

Adolescent Substance Use and Abuse: Biopsychosocial Factors

Nicholas Antonio Inclan

Liberty University

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As individuals' transition into the adolescent development stage, they will be confronted with multiple psychophysiological, neurobiological and social changes. For various reasons, adolescents' risk-taking behavioral tendencies are heightened which may lead to experimenting with, using and abusing both legal and illicit substances. Given that substance use and abuse is prevalent, local agencies have developed various programs to help caregivers of those who may struggle with substance use or abuse. Caregivers of adolescents may benefit from having a better understanding of the various psychophysiological, neurobiological and social changes that adolescents go through. Being equipped by psychoeducational programs, caregivers could be considered first line aids in the event that an adolescent succumbs to substance abuse.

Substance Use, Abuse and Addiction in Adolescence

Even in a psychophysiological healthy individual, the adolescent phase of human development involves various challenges which may prove to be sources of tremendous psychological pressure (Wong, Hall, Justice, & Hernandez, 2015; Stepteau-Watson, & Tolliver, 2018). Given that numerous developmental changes are occurring across multiple dimensions (psychophysiological and social) some adolescents may have difficulty navigating through these changes (Wong et al., 2015; Stepteau-Watson, & Tolliver, 2018). In addition to the stress, pressure and new challenges adolescents inevitably encounter, a common theme of the adolescent stage is an increase in the exploratory risk-taking behavior. These behaviors include those that are associated with substance experimentation, both illicit and legal (Bergman, Dudovitz, Dosanjh, & Wong, 2019; Miller, & Cook, 2017; Wong et al., 2015; Stepteau-Watson, & Tolliver, 2018; Hasanbegović-Anić, Sandić, & Alispahić, 2018). As stated by Hasanbegović-Anić et al. (2018), the adolescent stage is unfortunately associated with the use and abuse of

several substances including, but not limited to, alcohol, inhalants, opiates, hallucinogens and marijuana. Epidemiological studies present numerous theories that suggest why such a prevalence of adolescent risk-taking behavior occurs. These theories include, but are not limited to, inadequate executive cognitive functionality, juvenile neurobiological development, psychosocial factors (peer, cultural and family relationships) and genetic predispositions (Miller, & Cook, 2017; Stepteau-Watson, & Tolliver, 2018; Wong et al., 2015; Hasanbegović-Anić et al., 2018).

Neurobiologically speaking, the ventral striatum, a vital component of the brain that manages reward processes and motivation, could be maladaptively developed or excessively activated during various psychosocial conditions which may contribute to an increase in reward seeking behaviors (Miller, & Cook, 2017; Wong et al., 2015). Additionally, adolescents' executive cognitive functionality is underdeveloped resulting in a delinquency of suppressing the onslaught of risk-taking behavioral tendencies (Miller, & Cook, 2017; Stepteau-Watson, & Tolliver, 2018). These studies suggest that those adolescents who are further neurobiologically developed may have a greater degree of intrinsic resilience which could result in superior psychological suppression of risk-taking behavioral tendencies.

For others, the literature supports the idea that extrinsic resilience may be developed by psychosociological processes which include adolescent/caregiver psychoeducational programs, developing peer/social resistance techniques, psychotherapy, spiritual development and development of prosocial relationships (Hasanbegović-Anić et al., 2018; Wong et al., 2015; Bergman et al., 2019; Stepteau-Watson, & Tolliver, 2018; Miller, & Cook, 2017). Spiritually speaking, research conducted by Stepteau-Watson and Tolliver (2018) support the idea of utilizing spirituality to reframe situations that adolescents may find challenging. This aligns with

the Apostle Paul's instructions to the faithful brethren in Colossae. He stated that instead of focusing on and overwhelming one's psychological processes with earthly matters, one should focus their cognitions, and keep them focused, on God's Word (Colossians 3:2, AMP). As suggested by Stepteau-Watson and Tolliver (2018), the Church may be a good starting point for adolescents seeking assistance with substance use and abuse.

Provided that each individual and circumstance is unique, there does not appear to be a universal solution for helping adolescents who experiment with, use or abuse substances. Parents and caregivers alike may need to explore various treatment programs that best suit their adolescent's personality and circumstances.

Substance Abuse Prevalence and Local News Coverage

Prevalence of the use, abuse and addiction to both legal and illicit substances has unfortunately been rising (Hasanbegović-Anić et al., 2018). Locally, in Louisville, Kentucky, lawmakers have collaborated with various stakeholders including educators, police, doctors, clergy members, paramedics, health officials and struggling addicts to develop a program targeted to help those with mental illnesses and substance abuse disorders (Warren, 2018a). Additionally, because of substance abuse prevalence, the state of Kentucky passed a law that allows parents and caregivers to force adolescents into rehab programs (Warren, 2018b). As mentioned previously, the literature does not support the idea that there is a universal solution for helping those with substance use or abuse. Individuals or caregivers seeking to help loved ones should explore all treatment options with the hope of successfully identifying a treatment plan that best fits the individual.

Conclusion

Adolescents will inevitably be confronted with numerous challenges across both psychophysiological and social domains. Because adolescents are starting to explore their social roles, a large portion of challenges will likely occur from psychosocial dynamics, primarily peer relationships. Even though psychosocial development is vital to adolescents, they do have a greater proclivity for risk-taking behaviors. This is partly due to inadequate or underdeveloped cerebral functionality. As a result, adolescents may find it difficult to suppress excessive risk-taking behaviors that could lead to experimenting with, using and abusing substances. An unfortunate truth is that substance abuse and use is prevalent throughout society. Cities and states have developed various programs in the attempt to fight against the adverse effects of substance abuse. Various treatment options are available for those wanting to seek help. These include psychoeducational programs, psychotherapy, development of prosocial relationships as well as seeking spiritual guidance. Given that individuals are unique, there is not a universal approach to treatment. Adolescents and caregivers are encouraged to seek treatment options that best suit their specific demands.

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