
Substance Abuse Among Adolescents

Substance use is rapidly becoming one of the most prevalent issues in today's society. According to a survey by the WHO, 164 million people had an alcohol or drug use disorder in 2016. A major part of the population dealing with these issues are the adolescents. Studies by Belcher and Schinitzky (1998) have shown that substance abuse during adolescence can become a problem later on during adulthood. Moreover, several factors play a role in adolescents indulging in the use of substances such as cigarettes, alcohol, marijuana, etc.

A study designed to assess the knowledge and attitude of adolescents towards the factors that influence substance abuse by Philip (2019) provides insight into why adolescents engage in substance abuse. The descriptive study focused on a sample of 100 from Koshy's Group of Institutions in Bengaluru, consisting of adolescents aged between 18-23 selected through convenient sampling technique. Three different kinds of tools were used to collect data from the sample. The first tool collected Baseline variables (age, gender, type of family, style of family, religion, course, use of substance in family and by whom, previous knowledge); the second tool involved a structured knowledge questionnaire on factors influencing substance abuse, and third tool was an attitude questionnaire on factors influencing substance abuse. The results of the study showed that, in a majority of the adolescents, there was a significant association between adolescence knowledge and attitude regarding factors influencing substance abuse. A significant association was identified between knowledge, attitude, and the selected demographic variable (such as style of family, use of substance in family, type of family) as well. A positive attitude in adolescents towards the factors indicates a good level of knowledge about the same. The results of the study intend to assist in the tackling of the substance abuse problem by focusing on the preventive level, which can be done through an avoidance of the factors that lead to the abuse; for this counselling and education are essential. There are thus direct implications on nursing education, nursing research and nursing practice as well.

Alhyas's (2017) study on adolescents' perception of substance use and factors influencing its use among adolescence in Abu Dhabi provides further insight into the minds of adolescents in the modern world. The study used a focus group, qualitative approach to understand the perception of substance use among adolescents- factors that influence and prevent usage. The sample consisted of forty one 13-18 year old teenagers from Abu Dhabi, who were further divided into focus groups based on age. These groups were further divided based on gender. Screening questionnaires were handed out in the neighborhoods of Abu Dhabi, based on which ten adolescents from each neighborhood were chosen. The method used was interview, and all the interviews were recorded and transcribed. The QRS NVivo software was used for data analysis, which enabled sorting and arranging of information that had been transcribed. Three categories were studied: awareness of substances and harm due to usage, gender role, factors affecting use. The results indicated that awareness of substances differed based on age groups; for instance, while the 17-18 years group could name different types of alcohol, the 13-14 years group referred to it as "Khamr", which means liquor. Awareness of associated harm is low- for example, while some adolescents could name physiological illnesses associated with substance use, others spoke of the relaxing effect it could have. The information was acquired from different sources, of which school was not a part. Thus, substance use campaigns in schools is a viable preventative method. Community and family-

based programs can also be incorporated. Moreover, it was observed that certain substances were associated with specific genders: while smoking was seen as too masculine for girls, shisha was seen as a viable alternative. Smoking was avoided by female participants as a means of saving family honor, while male participants indulged in smoking to appear more manly. Substance use was found to be influenced by a number of factors. Bad parent-adolescent relationships, high levels of peer pressure, boredom and easy accessibility increased usage, while religion, education about the physical problems, and implementation of consequences by communities hindered usage. Strengthening family bonds and communication, and implementing regulations that prevent selling of substances to underage individuals could reduce usage. The study also suggested that, in schools, counsellors dedicated to identifying and addressing high-risk students, and implementation of CCTV could also help in reducing substance use.

Smith and Cyder's (2016) article is a review of empirical studies on urgency theory, as per which positive and negative urgency traits result in impulsive action following unusually high levels of positive or negative emotions. The aim of the article was to examine the current validity of urgency hypotheses, understand the role of urgency in substance use, and suggest new research areas. Findings suggest the urgency traits increase risk of substance use. While other impulsivity factors like sensation-seeking can dispose one to use, negative urgency greatly increases this risk- it could result in very high levels of consumption. The hypothesis that urgency traits can predict onset and increase of substance use is supported by empirical research. As per one study by Settles and colleagues, positive urgency levels of 5th graders measured in spring, predicted onset and increase of drinking in 6th grade. This predictive nature is uniform across races and genders. The third hypothesis that urgency traits increase risk behavior by biasing psychosocial learning has been backed up. For instance, negative urgency results in binge drinking to cope with a distressing situation, which is fueled by the belief that drinking helps reduce distress- which in turn increases the drinking behavior. The fourth hypothesis, that urgency would increase with onset of puberty was studied by Boyle and colleagues, who discovered that negative urgency steadily increased post-puberty, which in turn resulted in a steady increase in drinking behavior. The fifth hypothesis was based on the functioning of brain systems. When exposed to an emotion-triggering stimulus, normal functioning would result in actions that attend to the stimulus, while also ensuring that long-term goals are not compromised. The hypothesis that individuals with high urgency traits may have variations in such functioning, in terms of short-term goals being attended to as opposed to long-term ones, has been backed by research. This is because negative urgency results in reduction of top-down processing, and an increase in bottom-up processing. As per the sixth hypothesis, urgency could be linked to levels of dopamine and serotonin, which have varied due to gene polymorphisms, resulting in a different pattern of alleles on the genes. Carver and colleagues have proven empirically that the proposed allele pattern on the serotonin receptor gene, when combined with childhood adversity, is linked to a factor that has been named "feelings trigger actions." As per the review, for substance use, positive and negative urgency traits can increase use, and thus are studied as one urgency trait. Since usage can be triggered by several factors, the logical approach would be to reduce the tendency to indulge in such rash behaviors when subjected to high levels of emotions. Dialectical Behavior Therapy focuses on teaching individuals adaptive ways of responding to negative emotions. When dealing with positive urgency based risky behavior, individuals can be taught to keep the positive mood going by carefully analyzing potential consequences of actions due to the mood. The article also vouches for future avenues for study, including testing the predictive nature of the urgency trait over long time periods and at different stages of development; form an integrated model of

emotion-processes as predictive of substance use risk; development of animal models to potentially identify pharmacological and therapeutic interventions; formation of interventions.

There are other factors as well that promote substance use among adolescents. The study by Dijkstra et al. (2015) throws light on how delinquency in adolescence is linked to the 'maturity gap', where adolescents are stuck between biological and social maturation, which motivates them to engage in delinquency to emphasize their maturity. This could also be one of the reasons why adolescents engage in substance use. This study explores the extent to which this discrepancy predicts delinquency and substance abuse, hypothesizing that the lack of autonomy in decision making would predict conflict with parents, particularly for biologically mature adolescents, which in turn would be related to increasing levels of delinquency and substance use. The sample included 1,884 students who were participants of Social Network Analysis of Risk behavior in Early adolescence (SNARE) study. Data was collected and analyzed using the participants' responses to questionnaires containing self-reports, and peer nominations were assessed, done thrice over a one-year period. Delinquency, substance use, pubertal status, autonomy in decision making and conflict about decision making were measured by recording the participants' responses to questions posed by the researchers. Path models for delinquency and substance use was computed separately using Mplus 7.2 (Muthe'n and Muthe'n 1998). The findings revealed that conflict with parents plays an important role in the relationship between maturity gap and delinquency, linking the both together. Adolescents who were more mature and more autonomous experienced a greater increase in conflict with parents which in turn predicted increasing levels of delinquency. Finding also showed that the maturity gap was also suitable for explaining substance abuse among adolescents. The same was applicable for both boys and girls.

Handley et al. (2015) focused on maltreatment as a child as a factor in substance use. The study focuses on whether disadvantaged neighborhoods confer risk for substance use disorders among adolescents with maltreatment histories. Neglect, emotional abuse, physical abuse and sexual abuse were the maltreatment subtypes considered. The participants of this study consisted for 411 adolescents chosen from an investigation of the developmental sequelae of childhood maltreatment. The sample included both treated and maltreated adolescents. Majority of the participants experienced multiple subtypes of maltreatment. Both the participants and their parents were interviewed, and they were assessed based the interviews and self-report measures. Various modes of assessment were used to measure the variables. The Neighborhood Environment for Children Rating Scale (Coulton, Korbin, & Su, 1999) was used to measure neighborhood safety. Neighborhood poverty was measured using the US census data. Drug availability was measured using a report of 3 items created by the researchers. Adolescents T-tests and chi-square comparisons and two sets of multiple-group structural equation models (SEMs) were used to identify relationships between the variables. The results indicated that neighborhood disadvantage was associated with more marijuana-dependence symptoms among maltreated but not among non-maltreated adolescents. Those who were subjected to multiple subtypes of maltreatment were prone to be more dependent on marijuana use. With respect to alcohol abuse, the neighborhood disadvantage, but not maltreatment, was observed to be associated with the adolescents' alcohol-dependence symptoms. The study also indicates that the likelihood of early drug use increases twice to four times as much with each additional adverse childhood experiences. This also points to why people engage in drug use from an early age.

Yet another study throws light on why adolescents engage in substance use. Daniel, Krishnan

and Gupta's (2017) study was aimed at identifying the percentage of male adolescents in Sunder Nagari, New Delhi, who were using substances, the kinds of substances used, the reasons behind usage, and potential ways to reduce it. The sample consisted of 110 adolescents above 11 years of age, who could read and write either Hindi or English. The method used was a cross-sectional survey. The materials used were a demographic questionnaire, and a structured questionnaire with a reliability coefficient of 0.94. The data collected was analyzed using SPSS version 17.0. 55.38% of the participants were currently using substances- out of this, 60.65% of them were indulging in substance use every month (one to two times). 44.26% of the boys had begun using substances before they turned 13 years old. As for causes for substance use, 57.38% wanted to be liked by peers, 24.6% wanted to feel like adults, and only 13.11% used it because they liked the substance. Tobacco was most commonly used- 77.05% indulged in this. Inhalants were used by 26.23% and alcohol was used by 11.47%. Majority of the participants were getting the substances from their peers. After analysis based on association, it was found that the variables of educational level, family type and number of siblings had a significant impact. The participants who had completed education less than 10th std, were from nuclear families, and had less than two siblings, were most prone to substance use.

Jones, Lynam, and Piquero (2015) adopts a different approach. Their study aimed at testing Hirschi's predictions about the reconceptualization of self-control. Hirschi, going against previous research which focuses on personality-based notions of self-control (Cauffman, Steinberg, & Piquero, 2005; Grasmick et al., 1993), emphasizes on social bonds as indicators of what inhibits people from engaging in offending or antisocial behavior. This study seeks to explore his reconceptualization of self-control. The sample 2,071 participants from schools participating in the Drug Abuse Resistance Education (DARE) program. A follow up study was then conducted on 1,429 participants from the original sample. The final sample consisted of 1,002 participants between 19 and 21 years of age. Data regarding substance use, perceived costs, perceived rewards, personality links to impulsive behavior (LoP and sensation seeking), etc. was measured. LoP was measured using a "narrow" impulsivity scale (Eysenck & Eysenck, 1978) and sensation seeking was measured using Zuckerman's (1994) TAS scale. Using models, the relationships between the variables was examined. The findings suggest that although bonds (inhibitors) exert an effect on substance abuse (with respect to cigarette, marijuana, and more serious substance use) which was consistent with Hirschi's claims. However, they are not mediated by perceived costs. Perceived rewards, on the other hand, was found to influence substance use and was found to be a consistent mediator of inhibitors/bonds and impulsivity.

Aggressive behavior and drug use have been shown to have a relationship with delinquency and failure at school. A study by Gázquez, et al. (2016) aimed at finding whether social support plays a role decision-making regarding drug use and the behavior of adolescents. The study hypothesized a positive relationship between drug use and violent behavior. The sample consisted of 822 high school students from eight schools from the city of Almeira. Data was collected using Peer Conflict Scale and the Multidimensional Scale of Perceived Social Support, as well as an ad hoc questionnaire on drug use. The results indicated that all types of aggression were positively correlated with tobacco use. Substance use was found to be related to perceived social support by the adolescent's peer group and to aggressive behavior. Both alcohol and tobacco use were found to be positively correlated with peer and significant other support. Both were also found to be negatively correlated with family support which means that the more the participants indulge in the consumption of alcohol and tobacco, the less they

perceive the support they received from family members.

Researchers are also interested in considering substance use as indicators of future behaviors, as evidenced by the study conducted by Patrick, Schulenberg and O'Malley (2016). The aim of the study was to identify whether substance use during high school can act as an indicator of future college attendance and success. The sample of this study was spread across 28 cohorts following young people over a seven year period, starting from the senior year of high school. The study also focused on college attendance patterns, variations in attendance (based on cohort, gender, etc.) and predictors of college attendance. Data was analyzed by observing patterns and computing prevalent statistics, chi square tests for equality and a series of three multivariate logistic regression analyses. The results, with respect to substance use, indicate that cigarette and illicit drug use in high school can lead to lower educational attainment and college dropout. Substance use and educational difficulties are also reciprocally related, as seen by the study by Bachman (2008). The results further indicate that students who engaged in binge drinking while in high school were more likely to graduate than dropout from high school, provided that they did not indulge in the usage of marijuana, cigarettes or other illicit drugs. Analysis not controlling usage of other substances revealed that binge drinking led to higher dropout rates among men, while a faster increase in the same accounted for them staying in college. Although high usage of substances in high school may lead to future educational difficulties, moderate use of alcohol reflects the opposite, which could be due to socialization and social integration.

Since substance use among adolescents is a growing concern, numerous programs and interventions are being implemented regarding the same. Das, et al's study (2016) focused on interventions for substance abuse (smoking/tobacco use, alcohol use, drug use and combined substance abuse) and its effectiveness in preventing substance abuse among adolescents. Forty six studies were systematically reviewed based on a few criteria: literature published upto December 2015 were reviewed, and reviews targeting both adolescents and youths were included. All available published systematic reviews on interventions for adolescent substance abuse were included. Two abstractors reviewed literature from Cochrane Library and PubMed based on the criteria and narrowed down the number of studies. Reviews included those containing interventions for tobacco/smoking use (n=20), alcohol use (n=16), drug use (n=2) and combined substance abuse (n=16). Data was then individually extracted from each study in a standardized form. The quality of the reviews was assessed using the 11-point assessment of the methodological quality of systematic reviews (AMSTAR) criteria. The findings indicate that among smoking/tobacco interventions, school-based prevention programs and family-based intensive interventions are effective in reducing smoking, as are mass media campaigns of reasonable intensity over extensive time periods. School-based interventions have also been found to be effective in reduction of alcohol abuse and those based on a combination of social competence and social influence approaches have shown protective effects against drugs and cannabis use. School-based primary prevention programs are also effective in the case of combined substance abuse. The study also vouches for the use of online and digital platforms as having potential to improve substance abuse outcomes among adolescents.

From this, it is evident that there are numerous factors contributing to substance use among adolescents. Even though it is a growing concern, various intervention programs and awareness programs do play a role in reducing the risk of substance use. Further research into these fields provide more hope of progress for the future.

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