Temperament in Childhood Predicts Later Alcohol and Drug Abuse

By Claire D. Coles, Ph.D.

Prevention of adolescent alcohol and drug abuse and addiction in young adulthood is a primary social concern. Understanding which children are at highest risk for later substance use and misuse would help in designing effective methods for prevention and intervention.

Writing in the 10th Special Report to the United States Congress on Alcohol and Health, published in 2000, Robert A. Zucker, Ph.D. described studies of “Alcohol Involvement Over the Life Course.” Dr. Zucker, from the Alcohol Research Center at the University of Michigan, reviewed research on the children of alcoholic parents and the predictors of their later alcoholism and drug use. There is a widespread expectation that children of alcoholics, especially sons of alcoholic father, will themselves have problems with substance abuse. In fact, as adults only 30 to 35% of these children show alcohol problems. This is eight times higher than children from families without addictions but it is still a minority compared to those who do not have such problems. These statistics raise a number of questions about what else places children at high risk.

Developmental research that identifies high risk children at birth or early in life and follows them over time, is an excellent method for “flagging” family and personal characteristics associated with later problems. Several studies that have investigated factors that predict later drinking and certain patterns of behavior were identified as early as 3 years that predicted later alcohol abuse. One of these was temperament, one of the enduring personal characteristics that can be identified early in life. Temperament may be very much influenced by genetic and biological factors. Temperamental factors that
have been observed in infancy include activity level, attention span and persistence, and emotionality.

A study in New Zealand (Caspi, et al., 1996) followed 1000 children for 20 years and identified two patterns of early behavior that predicted later alcohol problem in male children. Girls’ early behavior was not predictive of later alcohol abuse. Among males, there was a direct link between what they called “behavioral undercontrol” at age 3 and alcohol dependence at 21. Behavioral undercontrol included: irritability, impulsiveness, and lack of persistence, aggression and difficulty in state control. Behavioral inhibition (or “overcontrol”), characterized by excessive shyness and fearfulness, also predicted later alcohol problems. In a similar study in Michigan, impulsiveness in 3-year-old boys was related to later behavior problems and increased the risk for alcohol abuse. These findings were interpreted to suggest that children with “risky” temperaments who grow up in families that support alcohol use are placed in significant risk of later substance abuse. In addition to father’s alcoholism, mother’s alcoholism and depression are highly related to such outcomes. In fact, maternal alcoholism was found to be more directly related to outcomes than was paternal alcoholism (Fitzgerald, et al., 1993).

Understanding the factors that place children at risk for substance abuse can help to prevent such problems. With a sensitive understanding of the process of development, intervention can be targeted to those who are most vulnerable.

For further information regarding this article please contact the Maternal Substance Abuse and Child Development Project, Emory University School of Medicine, Department of Psychiatry and Behavioral Sciences, Emory West Campus, 1256 Briarcliff Road N.E., Suite 323-West, Atlanta GA, 30306. You can email us at
The Maternal Substance Abuse and Child Development Project is funded in part by the Georgia Department of Behavioral Health & Developmental Disabilities (DBHDD).

References:

