Commentary: Postpartum Psychosis, Infanticide, and Insanity—Implications for Forensic Psychiatry

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Two dozen nations have infanticide laws that decrease the penalty for mothers who kill their children of up to one year of age. The United States does not have such a law, but mentally ill mothers may plead not guilty by reason of insanity. As in other crimes, in addition to the diagnosis of a mental disorder, other factors, such as knowledge of wrongfulness and motive, are critical to the assessment. Postpartum psychosis has been described for 2,000 years and modern science supports a genetic component to the risk. Yet, the Diagnostic and Statistical Manual of Mental Disorders does not include it as a diagnosis, leading to difficulty in testimony. In this article, we discuss postpartum psychosis, infanticide law, and research regarding mothers who kill, and we make recommendations to forensic psychiatrists.

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Postpartum psychosis (PPP) was described by Hippocrates in 400 BC in a case of confusion, hallucinations, and insomnia occurring six days after a woman gave birth to twins.[1,2] Consistently, the picture of PPP includes not only psychotic symptoms, but also mood and cognitive symptoms.[3] Symptoms of PPP tend to develop quickly, in the first weeks after delivery. They include auditory hallucinations and an organic presentation, with other types of hallucinations. Delusions, in contrast to those in schizophrenia, often evolve quickly and may center on the infant, the focal point of the mother's life. Delusions that the baby is evil or not hers elevate risk of harm.[4] Dysphoric mania, with symptoms of both mania and depression co-existing or rapidly shifting, may appear. Cognitive symptoms, such as confusion and sometimes a delirium-like presentation, complete the organic picture[5] and elevate the risk of negligent harm of the child.[6]

PPP occurs in one to two births per thousand. Recent research supports a genetic basis of postpartum psychosis,[7–9] lending further credence to this illness, described for more than two millennia. Although PPP is most often related to bipolar disorder, the woman may not have any psychiatric history. Obviously, the organic symptoms and timing in the immediate postpartum necessitate a work-up for medical causes of psychiatric symptoms. PPP is best treated in hospital, due to risks to mother and infant from the rapidly evolving symptoms.[3] It has been estimated that untreated PPP carries a four percent risk of infanticide and a five percent risk of suicide.[10–12]

In distinction to PPP, postpartum depression (PPD) occurs much more commonly (in 10–20 percent of mothers).[13] Risk factors include personal or family history of depression, stressful life events, poor emotional support, sleep deprivation, and certain personality traits.[13] Symptoms of PPD are similar to those of major depression at other points in a woman's life, although anxiety may be more common.

Thoughts of harming one's child are more common than psychiatrists often realize.[14] A study of mothers of children younger than three years found that 41 percent of depressed mothers had such thoughts, as did 7 percent of controls.[15] Not only mental illness leads to such thoughts. A general population study of mothers with colicky infants found that 70 percent had explicit aggressive thoughts toward their infants, and 26 percent had infanticidal

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thoughts during colic episodes.[16] Most mothers, however, do not act on such thoughts. An Indian study of hospitalized women with postpartum mental illness found that infanticidal behavior correlated with psychotic beliefs about the infant and negative maternal reaction to the separation.[17] A common pattern of "powerlessness, poverty and alienation" was noted among mothers who kill (Ref. 18, p 1582), and similarly noted is the need for better accessibility of services for at-risk women. Suggestions for prevention for psychiatrists[3,19,20] and for pediatricians[21] are provided elsewhere and are outside the scope of this commentary. Although women with postpartum mental illness who have killed are clearly in need of treatment, their need for psychiatric therapy is a separate concern from their culpability, just as it is in other crimes.

Infanticide Laws

Internationally, most infanticide laws are based on the 1922 British Infanticide Act (amended in 1938). Approximately two dozen nations have such laws, including Canada and Australia.[20] In brief, the Act allows a mother, who has caused the death of her infant (younger than one year) and who has not recovered the "balance of her mind" after childbirth or lactation to be found guilty of infanticide, which is akin to manslaughter, rather than murder. However, in practice, women who are not mentally ill also take advantage of these laws. Women often receive probation and mental health referrals rather than incarceration. In the early 20th century, these laws were based on then-current thinking about lactational insanity, but laws have remained since, related to public desire to excuse women who evoke sympathy.[20] Societal mores toward mothers who kill have shifted dramatically and repeatedly over generations, moving from lenient to harsh and back again.[22] In the United States, a bill was introduced in Texas in 2009, in the wake of the Andrea Yates case, to create the offense of maternal infanticide, which used similar language. H.B. 3318 did not pass.[1,23] Criticisms of infanticide laws include inherent gender bias, diminished value of the infant's life, and unnecessary overlap with a sufficient insanity defense. Finally, evidence suggests that the one-year age cutoff does not comport with research data, if the goal is to excuse mentally ill mothers.[24]

Insanity, Motive, and Child Murder by Mothers

The concept of Deific Decree has biblical origins in the story of Abraham, who was commanded by God to kill his son Isaac as a test of faith. Justice Cardozo believed that infanticide was a special case. He described a loving mother killing her child because of the delusion that God "ordained the sacrifice. It seems a mockery to say that, within the meaning of the statute, she knows that the act is wrong."[25] Cardozo also believed that a contemporary jury would not find such a mother guilty and suggested that the term wrong not be limited to legal wrongfulness. Particularly in such cases, the question may become the mother's understanding of legal versus moral wrongfulness of her act, as it was in *Texas v. Andrea Yates*. Goldstein later noted, "women suffering from postpartum depression who commit infanticide may be able to distinguish right from wrong intellectually, yet may lack capacity to appreciate in depth the wrongfulness of their act on an affective level" (Ref. 26, p 127).

Mothers have various motives for killing their children, including, most commonly, fatal maltreatment (chronic abuse or neglect with inflicted but unintended death); altruistic murder, believing it in the child's best interest; acutely psychotic murder with no comprehensible motive; unwanted child (which is most common in cases of neonaticide); and, least commonly, revenge against a partner or spouse.[20,27,28] While depression or psychosis may co-occur in any of the five motives, it would logically be exculpatory only in the altruistic or acutely psychotic type. There is a strong intersection of filicide with suicide; 16 to 29 percent of mothers (and 40%–60% of fathers)[29] commit suicide in conjunction, implying elevated rates of mental illness among filicide perpetrators of both genders. In a study of perpetrators of filicide-suicide in Cleveland, depression and psychosis were common, and the mother's motive was most frequently altruistic.[30] In a comparison of samples, traditional suicide predictors did not distinguish mothers who attempted suicide from those who did not.[31]

In NGRI evaluations, the mother's motive should be considered. Our study in Michigan (ALI test) and Ohio (*M'Naughten* state) of those found NGRI for filicide yielded 39 women.[32] Most (72%) had prior mental health treatment, and the majority (56%)

planned suicide with the filicide. Half (49%) were depressed at the time, and more were psychotic: 74 percent were delusional and 69 percent were experiencing auditory hallucinations. Over four-fifths (82%) were diagnosed with a psychotic disorder or a mood disorder with psychosis. The rate of PPP was significantly higher than general population rates. Most (54%) had an altruistic motive, and one-third (33%) had an acutely psychotic motive. Other motives were also represented (5% fatal maltreatment and 2% unwanted child), but in those cases, the court found the woman NGRI despite a court-appointed evaluator who opined that she was sane.

Case Series of Infanticide and Postpartum Mental Illness

Katkin[33] reviewed 24 U.S. cases of infanticide in which PPP featured in the defense. Of the defendants in those cases, 8 (33%) were found NGRI, 4 (17%) were given probation, and 10 were incarcerated, with 2 sentenced to life in prison; a wide range of outcomes, were there similar fact patterns.

Yang[22] considered postpartum mental illness, poverty, and the insanity defense, reviewing American court decisions dating back to the 1951 case of *People v. Skeoch.* Ms. Skeoch went to her neighbor's home, reporting to both her neighbor and the police that a "colored" man had robbed her; she had fainted, and then had found her baby with a diaper wrapped around its neck. However, she had actually hidden her watch which she reported stolen, and when confronted, confessed to making up the story and killing her infant herself, after having financial and relationship problems. There was clear evidence of knowledge of wrongfulness. A psychiatric expert witness testified, opining that she had PPP and used evidence that a letter she wrote to her parents indicated that she was despondent. She was found guilty and sentenced to 14 years' incarceration. On appeal, the Illinois Supreme Court reversed and remanded for a new trial, holding that the state "failed to offer any evidence that might have proven that Skeoch was sane at the time she committed the crime" (Ref. 22, p 238).

Yang[22] and Nau *et al.*[23] both reviewed a 1990 California case, *State v. Massip*, in which an overwhelmed Sheryl Lynn Massip took her crying one-month-old son for a walk but instead purposefully ran over him with her car and disposed of his body in a garbage can. Psychiatrists testified that she was experiencing suicidal thoughts and hallucinations that her son was the devil. However, evidencing knowledge of wrongfulness, Massip told her husband that her son was kidnapped before admitting to the police that she had killed him. Although the jury gave a verdict of guilty, the judge substituted a finding of NGRI and ordered her to an outpatient treatment program for a year. When these fact patterns are reviewed by skilled forensic psychiatrists, the outcomes may be surprising.

Nau and colleagues,[23] in their current article, review outcomes of 36 U.S. appellate cases and other published cases in which postpartum psychosis or depression was alleged to have contributed to the perpetration of infanticide. It is unclear, however, when the defendants described therein had PPP without standard diagnostic criteria. The authors sought to describe how jurisdictions with different insanity statutes varied in legal outcomes for such women. The majority of the cases occurred in *M'Naughten* states. Although their sample size was not large enough for statistical analysis, they found that, regardless of the state's insanity statute, approximately half of the PPP cases had successful NGRI verdicts. They further noted that in both MPC and *M'Naughten* states, the defendant was required to meet the cognitive prong of the insanity test; in only one case did the court rely on the volitional prong, and they suggest that in this one case alone, the outcome appeared dependent on the jurisdiction. Otherwise, the different legal standards for insanity were not associated with different outcomes across jurisdictions. In their analysis of the commonalities in the cases, they found that PPP was present in all successful NGRI defenses, whereas PPD, PTSD, and personality disorders were not enough to merit an insanity finding. Expert testimony should consider not only diagnosis but also the mother's motive for the act and evidence of knowledge of wrongfulness. For example, when a parent attempts to cover up the crime and claims that the child was killed by another or was kidnapped, knowledge of wrongfulness is often implied.[24]

The Insanity Defense and Jurisdictional Variation

Public outrage after the insanity verdict in the attempted assassination of President Reagan in 1981 prompted national reform of insanity standards.

Over half of the states revised their insanity statutes to stricter *M'Naughten*-like standards. Today the majority of the states have adopted an insanity standard that addresses whether the defendant knew the specific criminal act was wrong.[34] The relationship between the legal standard for insanity and rate of NGRI acquittals is unclear. Little research has been conducted on this, focusing instead on persons acquitted by reason of insanity. Accounting for confounding variables such as changes in the burden of proof and cultural, social, and political factors makes such studies challenging. Keilitz[35] proposed that the weight of evidence supports that the American Law Institute (ALI) rule produces a broader and larger class of acquittees than the *M'Naughten* test. However, to date, studies have not demonstrated a substantive change in NGRI acquittals based solely on the definition of insanity.[36,37] Similarly, Nau and colleagues[23] found that successful infanticide NGRI defenses did not differ by jurisdiction.

The success rate of NGRI defenses appears higher in cases of infanticide. Katkin[33] found that one-third of NGRI pleas were successful, and Nau *et al.*[23] found that approximately one half of cases were adjudicated NGRI. This finding is in contrast to NGRI adjudications in all criminal cases. The insanity defense is raised in 1 percent of all felony cases, and the overall NGRI acquittal rate in those felony cases is 10 percent.[38] In contrast, Callahan *et al.*[39] found the overall acquittal rate across eight states ranged from 26 to 87 percent. States with high plea rates had lower acquittal rates, and those with low plea rates had higher acquittal rates. Nau *et al.* were not able to consider the frequency of the plea. Most often, insanity acquittals result from agreements between opposing attorneys.[40,41] Given the available data, it does not appear that broadening the insanity standard would affect outcomes in most NGRI cases, including infanticides.

Relationship Between NGRI Defenses and Psychiatric Diagnoses

Despite the disclaimers about its use in legal settings dating back to Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III), the manual is widely cited and accepted by the psychiatric community as the standard of care in psychiatric diagnoses,[42,43] and it is important in forensic cases. The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) recognized such relevance in the following statement, "By providing a compendium based on a review of the pertinent clinical and research literature, DSM-IV may facilitate the legal decision makers' understanding of the relevant characteristics of mental disorders."[44] The courts have reflected a disparate view of the DSM, ranging from interpreting inclusion of a diagnosis in the DSM as evidence of peer-reviewed literature and admissible data, to describing the manual as misleading.[45]

All insanity standards require the presence of a mental disease or defect at the time of the offense. However, ambiguities in the individual laws about what constitutes a mental disease allow for different interpretations and disagreements. The potential for confusion is compounded when the defendant's mental status does not clearly fit a DSM-defined condition. The mental disease of PPP is such a disorder: it fits a clearly described condition, but not one included in the DSM. As a result, there is considerable variation in its clinical description and interpretation.

Expert opinions of insanity are associated with the defendant's diagnosis of psychosis and history of prior psychiatric hospitalizations.[46] Successful NGRI defendants are more often older, female, better educated, and single, with a history of hospitalization.[39,40,47] In comparison with convicted murderers, NGRI acquittees were more likely to be seen as psychotic at the time of the offense.[48] Callahan *et al.* found the most frequent diagnosis in successful insanity pleas was schizophrenia followed by "other major mental illness" (Ref. 39, p 336). Zonana *et al.*[49] confirmed previous studies showing that most insanity acquittees have a diagnosis of psychosis/schizophrenia. Similarly, Nau *et al.* reported that successful NGRI defenses involved the presence of acute psychosis, "generally labeled postpartum psychosis, but also labeled major depression, severe, with psychotic features, with postpartum onset" (Ref. 23, p 320). However, the study does not clarify the criteria used to make these diagnoses or comment on the relationship between past psychiatric hospitalization, age, educational level, or single status and NGRI finding. As a result, it is difficult to determine how the cases reviewed generalize to what is known about psychosis diagnoses and successful NGRI acquittals.

Recommendations for Forensic Psychiatrists Evaluating Infanticide Cases

Perinatal psychiatry is not a recognized ACGME (Accreditation Council for Graduate Medical Education) medical subspecialty. However, within the field of psychiatry, it is recognized as an area of specialized knowledge. As previously described, the clinical presentation of postpartum psychosis in women is unique. For example, it is not uncommon for symptoms of postpartum psychosis to develop within days and to fluctuate rapidly, unlike psychotic symptoms of schizophrenia. Decisions regarding treatment of a woman in the perinatal period are based on the risk-benefit analysis of the individual's symptoms, severity of the illness, and the risk of drug exposure in pregnancy and lactation.[50] Future advancement of the care of pregnant women with serious mental illness involves the identification of the clinical, biological, and genetic characteristics of those who are at higher risk for recurrence.[51] The specialty area of perinatal psychiatry has evolved along with increasing data related to the treatment and evaluation of mental illness in the reproductive years.

To our knowledge, the question of whether general forensic psychiatrists are sufficiently knowledgeable in the evaluation of postpartum illnesses to render insanity opinions has not been raised. Nau *et al.* acknowledge that "forensic evaluators must understand the myriad mental health problems that affect women during the postpartum period as well as the degree of impairment expected in a woman with such conditions " (Ref. 23, p 324). We raise the question of whether forensic psychiatrists with subspecialty experience in perinatal psychiatry are more skilled in the assessment of infanticide cases. Further, Nau *et al.* suggested that the cognitive changes associated with postpartum psychosis have not been fully recognized by the courts. These changes, in our clinical experience, are often not recognized by psychiatrists either, and they are certainly not recognized formally in DSM criteria. This speaks to the need for experts to understand and explain PPP more fully to the court. We recommend that general forensic psychiatrists performing such evaluations at the least maintain continuing education in the subspecialty area of perinatal psychiatry. (Certainly treatment decisions over objection in pregnant women should be reserved where possible for subspecialists due to pharmacological specialized knowledge, i.e., safest drugs, most studied drugs, neonatal effects, and breastfeeding, among others). It is challenging to explain to the court that the DSM does not recognize postpartum psychosis, despite its description in the literature for centuries.[52] Inclusion of postpartum psychosis in a future DSM could serve to educate individuals about the diagnosis but may not result in a change in the outcome in NGRI acquittals in cases of infanticide.

Based on the specific points raised herein, additional recommendations for forensic psychiatrists performing evaluations of infanticide cases include the following:

> Consideration of the defendant's motive for the infanticide is critical to the assessment of knowledge of wrongfulness and volitional capacity. Whether the motive is altruistic, acute psychosis, or self-serving behavior should be considered. ". . .Knowledge of wrongfulness may be indicated by: attempts to hide the child's death, claims of stranger kidnapping, and attempts to hide information about the child's death. In filicide cases with accomplices, it is rare to find lack of knowledge of wrongfulness."[53]
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> The diagnosis of malingering should be considered. However, the evaluator should be aware that PPP often presents differently from schizophrenia or other mental disorders, with rapid onset and different clusters of symptoms.
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> Collateral information should be gathered from the following sources, where possible: the defendant's medical records including psychiatric and prenatal care; the child's pediatric records; legal records including child protective services records, victims, witnesses, and police records; and interviews with family members and persons who had contact with the defendant around the time of the infanticide.[53]
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> Evaluation should be expedited if possible when PPP is believed to be related to the murder,[2] as symptoms of PPP may change quickly.

In conclusion, the evaluation of postpartum psychosis in cases of infanticide requires a familiarity with the jurisdictional definition of insanity and case law interpretation of such cases. Furthermore, as sug-

gested by Nau *et al.*, forensic experts in postpartum cases must understand the unique mental health conditions that present in the perinatal and postpartum periods.

References

1. Tovino SA: Scientific understandings of postpartum illness: improving health law and policy? Harv J L Gender 33:99–173, 2010
2. Friedman SH: Postpartum psychosis, in Wiley Encyclopedia of Forensic Science. Edited by Jamieson A. Hoboken, NJ: John Wiley & Sons, 2009, pp 2136–41
3. Friedman SH, Resnick PJ, Rosenthal MB: Postpartum psychosis: strategies to protect infant and mother from harm. Curr Psychiatry 8:40–6, 2009
4. Chandra PS, Bhargavaraman RP, Raghunandan VN, *et al*: Delusions related to infant and their association with mother-infant interactions in postpartum psychotic disorders. Arch Womens Ment Health 9:285–8, 2006
5. Sit D, Rothschild AJ, Wisner KL: A review of postpartum psychosis. J Womens Health (Larchmt) 15:352–68, 2006
6. Friedman SH, Nagle-Yang S, Parsons S, *et al*: Maternal mental health in the neonatal intensive care unit. Neoreviews 12:85–93, 2011
7. Jones I, Hamshere M, Nangle J-M, *et al*: Bipolar affective puerperal psychosis: genome-wide significant evidence for linkage to chromosome 16. Am J Psychiatry 164:1099–103, 2007
8. Kumar HB, Purushottam M, Kubendran S, *et al*: Serotonergic candidate genes and puerperal psychosis: an association study. Psychiatr Genet 17:253–60, 2007
9. Friedman SH: Postpartum mood disorders: genetic progress and treatment paradigms. Am J Psychiatry 166:1201–04, 2009
10. Altshuler LL, Hendrick V, Cohen LS: Course of mood and anxiety disorders during pregnancy and the postpartum period. J Clin Psychiatry 59:29–33, 1998
11. Appleby L: Suicidal behavior in childbearing women. Int Rev Psychiatry 8:107–15, 1996
12. Schalekamp RJ: Maternal filicide-suicide from a suicide perspective: assessing ideation. Available at http://www.filicide-suicide.com/. Accessed June 13, 2012
13. Friedman SH, Resnick PJ: Postpartum depression: an update. Womens Health 5:287–95, 2009
14. Friedman SH, Sorrentino RM, Stankowski JE, *et al*: Psychiatrists' knowledge about maternal filicidal thoughts. Compr Psychiatry 49:106–10, 2008
15. Jennings KD, Ross S, Popper S, *et al*: Thoughts of harming infants in depressed and non-depressed mothers. J Affect Disord 54: 21–8, 1999
16. Levitzky S, Cooper R: Infant colic syndrome: maternal fantasies of aggression and infanticide. Clin Pediatr 39:395–400, 2000
17. Chandra PS, Bhargavaraman RP, Raghunandan VN, *et al*: Infanticidal ideas and infanticidal behavior in Indian women with severe postpartum psychiatric disorders. J Nerv Ment Dis 190:457–61, 2002
18. Friedman SH, Horwitz SM, Resnick PJ: Child murder by mothers: a critical analysis of the current state of knowledge and a research agenda. Am J Psychiatry 162:1578–87, 2005
19. Friedman SH, Resnick PJ: Mothers thinking of murder: considerations for prevention. Psychiatr Times 23:9–10, 2006
20. Friedman SH, Resnick PJ: Murder by mothers: patterns and prevention. World Psychiatry 6:137–41, 2007
21. Friedman SH, Friedman JB: Parents who kill their children: overview and prevention. Pediatr Rev 31:e10–16, 2010
22. Yang V: Postpartum depression and the insanity defense: a poor mother's two worst nightmares. Wisc J L Gender Soc 24:229–53, 2009
23. Nau ML, McNeil DE, Binder RL: Postpartum psychosis and the courts. J Am Acad Psychiatry Law 40:318–25, 2012
24. Friedman SH, Cavney J, Resnick PJ: Mothers who kill: evolutionary underpinnings and law. Behav Sci Law, in press
25. People v. Schmidt, 110 N.E. 945 (N.Y. 1915)
26. Goldstein RL: Postpartum depression and the "appreciation " of wrongfulness. Bull Am Acad Psychiatry Law 17:121–8, 1989
27. Resnick PJ: Child murder by parents: a psychiatric review of filicide. Am J Psychiatry 126:325–34, 1969
28. Friedman SH, Resnick PJ: Neonaticide: phenomenology and considerations for prevention. Int J Law Psychiatry 32:43–7, 2009
29. Nock MK, Marzuk PM: Murder-suicide: phenomenology and clinical implications, in The Harvard Medical School Guide to Suicide Assessment and Intervention. Edited by Jacobs DG. San Francisco: Jossey-Bass, 1999, pp 118–209
30. Friedman SH, Hrouda DR, Holden CE, *et al*: Filicide-suicide: common characteristics of parents who kill their children and themselves. J Am Acad Psychiatry Law 33:496–504, 2005
31. Friedman SH, Holden CE, Hrouda DR, *et al*: Maternal filicide and its intersection with suicide. Brief Treat Crisis Intervent 8:283–91, 2008
32. Friedman SH, Hrouda DR, Holden CE, *et al*: Child murder committed by severely mentally ill mothers: an examination of mothers found not guilty by reason of insanity. J Forensic Sci 50:1466–71, 2005
33. Katkin DM: Postpartum psychosis, infanticide, and criminal justice, in Postpartum Psychiatric Illness: A Picture Puzzle. Edited by Hamilton JA, Harberger PN. Philadelphia: University of Pennsylvania Press, 1992, pp 109–23
34. Moriarty JC: The Role of Mental Illness in Criminal Trials (vol 2). The Insanity Defense: American Developments. New York: Routledge Press, 2001
35. Keilitz I: Reforming and researching the insanity defense. Rutgers L Rev 39:289–322, 1987
36. Appelbaum P: Insanity, guilty minds, and psychiatric testimony. Psychiatr Serv 57:1370–2, 2006
37. Borum R, Fulero S: Empirical research on the insanity defense and attempted reforms: evidence toward informed policy. Law Hum Behav 23:375–93, 1999
38. Janofsky J, Vandewalle M, Rappeport J: Defendants pleading insanity: an analysis of outcome. Bull Am Acad Psychiatry Law 17:203–11, 1989
39. Callahan L, Steadman H, McGreevy M, *et al*: The volume and characteristics of insanity defense pleas: an eight-state study. Bull Am Acad Psychiatry Law 19:331–8, 1991
40. Rogers JL, Bloom JD, Manson SM: Insanity defenses: contested or conceded? Am J Psychiatry 141:885–8, 1984
41. Bogenberger RP, Pasewark RA, Gudeman H, *et al*: Follow-up of insanity acquittees in Hawaii. Int J Law Psychiatry 10:283–95, 1987
42. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Third Edition. Washington, DC: American Psychiatric Association, 1980
43. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised. Washington, DC: American Psychiatric Association, 1987
44. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Washington, DC: American Psychiatric Association, 1994
45. Slovenko R: The DSM in litigation and legislation. J Am Acad Psychiatry Law 39:6–11, 2011

46. Warren J, Rosenfeld B, Fitch WL: Beyond competence and sanity: the influence of pretrial evaluation on case disposition. Bull Am Acad Psychiatry Law 22:379–82, 1994
47. Hawkins MR, Pasewark RA: Characteristics of persons utilizing the insanity plea. Psychol Rep 53:191–5, 1983
48. Nestor PG, Haycock J: Not guilty by reason of insanity of murder: clinical and neuropsychological characteristics. J Am Acad Psychiatry Law 25:161–71, 1997
49. Zonana H, Wells J, Getz M, *et al*: Part I: The NGRI registry: initial analyses of data collected on Connecticut insanity acquittees. Bull Am Acad Psychiatry Law 18:115–28, 1990
50. Friedman SH, Hall RCW: Treatment of mental illness in pregnancy and malpractice concerns. AAPL Newsletter 37:21–2, 2012
51. Wisner K: The last therapeutic orphan: the pregnant woman. Am J Psychiatry 169:554–6, 2012
52. Friedman SH, Sorrentino RM, Stankowski JE: Postpartum psychosis, forensic psychiatry and the DSM. AAPL Newsletter 36:24, 2011
53. Friedman SH, Cavney J, Resnick PJ: Child murder by parents and evolutionary psychology: a framework for approaching forensic assessment. Psychiatr Clin North Am, in press