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THE "DRUG BABY" MYTH AND ITS CONSEQUENCES ON CHILDREN

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THE "DRUG BABY" MYTH

Since the 1980s when crack cocaine became a popular American drug, we began hearing of its devastating effects on unborn fetuses. The tragedy of "drug babies" received widespread media attention. Yet, as our "most knowledgeable research scientists were beginning to doubt the phenomenon[,]" the media failed to report these unsupportive findings (Greider, 1995). Although we saw and heard how these drug addicted babies "trembled horribly and cried intensely at birth," in truth, medical students "could not distinguish cocaine-exposed babies from the other babies" (Greider, 1995). It is becoming accepted today that "no hypothesized or demonstrated effect of in utero cocaine exposure has been found to be specific to that drug. No studies have shown that prenatal cocaine exposure causes unique developmental dysfunction" (Frank, Bresnahan & Zuckerman 1996). Those researchers still bent on fueling the *drug baby myth,* now claim that "[p]renatal cocaine exposure may not cause deviating brain damage, but it *may* result in anatomical and molecular subtle brain damage which are the basis for cognitive and language deficits (Lester, LaGasse & Selfer 1998). (Emphasis added).

Despite the lack of supportive research, the belief that drug babies suffer permanent damage is widely held among educators, social workers, and parents. Fundamental principles of psychology tell us that these widely held beliefs are themselves damaging. They create lowered expectations and can result in developmental deficiencies when there is no physiological basis. Drug exposed children need to be protected from the bias of negative beliefs to receive the best chance of developing normally.

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THE RESEARCH

Richardson and Day, who have done extensive research on drug-exposed infants, published preliminary data about the use of cocaine, crack, alcohol, tobacco, marijuana and other drugs during each trimester of pregnancy (Richardson and Day, 1994). Their data and analysis show that "the effects of cocaine use on infant outcome were an illusion. The reality is that the lifestyle and covariates of cocaine use combine to affect infant's status." Richardson and Day controlled for the "[f]actors that covary with cocaine use [including tobacco and alcohol use, which] are, in themselves, risk factors for poorer outcome." Most earlier studies failed to control for these factors which may explain the original negative findings.

In another follow-up study of children exposed to drugs, it was shown that the "*majority of drug-exposed children . . . scored within the average ranges for intellectual abilities and displayed no significant behavioral problems*" (emphasis added) (Griffith, Azuma & Chasnoff, 1994). These findings are consistent with the findings of a longitudinal study of the reading development of drug exposed children which revealed that they "behave like all others, responding best to a supportive home and school environment" (Barone, 1995). Current analysis of 101 studies published on prenatal cocaine exposure showed a mere 2.01 intelligence quotient (IQ) difference between those children exposed and those not exposed (Lester, LaGasse & Selfer 1998).

TABACCO USE HAS A LARGER NEGATIVE IMPACT ON HUMAN HEALTH THAN COCAINE USE, BUT WHERE ARE THE “TOBACCO BABIES?”

Although there are obviously serious health risks with any drug use during pregnancy, cigarettes and alcohol are actually more harmful to prenatally exposed children than crack cocaine (Brodkin & Zuckerman, 1992, Richardson et al, 1993). Nicotine exposure creates abnormal "cell proliferation and differentiation, leading to shortfalls in the number of cells and eventually to altered synaptic activity." Nicotine not only adversely affects the immediate developmental events in the fetal brain, but also

affects the eventual programming of the synaptic competence (Slotkin, 1998). While cocaine, like nicotine "targets cell replication, its effects are short-lived, permitting recovery to occur in between doses, so that the eventual consequences [of cocaine use] are much less severe" (Slotkin, 1998).

Tobacco is used by approximately 25% of all pregnant women in the United States (Slotkin, 1998). Since tobacco use is far more widespread than cocaine, and has been shown to have greater physiological impact, we might wonder why “tobacco babies” have not emerged as a social problem. The answer appears to be with the adult caretaker’s beliefs and expectations. Tobacco babies have not been identified and singled out for special treatment.

CURRENT RESEARCH ON METHAMPHETAMINE PRENATAL EXPOSURE DOES NOT SHOW IT CAUSES BEHAVIORAL PROBLEMS

While prenatal exposure to methamphetamines may increase the risk of physical problems including clefing, cardiac anomalies and fetal growth deficits, affects on behavior "appear less compelling when one considers other confounding variables of human environment, genetics and poly-drug use" (Plessinger 1998).

In one study that reported behavioral effects, Swedish researchers have followed a group of children prenatally exposed to methamphetamine during 1976-77 through ages 14 and 15. (Cenerud, Eriksson, Jonsson, Steneroth & Zetterstrom 1996). The Swedish studies, however, have a major flaw. They do not control for other factors that could have affected the children including most notably poly-drug use. The Swedish mothers not only used amphetamines, 30% of them used heroin, 81% used alcohol, and 80% smoked more than 10 cigarettes a day. This confounds the data which found that the children were retained from grade advancement, behind in mathematics, language and sports when compared to unexposed controls. Because the study did not control for confounding variables, it cannot be relied on to establish that fetal methamphetamine exposure causes these differences.

PRENATALLY DRUG EXPOSED CHILDREN GENERALLY EXPERIENCE NEGATIVE ENVIRONMENTS THAT ADVERSELY AFFECT THEIR BEHAVIOR AND COGNITION

Most drug-exposed babies do suffer two harmful conditions that affect their behavior and cognition. First, most are born into poor social environments. It is likely that their bleak environments cause them more problems then their mother's prenatal drug use (Barone, 1994). Another negative aspect of their social lives is that their mothers may continue to use drugs. The "best predictors of developmental outcome for methadone-exposed children and non-exposed children were the psychological resources of the mother" (Jeremy and Berstein, 1984). The second common hardship suffered by drug exposed children, are the negative consequences of the "drug exposed" label.

HOW LABELING "DRUG BABIES" CREATES A SELF-FULFILLING PROPHECY AND NEGATIVELY AFFECTS THEIR BEHAVIORS

We know that how children are labeled affects their behavior and intellectual development. A self-fulfilling prophecy describes how one's expectation of another's behavior is an accurate prediction for that behavior simply because the expectation was made. The theory was applied to nations in the 1950s by Gordon Allport who suggested that "countries who expect to go to war, go to war" (Rosenthal & Jacobson, 1968). Rosenthal and Jacobson later applied the theory to individuals in an educational setting in some remarkable 1966 experimental research. The complete study is reported in their book *Pygmalion in the Classroom*. (1968). The study consisted of a group of about 130 students at a public school in Northern California. The cases were randomly chosen from the school's total student population of 650. After selection, the children's names were given to their teachers at the beginning of the new school year. The teachers were simply told that these particular children showed "unusual potential for intellectual growth." IQ scores were collected before and after the labels were assigned. Eight months after providing the names to the teachers, the IQs of the group of children positively labeled

increased significantly. Some IQs increased over 30 points (Rosenthal & Jacobson, 1968).

The strength of the self-fulfilling prophecy, therefore, is an important consideration in how we assess the development and behavior of children who have been identified as drug exposed. Indeed, the early research on drug-exposed infants was not conducted in blinded studies (evaluators knew who was drug exposed and who was not) which could account for the earlier reported negative impacts of drug use. Richardson and Day's research for example, was conducted under blinded conditions.

CONCLUSION

Children exposed to drugs in utero are clearly at higher risk for abuse and neglect. There remain issues about why they are at risk, but there is no question that they are at risk. To protect these children, we need to influence the adults in their families not to use drugs and to influence adults in their families and communities not to have lower expectations for their development.

Preventing drug use begins with the realization that it is a symptom of dissatisfaction with life. How do we educate people to live healthful, effective lives so they won't want to use drugs? That question is not answered here, but there are some things we can do to protect children who are drug exposed. First, early intervention is essential. Because the recent research shows it is the social environment that most damages these children, efforts toward improving their homes and families are critical. The "whole family" needs treatment, not just the infant. Adults create the child's social environment. Sending social workers into the home to work with families would be more successful than assigning a single public health nurse to work only with the child. Treatment of the family is becoming more common, but public policy shifts are necessary to further focus on the family as a whole, rather than the single child in isolation. "Successful programs for cocaine-exposed children, as for any high-risk children, address the

needs of not only the children but also the families" (Frank, Bresnahan & Zuckerman 1996). "Educators and researchers alike have realized that they can have much more impact on the problem of underachievement if they search for solution in the strengths that lie within families" (Bempechat, 1998).

Second, a drug exposed child's neonatal history should be kept confidential. Her legal custodians, and when necessary her health care providers, are the only people who need to know this information and they should be advised to guard it from others. Teachers should not be told a child was exposed to drugs. A child's ability to learn and develop intellectually is linked more to a teacher's expectations than her mother's prenatal drug use. Current research by Janine Bempechat of Harvard University on school performance by at-risk children, shows that by the beginning of the second grade students know who their teacher thinks is smart and who their teacher thinks is dumb (Bempechat, 1998). The students emulate these beliefs. Teachers need to understand that drug exposed children do not suffer predictable developmental problems. But until they do understand, it is best for the child that the drug history be kept confidential.

Finally, if we decide that the evidence is mixed, that human development could depend on social and biological variables, we should choose to study and act on the social variables which we can control. When we operate from a belief system that says our abilities are biologically determined, we give up control and are destined to live according to the draw of our genes. On the other hand, when we choose to believe that our destiny is determined by what we do with our lives and our environments, we remain in control. In the end, it is this control that will determine our educational performance (Bempechat, 1998) our mental health (Seligman, 1990) and our physical health (Marmot, 1986 and Pelletier, 1994).

References

Barone, D. (1994). Myths about "crack babies." *Educational Leadership* 52:67.

Bempechat, J. (1998). *Against the Odds*. San Francisco: Jossey Bass Publishers.

Brokin, A., and Zuckerman, B. (1992). "Are crack babies doomed to school failure?" *Instructor* 101, 7:16-17.

Cernerud, L., Eriksson, M., Jonsson, B., Steneroth, G., Zetterstrom, R. (1996). Amphetamine addiction during pregnancy: 14-year follow-up of growth and school performance. *Acta Paediatr* 85:204-8.

Greider, K., (1995). Crackpot ideas: exaggerated reports of damage done to babies born to mothers who use crack cocaine. *Mother Jones* 20:52-55.

Griffith, D., Azuma, S., Chasnoff, I., (1994). Three-year outcome of children exposed prenatally to drugs. *Journal of the American Academy of Child and Adolescent Psychiatry* 33:28-28.

Harrington, D., Dubowitz, H., Black, M., & Binder, A., (1995). Maternal substance use and neglectful parenting: relating with children's development. *Journal of Clinical Child Psychology 24*:258.

Jeremy, R. and Berstein, V., (1984). Dyads at risk: methadone-maintained women and their four year old infants. *Child Development 55*:1141-1154.

Frank, D., Bresnahan, K., & Zuckerman, B., (1996). Maternal Cocaine Use: Impact on Child Health and Development. *Current Problems in Pediatrics* 2:52-70.

Lester, B., LaGasses, L., & Seifer, R., (1998). Cocaine Exposure and Children: The Meaning of Subtle Effects. *SCIENCE* 282:633.

Marmot, M.G. (1994). Social inequalities in mortality: the social environment. In R.G. Wilkinson (Eds.), *Class and health: research and longitudinal data* (pp. 1-19). London: Tavistock.

Pelletier, K.R., (1994). *Sound mind, sound body: a new model for lifelong health*. NY: Simon & Schuster.

Plessinger, M., (1998). Prenatal Exposure to Amphetamines. *Obstetrics and Gynecology Clinics of North America* 25:119-138.

Rosenthal, R., and Jacobson, L., (1968). *Pygmalion in the Classroom*. NY: Holt, Rinehart and Winston.

Sagatun-Edwards, I., Saylor, C., Shifflett, B., (1995). Drug exposed infants in the social welfare system and juvenile court. *Child Abuse and Neglect 19:*83-89.

Seligman, M., (1990). *Learned Optimism.* NY: Simon & Schuster Inc.

Slotkin, T.A., (1998). Fetal nicotine or cocaine exposure: which one is worse? *J Pharmacol Exp Ther* 285(3):931-45.