and thus lack of implementation of a comprehensive policy in the area of problem behavior. Although single site specific local or regional studies with small sample size on the topic are available but literature lacks enough data analysis from large studies in Indian context. In our best knowledge, the main focus of large-scale surveys by researchers in India have been on adult population and only one or two large-scale studies have been conducted with the specific focus on Indian adolescent substance use population. Consequently, substance use among adolescents/children in reference to family functioning has remained under-researched in India.

CONCLUSION AND FUTURE NEEDS

This review aimed to portray the health situation of adolescents in India by focusing on the interplay between family functioning and adolescent substance use which is usually an ignored health aspect. The early age of initiation underscores the urgent need to intervene and protect this vulnerable group from falling prey to addiction. The role of psychiatrists and psychologists is especially important in countering this social health hazard and threat. To reduce the long-term burden of adolescent substance use and related diseases, adoption of successful prevention strategies is a must in India as it is a low-resource developing country. For a program to be successful it needs to have a multipronged, multidimensional approach and not a simplistic one.^[95] The need to have evidence-based combinations of psychosocial and medication-based interventions have been highlighted in past studies and so is in this review paper.

What we see is an important shift in the social paradigm of societies in India which demands a physician, a psychiatrist, a researcher in this field to explore the nitty-gritty's of each and every adolescent case with substance use problem behavior. Increasing rates of family discord, substance use in parents, divorce and single parent families leads to ACEs which than leads to child/adolescent substance use. Substance use impedes the normal trajectory of psychological, social and physical development in a child/adolescent and thus impairs their ability to acquire important life skills. The ever increasing prevalence of marital discord and divorce in Indian families and social menace of substance use among the most vulnerable age of Indians is a reality that cannot to be ignored. These findings provide useful insights into the matter and highlight the importance of incorporation and implementation of the detailed study of family functioning in every case of child/adolescent substance use. Studying the family functioning along with adolescent substance use guides a physician, a psychiatrist or a psychologist the

relevant targets requiring therapy and treatment so as to curb adolescent problem behavior. It will also help in future research efforts in the area and in conceptualizing programs and making policies with action plans in this area, as it highlights the role of family in adolescent substance use.

Psychiatrists and psychologists have a major role to play to strengthen the adolescent substance use control program in India. This paper throws light on the pressing need of initiating efforts for prevention and treatment of substance use in children and adolescents. We as clinicians can influence the whole family as a unit both in the clinic settings and also by linking up with community groups and schools. We should educate the parents regarding the impact of family functioning on children and how ACEs can slip away the children into substance addiction. Prevention programs may be initiated by psychiatrists and psychologists in schools focusing on teaching the parenting skills to parents and providing life skills education and methods to handle stress to children. Furthermore, educating the masses about the special needs of adolescence age group and that this developmental stage is a time of great change is prudent and can be undertaken. Important for all to understand about this age group is that it is a period of both opportunities as well as a time of vulnerability and hazard. Significant choices and attitudes for the healthy behavior pattern which continues into adulthood develop in this age and are deeply and significantly affected by the family functioning.

The family has been the most important institution in India that has survived through ages and hence in dealing with adolescents substance use in Indian context, inclusion of the whole family rather than a particular individual can offer us with more fruitful outcomes. Parents as well as the children/adolescents of overwhelmed Indian families need support in the modern times due to changed roles, changed moral values, and changed expectations. Inclusion of family therapy can thus be a good step in this context and can identify a holistic treatment plan for these situations.^[96]

REFERENCES

- Mandara J. The typological approach in child and family psychology: A review of theory, methods, and research. *Clin Child Fam Psychol Rev.* 2003;6(2):129-46.
- Von Bertalanffy L. An outline of the general system theory. *Br J Philos Sci.* 1950;1:134-65.
- Von Bertalanffy L. *General Systems Theory.* New York: Grune and Straton; 1968.
- Von Bertalanffy L. *Organismic Psychology and Systems Theory.* Worchester: Clark University Press; 1968.
- Boss P. *Family Stress Management: A Contextual Approach.* London: Sage; 2002.
- Feinberg ME, Jones DE, Hostetler ML, Roettger ME, Paul IM, Ehrenthal DB. Couple-focused prevention at the transition to parenthood, a randomized trial: Effects on coparenting, parenting, family violence, and parent and child adjustment. *Prev Sci.* 2016;17(6):751-64.
- Durtschi JA, Soloski KL, Kimmes J. The dyadic effects of supportive coparenting and parental stress on relationship quality across the transition to parenthood. *J Marital Fam Ther.* 2016.
- Feinberg ME. The internal structure and ecological context of coparenting: A framework for research and intervention. *Parent Sci Pract.* 2003;3(2):95-131.
- CBS: Central Bureau Statistics. *De Nederlandse Samenleving 2010.* [The Dutch Society 2010]. Available from: <http://www.FA090670696/0/2010a314pub.pdf>. [Last retrieved from on 2010 Dec 20].
- White JM, Klein DM. *Family Theories.* London: Sage Publications; 2008.
- Bronfenbrenner U. *The Ecology of Human Development: Experiments by Nature and Design.* Cambridge, MA: Harvard University Press; 1979.
- Thompson RG Jr, Lizardi D, Keyes KM, Hasin DS. Childhood or adolescent parental divorce/separation, parental history of alcohol problems, and offspring lifetime alcohol dependence. *Drug Alcohol Depend.* 2008;98(3):264-9.
- Jackson KM, Rogers ML, Sartor CE. Parental divorce and initiation of alcohol use in early adolescence. *Psychol Addict Behav.* 2016;30(4):450-61.
- Gauffin K, Hjern A, Vinnerljung B, Björkenstam E. Childhood household dysfunction, social inequality and alcohol related illness in young adulthood. A Swedish national cohort study. *PLoS One.* 2016;11(3):e0151755.
- Thomas JR, Högnäs RS. The effect of parental divorce on the health of adult children. *Longit Life Course Stud.* 2015;6(3):279-302.
- Schor EL; American Academy of Pediatrics Task Force on the Family. Family pediatrics: Report of the task force on the family. *Pediatrics.* 2003;111:1541-71.
- Sameroff A. A unified theory of development: A dialectic integration of nature and nurture. *Child Dev.* 2010;81(1):6-22.
- Cowan PA, Cowan CP, Cohn DA, Pearson JL. Parents' attachment histories and children's externalizing and internalizing behaviors: Exploring family systems models of linkage. *J Consult Clin Psychol.* 1996;64(7):53-63.
- Golombok S. *Parenting: What Really Counts?* London: Routledge; 2010.
- Erel O, Burman B. Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychol Bull.* 1995;118(1):108-32.
- Amato PR, Afifi TD. Feeling caught between parents: Adult children's relations with parents and subjective well-being. *J Marriage Fam.* 2006;68:222-35.
- Hakvoort EM, Bos HM, van Balen F, Hermanns JM. Family relationships and the psychosocial adjustment of school-aged children in intact families. *J Genet Psychol.* 2010;171(2):182-201.
- Snyder J, Bank L, Burraston B. The consequences of antisocial behavior in older male siblings for younger brothers and sisters. *J Fam Psychol.* 2005;19(4):643-53.
- Wilkinson RB. The role of parental and peer attachment in the psychological health and self-esteem of adolescents. *J Youth Adolesc.* 2004;33:479-93.
- Bowlby J. *A Secure Base: Parent-Child Attachment and Healthy Human Development.* New York: Basic Books. 2008.
- Padilla-Walker LM, Nelson LJ, Madsen SD, Barry CM. The

- role of perceived parental knowledge on emerging adults risk behaviors. *J Youth Adolesc.* 2008;37:847-59.
27. Repetti RL, Taylor SE, Seeman TE. Risky families: Family social environments and the mental and physical health of offspring. *Psychol Bull.* 2002;128:330-55.
 28. Fosco GM, Stormshak EA, Dishion TJ, Winter CE. Family relationships and parental monitoring during middle school as predictors of early adolescent problem behavior. *J Clin Child Adolesc Psychol.* 2012;41(2):202-13.
 29. Van Petegem S, Beyers W, Vansteenkiste M, Soenens B. On the association between adolescent autonomy and psychosocial functioning: Examining decisional independence from a self-determination theory perspective. *Dev Psychol.* 2012;48(1):76-88.
 30. McCann M, Perra O, McLaughlin A, McCartan C, Higgins K. Assessing elements of a family approach to reduce adolescent drinking frequency: Parent-adolescent relationship, knowledge management and keeping secrets. *Addiction.* 2016;111(5):843-53.
 31. Hakvoort E. Parenting and child adjustment after divorce: Family relationship quality, parental stress, and child adjustment in postdivorce families. FMG: Research Institute Child Development and Education (CDE); 2011.
 32. Amato PR, Keith B. Parental divorce and the well-being of children: A meta-analysis. *Psychol Bull.* 1991;110(1):26-46.
 33. Amato PR. Children of divorce in the 1990s: An update of the Amato and Keith (1991) meta-analysis. *J Fam Psychol.* 2001;15(3):355-70.
 34. Horowitz M, Schaefer C, Hiroto D, Wilner N, Levin B. Life event questionnaires for measuring presumptive stress. *Psychosom Med.* 1977;39(6):413-31.
 35. Holmes TH, Rahe RH. The Social Readjustment Rating Scale. *J Psychosom Res.* 1967;11(2):213-8.
 36. Bouman AM. Statistics Netherlands. Available from: <http://www.cbs.nl/nl-NL/menu/themas/bevolking/publicaties/artikelen/archief/2004/2004-1461-wm.htm>. 2006. [Last retrieved on 2009 Oct 06].
 37. Raymo JM, Park H, Iwasawa M, Zhou Y. Single motherhood, living arrangements, and time with children in Japan. *J Marriage Fam.* 2014;76(4):843-861.
 38. Furedi F. *Paranoid Parenting: Why Ignoring the Experts May Be Best for Your Child.* New York: Continuum; 2008.
 39. Thompson MS, Ensminger ME. Psychological Well-being among mothers with school age children: Evolving family structures. *Soc Forces.* 1989;67(3):715-30.
 40. Ang RP. Dysfunctional parenting behaviors and parenting stress among mothers of aggressive boys. *Child Fam Behav Ther.* 2008;30:319-36.
 41. Bornstein MH. *Handbook of Parenting: Social Conditions and Applied Parenting.* 2nd ed., Vol. 4. Mahwah, NJ: Lawrence Erlbaum Associates; 2002.
 42. Helms-Erickson H. Marital quality ten years after the transition to parenthood: Effects of the timing of parenthood and the division of housework. *J Marr Family.* 2001;63:1099-110.
 43. Raymo JM. Single Motherhood and Children's Health and School Performance in Japan. *Marriage Fam Rev.* 2016;52(1-2):64-88.
 44. Kitson GC. Divorce and relationship dissolution research: Then and now. In: Fine MA, Harvey JH, editors. *Handbook of Divorce and Relationship Dissolution.* New York: Routledge, Taylor & Francis Group; 2006. p. 15-40.
 45. Schaan VK, Vögele C. Resilience and rejection sensitivity mediate long-term outcomes of parental divorce. *Eur Child Adolesc Psychiatry.* 2016;25(11):1267-9.
 46. Fombonne E. Increased rates of psychosocial disorders in youth. *Eur Arch Psychiatry Clin Neurosci.* 1998;248(1):14-21.
 47. Maughan B, Iervolino AC, Collishaw S. Time trends in child and adolescent mental disorders. *Curr Opin Psychiatry.* 2005;18(4):381-5.
 48. Rutter M, Smith DJ. *Psychosocial Disorders in Young People: Time Trends and Their Causes.* Chichester: Wiley; 1995.
 49. Canetti L, Bachar E, Bonne O, Agid O, Lerer B, Kaplan De-Nour A, et al. The impact of parental death versus separation from parents on the mental health of Israeli adolescents. *Compr Psychiatry.* 2000;41(5):360-8.
 50. Williams K, Umberson D. Marital status, marital transitions, and health: A gendered life course perspective. *J Health Soc Behav.* 2004;45(1):81-98.
 51. Choi NG, DiNitto DM, Marti CN, Choi BY. Association of adverse childhood experiences with lifetime mental and substance use disorders among men and women aged 50 years. *Int Psychogeriatr.* 2016:1-14.
 52. Bellis MA, Lowey H, Leckenby N, Hughes K, Harrison D. Adverse childhood experiences: Retrospective study to determine their impact on adult health behaviours and health outcomes in a UK population. *J Public Health.* 2014;36:81-91.
 53. Ehlert U. Enduring psychobiological effects of childhood adversity. *Psychoneuroendocrinology.* 2013;38(9):1850-7.
 54. Douglas KR, Chan G, Gelernter J, Arias AJ, Anton RF, Weiss RD, et al. Adverse childhood events as risk factors for substance dependence: Partial mediation by mood and anxiety disorders. *Addict Behav.* 2010;35(1):7-13.
 55. Anda RF, Butchart A, Felitti VJ, Brown DW. Building a framework for global surveillance of the public health implications of adverse childhood experiences. *Am J Prev Med.* 2010;39(1):93-8.
 56. Hill NE, Bromell L, Tyson DF, Flint R. Developmental commentary: Ecological perspectives on parental influences during adolescence. *J Clin Child Adolesc Psychol.* 2007;36(3):367-77.
 57. Bernet W, Wamboldt MZ, Narrow WE. Child Affected by Parental Relationship Distress. *J Am Acad Child Adolesc Psychiatry.* 2016;55(7):571-9.
 58. McEwen BS, Eiland L, Hunter RG, Miller MM. Stress and anxiety: Structural plasticity and epigenetic regulation as a consequence of stress. *Neuropharmacology.* 2012;62(1):3-12.
 59. Danese A, McEwen BS. Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiol Behav.* 2012;106(1):29-39.
 60. Toyokawa S, Uddin M, Koenen KC, Galea S. How does the social environment 'get into the mind'? Epigenetics at the intersection of social and psychiatric epidemiology. *Soc Sci Med* 2012;74:67-74.
 61. Dube SR, Felitti VJ, Dong M, Chapman DP, Giles WH, Anda RF. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: The adverse childhood experiences study. *Pediatrics* 2003;111:564-72.
 62. Dube SR, Anda RF, Felitti VJ, Edwards VJ, Croft JB. Adverse childhood experiences and personal alcohol abuse as an adult. *Addict Behav.* 2002;27(5):713-25.
 63. McLaughlin KA, Conron KJ, Koenen KC, Gilman SE. Childhood adversity, adult stressful life events, and risk of

- past-year psychiatric disorder: A test of the stress sensitization hypothesis in a population-based sample of adults. *Psychol Med.* 2010;40(10):1647-58.
64. Schüssler-Fiorenza Rose SM, Xie D, Stineman M. Adverse childhood experiences and disability in U.S. adults. *PM R.* 2014;6(8):670-80.
 65. Dishion TJ, Nelson SE, Kavanagh K. The family Check-Up with high-risk young adolescents: Preventing early-onset substance use by parent monitoring. *Behav Ther.* 2003;34:553-71.
 66. Afifi TO, Henriksen CA, Asmundson GJ, Sareen J. Childhood maltreatment and substance use disorders among men and women in a nationally representative sample. *Can J Psychiatry.* 2012;57(11):677-86.
 67. Dube SR, Miller JW, Brown DW, Giles WH, Felitti VJ, Dong M, et al. Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence. *J Adolesc Health.* 2006;38(4):444.e1-10.
 68. Fuller-Thomson E, Filippelli J, Lue-Crisostomo CA. Gender-specific association between childhood adversities and smoking in adulthood: Findings from a population-based study. *Public Health.* 2013;127(5):449-60.
 69. Madruga CS, Laranjeira R, Caetano R, Ribeiro W, Zaleski M, Pinsky I, et al. Early life exposure to violence and substance misuse in adulthood-The first Brazilian national survey. *Addict Behav.* 2011;36(3):251-5.
 70. Ford ES, Anda RF, Edwards VJ, Perry GS, Zhao G, Li C, et al. Adverse childhood experiences and smoking status in five states. *Prev Med.* 2011;53(3):188-93.
 71. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. 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.* 1998;14(4):245-58.
 72. World Health Organization. *Adverse Childhood Experiences International Questionnaire (ACE-IQ)*. Geneva: WHO; 2015.
 73. Madruga CS, Laranjeira R, Caetano R, Pinsky I, Zaleski M, Ferri CP. Use of licit and illicit substances among adolescents in Brazil – A national survey. *Addict Behav.* 2012;37(10):1171-5.
 74. Schwandt ML, Heilig M, Hommer DW, George DT, Ramchandani VA. Childhood trauma exposure and alcohol dependence severity in adulthood: Mediation by emotional abuse severity and neuroticism. *Alcohol Clin Exp Res.* 2013;37(6):984-92.
 75. Sitnick SL, Shaw DS, Hyde LW. Precursors of adolescent substance use from early childhood and early adolescence: Testing a developmental cascade model. *Dev Psychopathol.* 2014;26(1):125-40.
 76. Lopes GM, Nóbrega BA, Del Prette G, Scivoletto S. Use of psychoactive substances by adolescents: Current panorama. *Rev Bras Psiquiatr.* 2013;35 Suppl1:S51-61.
 77. Sindelar HA, Barnett NP, Spirito A. Adolescent alcohol use and injury. A summary and critical review of the literature. *Minerva Pediatr.* 2004;56(3):291-309.
 78. Divorce Rates See A Spike, But Help is at Hand. Shiv Sunny. May 30, 2016. *The Hindu*; 2016.
 79. Bizarre Reasons Indians Cite for Divorce. Ankita Shukla. January 4, 2016. *The Times of India*; 2016.
 80. Not So Happily-Ever-After, Yet India has a Low Divorce Rate. Sumit Mitra. *The Quint*. October, 1; 2015.
 81. *The Hindu Marriage Act (Bare Act)*. New Delhi: Professional Book Publishers; 2002.
 82. Sundar R, Acharya P, Mookharjee D, Babar M, Ravikumar U, Vashisht C, et al. A study of single mothers in 4 metro cities of India. An Initiative by Ministry of Women and Child Development. Conducted by Partners in Development Initiatives Year; 2011.
 83. Amato PR, Anthony CJ. Estimating the effects of parental divorce and death with fixed effects models. *J Marriage Fam.* 2014;76(2):370-86.
 84. Reddy KR, Biswas A. Substance abuse in urban school going adolescents in India: A growing challenge. *Indian Pediatr.* 2013;50(8):799-800.
 85. Pal H, Srivastava A, Dwivedi SN, Pandey A, Nath J. Prevalence of drug abuse in India through a national household survey. *Int J Curr Sci.* 2015;15:e103-13.
 86. Assessment of Pattern and Profile of Substance Use among Children in India Conducted for National Commission for Protection of Child Rights (NCPCR). Conducted By National Drug Dependence Treatment Centre [NDDTC], All India Institute of Medical Sciences [AIIMS], New Delhi; 2015.
 87. Kacker L, Varadan S, Kumar P. Study on Child Abuse: India 2007. Ministry of Women and Child Development, Supported by UNICEF, Save the Child and Prayas, Government of India; 2007.
 88. Bhattacharjee S, Kumar R, Agrawal A, O'Grady KE, Jones HE. Risk factors for substance use among street children entering treatment in India. *Indian J Psychol Med.* 2016;38(5):419-23.
 89. Mahal A. What works in alcohol policy? Evidence from rural India. *Econ Polit Wkly.* 2000;2:3959-68.
 90. Chadda RK, Deb KS. Indian family systems, collectivistic society and psychotherapy. *Indian J Psychiatry.* 2013;55 Suppl 2:S299-309.
 91. Tyrka AR, Wier L, Price LH, Ross NS, Carpenter LL. Childhood parental loss and adult psychopathology: Effects of loss characteristics and contextual factors. *Int J Psychiatry Med.* 2008;38(3):329-44.
 92. Bratek A, Beil J, Banach M, Jarzabek K, Krysta K. The impact of family environment on the development of alcohol dependence. *Psychiatr Danub.* 2013;25 Suppl 2:S74-7.
 93. International Labour Organization. Report VI. Child Labour: Targeting the Intolerable. International Labour Organization. Monograph on the Internet. Geneva: International Labour Organization; 2001.
 94. Malhotra S, Patra BN. Prevalence of child and adolescent psychiatric disorders in India: A systematic review and meta-analysis. *Child Adolesc Psychiatry Ment Health.* 2014;8:22.
 95. Ramachandran V. The prevention of alcohol-related problems. *Indian J Psychiatry.* 1991;33(1):3-10.
 96. Benegal V, Chand PK, Obot IS. Packages of care for alcohol use disorders in low- and middle-income countries. *PLoS Med.* 2009;6(10):e1000170.

How to cite this article: Khandelwal A, Khandelwal S, Desousa A. Unraveling the Dynamic Interplay Between Family Functioning and Substance Use Among Adolescents: An Indian Perspective. *Int J Med Sci Public Health* 2017;6(5):822-828.

Source of Support: Nil, **Conflict of Interest:** None declared.