A Systematic Investigation of 16 Cases of Neonaticide

Margaret G. Spinelli, M.D.

Objective: Neonaticide, or infant murder on the day of birth, is often preceded by denial of pregnancy. The preponderance of case reports of neonaticide describes a pattern of pregnancy denial, dissociation, and ego disorganization. The author systematically investigated the clinical characteristics of 16 women charged with homicide in the United States after alleged neonaticides

Method: The women received a psychiatric evaluation and were administered the Dissociative Experiences Scale.

Results: Nearly all of the women reported similar precipitants and symptoms, including depersonalization, dissociative hallucinations, and intermittent amnesia at delivery.

Conclusions: The characteristics of the women in the study were similar to those reported in the literature on neonaticide. The existence of this common pattern suggests that treatment strategies can be designed for women at risk for neonaticide.

(Am J Psychiatry 2001; 158:811-813)

nfanticide, or child murder in the first year of life, is frequently associated with mental illness. Neonaticide is infanticide in the infant's first 24 hours. Infanticide and neonaticide have been neglected as a field of study since Resnick's classic work 30 years ago (1, 2). Case reports describe psychoses, dissociative disorders, and antisocial personality disorder in women who commit neonaticide, but I could find no phenomenological studies.

Well-documented clinical case reports of neonaticide (1, 2) describe a presentation of pregnancy denial, dissociative symptoms, or psychosis (3–5). However, I could find no reports of a systematic investigation that classified this phenomenology using contemporary diagnostic criteria and the biopsychosocial model of psychiatry. The case series presented here is, to my knowledge, the first to suggest a paradigm for understanding denial of pregnancy and neonaticide and for developing treatment strategies to prevent infant mortality from neonaticide.

Recognizing that childbirth is a time of unique biological change and peak prevalence for mental illness (6), most Western countries have developed infanticide legislation that provides probation and mandated psychiatric treatment. In contrast, the United States considers infanticide under general homicide laws (7). Sentencing is arbitrary, and penalties range from probation to life in prison. And yet, the United States has the fourth highest rate of infanticide of 21 developed countries (8).

Three epidemiological factors suggest further investigation:

- 1. Infanticide represents an escalating 50% of all U.S. homicides due to injury. Because many infant victims of homicide are never found, Overpeck et al. (9) have cautioned that the rate of neonaticide is underestimated at 5% of infant homicides.
- 2. Maternal infanticide correlates with the findings of Kendell et al. (6) that women are more likely to experience psychiatric illness after childbirth than at any other time in life.

3. Almost half of filicidal parents are seen by medical professionals shortly before their tragedies (1).

Method

Sixteen women charged with homicide in the United States after an alleged neonaticide were evaluated. Ten were Caucasian, five were African American, and one was Asian. Their ages ranged from 15 to 40 years (mean=23.63 years, SD=8.00). Eleven were from middle-income families, and five received public assistance. All 16 women had experienced denial of pregnancy and had secret, unassisted deliveries.

Psychiatric interviews were requested by defense attorneys or presiding judges to determine the mental status of the accused at the time of the alleged offense. All of the women gave informed consent and were cognizant of the purpose of the interviews.

The Dissociative Experiences Scale (10), a valid, reliable screening instrument for dissociative disorders, was administered.

Results

Each woman presented with a childlike demeanor and *la belle indifference* (11). Other features included denial, depersonalization, dissociative hallucinations, and history of abuse.

The subjects' spectrum of denial was similar to that described in earlier reports (12, 13). Five disavowed their gravid state until the delivery itself. Eleven described intermittent awareness that was subsequently recompartmentalized. The women and significant others denied awareness of the physical changes of pregnancy.

All of the women described "watching" themselves during the birth. Eleven denied pain, and five described the pain as "not bad." Twelve women experienced dissociative hallucinations as an internal commentary of critical and argumentative voices. Fourteen women experienced brief amnesia, and nine of those women described associated psychotic symptoms at the sight of the infant (4, 5). Upon reintegration, the women could not account for the dead infant.

Nine women reported a history of childhood sexual trauma, and seven of those reports were corroborated by independent sources. Six women reported a history of physical abuse.

The women's scores on the Dissociative Experiences Scale (mean=28.89, SD=16.99, median=25.45) suggested a high level of dissociative pathology (10). Ten women had Dissociative Experiences Scale scores greater than 15. Two women with antisocial personality disorder had high scores that suggested malingering. The scores of the remaining women were under 15.

Bizarre actions included returning to bed with the infant's corpse and keeping it under clothes or in a knapsack. The putrified corpse of one infant was found 2 weeks after delivery in a file cabinet in the office the subject shared with others.

Thirteen women were "good girls" without sociopathy from families where emotional neglect, denial, secrecy, and boundary violations were prevalent.

Discussion

A preponderance of the literature on neonaticide is derived from judicial statistics or retrospective chart reviews that have used varied and outdated diagnostic criteria (1). However, case reports of individual interviews within and outside of the judicial system have described psychopathology similar to that reported here.

Laws such as the British Infanticide Act (7) acknowledge the biological vulnerability of parturition, including the potential for mental status changes related to plummeting hormone levels (14), the hypothalamic-pituitary-ovarian axis cascade, and altered neurotransmitter function in the central nervous system. This hypothalamic-pituitary-ovarian mechanism has also been implicated in pregnancy denial and pseudocycesis (hysterical pregnancy) (15). That psychic stimuli may produce physical change is suggested by continued menstruation in pregnancy denial (4) and lactation in pseudocycesis (15).

To deny a fact, prior knowledge of the reality must exist. Denial is an attempt to avoid intolerable reality (11). Denial of pregnancy has been described in incest victims (4) and in patients with psychosis (12) and dissociative disorders (13). The clinical profiles of the women in this series match those described in Janet's writings on hysteria and dissociative hallucinosis (11).

Brezinka et al. (13) observed 27 women with pregnancy denial without neonaticide, and Bonnet (4) described 22 women such women. Bonnet described a failed dissociative response followed by ego disintegration or hysterical psychosis when the sight of the newborn erupts into consciousness. Family dynamics were consistent with those of the women in the present study. The prevalence of sexual abuse was 20% of Bonnet's subjects, compared to 56% of the women in this study.

The findings in this series are also similar to case reports of pregnancy denial in a subset of the neonaticidal women described in earlier reports (4, 5, 13, 16–18). However, these earlier case reports were published separately and were based on a variety of interview techniques, precluding reliable and replicable data collection. Accurate identification of pregnancy denial and dissociative symptoms requires systematic investigation.

The limitations of this report include the selection of cases by court referral and the absence of a comparison group. Therefore, the possibility of author or selection bias or malingering by subjects must be considered. Future evaluations should include structured diagnostic interviews and tests of personality and malingering.

However, these preliminary data suggest a method of systematic evaluation that uses contemporary diagnostic criteria. Classification of symptoms with a common presentation and course suggests the need for phenomenological studies. Once psychopathology is identified, monitoring strategies that allow recognition of patients at risk can be developed and strategies for treatment and prevention can be devised. Such programs could mobilize support systems and facilitate family interventions, including prenatal care, family planning, adoption alternatives, and parenting classes (12). Prevention could be fostered through educational programs for parents, teachers, and health professionals.

To increase the potential for prevention of infant mortality, further investigation of pathogenesis is needed. In the absence of treatment, childbearing women are released from incarceration for neonaticide with the same psychopathology that brought them into the prison system. The findings of this systematic investigation provide a preliminary framework for developing clinical trials to test treatment strategies for these women.

Presented at the 151st annual meeting of the American Psychiatric Association, Toronto, May 30–June 4, 1998, and Washington, D.C., May 15–20, 1999; and at meetings of the World Psychiatric Association in Madrid, Aug. 23–28, 1996; Rome, June 16–19, 1997; and Hamburg, Aug. 6–11, 1999. Received Feb. 11, 2000; revisions received Aug. 10 and Nov. 14, 2000; accepted Dec. 1, 2000. From the Department of Psychiatry, Columbia University College of Physicians and Surgeons. Address reprint requests to Dr. Spinelli, New York State Psychiatric Institute, 1051 Riverside Dr., Box 123, New York, NY 10032; mgs8@columbia.edu (e-mail).

Supported in part by NIMH grant MH-01276.

The author thanks Prof. Channi Kumar, Debra Sichel, M.D., Katherine Wisner, M.D., and Jean Endicott, Ph.D., for their assistance on this project.

References

- Resnick PJ: Child murder by parents: a psychiatric review of filicide. Am J Psychiatry 1969; 126:325–334
- Resnick PJ: Murder of a newborn: a psychiatric review of neonaticide. Am J Psychiatry 1970; 126:1414–1420
- 3. Finnegan P, McKinstry E, Robinson GE: Denial of pregnancy and childbirth. Can J Psychiatry 1982; 27:672–674

- 4. Bonnet C: Adoption at birth: prevention against abandonment or neonaticide. Child Abuse Negl 1993: 17:501–513
- 5. Brozovsky M, Falit H: Neonaticide: clinical and psychodynamic considerations. J Am Acad Child Psychiatry 1971; 10:673–683
- Kendell RE, Chalmers JC, Platz C: Epidemiology of puerperal psychoses. Br J Psychiatry 1987; 150:662–673
- 7. Oberman M: Mothers who kill: coming to terms with modern American infanticide. Am Criminal Law Rev 1996: 34:1–110
- Briggs CM, Cutright P: Structural and cultural determinants of child homicide: a cross-national survey. Violence Vict 1994; 9: 3–16
- 9. Overpeck MD, Brenner RA, Trumble AC, Trifiletti LB, Berendes HW: Risk factors for infant homicide in the United States. N
- Engl J Med 1998; 339:1211–1216
 Steinberg M, Rounsaville B, Cicchetti D: Detection of dissociative disorders in psychiatric patients by a screening instrument and a structured diagnostic interview. Am J Psychiatry 1991; 148:1050–1054

- Janet P: The Major Symptoms of Hysteria: Fifteen Lectures Given to the Medical School at Harvard University. London, MacMillan, 1907
- Miller LJ: Psychotic denial of pregnancy: phenomenology and clinical management. Hosp Community Psychiatry 1990; 41: 1233–1237
- 13. Brezinka C, Huter O, Biebl W, Kinzl J: Denial of pregnancy: obstetrical aspects. J Psychosom Obstet Gynaecol 1994; 15:1–8
- 14. Harris B: Biological and hormonal aspects of postpartum depressed mood. Br I Psychiatry 1994: 164:288–292
- Brown E, Barglow P: Pseudocyesis: a paradigm for psychophysiological interactions. Arch Gen Psychiatry 1971; 24:221–229
- 16. Green CM, Manohar SV: Neonaticide and hysterical denial of pregnancy. Br J Psychiatry 1990; 156:121–123
- Bracken MB, Kasl SV: Denial of pregnancy, conflict, and delayed decisions to abort, in The Family: Fourth International Congress of Psychosomatic Obstetrics and Gynecology, Tel Aviv. Edited by Hirsch H. Basel, Switzerland, Karger, 1974, pp 301–305
- 18. Silverblatt H, Goodwin J: Denial of pregnancy. Bull of Birth Psychol 1983; 4:13–25