Family Communication in the Context of Substance Use: What do We Know and What Measures We can Take?

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Abstract

Substance use disorders do have a significant impact on the family. Alternately, it has also been seen that certain family characteristics and family environments may have an important contribution to the development of substance use disorder. Thus, families have an intricate relationship with substance use disorders, at times facilitating substance use, at other times preventing substance use, and at still other times being affected by substance use disorders. Communication in the family is an important consideration in the relationship between substance use disorder and its impact on the family. Altered communication patterns have been noted in families, while at the same time, many interventions have focused on altering family communications to improve outcomes. This narrative review discusses the relationship between family communication and substance use disorders. The review discusses the theoretical considerations of family communication, the influence of communication on substance use disorder, substance-specific communications, the influence of substance use on communication, and the role of communication in family-based interventions. The literature emerging from India on the topic has also been discussed.

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INTRODUCTION

Communication in the family context has an intricate relationship with substance use disorder. Communication has been described as a transactional process of creating, sharing, and regulating meaning by individuals.¹ It is an ongoing activity that keeps changing,² and is dependent on intersubjectivity and feedback. Therefore, each family's communication is dynamic and has unique attributes. Communication in a family has been usually described as family dyads like parent-child communication, marital communication or the whole family.³,⁴ This narrative review discusses the relationship between family communication and substance use disorders. The narrative review discusses the theoretical considerations of family communication, the influence of communication on substance use disorder, substance-specific communications, the influence of substance use on communication, and the role of communication in family-based interventions.

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Most of the theoretical aspects of family communication have been derived from general systems theory (GST). It was developed to explain how different elements of a system work coherently to churn out relevant outputs from the inputs. 5 Success of communication is dependent on feedback. Watzlawick et al.6 proposed a core construct in the study of family communication "Every communication has a content and relationship aspect such that the latter classifies the former and is, therefore, a metacommunication". Whitchurch and Constantine³ reported on 3 core features of GST. Firstly, theories can help to better define and unify science across traditional academic boundaries. Secondly, the system must be understood as a whole. Thirdly, human systems are self-reflexive. In a family, the characteristics and the manner of the family system functioning as a unit are described as system processes.7

According to the symbolic interaction theory, communication in the family also depends on 3 central themes and underlying assumptions associated with these themes.8 The first one pertains to mead's concept of min and its meanings for humans. The theme posits that humans act toward others based on the meaning others have for them, interactions between people create the meanings, and that meaning is changed via the interpretive process. The second one pertains to development of self-concepts.9 Interaction with others leads to development of self-concepts and these self-concepts generate motive for behavior.¹⁰ The third theme describes the relationship between individuals and society. This supposes that cultural and social processes influence people and groups and social interactions define the social structure.

Research on family suggests that children are influenced by several socializing agents, including parents, siblings, and others (both within and outside the family). It should be emphasized that meaning in communication is subjective and dynamic, and as family members interact with each other, and the larger society, they work out understandings in the process.^{11,12}

Some aspects of family communication are based on Bandura's social learning theory. Actions of parents in the presence of their children stimulates

modeling of behavior by implicitly communicating abstract if-then rules. Attachment theory also plays a role, as templates for other social relationships are drawn from parent-infant interaction. A secure or dismissive attachment style that lends a positive view of self is associated with positive family outcomes such as marriage and parenting being considered rewarding.13 Secure attachment has been associated with parenting considered more positively, and marital conflict patterns being less destructive.^{14,15} Communication in the family has also been studied from the dialectical perspective, which explains that our relationships with other people have inherent contradictions. 16,17 It is explained using the concept of Praxis, that is, people are simultaneously actors and objects of their own actions.¹⁶ Praxis patterns are different mechanisms for managing the dialectical tensions in different relationships. It can be integration versus differentiation or stability versus change.⁷ Thus, there can be various models for explaining communication in the family.

Thus, there are a variety of theoretical constructs that describe communication in the family context. The different theoretical explanations can be helpful in describing the different facets of family communications.

Influence of Communication Cohesion Among Family Members on Substance Use Disorder

The influence of family communication in SUD can be traced to the primary socialization theory, which highlights that adolescent substance use is influenced by family communication processes. Adolescent attitudes, beliefs, values and behaviors are shared by family, school and peers. Diminished self-control and subsequent descent to problematic behaviors are probably linked to lack of bonding with parents. It has been theorized that the effect of the primary socialization process (through various social groups) on behavioral outcomes is mediated by internalized beliefs and dispositions. ¹⁸ If the youth and parents are bonded well, then the youth are likely to engage in behaviors like alcohol use.

Bonding via communication: Parent-child bonding impacts the subsequent behaviors

manifested by the youth. 18 It has been suggested that authoritative parenting, as compared to passive or authoritarian parenting, provides a more conducive environment for youth to flourish. Such parents provide with an emotional climate of warmth and involvement which makes child independent and with autonomous self-expression. This occurs through control which is confrontative (e.g., firm, demanding, and instructive) rather than control, which is coercive control (e.g., manipulative, punitive, intrusive, and restrictive). Suitable control is exercised in a warm parental relationship facilitating good parent-child bonding.¹⁹ Expressive family communication facilitates warm parent-child relationships. Adolescent externalizing behaviors are lesser when expressive family communication patterns.²⁰ Similar studies of college samples have found expressiveness to be related to authoritativeness.²¹ Studies provide evidence that lower substance use in early adolescents was associated with higher parental expressiveness.

A review by Schindler summarises the relationship between attachment and substance use disorders.²² The author states a correlation between the severity of opioid dependence and insecurity of attachment, citing an Iranian study where opiatedependent individuals showed more insecure attachment as compared to non-dependent users.²³ Fearful-avoidant attachment has shown to have a relation with the severity of heroin dependence²⁴ while heterogeneous patterns have been seen in alcohol users.²² Cross-sectional studies have found a link between insecure attachment and SUDs. while experimental substance users and healthy controls had more secure attachment styles. In a meta-analysis by Fairbairn et al.25, this link between insecure attachment and substance abuse has been more emphasized in adolescents as compared to adults. However, there is still lack of data on the longitudinal relationship of attachment towards the development of a specific type of SUD to establish causality.²² Studies are lacking to see the direct role of these different attachment styles on communication patterns in substance users.

One study on 26 alcohol abusers and 62 drug abusers investigated deficient parental bonding during childhood and adolescence and found a pattern of "affectionless control" to be associated

with the development of substance abuse.²⁶ While earlier onset of alcohol abuse was related to maternal overprotection (p =0.033), high paternal care was found to be correlating with earlier onset of drug abuse (p=0.017). Substance abuse is not only related to parental bonding and attachment but also is correlated to insecure attachment styles to develop in the marital dyad and the family and thereby may contribute to divorce.²⁷

Another expression of primary socialization theory in family communication is through adolescent efficacy, where it is assumed that parental bonding modules the adolescent beliefs, and adolescent behaviors are determined by such beliefs.18 Selfefficacy is also derived from social cognitive theory, which defines it as one's confidence in his/her ability to execute a task required to achieve a goal. Appropriate and consistent parenting promotes adolescent self-efficacy, leading to improved overall outcomes.²⁸ Better self-efficacy predicts lesser substance use.²⁹ Building from these 2 theories are 2 domains of self-efficacy, alcohol refusal-efficacy and alcohol decision-efficacy. Refusal efficacy encompasses the belief of being able to refuse alcohol when offered, while decision efficacy pertains to control alcohol consumption. A lower risk of alcohol use has been found when individuals feel that control exists or there is high refusal efficacy.³⁰⁻³³

Substance-specific Communication (SSPC)

The role of SSPC has been well-studied in relation to adolescent substance use.34 Qualitative descriptions of parent-child conversations about substances have enlightened the field. 35,36 Quantitative studies have also discussed how focused conversations affect substance-use beliefs and behaviors. 33,37,38 Mostly conflicting verbal and nonverbal messages have been implicated in substance use disorders (e.g., "do as I say, not as I do"). Parents directly addressing substance use related issues with adolescent children is likely to have a protective effect. If there is low overprotection and high expressiveness, then SSPC is more likely, leading to decreased alcohol use. On the contrary, if there is low expressiveness and high overprotection, then substance-specific communication is less likely,

which may lead to increased substance use. Second, the communication of control and warmth may be domain-specific. For instance an adolescent who never violates curfew may still use substances as expectations about it may be unclear. In families with high degree of warmth and control, it is possible that adolescents may still indulge in substance use when substance-specific communication has not been there.³² Thus, family bonding may have differential associations with SSPC through differential expressiveness and overprotection.

Parent-child communication has an important bearing on children's and adolescents' behavior. Excessively severe and inconsistent disciplining of the child may be due to poorly-communicated and poorly-defined expectations of the child's behavior, on the background of low level of communication between the child and the parent. Consequent negative interaction and conflict in the family may result in problems related to conduct, delinquency and substance use. Regular communication of parental affection and warmth, clear prosocial expectations, encouragement of the child's competencies, and regular monitoring may lead to less problematic behaviors in the child.³⁹

A study on communication within the family about drugs found that both the parents and children endorsed that they should communicate about drugs. While the majority (93%) presupposed that they had already discussed it with children, only 46% acknowledged it. Most parents and children (90%) mentioned it would be helpful to communicate with their children through leaflets, a talk by a professional, or a TV program.⁴⁰ Another study found that half of secondary school children preferred their parents to be the main source of information and learning about drugs.⁴¹

A needs assessment of 129 parents in Scotland highlighted the lack of an appropriate language and opportunity to discuss drug issues with adolescents, acknowledging the need for better parenting skills to facilitate understanding between parents and children. Almost all the parents (96%) wanted to have video clips by young people which could be useful for discussion with children.⁴² Parental communication about their disapproval of drug use was related to less frequent subsequent drug

use by children, as per two large-scale studies from USA and Australia.⁴³There is evidence to suggest for differences in how mothers and fathers imbibe new communication skills through training problems.⁴⁴

Influence of Substance use Disorder on Communication/ Cohesion among Family Members

Parental substance use has been found to significantly impact communication, especially with children.

Attachment Theory

Some authors have explained it in the background of attachment theory by Bowlby. Substance use disorder in the parent leads to altered mood, preoccupation with getting high, or devoting considerable time in substance consumption/recovering from effects, due to which they miss the opportunities for healthy attachment with their child, which depends on various implicit and reciprocal interactions between the attachment figure and the infant.

Family Systems Theory

In a family system, there is a tendency for a system to seek stability and equilibrium, known as homeostasis.⁴⁵ This may be explained by instances where the child covers up her father's drinking to allow his substance use disorder to continue with limited consequence and a relative equilibrium by reducing altercations among the parents, though it maintains the problem.

Parents with substance use disorders may not be able to assert or directly communicate with their children leading to a chaotic environment that predisposes to anxiety, confusion, fear, shame, guilt, loneliness, depression, and anger in the children.⁴⁶

Studies have shown that not only substanceabusing parent exhibits strict discipline with an authoritarian parenting style, but even the sober parent fails to communicate warmth to their child. Such faulty parenting reflects in their children's behavior when they grow up but have difficulty communicating with others because of feelings of mistrust toward others and negative affective states.^{47,48} In a review, Vernig showcases the various types of roles and communication patterns that the children adopt in the families of patients with alcohol use disorder.⁴⁹ They can be enablers who, though they fulfill the parental roles, keep maintaining the substance use behavior. Some children become more mature (the heroes) and try to maintain the image of a high-functioning family. The lost child is the one who prefers to withdraw from the family in the hope of avoiding conflict. Some assume the role of a mascot and use humour to hide their distress. The child can also become a scapegoat to the harms of substance use in the family.⁴⁹

A thematic analysis study of communication dynamics in the family of 682 adult children of patients with alcohol use disorders revealed four types of communication: aggressive, protective, adaptive, and inconsistent communication. In aggressive communication, the most endorsed theme was that of heightened conflict, followed by tense communication and slandering in secret. In protective communication, superficiality was the most apparent theme, while others mentioned limited or indirect communication and buffering by the sober parent. Some mentioned adaptive or functional communication while others have reported inconsistent communication comprising struggles over power and mood fluctuations.⁴⁸ Such communication in the family leads to various emotional, psychological, and behavioural outcomes, which include substance use in the child as well.48

A qualitative study of perceptions of communication in the family system of people with opioid use disorders highlighted five characteristics from a systems perspective. Certain patterns and rules of communication in the family comprise both avoidance and disclosure to maintain stability in the family system. Families also communicate and maintain stability through a mechanism of feedback messages, both endorsing and condemning substance use. The participants identified 2 aspects of the environment that crossed family boundaries, namely, social stigma and outside institutions, and they tend to modify communication according to these influences on the family. Another characteristic is interdependence, where one family

member's communication regarding substance use is dependent on that of the other members. The last characteristic mentioned is that of equifinality, which refers to the goal-oriented nature of families, which the participants identified as breaking the cycle of problematic substance use behavior as the primary goal.⁵⁰

Role of Family Communication in the Management of the Substance use Disorder

It starts with an appropriate assessment of family communication in the context of substance use disorder. It should comprise a detailed qualitative account of the interaction patterns along with an objective assessment using scales. The family communication scale (FCS) is a brief and simple scale that can be applied to individuals and groups. This unidimensional scale 10 items. Positive communication skills like empathy, clear and congruent messages, and supportive phrases are included. Better level of family communication are reflected by higher scores on the scale.51 The family satisfaction scale (FSS) is another unifactorial Likert-type scale that assesses satisfaction felt by an individual with his/her family. Scores on the scale are related to task acceptance, cohesion, and communication.52

Family systems approach has been used to help in counseling families to detect patterns of communication influencing substance use and recovery from substance use.⁵³ It has a role in counseling families to recognize entrenched communication patterns and how substance use disorder alters the patterns of communication. Such therapeutic interventions guide for smoother familial transitions amid crises with improvement in long-term family functioning. Important features to be kept in mind in such context:

- The responses to substance use disorders vary across the family.
- Each family member may react differently.
- Pre-existing hierarchies and power dynamics may influence each family member differently.⁵⁴
- Each member of the family system is affected by the reverberations of the substance use disorder is a different way.

- Interventions and counseling curricula targeting families should consider the complexities.
- Rather than a one-size-fits-all counseling approach, an individualized solution for each family is desirable.⁵³

These interventions can be done at any time and have different advantages. It can be done prior to entry of the individuals using substances into treatment, as well as once in treatment. It can help family members (often referred to as 'relational partners') adapt or tailor their communication to align it more to the objectives of treatment programs. The interventions used may depend on the severity of substance use and how family members can be roped in for the change. "The pressures to change" approach trains and counsels spouses to encourage abstinence by discouraging substance use and providing positive reinforcement of other activities. 55

The Role of Communication in Family Therapy

Several family therapy interventions have the important component of focusing on communication. These are described as under:

Community Reinforcement and Family Training (CRAFT)

It consists of engaging family members (or relational partners) in the treatment process to motivate acceptance of help by the person using substances.⁵⁶ Measures are taken not to encourage confrontational communications or distancing. Establishing rewards is encouraged to improve motivation for the substance-using individual to enter treatment. It is necessary to demonstrate the importance of family members' communication about substance use and that inconsistency in communication about substance use may lead to substance use or relapse.⁵⁷ Open communication is encouraged to confront concerns and communicate feelings directly, thus reducing miscommunication and subsequent conflicts. Conflict management is another aspect of family communication that improves family dynamics. This applies in the context of adolescents as well, where parents are encouraged to consistently reinforce affection and responsiveness to minimize

problematic behaviours.⁵⁸⁻⁶⁰ It also helps improve communication between codependent partners by finding an appropriate balance between openness and avoidance.⁴⁸

A Relational Intervention Sequence for Engagement (ARISE)

It is the technique used for engaging substance users who are apparently difficult-to-treat. This intervention starts when a concerned attendant contacts the treatment program for a person using substances. The role of communication lies in efforts to build a network, teaching the concerned family member to contact and meet with significant others, inviting the individual using substance, and subsequently starting the management.^{61,62}

Multidimensional Family Therapy

Family-focused interventions in multidimensional family therapy include working on family communication like parental reconnection and enhancing monitoring and discipline skills in the family environment. It specifically includes working with teens with substance use disorders and their parents individually and jointly on communication and interactional skills.63 These interventions have been known to be applied to one of the different interdependent treatment domains targeting adolescent and family functioning. In the interactional domain, taking joint sessions with adolescents and their families, the therapist directly observes and facilitates change in family interactional patterns and improvement in patterns of communication. These interventions aim to help adolescents and their parents communicate effectively with each other and establish collaborative relationships in their social systems of the adolescent.63

Multisystemic Therapy

This therapeutic approach is guided by the family's knowledge of systemic principles in the family. Interactional patterns and communication sequences are observed in order to understand subsystems, hierarchy and boundaries within the family of the substance user. It comprises understanding the interaction patterns within and outside the family and how they affect each member of the family.⁶⁴ The therapeutic process starts with

a detailed assessment of family functioning, including patterns of interactions and alliances in the family, including verbal and non-verbal cues and communication, family conflict, or low warmth with negative affect between parents and child.⁶⁴

Indian Context

In the Indian context, the family structure consists of strong familial ties. In clinical practice, it has been seen that family members play a significant role in the treatment process of substance use disorders. Studies have mentioned prominent issues in the context of such families in India like domestic violence and adverse familial circumstances, psychopathology and distress in family members, codependence, and family burden. But family members have been found to provide motivation, emotional support, and practical help during substance use disorder treatment. Therefore, in this scenario, involving the family in the therapeutic process helps improve the treatment outcome.⁶⁵

A family interaction patterns scale (FIPS), which is valid in the Indian setting, has been used in studies to assess family functioning, which includes communication amongst other aspects like leadership, role, reinforcement, cohesiveness, and social support system. A study at NIMHANS aimed to describe the family interaction pattern of persons with alcohol dependence from India. It assessed 90 participants and their caregivers belonging to 3 different groups: abstinent for 6 months, relapsing, and control. According to the family interaction patterns scale (FIPS), the relapsed group had a higher level of dysfunction in roles, communication, cohesiveness, leadership, and overall family interaction.

Current research on family communication overwhelmingly focuses on the parent–child and partner interactions. Other interactions like sibling, extended family, and peer relationships also require attention.⁶⁸

Also, most research on communication are from substance use prevention perspective, building upon the role of family in communication with children and adolescents, thus restricting knowledge in other age groups. Also most studies utilise clinical samples which may pose research limitations,

like representing more severe forms of substance use and thus more disordered communication in family. Even the clinical definitions of substance use vary across studies, thus limiting our knowledge of relational communication about substance use. ⁵⁵ A review from India highlights that the medical model with psychosocial-based interventions is not integrated. Effective implementation of family communication in treatment needs clarity in the roles of the different members of the treating team. ⁶⁹ Currently, there is limited trained human resource for family-based interventions for SUD. Cultural adaptation of family communication-based interventions is needed due to unique cultural values, dynamics and family structures.

CONCLUSION

Family communication theories have been well established. The influence of communication among family members on substance use disorder, especially in adolescents, has been well studied. It is evident that the influence of substance use disorder on psychosocial well-being and communication among family members is prominent but varied. Parent-child dyads are the most studied aspect of family communication. Assessment of communication in family of patients with substance use disorders is important as it guides the management. However, specific studies are lacking in the Indian setting. Also, it is necessary to continue emphasizing the importance of communication in various family relationships. Apart from exploring the effects of family communication on substance use disorders, it is also crucial to see the effect on other related behaviors. More studies are needed to understand the role of family communication in other factors contributing to substance use disorder. Incorporating these effects in customized therapy for the family will help manage the index family as a whole.

REFERENCES

- Segrin C, Flora J. Family Communication. Routledge; 2018.
- 2. Dance FE. Human communication theory: Original essays.
- 3. Whitchurch GG, Constantine LL. Systems theory.

- In: Boss PG, Doherty WJ, LaRossa R, Schumm WR, Steinmetz SK, eds. Sourcebook of Family Theories and Methods. Plenum Press; 1993:325-352.
- 4. Socha TJ. Communication in Family Units: Studying the First "Group." In: Frey LR, Gouran D, Poole MS, eds. The Handbook of Group Communication Theory and Research. SAGE; 1999:475-492.
- 5. Von Bertalanffy L. The history and status of general systems theory. Academy of management journal. 1972;15(4):407-426.
- 6. Watzlawick P, Beavin J. Some formal aspects of communication. American Behavioral Scientist. 1967;10(8):4-8.
- 7. Bochner A, Eisenberg E. Family Process: System Perspectives on Family Communication. In: Berger CR, Chaffee SH, eds. Handbook of Communication Science. 1st ed. SAGE; 1987:540-563.
- 8. Klein DM, White JM. Family Theories: An Introduction. Sage Publications, Inc; 1996
- 9. Mead GH, Schubert C. Mind, Self and Society. University of Chicago press; 1934.
- 10. LaRossa R, Reitzes DC. Symbolic interactionism and family studies. In: Sourcebook of Family Theories and Methods. Springer; 2009:135-166.
- Cheng SH, Kuo WH. Family socialization of ethnic identity among Chinese American pre-adolescents. Journal of Comparative Family Studies. 2000;31(4):463-484
- 12. Bohannon JR, Blanton PW. Gender role attitudes of American mothers and daughters over time. The Journal of Social Psychology. 1999;139(2):173-179.
- 13. Vasquez K, Durik AM, Hyde JS. Family and Work: Implications of Adult Attachment Styles. Personality and Social Psychology Bulletin. 2002;28(7):874-886. Available from: doi:10.1177/014616720202800702
- 14. Cohn DA, Silver DH, Cowan CP, Cowan PA, Pearson J. Working Models of Childhood Attachment and Couple Relationships. Journal of Family Issues. 1992;13(4):432-449. Available from: doi:10.1177/019251392013004003
- Feeney JA, Noller P, Roberts N. Attachment and close relationships. In: Close Relationships: A Sourcebook. Sage Publications, Inc; 2000:185-201. Available from: doi:10.4135/9781452220437.n14
- 16. Baxter LA, Montgomery BM. Rethinking communication in personal relationships from a dialectical perspective. In: Handbook of Personal Relationships: Theory, Research and Interventions, 2nd Ed. John Wiley & Sons Inc; 1997:325-349.
- 17. Baxter LA, Montgomery BM. Relating: Dialogues and Dialectics. Guilford Press; 1996.
- Oetting ER, Donnermeyer JF. Primary Socialization Theory: The Etiology of Drug Use and Deviance. I. Substance Use & Misuse. 1998;33(4):995-1026. Available from: doi:10.3109/10826089809056252

- Baumrind D. Authoritative parenting revisited: History and current status. In: Authoritative Parenting: Synthesizing Nurturance and Discipline for Optimal Child Development. American Psychological Association; 2013:11-34. Available from: doi:10.1037/13948-002
- 20. Rueter MA, Koerner AF. The effect of family communication patterns on adopted adolescent adjustment. Journal of Marriage and Family. 2008;70(3):715-727.
- 21. Hamon JD, Schrodt P. Do Parenting Styles Moderate the Association Between Family Conformity Orientation and Young Adults' Mental Well-Being? Journal of Family Communication. 2012;12(2):151-166. Available from: doi:1 0.1080/15267431.2011.561149
- 22. Schindler A. Attachment and substance use disorders—theoretical models, empirical evidence, and implications for treatment. Frontiers in Psychiatry. 2019;10:727.
- 23. Mortazavi Z, Sohrabi F, Hatami HR. Comparison of attachment styles and emotional maturity between opiate addicts and non-addicts. Annals of Biological Research. 2012;3(1):409-414.
- 24. Söderberg Gidhagen Y. Psychological Treatment of Outpatients with Substance Use Disorders in Routine Care: Attachment Style, Alliance, and Treatment Outcome. PhD Thesis. Linköping University Electronic Press; 2018.
- 25. Fairbairn CE, Kang D, Bosch N. Using machine learning for real-time BAC estimation from a new-generation transdermal biosensor in the laboratory. Drug and Alcohol Dependence. 2020;216. Available from: doi:10.1016/j.drugalcdep.2020.108205
- 26. Segura-Garcia C, Rania M, Aloi M, et al. Parental bonding in substance and alcohol abusers. Heroin Addiction and Related Clinical Problems. 2016;18(2):13-20.
- Nair H, Murray AD. Predictors of attachment security in preschool children from intact and divorced families. The Journal of Genetic Psychology. 2005;166(3):245-263.
- 28. Hirschi T, Gottfredson M. Substantive positivism and the idea of crime. Rationality and Society. 1990;2(4):412-428.
- 29. Kadden RM, Litt MD. The role of self-efficacy in the treatment of substance use disorders. Addictive Behaviors. 2011;36(12):1120-1126. Available from: doi:10.1016/j.addbeh.2011.07.032
- Cavaiola AA, DeSordi EG. Locus of control in drinking driving offenders and non-offenders. Alcoholism Treatment Quarterly. 2000;18(4):63-73.
- 31. Cavaiola AA, Strohmetz DB. Perception of risk for subsequent drinking and driving related offenses and locus of control among first-time DUI offenders. Alcoholism Treatment Quarterly. 2009;28(1):52-62.
- Choi HJ, Miller-Day M, Shin Y, et al. Parent Prevention Communication Profiles and Adolescent Substance Use: A Latent Profile Analysis and Growth Curve Model. Journal of Family Communication. 2017;17:15-32.



- Available from: doi:10.1080/15267431.2016.1251920
- 33. Kam JA, Middleton AV. The Associations Between Parents' References to Their Own past Substance Use and Youth's Substance-Use Beliefs and Behaviors: a Comparison of Latino and European American Youth. Human Communication Research. 2013;39(2):208-229. Available from: doi:10.1111/hcre.12001
- 34. Van Der Vorst H, Burk WJ, Engels RCME. The role of parental alcohol-specific communication in early adolescents' alcohol use. Drug and Alcohol Dependence. 2010;111(3):183-190. doi:10.1016/j.drugalcdep.2010.03.023
- 35. Miller-Day M. Talking to Youth About Drugs: What Do Late Adolescents Say About Parental Strategies? Family Relations. 2008;57(1):1-12. Available from: doi:10.1111/j.1741-3729.2007.00478.x
- 36. Miller-Day M, Dodd AH. Toward a Descriptive Model of Parent–Offspring Communication about Alcohol and Other Drugs. Journal of Social and Personal Relationships. 2004;21(1):69-91. Available from: doi:10.1177/0265407504039846
- 37. Kam JA, Potocki B, Hecht ML. Encouraging Mexican-Heritage Youth to Intervene When Friends Drink: The Role of Targeted Parent-Child Communication Against Alcohol. Communication Research. 2014;41(5):644-664. Available from: doi:10.1177/0093650212446621
- 38. Miller-Day M, Kam JA. More than just openness: developing and validating a measure of targeted parent-child communication about alcohol. Health Communication. 2010;25(4):293-302. Available from: doi:10.1080/10410231003698952
- 39. Velleman RD, Templeton LJ, Copello AG. The role of the family in preventing and intervening with substance use and misuse: a comprehensive review of family interventions, with a focus on young people. Drug and Alcohol Review. 2005;24(2):93-109. Available from: doi:10.1080/09595230500167478
- 40. Quinn L. Mobilising Parents. Druglink. March 1996. 1996.
- 41. O'Connor L, Best R, Best R, Rowley J. Drugs, Drugs Education, and Young People—Missed Opportunities. Unpublished report London: Roehampton Institute. 1997.
- 42. Robertson N. Speaking the same language: Fast Forward has started working with parents. Druglink. 1996;11:11-11.
- 43. Olsson CA, Coffey C, Toumbourou JW, Bond L, Thomas L, Patton G. Family risk factors for cannabis use: a population-based survey of Australian secondary school students. Drug and Alcohol Review. 2003;22(2):143-152.
- 44. Kosterman R, Hawkins JD, Spoth R, Haggerty KP, Zhu K. Effects of a preventive parent-training intervention on observed family interactions: proximal outcomes from preparing for the drug free years. Journal of Community Psychology. 1997;25(4):337-352.
- 45. Brown JH, Christensen DN. Family Therapy: Theory and

- Practice. Wadsworth Publishing Company; 1999.
- 46. Lander L, Howsare J, Byrne M. The impact of substance use disorders on families and children: from theory to practice. Social Work in Public Health. 2013;28(3-4):194-205. Available from: doi:10.1080/19371918.2013.759005
- 47. Kelley ML, Braitman A, Henson JM, Schroeder V, Ladage J, Gumienny L. Relationships among depressive mood symptoms and parent and peer relations in collegiate children of alcoholics. American Journal of Orthopsychiatry. 2010;80(2):204.
- 48. Haverfield MC, Theiss JA, Leustek J. Characteristics of Communication in Families of Alcoholics. Journal of Family Communication. 2016;16(2):111-127. Available from: doi:10.1080/15267431.2016.1146284
- 49. Vernig PM. Family roles in homes with alcohol-dependent parents: an evidence-based review. Subst Use Misuse. 2011;46(4):535-542. Available from: doi:10.3 109/10826084.2010.501676
- Crowley JL, Miller LE. How People with Opioid Use Disorder Communicatively Experience Family: A Family Systems Approach. Journal of Family Communication. 2020;20(4):298-312. Available from: doi:10.1080/1526743 1.2020.1819283
- Barnes H, Olson DH. Parent-adolescent communication, family inventories. Family social science, University of Minnesota. 1982.
- 52. Barnes HL, Olson DH. Parent-Adolescent Communication and the Circumplex Model. Child Development. 1985;56(2):438-447. Available from: doi:10.2307/1129732
- 53. Crowley JL, Miller LE. "Who's gonna love a junkie? But he does": Exploring couples' identity negotiations and dyadic coping in the context of opioid use disorder. Journal of Social and Personal Relationships. 2020;37(5):1634-1652. Available from: doi:10.1177/0265407520903385
- 54. Afifi TD. 'Feeling Caught' in Stepfamilies: Managing Boundary Turbulence through Appropriate Communication Privacy Rules. Journal of Social and Personal Relationships. 2003;20(6):729-755. Available from: doi:10.1177/0265407503206002
- 55. Middleton AV. Relational Communication about Substance Use. In: Berger CR, Roloff ME, Wilson SR, Dillard JP, Caughlin J, Solomon D, eds. The International Encyclopedia of Interpersonal Communication. 1st ed. Wiley; 2015:1-9. doi:10.1002/9781118540190.wbeic228
- Meyers RJ, Miller WR, Smith JE, Tonigan JS. A randomized trial of two methods for engaging treatment-refusing drug users through concerned significant others. Journal of Consulting and Clinical Psychology. 2002;70(5):1182-1185.
- 57. Le Poire BA, Hallett JS, Erlandson KT. An Initial Test of Inconsistent Nurturing as Control Theory:How Partners of Drug Abusers Assist Their Partners' Sobriety. Human Communication Research. 2000;26(3):432-457. Available from: doi:10.1111/j.1468-2958.2000.tb00764.x

- 58. Rangarajan S, Kelly L. Family communication patterns, family environment, and the impact of parental alcoholism on offspring self-esteem. Journal of Social and Personal Relationships. 2006;23(4):655-671.
- 59. Pennebaker JW. Opening up: The Healing Power of Confiding in Others. William Morrow & Company; 1990.
- 60. Ryan WP. Treatment issues with adult children of alcoholics. Psychoanalytic Psychology. 1991;8(1):69-82. Available from: doi:10.1037/h0079248
- 61. Landau J, Garrett J, Shea RR, Stanton MD, Brinkman-Sull D, Baciewicz G. Strength in numbers: The ARISE method for mobilizing family and network to engage substance abusers in treatment. The American Journal of Drug and Alcohol Abuse. 2000;26(3):379-398.
- 62. Landau J, Stanton MD, Brinkman-Sull D, et al. Outcomes with the ARISE approach to engaging reluctant drugand alcohol-dependent individuals in treatment. The American Journal of Drug and Alcohol Abuse. 2004;30(4):711-748.
- 63. Liddle HA. Multidimensional family therapy: A science-based treatment system. Australian and New Zealand Journal of Family Therapy. 2010;31(2):133-148.
- 64. Henggeler SW, Rowland MD, Randall J, et al. Home-

- based multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis: clinical outcomes. Journal of American Academy of Child and Adolescent Psychiatry. 1999;38(11):1331-1339. Available from: doi:10.1097/00004583-199911000-00006
- 65. Sarkar S, Patra BN, Kattimani S, others. Substance use disorder and the family: An Indian perspective. Medical Journal of Dr DY Patil University. 2016;9(1):7-14.
- 66. Bhatti RS, Subba Krishna DK, Ageira BL. Validation of family interaction patterns scale. Indian Journal of Psychiatry. 1986;28(3):211-216.
- 67. Pandian RD, Ranganathan M. Family interaction pattern and abstinence among persons with alcohol dependence syndrome. International Research Journal of Social Sciences. 2017;6(8):23-26.
- 68. Smith DC, Cleeland L, Middleton A, Godley MD. Willingness and appropriateness of peers participating in emerging adults' substance misuse treatment. Journal of Substance Abuse Treatment. 2013;45(1):148-154. Available from: doi:10.1016/j.jsat.2013.01.008
- 69. Sarkar S, Kaloiya GS, others. Family-based interventions for substance use disorders must look at the local needs and service delivery. Journal of Mental Health and Human Behaviour. 2019;24(1):1-7