American society has been shocked by the growth of cocaine use among pregnant women in the past decade (Mayes, Grainger, Bornstein & Zuckerman, 1992). While the overall use of cocaine, including crack, has dropped in the 1990s, its use by women of childbearing age has grown (Chasnoff, Griffith, Frier & Murray, 1992). In 1990, women addicted to cocaine gave birth to an estimated 300,000 infants in the United States (Bays, 1990).

The government and the medical, legal, and social service communities have responded to pregnant women’s cocaine abuse with a number of strategies which have varied in their effectiveness. Some also have responded, however, by viewing a pregnant woman’s cocaine abuse as a crime against the unborn rather than as an illness in need of treatment. Under this view, social service and legal agencies, often with the aid of the medical community, seek to punish the drug-using pregnant woman with incarceration and the removal of her newborn and other children.

Such retributivist reactions are unlikely to benefit either the child or society. Current scientific evidence does not conclusively demonstrate that maternal drug use directly or substantially causes the poor development found in children of drug-using mothers (Zuckerman & Frank, 1992). Additionally, research into the long term behavioral and developmental effects of prenatal drug (Connolly & Marshall, 1991) exposure is scant. There is likewise no evidence that shows that a drug addict is necessarily a bad parent. In fact, the reality that the foster care system is ill-equipped to care for the special needs of a drug-exposed child may mean that removal of such a child from her mother could harm her long-term recovery.

Furthermore, separation of a child from her drug-addicted mother results in added costs to an already over-burdened judicial and foster care system. This unnecessary expense diverts funds from treatment and prevention programs. Finally, criminalization or stigmatization of prenatal drug use deters pregnant women’s from seeking drug treatment and prenatal care (Connolly & Marshall, 1991).

Regarding pregnant women’s drug use as a crime, therefore, is both ineffective and counterproductive to the goals of mother, child and society.

Instead, the governmental, medical, social, and legal entities involved in drug treatment and child protection should treat pregnant women’s drug abuse as an illness. Efforts should focus on developing treatment and prevention programs carefully tailored to the individual case of mother and child. These programs must view the pregnant drug user nonjudgmental and provide the comprehensive services she needs. Along with drug
treatment and pre- and postnatal care, such services may include vocational training, parenting training, mental health evaluation, and social support after treatment. Given the inefficiency of punishing drug use during pregnancy, the overwhelmed state of the courts and foster care system, and the lack of scientific evidence regarding the precise effects of prenatal cocaine exposure, such comprehensive treatment, prevention, and support programs for pregnant substance abusers benefit mothers, children, and society.

Prenatal Cocaine Exposure: Effects on the Newborn

The link between prenatal drug exposure and poor child development is not conclusive. While cocaine is a pharmacological agent and as such may possibly have toxic effects on the fetus, it is also a marker for a number of social factors which contribute to poor child development. Early studies concluded that cocaine use during pregnancy resulted in serious fetal problems resulting from child development. Methodological problems of these studies included anecdotal data, failing to use control groups, inadequately controlling for other variables that could cause the same adverse effects, and identifying users and non-users with unreliable methods. While these studies accurately demonstrated a link between poor child development and drug use mothers, their dubious methodologies cast serious doubt on whether prenatal cocaine exposure caused the adverse effects (Mayes, Granger, Bornstein & Zuckerman, 1992).

The-long-term behavioral and developmental effects of prenatal drug exposure are also unknown. Medical researchers have published few prospective longitudinal studies and have studied children only up to three years of age (Azuma & Chasnoff, 1993). While more drug-exposed children in this study had an IQ outside the normal range and/or had lower scores in some function areas such as language, they also showed the same average IQ as the control group of non-exposed children. Thus, the significance of prenatal cocaine exposure remains uncertain.

Numerous environmental factors apart from prenatal drug exposure may adversely affect child development in drug users' children. Most studies have focused on prenatal drug exposure’s effects upon children of women of lower socioeconomic class, despite studies demonstrating that overall illegal drug use was similar in middle and lower income women (Chasnoff, Landress & Barrett, 1990). Because low-income women primarily rely on inner city public hospitals for their prenatal care, they are more likely to be selectively screened for drug use, publicly identified as drug users, and limited in their access to both prenatal care and drug treatment. The perceived adverse effects on children born of cocaine-using mothers, therefore, may be more attributable to problems affecting poor pregnant women than to drug use.

In addition, the often detrimental circumstances in which drug-exposed children are raised will lead to poor child development. Typical problematic home environments of substance-using parents involve inadequate or disruptive forms of parenting, poverty, high stress, and exposure to violence (Bays, 1990). Drug-using parents also have a reported higher incidence of physical illness, and more frequently have experienced physical abuse, sexual abuse, psychiatric disorders, affective disorders, and depression (Bays, 1990). These independent factors affecting drug-using mothers are know also to contribute to poor child development, and are only compounded by the effects of a mother’s continuing drug...
use. Thus, the child of a cocaine-using woman may show poor development due to either cocaine exposure, polydrug exposure, a poor parenting environment, or some combination of these factors.

Cocaine use, therefore, is not the direct and primary cause of poor child development, but rather is a marker for polydrug use and a parenting style or home environment that may jeopardize normal child development. The combination of prenatal drug exposure and other factors such as poor prenatal care and a complicated reproductive history may combine to produce neurobehavioral vulnerability in some infants (Lester, Corwin, Saposki, Seifer, Peucker, McLaughlin & Golub, 1991). Many of these infants are probably not physiologically damaged and appear relatively healthy, but a significant proportion will display various kinds of stress behaviors and will have difficulty regulating their actions. The totality of the prenatal and postnatal environment, however, rather than drug exposure alone, cause and perpetuates these behaviors.

In a reasonably supportive environment, these infants may recover and achieve normal development. An infant who is already neurobehaviorally vulnerable, however, may recover poorly in an unsupportive environment (Zuckerman & Frank, 1992). A mother’s drug problem and psychological problems related to her use of drugs may compromise her ability as a caretaker and hamper the infant’s ability to recover from any drug effects. Lack of social support and larger environmental problems associated with growing up in poverty may also jeopardize an infant’s recovery. In the end, a drug-exposed infant’s home environment, whether helpful or harmful, will critically influence her long term development (Bays, 1990).

Much research must still be done to explore fully the problem of prenatal exposure to drugs. The first wave of research in this area exaggerated direct drug effects and led to the scientific community’s and the public’s misperception that a generation of children was doomed. It would be equally dangerous to assume that the maternal lifestyle alone is to blame. Rather, it is more accurate to assert that, as determined by the multiple factors affecting development, the children of cocaine-using mothers are at increased biological and social risk. Criminally or socially punishing pregnant drug users proceeds on the false assumption that the toxic effects of cocaine or other illegal drugs are the sole cause of poor child development. Punitive measures are, therefore, an incomplete response to the many factors which may lead to poor development in children of drug-using mothers.

Current Approaches to Prenatal Drug Use

Although the evidence linking prenatal drug exposure to childhood developmental damage is inconclusive, a 1992 poll found that 44% of Americans viewed the drug-addicted pregnant woman as criminally inflicting permanent damage on her child (Paltrow, 1990). At least 167 women in 24 states have been prosecuted for their newborn child’s fetal drug exposure, although most convictions that have been challenged have been dismissed or overturned. In addition, many states now treat prenatal drug exposure as child abuse. As a result, state social service agencies responsible for the child’s welfare usually remove the child from the drug-using biological mother (Adirim & Gupta, 1991). These severe sanctions permanently stigmatize the mother and perhaps irremediably disrupt her relationship with her child. Ironically, prosecution of the drug using pregnant woman and the removal of her child are not in the best interests of child or society.

In the U.S., 19 of 50 states have no specifically designated child protective laws or policies addressing prenatal drug exposure. In addition, mandatory reporting or drug testing is relatively uncommon. However, many states use existing child welfare policies or child abuse laws to support the criminal or civil prosecution of women who use cocaine and

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other drugs during pregnancy (Adirim & Gupta, 1991). In addition, many health and social service providers have interpreted existing laws or policies as mandatory reporting requirements of pregnant women’s drug use.

Women who use drugs, however, are not automatically bad parents. While many drug using mothers cannot adequately care for their children, many other drug-users, with treatment and support, can do so. When a punitive law is employed, a drug-using pregnant woman will fear seeking drug treatment, health care services, and postnatal social support. This fear puts the infant at even greater risk. For example, drug-using women commonly appear at an Emergency Room in labor having had no prenatal care. High-risk infants

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who receive adequate prenatal care, however, show a higher birth weight and fewer medical problems in the first year. Prenatal care undoubtedly has the same positive effects on infants of drug-using pregnancies. Similarly, infants of women who do not fear seeking drug treatment and support services will recover better from any drug effects.

Punitive legislation, therefore, may actually hamper an infant's recovery from a mother's drug use during pregnancy. In fact, evidence does not show that punitive legislation either acts as a deterrent to maternal substance use or improves the mortality or morbidity rates of infants (Poland, Dombrowski, Ager & Sokol, 1993). Moreover, incarcerated pregnant women or mothers may continue to have access to more drugs rather than treatment and support (Chandler & Kassebaum, 1994).

Removal of a drug-exposed infant from her mother may also hamper her recovery. Children removed from drug-using mothers are usually placed into the state foster system, which, through inappropriate placements, may damage the child (Berkowitz, Helfon & Klee, 1992). Such a placement may be more detrimental, in fact, than allowing the child to remain with her mother. Inconsistent guidelines govern the placement of drug-exposed children in foster homes, and foster care case planning routinely ignores available expertise. Many foster parents have fears regarding drug-exposed infants based on negative stigmas and stereotypes from the press. Thus, agencies may be less selective in their placement of these infants with foster parents and may be less demanding of foster parents for fear of losing the placement altogether. Even where a child may appropriately return to her mother, inconsistent foster care guidelines often govern reunification.

Social service agencies also inadequately train and monitor foster parents and child welfare workers to ensure that the needs of drug-exposed children are met. Many child welfare workers and foster parents lower their expectations for drug-exposed infants because they view them as irrevocably damaged. As a result, foster care often addresses the drug-exposed child's minimal needs but fails to provide the training, support, and services to ensure the child's recovery from prenatal drug exposure. Moreover, foster children are often shuffled between foster homes. Multiple placements may damage any child's ability to form appropriate relationships and jeopardize the child's long-term mental health (Roshing, Beckwith & Howard, 1989). In the case of drug-exposed children, continual shuffling between caretakers may itself preclude recovery from the effects of prenatal drug exposure.

The foster care system's inability to deal with drug-exposed infants will only worsen. Children under five are the fastest growing population in foster care (House Committee on Ways and Means, 1994). In 1983, approximately 269,000 children were in the foster system. In 1992, that number had increased to 442,000, partially as a result of the introduction of crack-cocaine in the mid-1980s. Child abuse reports due to prenatal substance exposure have increased as well. In Los Angeles, for example, reports to social services of infants testing positive for illegal drugs at birth nearly doubled from 1985 to 1986.

The growing number of children entering the foster care system will make the appropriate placement and monitoring of drug-exposed infants even more difficult than it is now. The punitive approach, inasmuch as it makes separation of child from mother mandatory, will increasingly tax this already overburdened system. Given the inadequacies of the foster care system, separation of the child from the mother may not be in the child's best interest. However, such determinations must be made on a case-specific basis. Mandatory separation, under the current state of the foster system, will further harm the exposed child in cases where the drug-using mother, with help, could have provided a more appropriate environment for the child's recovery.

**Barriers to Treatment**

Instead of recognizing that the punitive approach offers few solutions to the problem of prenatal drug exposure, our society has continued to invest more money in criminalizing rather than treating the drug user, including the drug-using pregnant woman. The current U.S. government drug strategy is reactive, directing more money towards punishment than towards treatment or prevention. Federal spending in the United States for the enforcement of drug laws has risen from $2.4 billion in 1984 to $12.1 billion in 1994. In contrast, the funding for treatment and prevention programs has risen only one and one-half billion over the same time period. Successful prevention would diminish the need for both enforcement and treatment, but prevention clearly has not been given the priority necessary to make a difference.

Present treatment programs are insufficient and inaccessible to many drug-using mothers. In 1990, the National Association of State Alcohol and Drug Abuse Directors estimated that 280,000 pregnant women need drug treatment each year and less than eleven percent received substance abuse treatment (U.S.A.G.O., 1990). A New York City survey showed that 54% of drug abuse programs denied treatment to pregnant women and 87% turned away pregnant crack users.

The barriers to establishing treatment programs for pregnant drug users are substantial. Most of the available addiction treatment models were developed for the treatment of...
alcoholic men. Few programs are equipped to deal with the special physical and mental health needs of women, and treatment models developed for alcoholism may not be applicable to drug abuse. Currently, most substance abuse treatment centers will not provide detoxification treatment to pregnant women for fear of harming the fetus, nor do such centers have the specialized equipment and staff needed to do so. The fear of malpractice suits also deters current programs from accepting pregnant addicts. In-house treatment programs, furthermore, often face neighborhood opposition to their establishment or expansion.

Practical barriers also prevent addicted pregnant women and mothers from taking advantage of the few existing drug treatment services. These barriers include lack of child care, an unavailability of treatment services in multiple locations, a lack of transportation, and long waiting lists (Hanigsberg, 1995). Women in need of residential treatment may lose Aid for Dependent Children or Medicaid eligibility during treatment if their children are not with them (Finnegan, Kaltenbach, Randall, Lester, Paltrow & Mayes, 1996). Finally, pregnant women and mothers seeking help may experience the significant social stigma currently associated with drug use among women (Blume, 1990). In areas where there are punitive policies, protective services may separate these women from their infants and courts may order them to get treatment. However, those women who attempt to abide by court orders may be unable to find available and appropriate treatment programs.

Solutions

In order to overcome these substantial barriers to successful treatment, the medical, mental health, legal, and social service systems must establish a multidisciplinary infrastructure to develop new policies for drug-involved mothers and their children. To do so, these communities must view the use of cocaine during pregnancy as an illness and accordingly earmark funds and resources for prevention and treatment rather than punishment.

Both the social service system and courts are overwhelmed, and neither prisons nor the foster care system have the resources necessary for assisting both mother and child. Currently, hospital charges for both the cocaine-addicted mother and her newborn are much higher than in drug-free pregnancies. In one study, the average hospital cost for the cocaine-exposed newborn was $13,222 compared with $1,297 in the unexposed control group (Calhoun & Watson, 1991). Another study found that the hospital costs for newborn infants are $5,200 more for cocaine-exposed infants than for unexposed infants. The costs of infants remaining in the nursery for social evaluation or foster care placement adds another $3,500 (Phibbs, Baeten & Schwartz, 1991). The costs of infant cocaine exposure may persist or increase over time if these infants continue to require special medical care or special education to address learning or developmental disabilities.

Successful prevention and treatment programs, moreover, will reach more children by encouraging mothers to seek help, removing the obstacles to doing so, and by keeping children out of the overwhelmed foster care system. Pregnancy offers a window of opportunity to engage the mother in drug treatment, especially since the mother’s wish to be a good parent to her child may increase the mother’s motivation to change (Black, Nair, Kight, Wachtel, Roby & Schuler, 1994). In addition, the relatively simple provision of case management services, transportation, and child care can greatly facilitate a mother’s drug rehabilitation.

Successful programs, however, must address the varied and complex needs of women with substance abuse issues. In addition to evaluating the infant from a medical perspective, programs should evaluate the severity and chronicity of the mother’s substance use problem, her mental health, her parenting skills, and her available family and social support. In this way, a treatment plan can be developed in which treatment is matched to the individual needs of each mother, child and family. New

Most of the available addiction treatment models were developed for the treatment of alcoholic men. Few programs are equipped to deal with the special physical and mental health needs of women, and treatment models developed for alcoholism may not be applicable to drug abuse.

programs for treating maternal substance abuse, along with other services such as educational and vocational training, nutrition services, medical and mental health care, and parenting classes, should be provided in one location. Social support and self-help groups would allow the mother to alter her social network and rely on herself and supportive friends to resist using drugs. Finally, programs must teach mothers and other caregivers how to interact appropriately with the drug-exposed infant so that the child may overcome any developmental vulnerability resulting from drug exposure.

Conclusions

While some programs have begun

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addressing pregnant substance abusers’ need for comprehensive treatment services, much work still needs to be done. Medical research must probe the effects of prenatal cocaine exposure. We must work to develop new models for the treatment of pregnant drug users and their future children in order to address effectively the problem of prenatal cocaine exposure so that another generation of children will not suffer.

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Editor's Note: Adapted with permission from: Lester, B., Freier, C., Boukydis, C.S.Z., Affleck, P., and Boris, N. (1996). Keeping Mothers and Their Infants Together. New York University Review of Law and Social Change, 22, 425-440. Barry Lester is Professor of Psychiatry and Human Behavior and Professor of Pediatrics at the Brown University School of Medicine in Providence, Rhode Island, USA. Kii Freier is an Assistant Professor of Psychology and Pediatrics at Loma Linda University Graduate School in Loma Linda, California, USA. Zack Boukydis is Assistant Professor of Psychiatry and Human Behavior at the Brown University School of Medicine in Providence, Rhode Island, USA. Pat Affleck is Project Director of the Department of Immunology at Miriam Hospital in Providence, Rhode Island, USA. Neil Boris is Clinical Assistant Professor of Psychiatry and Human Behavior at the Brown University School of Medicine in Providence, Rhode Island, USA.
A DEVELOPMENTAL APPROACH FOR PREMATURE CHILDREN

matrem:
matri longa deces tuerunt fastidia mensae.
Incipe, parce puer: qui non risere parenti,
nee deus iuue mensa, deus nec dignata cubilt.

"Begin, small child, to know your mother by smiling:
the months of pregnancy were long for her to bear.
Begin: a child who didn't share a smile with parents
will not share dinner with a God
neither love with a Godness."

(Publilius Vergilius Maro, Eneid IV, 61-64) "Incipe, parce puer, risu cognoscere

by Vincenzo Montrasio

My goal in this paper is to describe the emotional development of premature infants, considering this as it develops in the context of mother-pregnancy infant relationships. In order to address these issues, I will note the quite unique beginning in premature infants of the maturational process which includes the early attachment relationship. In particular, I will consider how emotional growth in preterms may be influenced by the premature birth. I will also discuss the quality of mothers' affiliative feelings for (bonding to) the infant in order to examine the controversial issue about the feelings of the mother being influenced by preterm birth, and also, influencing the subsequent development of child-caregiver relationships.

The impact of premature birth on the quality of mother-infant relationship was first studied systematically in the 1970s. Pioneering studies began to explore the issues associated with the preterm birth, but in the years that followed, well-designed studies were rare. Because of the emphasis of these early investigations, it was clear that there was a popular belief that what was decisive for the future of premature infants was the opportunity for them to be followed with regard to cognitive, language, motor and visual-motor behaviors.

In the 1980s, the study of relationships between premature children and their caregivers moved to an increasing attention to how infants were organizing emotional ties to mothers and fathers, as well as to how parental bonding emerged in the first weeks or months of life. By then, researchers who studied full-term infant development had begun to investigate internal working models among groups of children with varying degrees of risk (see studies cited in Osofsky, 1987; Parke, Stevenson-Hinde & Marris, 1991; Samaroff & Emde, 1989; Waters, Vaughan, Posada & Kondo-Ikemura, 1995; Zemah, 1993). This work eventually began to examine neurobiological and psychosocial risks including premature children, as well as psychodynamics in premature families.

Premature Birth and Parent-Infant Interaction: The Evolution of Infant-Mother Relationships

Infant-caregiver relationships as observable behaviors have been deeply explored from a strict psychoanalytic framework by Bick (1964). She underlined the importance of infant observation in psychoanalytic training, as did Bowlby (1969).

Ainsworth and her colleagues (Ainsworth, Blehar, Waters & Wall, 1978) successfully introduced a new procedure, the Strange Situation, that was successful in demonstrating different patterns of attachment behavior in one-year-old children. These patterns are now widely accepted as indicating different types of internal working models in infants.

In what way does premature birth have an effect over the emerging social competence of these children? Many suggest that low-birth weight premature infants are less active and responsive. According to this argument, even if we do not consider children with neurodevelopmental disorders, these children display, for instance, some important differences in their own development, since they show fewer and weaker visual responses in reacting to the social context. Visual tracking begins somewhat later, and it is slower than is found in other more healthy premature and in full-term neonates (Stern, 1977). Eye to eye gaze between infants and caregivers may also be later in premature, so that by the age of four months many of these babies are not ready to attend to their mothers when they are looking at them, as opposed to when the mothers are looking at others.
Skills such as these develop within the context of an evolving dyadic relationship that leads to a more advanced stage of individual organization. Early mother-infant interactive sequences allow infants to share with mothers their affective states. We believe that this enables them to integrate their feelings into their emerging sense of self when they are responded to by sensitive mothers.

Prematures, who are considered to be more inattentive than full-term infants, may find it difficult to induce responsiveness from mothers, while parents themselves may find it difficult to attain in preterm infants. Parental caregiving is elicited largely in response to various eliciting behaviors displayed by infants.

We might expect a less effective mother-infant synchrony in these low-birth-weight preterms. Moreover, the mutual exchange of affective communications may be less likely to produce a positive sharing of affective states that can be successful in leading to new meaningful attribution of emotional sense.

Nonetheless, sensitive mothers of premature infants have been found to hold their infants more and to stimulate them more during face-to-face interaction or free play than mothers of full-term infants do (Minde, 1993). It seems that being so strongly committed to respond to their premature sons or daughters leads parents to compensate intuitively and unconsciously to their offspring.

In less favorable cases, however, mothers may lose because of their efforts at compensating, better attunement to their premature infants. In trying to meet childen’s needs they can produce an unintended effect of deterring the infants behavior. Preterm infants may sometimes shift from being less active than what they are expected to be, to being over-responding and unstable, leaving mothers and fathers unsure of how to hold and handle these premature infants in the caretaking (Minde, 1993). Furthermore, we have considerable evidence that premature infants, when examined interacting at home together, may demonstrate a quite different, more competent, prosocial performance (Davies & Thoman, 1988). Many mothers, on the other hand, may appear to be less responsive in communicating with their premature infants, either by diminished interacting with them or by being quite overstimulating but insufficiently attuned to them.

The study of early parent-child relationships in premature children needs to take into account a variety of associated contextual factors (Cox & Lambrinos, 1992). Often, for example, there are consistent individual variations in temperament competence. One must consider the extent to which each child is able to adapt successfully to prematurity and with other related adversities.

One needs to consider also the incidence and extent of associated biological risks in the first weeks or months of life, such as respiratory disorders or developmental delay or functional disharmony. In fact, when examined within the context of infant observation as well as when assessed through the Strange Situation Procedure (Ainsworth et al., 1978), at least some evidence suggests that attachment between premature infants and mothers may be adversely affected (Plunkett, Meiners, Steffel, Pasick & Roloff, 1986). It is unclear what the mechanism for such effects might be.

An important question is the influence of severe and long-standing biological risk factors on preterm infants. Among a group of low birthweight preterms with many risk factors, we may notice that an increased incidence of insecure-resistant patterns of attachment as opposed to insecure-avoidant patterns of attachment.

These tentative findings suggest that high-risk premature infants are not more likely to develop anxious-avoidant nor disorganized attachments to their caregivers. It may be that when sensitive and secure enough mothers give birth to a preterm infant, they become anxious and inconsistent rather than unavailable or rejecting, thus leading to anxious-resistant attachment in the infants (Plunkett et al., 1986).

We argue that on the one hand such tiny infants as preterms can make bonding and parenting difficult, but, on the other hand, the longitudinal data points out that the medium-term outcome of preterms can be also influenced by the organization of individualized and specific responses that each mother brings to such her experience with her own preterm infant.

Transmission of Attachment Patterns across Generations within Families with Premature Children

When we consider the impact of the premature birth, we must take into account also the feelings which are elicited into the parents’ inner world by this early birth of such a little newborn. Unexpected and sudden, as well as long-fearred, this birth brings to a premature conclusion a gestation that was supposed to progress further. Often, this may lead to heightened parental vulnerability for unsuccessful or maladaptive patterns in the relationship of attachment (Minde, 1993). A premature birth violates parental expectations, and may lead to a significant perturbation of the nascent attachment relationship (Sroufe, 1989).

Should we presume that attachment is changed, or even blocked, because the early behavior of the premature infant interferes with early attunement? Alternatively, should we think that it is the premature giving birth that elicits idiosyncratic fantasies and mobilizes relevant anxieties that pre-exist within mothers and fathers before childbirth.

The nature of a mother’s relationship to a premature son or daughter...
needs to be examined extensively because, on the caregivers’ side, there are life events or emotional conditions which can influence developmental pathways and thus lead to different psychosocial outcomes for the infants.

It has been suggested that low-birth weight premature are less responsive or hyperactive and overly demanding children. Nevertheless, almost all studies point also to maternal adaptation to the child individual rhythms and preferred channels of early communication as vital determinants of outcome (Stevenson-Barrat, Rosch & Leavitt, 1992).

In normal emotional development, we find that the needs of the infant are in the center of mother’s intuitive attention. In contrast, when parents are overwhelmed by anxieties aroused from the premature birth, feelings of guilt and grief are introduced into the inner world of the mother. These may be extremely painful for her to contain.

The early relationship between mothers, fathers and their small premature infants may be influenced by the interference of the premature birth upon maternal representations about the infant. A system of gestational preconscious fantasies concerning characteristics of the future baby likely will be influenced profoundly by a preterm birth.

As premature infants may be born only a few weeks after their mothers have first felt their movements in the womb, a decisive step in the ongoing maternal primary preoccupation and prenatal bonding to the infant may be lost (Minde & Stewart, 1988). Mothers also may feel unprepared for the way their premature newborns look. They may experience a sense of failure in having given birth to a baby that appears to them less than perfect.

We can argue that, within a group of premature children’s mothers, a sharp discordance does exist between the imagined baby—a full-term baby, of course—and the real baby that is born following a preterm birth. Recent observations have suggested that, in expectant mothers, the system of fantasies and representations concerning the future son or daughter develop rapidly between the fourth and seventh month of pregnancy while, after this time, these fantasies about the future infant become increasingly vague (Ammaniti, 1989). If true, we may understand this as a maternal adaptive defense that allows infants born at term to be birthed at a time when mothers’ representations in her arms. Many suggest that this disagreeable condition and uneasy setting may compromise the inner dynamics of the mother by introducing elements of confusion and disorientation.

It has been seen that the premature birth may interfere with the natural development of a positive maternal preoccupation. Mothers may feel estranged from the infant and have difficulty asserting ownership. Similarly, mothers of premature infants must work hard to perceive themselves as mothers of the hospitalized infant.

Nevertheless, if we attempt to understand more fully, we can find out that mothers that are unsuccessful in holding their premature children, even if not presenting an individual psychological disorder, very often have unresolved conflicts in the area of parenthood. It is very useful to link the premature birth/giving situation to the mothers own infancy experiences with their attachment figures (Main, 1995). Recent researchers have provided an association among a classification of parental attachment and life events: it has appeared that mothers with insecure attachment classification, especially those with unresolved mourning following important losses, are at risk but that also other mothers coded as secure are (Steele & Steele, 1994) since, for instance, the occurrence of stressful experiences, likewise a premature birth/giving, can bring to surface unappearing experiences from mothers’ own childhood that were less secure. Since it is known that children depend upon parents for biological and affective needs, one can believe that both parents and children need to view some refusing side of the early relationship as containing and accepting while it is
not: a defensive avoidance allows the child to maintain a conscious representation of the mother as loving while the refusing or dismissing maternal side, less preferred, can remain at an unconscious level.

Some mothers of premature babies seem blocked from insight since they cannot experience, under such unexpected circumstances, a sufficient level of self-awareness to permit having certain salient thoughts and feelings. Even if they might be secure individuals under non-stressful situations, they may be quickly shattered in the context of the sorrowful experience of becoming a parent of a premature child. These remarks may lead these mothers to be convincingly described through the following statement regarding their coping with the premature birthing on a base of multiple working models of attachment. In addition to experiencing an abbreviated pregnancy, also they were not prepared sufficiently for the transition to motherhood because they had two internal models of childhood relationships. In addition to a more conscious internal model that led them consciously to experience themselves as confident, capable and worthy, there was also a more conflicted internal model that was less conscious, less preferred and less accepted. This model was elicited by the sense of failure associated with the delivery of a defective infant.

Case Vignette

A vignette from the case of a young mother of a premature infant will be useful to illustrate the internal experience of an insecure woman, who had been neglected and abused in her own childhood. After becoming the mother of a premature child, her less conscious internal working model came to dominate. When she was learning to feed her first son within the environment of the neonatal nursery, she appeared to be blocked and disturbed in her efforts to master the micro-regulation of mother-infant interaction. For unconscious efforts to raise her self-esteem and to gather up her feeling of self (Tracey, 1995).

The mutual coordination between the two partners in the described case was quite low so that reciprocal verbal communication also was impaired. Mother's baby talk was focused on her needs rather than the child's needs, since maternal speech is quite broadly mother-centered rather than child-centered (Murray & Trestaithen, 1986). An unexpected experience such as a premature birth can modify the parent-infant communication so that a maternal speech focused on the mother appears within the frame of early interaction. Directives and imperatives may prevail rather than the questions and affirmations that are more typical when mothers are better "tuned in" and more accepting of the infant.

Ghosts in the Premature Nursery: Are we allowed to Visit?

A premature infant may find it hard to adapt rapidly to the social context while conveying, instead, into the social environment a sense of confusion that is often quite disagreeable for his parents to contain and contemplate.

The neonatal staff and the policies that they maintain have a profound impact upon the infant's larger family system, in part by means of allowing repeated chances for parents and siblings to meet newly-born children within the day-to-day context (Minde, 1993). Obviously, experts in developmental psychology encourage members of nursing staff to include parents in as a part of their team. The role of psychological consultant may be important in dealing with the team dynamics in order to work through the anxieties that are elicited in each single worker in these intense, high technology settings. Like the infant observer described by Bick (1964), the
consultant psychologist or psychiatrist must find a position from which he introduces as little distortion as he can into what is going on so that he will feel himself involved enough to share the emotional impact but not so involved that he must act out an assertive role that is thrust upon him.

Low birthweight premature infants in first weeks of life often display slower characteristics of self-emergence, such as individual cycles of sleep and wake or feeding rhythms than full-term infants (Rutter, 1988). Parents, in turn, may need help in becoming better aware of their ambivalence towards such tiny children whose condition necessarily imposes on their mothers and fathers a prolonged and undesirable separation. A psychological intervention may facilitate positive changes in parental behavior with premature children across the whole first year of life enabling parents to retain an active sense of parenthood (Minde & Benoit, 1991). Group meetings have proven to be successful in increasing parents' feelings of confidence. By these means, the vital sides of these premature infants are more likely to emerge (Field, 1990). When parents are more confident, infants are more likely to grow and to develop their individual characteristics.

Recent research (Isabella, 1993) has examined the origins of secure and insecure attachment by means of repeated naturalistic observations and, in doing so, they have revealed the existence of a meaningful variance of spontaneous maternal behavior. It has been demonstrated, for example, that changes towards a mothers' increased responsive interaction often occur across infant ages one-four and nine months. The affective core of the child (Emde, 1988) should, therefore, achieve a growing integration from a working-through of parental depressed moods or denying "ghosts" (Fraiberg, Adelson & Shapiro, 1975). One may often observe such ghosts in at-risk mothers and fathers, deriving either from unresolved parental conflicts or from maladaptive psychosocial situations.

Developmental assessments of premature infants in follow-up studies may indicate in at-risk groups unanticipated increases or decreases in developmental scores that derive from successes or failures in early parent-infant relationships. These developmental indicators may be associated with insecure attachment. These markers can be obtained, for instance, from the Strange Situation Procedure (Ainsworth et al., 1978), as well as from structured laboratory play sessions (Crowell & Feldman, 1989) or play narratives such as the MacArthur stem stories for three-year-old preschool children (Buschbaum & Emde, 1990).

The outcome of school-age children who were lowbirth weight premature infants also have raised concerns about high rates of learning problems even among children with almost regular development (McCormick, Gortmaker & Sobol, 1990). However, these cognitive problems often emerge as associated with hyperactive behavior, suggesting a connection that may link learning difficulties with emotional development. It can be argued that these children may be mobilizing unconscious maneuvers against an insecure sense of self that seems to have its roots in an early sorrowful infant-parent relationship. The insecure behavior that is found in the longitudinal outcomes of such groups of lowbirth weight premature can, therefore, result also from a parent- hood competence which is still disturbed so that mothers and fathers may continue treating their premature with less empathy and emotional availability across the first years of life.

The emergence of children's attachment behaviors is also exposed to different emotional influences in that the evolving internal working models of relationship are linked to parental attachment security in ways that differ for mothers and fathers (Steele & Steele, 1994; Rutter, 1988). Considerable knowledge about these influences is growing from studies that examine children’s behavior in preschool years and comparing this to parental security of attachment (Fonagy, Steele & Steele, 1996). The father-child relationship may be especially decisive for encouraging the child to develop and succeed at social relationships outside the family context. These findings suggest that the intergenerational influence of fathers upon their children may be of a different kind from that exerted by mothers. This fact suggests that in lowbirth weight premature parents can play a protective role (Rutter, 1988) since fathers are less involved in the actual premature birth. From a family dynamics point of view, an association between fathers' degree of involvement and infant cognitive outcome is a new demonstration of how sensitive fathers can support development facilitating the maturation of greater social skills and enabling resilience to emerge (Yogman, Kindlon & Earls, 1995).

Conclusions

A healthy mother-infant relationship in the first months of life was described by Donald Winnicott in terms of mirroring and holding. This description matches well the patterns of secure attachment relationship which have been described (Ainsworth et al., 1978; Main, 1995) in a context of responsive mothering for older pairs. The richness of both healthy and disturbed responses has been widely investigated too, and the attributions which parents bring to their parenting have been described. These "ghosts" of unresolved childhood conflicts, when they are deeply present in mothers and fathers of premature children, have been shown to influence the early relationship.
within one developmental area or another depending upon the specific individual vulnerable areas from each specific parent's past. We are, therefore, to point out that every infant, and a premature child more than other children, can be competent only to the extent that the caregiving context is responsive to the reflexive self functioning in the child. So when we recall Winnicott's words (Winnicott, 1965), "a baby alone does not exist," we can notice that, from the point of view of psychology, this means that there is only baby-with-mother.

In another sense our work with premature infants can lead us to meet a new profound implication in the quoted statement since what appears to be discontinuous, such as child's individual disperse behavior, can be seen as a meaningful signal of continuity if we observe the early relationship from an intergenerational point of view.

References


I had the privilege of participating in the 2nd International Symposium on Stress and Violence in Childhood and Adolescence, held in Barcelona December 3-6, 1996. The first Symposium took place in Lisbon in 1995. The organizers used a multidisciplinary approach to reach professionals of several disciplines as well as policy-makers with the knowledge about the causes and roots of violence in children, and violence done to children. Since much of the material presented concerns infancy professionals, I will try to bring together what seemed to me some of the high points of this important conference.

Once more we could realize how much violence is still exerted on children in our wealthy and competitive world. F. Weil-Halpen (France) summarized her efforts following the Romanian revolution to improve the awful living conditions of infants who were found in orphanages and to train child workers in stimulating these children. Positive results were being reached until the change in government blocked those efforts, leading to a situation close to the early conditions that were initially found. She presented this recent history as dramatic and very disturbing images were shown on the screen. F. Kayavil (India) described conditions of stress and violence which millions of children still have to endure in his country, the prevalence of child labor, and the enslavement of women by old cultural patterns with evident consequences on mother-child relationships.

J. Osofsky (USA) centered her presentation on the effects on children of physical abuse and domestic violence. She discussed the diagnosis of post-traumatic stress disorder in these children using images to show how change had occurred with the help of a significant therapeutic figure.

J.Y. Hayez (Belgium), in one of the emotional high points of the conference, described how he and some of his colleagues in child psychiatry attempted to respond to the massive shock felt by the whole country following the discovery of violence done to children by a pedophile. Their use of mass media to reach as many children as possible and to convey children's feelings and reactions obtained in a group psychotherapy, appeared most important, and hopefully, fruitful.

How Can We Explain Such Violence?

Of course, several factors are usually at play together, but the work done in infancy in past decades is particularly useful here. It seemed clear to many of the presenters that we possess much of the knowledge necessary to explain the development of violence in the child and to understand how adults become perpetrators of violence to children because of deprivations suffered in their own childhood that lead to the development of aggression.

E. Tronick (USA) presented some results of his research and again showed a most disturbing scene of a 30-month-old girl whose mother suddenly, in the course of playful activity, froze her face for a time that seemed atrociously long, and no
longer responded to the need of the child to continue sharing her play. We observed the child’s complete lack of understanding about what is happening, her sadness and the appearance of aggression toward the mother. This is an experimental situation, probably too extreme, but it helps us understand what happens to children of mothers who are depressed, or frequently withdrawn because they are preoccupied with their economic frustrations, or because they have lost faith in a partner.

J. Gomez-Pedro (Portugal), in a more poetic language, also centered his intervention on the early foundations of the development of competence in the child. A child is able to say “I can explore and find solutions” because he was first able to feel, “I have people around me to take care of me” and to say “I am” a person who is appreciated and respected. A child who is cared for and respected in the development of his potential in this manner does not need to be violent.

It was fascinating to hear G. Young (USA) present his own work and the work of other researchers on the development of the brain, and on the importance of environmental influences on its development. Here again, the knowledge exists to make us aware that we are not the slaves of a genetic or biological given that would explain all subsequent development, but that environmental stimulation—the family and early interaction with its members—plays an enormous role in making the complexity of our mental apparatus.

Can we Prevent Violence?

Several interventions showed how this knowledge can be used to prevent the use of violence, and to break the cycle of abuse by helping young mothers very early in the process of bringing a new child to this world.

J. Kennell (USA) talked about the role of the “doula”—a woman who accompanies the new mother through several phases of her pregnancy, delivery and first few weeks of the child’s life—who is used in many countries to help and compensate for the lack in motherly capacities that modern life creates in many women. Such a maternal figure may well supplement the “famille élargie”; a role that still exists in many cultures to support the new mother but which has almost disappeared within developed countries.

A work in progress (Z. Boukydis, USA) was presented on treatment of drug-addicted women which does not separate them from their newborn children.

J. Manzano (Switzerland) summarized the research of his group on diagnosis of postpartum depression, its appearance during pregnancy, and the possibility of preventing it by detection of depressive symptoms during pregnancy.

A Barcelona Declaration was prepared and read at the end of the Symposium emphasizing the importance of mother-child ties, stable family nuclei, the development of early detection and early psychiatric care, help for marginalized families, more knowledge, better training of professionals, and effective use of mass media to convey what is known about violence and its prevention to the general population.

Such conferences are essential to regroup and support all professionals who are already working with infants and young families. They are also essential to convey this priority of early intervention to public authorities so that more resources are engaged in community work to prevent violence. This is a very brief summary of some of the interventions which seemed to reach professionals who actively responded all through the four days of this Conference. I hope its results will be published and that it will be soon followed by other meetings on this most important topic.
A New Outpatient Unit for Early Relationship Problems
VAKU (THE CRADLE) FOR BABIES AND THEIR MOTHERS AND FATHERS

The VAKU outpatient unit of Jorvi Hospital in Espoo, Finland was started in February 1996. Three kinds of treatment models are used:

- Group-centered mother-infant therapy, including individual mother-infant, couple, and family meetings and reestablishment of maternal mother-infant relationship (Selma Fraiberg therapy).
- Short-term family (parent-infant) consultation.
- Regular home visits of long duration, e.g. 1-3 years for mothers who cannot attend the group or come to our unit (our previous working model).

Our theoretical background is based on a psychodynamic and psychoanalytic understanding of the parent-infant relationship. Other theories from systemic, behavioral, group and milieu therapy are also applied. The main focus is treatment. We also want to examine and develop preventative work and treatment models of the early attachment relationship. We have one full time and three half-time therapists.

Since January of 1996, we have worked with:

1. Two weekly mother-infant groups with eight mother-infant pairs attending. Depression, personality problems, and anxiousness are background problems. There are two single mothers. Most couples have marital problems with insecurity about relationship continuity. Five mothers have had some other contacts with psychiatric facilities and two mothers have had individual therapy. Most of the mothers were over 29 years old. Of the eight babies seven were girls and one was a boy. Four babies were aged 6-7 weeks, two 9-10 weeks, and two 6-7 months at the beginning. Six were only children and two had an older sister or a brother.

In the groups see the babies' reactions to the parents' psychological state. Some babies are very tense and often crying, two are slow and weak in their responses, one is somnolent, three have eating disorders, two have reactive attachment disorders, and one suffers from mother's inconsistent interaction. So far we have used the ICD 10 diagnostic categories, but intend to use the Diagnostic Classification: 0-3 in the future.

2. Nine families in short-term consultation. Two families have needed four family meetings. The others still continue and will probably need 3-8 meetings. Referrals have come from various places. The reasons for consultations were: the baby's eating problems in two families, crying and sleeping problems in one, the parents' concern for the attachment development between the baby and a depressive mother in five, and the parents' concern for the baby's delayed development in one family. In three families, the mother's depression was also treated by adult psychiatry or private therapy. In this group, the problems were generally milder, the fathers being more capable of helping the mother and the baby.

3. Six families to whom we make home visits. Our contact with these families started before 1996. We share this work model with four workers from adult psychiatry.

In these families, the mothers generally have the most serious problems. They are severely depressed with suicidal thoughts, or they suffer from psychosis and, in some cases also problems with alcohol. Usually, their mental problems have started long before they became parents. Most of them also have been treated by adult psychiatry.

We developed our therapeutic intervention based on our earlier work in adult psychiatry according to the psychoanalytic model, working mainly with mother's representations of the baby. We noticed that this path was sometimes too slow for the baby. The group-centered method offers a supportive "holding experience" for the mother who then feels secure enough to be more sensitive to her baby's need and signals. The mother benefits as well from the diversity of mothering models that she observes. Working in a group allows us to better see and understand what happens in the dyad. Giving a meal to the mothers offers us a good situation for both "feeding" the mothers and for understanding some of the essential dynamics of caring. We are looking for new ways of using individual therapy (e.g. by the help of video taping) and the group therapy process.

We see that if the mother is motivated by the group, the results are soon to be seen. However, often the essential work is motivating the parents. A short family consultation can be very successful in situations where there are resources in the family, but they are stuck in some problem and need new perspectives.

Help on many levels and much work is needed in the whole field to develop better evaluation of problems in families with young infants and to support these families. A well functioning network is the prerequisite for being able to offer help quickly when needed because babies cannot wait!

The VAKU team at Jorvi Hospital, Unit of Child Psychiatry: Leena Lauti, M.D., Sinikka Mäkelä, psychologist; Anna-Liisa Limala, social worker; Inger Soderlund, social worker; Rititta Kaserva, M.D., Head of the Unit of Child Psychiatry.
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