AAPL Practice Resource:

Reproductive Psychiatry/ Women's Mental Health in Forensic Psychiatry Practice

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Abstract

This practice resource seeks to describe salient issues within reproductive psychiatry (also known as women's mental health) for the practice of forensic psychiatry. Understanding is critical and can help combat gender bias in such evaluations. Forensic psychiatric evaluations in the criminal realm, including evaluations related to neonaticide, infanticide, filicide, child abuse, and kidnapping by Caesarean, require an understanding of reproductive psychiatry. Civil forensic evaluations requiring knowledge about reproductive psychiatry include parenting evaluations and risk assessments in the postpartum. Similarly, forensic psychiatrists performing a treatment role within corrections or forensic hospitals recognize the importance of understanding mental illness in pregnancy and postpartum, lactation, mother-baby units, and forced separation/ custody loss. In addition to menstruation, pregnancy, and postpartum, specific issues that bear consideration within reproductive forensic psychiatry include the periods of girlhood and menstruation. Finally, eating disorders and substance misuse bear additional attention in this group.

Introduction:

The American Academy of Psychiatry and the Law's Practice Resource for Prescribing in Corrections (2022) describes the challenges of prescribing medications for mental health disorders to persons in jails and prisons[1]. Friedman et al. provided further recommendations

concerning these guidelines, focusing on the unique challenges of prescribing for women in corrections through the lifecycle.[2] The following practice resource expands upon this by reviewing forensic issues particularly relevant to the female population and reproductive issues.

Women are more likely than men to be diagnosed with anxiety and depression. Similarly, exposure to traumatic events, poverty, discrimination, and unequal responsibilities for caring for children and elderly family members is more common in women.[2,3] In correctional settings, women have higher rates of psychiatric symptoms compared to men in correctional facilities and compared to women living in the community[2]. They also have higher rates of comorbidities.[4] Friedman et al.[2] outline the prevalence and treatment of depression, anxiety disorders, bipolar disorder, psychotic disorders, trauma and stress-related disorders, substance use disorders, and sleep disorders in women in the correctional system.

Women involved in the criminal justice system have significant mental and physical health symptoms in addition to socioeconomic disparities and physical vulnerabilities when compared to women without criminal justice involvement. Common characteristics of justice-involved women include unmarried status, age ranging from late twenties to early thirties, and having at least two children.[5] The majority of these mothers have been the primary caregiver for their children prior to incarceration.[4] Compared to justice involved males, justice involved women are more likely to report a history of victimization.[6] This victimization, including sexual abuse, tends to occur in childhood. Researchers cite this early onset childhood victimization as important in "spiraling marginality," which refers to the impact of traumatic histories and limited socioeconomic resources on functioning and resultant criminal activity.[7]

Forensic evaluators need to recognize these gender-based differences to identify women's treatment and risk management needs appropriately.[2] Understanding whether gender-based differences are based on research or the product of bias is also important in formulating forensic opinions.[8]

Review of Mental Illness and Pregnancy

Epidemiology and Course of Mental Illness in Pregnancy

Depression and anxiety are particularly common in pregnancy but often overlooked and underdiagnosed. Several theories explain why this is the case. The first is that depression is more common in women over their lifetime, and it often onsets during the reproductive years. Secondly, pregnancy itself is an extremely stressful event from a physiological and hormonal perspective as well as psychosocially. It can, therefore, trigger illness in someone who has a vulnerability to depression due to biological, genetic, environmental, or other reasons.

It is essential to recognize perinatal depression because it can have significant negative outcomes on the pregnancy for both mother and baby, including increased risks of pre-eclampsia, small gestational age (SGA), preterm deliveries, substance use, worse neurodevelopment of baby, higher rates of NICU stays, and more. A number of risk factors predispose to depression in pregnancy, including prior history, unplanned pregnancy or ambivalence, lack of social support, partner conflict or intimate partner violence (IPV), and medical complications.[9,10] Discontinuation of psychiatric medication, often abruptly upon learning of the pregnancy, increases the risk of experiencing a return of symptoms in pregnancy.[2] It is often hard to diagnose depression in pregnancy because many of the symptoms that clinicians use to diagnose depression (changes in sleep, appetite, energy) are typical changes in pregnancy itself. Anxiety disorders are also common in pregnancy. Rates in the literature vary depending on the criteria used for the diagnosis, ranging from 5-40% for generalized anxiety disorder, 2% for panic disorder, or 15-40% for obsessive compulsive disorder (OCD).[11]

Bipolar disorder, an affective mood disorder impacting about 2% of the population, often begins during the reproductive years of women and can significantly impact pregnancy outcomes. One of the most common triggers for a mood episode in bipolar disorder is sleep disturbance, and 80% of pregnant women describe some form of impaired sleep. Women with bipolar disorder are known to have worse pregnancy outcomes, including babies with smaller head circumferences and more medical complications during pregnancy unrelated to medication treatment.[12]

Psychotic disorders can worsen during pregnancy, impact reproductive outcomes, and lead to postpartum challenges. It is challenging to study pregnancy outcomes in women with

schizophrenia, as the worse outcomes can often be attributed to many factors - from the illness itself to the treatments to co-occurring behaviors such as smoking.[13]

Women with mental illnesses often have a recurrence of psychiatric symptoms during pregnancy, and often, this is related to a discontinuation of the medication. Medications used to manage all psychiatric disorders in pregnancy require a careful risk-benefit analysis, given the risks of untreated mental illness.[2]

Miscarriage and Abortion and their Relationship to Mental Health

Miscarriage-- spontaneous pregnancy loss-- may have psychological sequelae related to both the grief aspects of the loss as well as the contribution of the hormonal changes due to the loss of pregnancy. There is an increased risk of depression after a pregnancy loss,[14] and it is important to monitor women closely after both early and late pregnancy losses. Some studies suggest the rates of depression are as high as 15-20% after such an event.[15,16] Consequently, the risk of attempted suicide also increases in this population.[17]

Abortion - or elective termination - has been studied extensively to determine if there are psychological consequences. Abortion does not increase the risks of suicide or negative psychological outcomes, according to studies from the US, such as the Turnaway Study[18] or database studies from other countries, such as Denmark.[19] However, women seeking a termination may be more vulnerable and may need additional support. There was also evidence that women denied access to abortion experience increased risk of depression and an overall poor mental health outcomes.[18]

Pseudocyesis and Delusional Pregnancy

The term "pseudocyesis" comes from the Greek terms meaning false and pregnancy.[20] The woman is noted to have signs and symptoms of pregnancy— except there is no fetus. These symptoms may include abdominal distention, enlarged breasts, cessation of menses, morning sickness, and weight gain. Pseudocyesis may be categorized as a somatoform disorder.[20] While antipsychotic agents play an important role in treating delusions of pregnancy, among patients with pseudocyesis, psychotherapy plays an equally important role.[20]

There is a blurry line of demarcation between pseudocyesis and delusional pregnancy, both rare syndromes in developed countries.[21] Psychological antecedents noted include

ambivalence about pregnancy, loss, and relationship issues. Seeman[21] noted these delusions often occur in the context of both pressure to conceive and fears of pregnancy. Delusional pregnancy may be a singular delusion or may occur with other delusions, part of DeClerambault's Syndrome (erotomania) or Capgras Syndrome (delusional misidentification)[21]. Delusions may appear in the context of symptoms that cause abdominal distention or endocrine disturbances such as hypothyroidism. When these psychotic symptoms are treated with antipsychotic medication, high prolactin levels may lead to amenorrhea and galactorrhea.[21] Antipsychotic agents are also often associated with weight gain and, thus, increased abdominal size. These symptoms could, in turn, reinforce the woman's belief that she was pregnant.

Denial and Concealment of Pregnancy

Miller[22] described the denial of pregnancy as having three subtypes: pervasive denial, affective denial, and psychotic denial. Pervasive denial refers to cases in which the existence of the pregnancy is kept from the woman's awareness. Women may not experience the usual changes of pregnancy, such as weight gain, cessation of menses, and breast changes, and may even misinterpret active labor. A European study found the rate of pervasive denial of pregnancy to be one out of every 2,455 deliveries.[23] In contrast, in affective denial, while women are intellectually aware of their pregnancy, they do not make much emotional or physical preparation. Rather, they "continue to think, feel, and behave as though they were not pregnant."[22] For example, some women with substance use disorders may defend against guilty feelings associated with their substance use during pregnancy in this manner. Finally, psychotic denial of pregnancy occurs in some women with psychosis (and potentially a history of custody loss of other children). Psychotic denial of pregnancy may be intermittent.

Women may continue to experience menstruation-like bleeding and may rationalize the symptoms of pregnancy as having other causes. Friedman and colleagues[24] noted, "Physicians should consider the possibility of denial or concealment of pregnancy in young women presenting with complaints of nausea, weight gain, and abdominal symptoms, with or without amenorrhea."

In contrast, concealment of pregnancy is purposeful. The woman is aware that she is pregnant and actively conceals her pregnancy from others. She may do so because of her plans for abortion or adoption, or she may fear the reaction to her pregnancy by her family, friends, or

co-workers. Concealment of pregnancy may occur after some period of denial of pregnancy when the woman can no longer deny it to herself.

An Ohio study of hospital deliveries of women with denial or concealment of pregnancy[24] noted that some women had a pervasive denial of pregnancy until delivery, while others had a persistent denial of pregnancy until the third trimester. At that time, they did acknowledge their pregnancy but did not obtain prenatal care. Among those with affective denial, some were ambivalent, while others planned adoption, and still others planned abortions or reported they had been raped. Friedman and colleagues[24] found that women with denial or concealment of pregnancy were predominantly multigravida and were adults who were students or who were employed. Fewer than half reported that the father of the baby was supportive. Mothers who had either denied or concealed their pregnancies until birth were frequently discharged home with their newborns.

Gender Bias in forensic evaluations and the Criminal Justice System:

Striving for objectivity in pursuing truth is a fundamental goal in forensic psychiatry. Forensic psychiatrists must, therefore, be aware of the potential areas of bias, including gender bias, in conducting evaluations. Evaluating persons for filicide, sexual offenses, sexual harassment, and intimate partner violence (battered women syndrome) requires extra diligence and attention to the evaluator's biases and knowledge about evidence-based gender differences.[25]

The role of gender in sentencing determination has fluctuated over time but has most consistently revealed more favorable sentences for women than men. Data from the United States Sentencing Commission found that female defendants receive shorter sentence outcomes than males.[26] The gender disparities extend to interactions with the criminal justice system in general, not just sentencing. For example, women were less likely to be detained pretrial than men and were released with lower bond amounts than men.[27] Women tend to be viewed as less dangerous and less likely to recidivate than men across a spectrum of criminal offenses, including violent and sexual offenses. Similarly, female defendants are more likely to be found not guilty by reason of insanity (NGRI) than male defendants and to be diverted to psychiatric facilities.[28] In a study using case vignettes, forensic psychiatrists and students

were more likely to find defendants NGRI when female. In contrast, judges found defendants of their own gender more likely to be NGRI.[28]

The role of gender bias or gender-held beliefs embedded in one's culture may explain part of this discrepancy in legal outcomes. Studies have demonstrated that this gender bias affects outcomes, for example, showing that the gender of a perpetrator in a homicide or intimate partner violence changes a juror's judgment.[29] This gender bias may be pervasive, affecting many aspects of a criminal investigation. For example, gender bias has impacted the interpretation of crime scene evidence and eyewitness accounts.[30,28] Alternatively, gender-related decisions may reflect the science of gender-relevant risk factors, such as the literature supporting female sex offenders as having a very low risk of reoffending.[31]

Research should guide whether discrepant decision-making based on gender is appropriate. To date, most of the risk assessment tools and outcomes have yet to be validated or studied explicitly in women. As a result, most risk assessment tools normed on males are adapted for outcome measures in women. Some tools have been studied and found to have good predictive accuracy in both male and female populations. The Level of Service Inventory (LSI), an actuarial tool for general offending, is one such tool.[32] One of the most commonly used tools for violence assessment in psychiatric patients, the Historical, Clinical, Risk Management-20 (HCR-20), however, has low predictive validity for females.[33] Tools that measure protective factors, such as the Structured Assessment of Protective Factors for violence risk (SAPROF), were found to be predictive in males but less predictive in females.[34] The Psychopathy Checklist-Revised (PCL-R) has mixed results in the predictive accuracy of psychopathy in females compared to males.[35] Developing gender-sensitive risk assessment tools such as the Women's Risk Needs Assessments (WRNA) is promising. Still, there is insufficient empirical evidence to establish a standard of care.[36] In conclusion, risk assessment tools may be used as guidance in assessing women but should not be relied on as definite measures because they have not been validated. Such tools should be regarded as one piece of data in an evaluation with limitations included in final opinions.

Criminal Forensic Psychiatry

Youth: Girls in the criminal justice system:

Phenomenology of Psychiatric Illness Amongst Females with Juvenile Justice Involvement

Existing literature has established that psychiatric disorders are more prevalent among justice-involved adults, with over-representation amongst females.[37,38,39] Amongst justice-involved female children and adolescents, the prevalence of psychiatric problems is also elevated, with high rates of trauma and abuse, substance use, disruptive behavior, mood, and learning disorders, which are all thought to play a critical role in precipitating or perpetuating delinquent behaviors.[40] Forensic psychiatrists evaluating and treating justice-involved women should be aware of these gender differences to provide evidence-informed and unbiased evaluations.

Young women who are justice-involved present with a unique constellation of risk factors, psychiatric vulnerabilities, and needs. They are more likely to have experienced sexual victimization, suffer from a depressive disorder, experience high levels of parental conflict, come from dysfunctional homes, and be involved with an older male partner or friends.[41,42] They most commonly will present in a non-institutional setting, as courts tend to divert justice-involved females to the community.[43] Children in post-adjudication settings, such as residential placements, show higher rates of psychiatric problems than children in other settings,[44] highlighting the complex interplay between serious delinquent behaviors and psychiatric illness.

Juvenile justice-involved females experience psychiatric disorders more than their male counterparts. McCabe and colleagues[45] found that nearly two-thirds of adjudicated females suffered from at least one DSM-IV disorder compared to one-half of adjudicated males and one-third of a community sample. Other studies have found similar or even higher rates of psychiatric disorders.[46] Studies examining the burden of psychiatric disorders in juvenile correctional facilities are not generalizable due to the limitations of small or male-only samples or examining a single psychiatric disorder. In contrast, the largest and only state-wide census sample of committed youth found sex, race or ethnic differences in the prevalence of psychiatric disorders which was consistent with previous studies of both population types.[47] Depressive disorders, bipolar disorder, and anxiety disorders, including PTSD, had a higher prevalence in females.[47]

Comorbidity is particularly important. Over half of the justice-involved female youths met the criteria for two or more disorders; thus, comorbidity is the norm.[48] Abram[48] also found that juvenile females had a greater chance of developing a substance use disorder than males if they had at least one other psychiatric diagnosis. Substance use prevalence tends to be

similar between males and females, but girls generally show an earlier age of initiation and may show a more versatile pattern of use.[49] Alcohol use is commonly reported, and this may be associated with the high rates of trauma and PTSD among girls.[50,51] Mood disorders are also highly prevalent amongst justice-involved girls, occurring at higher rates than justice-involved males and at four or five times the rate of girls in the general population.[52]

Regarding suicide attempts and self-injurious behaviors, adolescent females engaging in delinquent acts also attempt suicide at higher rates than depressed female adolescents residing in the community (27 to 58% vs. 20%).[53,54,55] Non-suicidal self-injury (NSSI) also occurs frequently. Up to 79% of self-injurers report a history of abuse or neglect.[56,57,58] There is a limited literature base specifically examining rates and impact of NSSI within juvenile justice involved populations in general. A small study by Chaplo et al.[59] found that sexual abuse was a significant predictor of NSSI beyond other types of trauma. Justice-involved young females were much more likely to experience sexual abuse than males. NSSI functions as a self-regulatory mechanism in the context of stress and, often, posttraumatic symptoms.[60]

Experiences of neglect, violence, maltreatment, and abuse are the norm for justice-involved youth, with over 90% of youth reporting an experience of at least one trauma and a high proportion experiencing multiple traumas.[61] Compared to males, females reported higher rates of sexual and physical abuse as well as polyvictimization.[62,63,64,65] Because of the high number of justice-involved female youth who report sexual abuse, some researchers have hypothesized that childhood sexual abuse is a unique risk factor for future female delinquency.[66]

PTSD is nearly three times more prevalent among justice-involved girls than boys, similar to community samples, with girls experiencing a more severe symptom course than boys.[67,64,45] A history of sexual abuse was more often found in girls with more extreme delinquency outcomes than those without.[68,69] Early puberty is a risk factor for psychopathology, including delinquency, in females.[70] It may be that early puberty leads to premature sexual experimentation and affiliation with older male peers, and uncovering of mood or other psychiatric disorders.[41] But early puberty could also be a marker for other risk factors for delinquency, such as sexual abuse. A few studies have established that women with sexual abuse histories tend to experience earlier menarche due to dysregulation of the HPA axis.[71,72,73] There is also an association between early menarche and physical abuse, though far less robust.[72,74]

Literature documenting reproductive health in detained youth is limited. Some studies estimate that between 20 to 40% of girls coming into the juvenile system have a documented sexually transmitted infection (STI), and they report higher numbers of sexual partners than girls in community samples.[75,76,77] These risky sexual behaviors may be multifactorial, including poor access to healthcare and education, poverty, reactions to complex trauma, and, for some, prostitution. Substance use and depressed mood also increase the probability of high-risk behaviors.[78] These girls' sexual contact may be with older individuals; Lederman and colleagues documented that more than one-third of girls at a juvenile detention facility were sexually involved with someone at least five years their senior.[79] For many detained girls, their incarcerated time represents their only contact with medical providers and potential reproductive counseling.[80] Many detained girls also have health problems, including obesity, high rates of physical injuries, and other chronic medical conditions, which likely have been untreated or underdiagnosed due to poverty, parental neglect, abusive environments, or other factors.[79] Some detained girls enter the juvenile system pregnant or may become pregnant while under community supervision, but the exact prevalence is unknown. Nearly one-quarter of detained girls reported a lifetime history of pregnancy.[81] These health-related issues are important considerations for forensic psychiatrists working with this population.

Other factors unique to female delinquents include higher rates of familial mental illness[45] and a tendency to come from dysfunctional homes. Though limited by small sample sizes, Leve and Chamberlain reported that 70% of delinquent girls had at least one parent who had been convicted of a crime compared to 41% of males— but others have found family histories of antisocial personality to be similar between males and females.[82,45] Girls may be more sensitive to relational elements and susceptible to harsh parenting, low warmth, maltreatment, and other factors. However, no distinct gender-specific pathway to delinquency has been uncovered.[81] Additionally, disruptive females may be perceived as more deviant because of expected gender norms,[83] thus evoking a harsher response from the primary caregiver. Even emotionally dysregulated infants may precipitate a harsher parental response, which may be relevant to the development of conduct disorder.[84] Most girls, however, tend to follow an adolescent-onset and limited delinquent course, with a small proportion becoming persistent adult offenders.[85]

Long-term follow up of justice-involved girls paints a bleak portrait. Well over half of these girls reported ongoing victimization into adulthood, especially at the hands of romantic

partners.[77] Many continued to engage in high-risk behaviors such as drunk driving or carrying a gun and had an increased risk of premature death. They were five times more likely to die violently as compared to women in the general population.[86]

Legal Disposition of Justice-Involved Female Youths

The Office of Juvenile Justice and Delinquency Prevention (OJJDP) published a national report in 2019 relying upon data from the FBI's Uniform Crime Reporting Program, OJJDP's juvenile court data archive, and census of youth in residential placement. By 2015, arrests, petitioned delinquency cases, and status offenses or violations due to being a minor were at their lowest point in decades, following a peak in arrests and delinquency in the late 1990s to the early 2000s. Notably, however, the female proportion of arrests from 2006 to 2015 continued to rise to nearly one-third of total arrests.[87] Overall, males accounted for a greater proportion of the arrests within each delinquent offense category, with one notable exception: prostitution, where young women accounted for 76% of arrests.

The typical female delinquency case involves a girl aged 15 or older, who is of minority ethnicity, and charged with a property offense; larceny or theft offenses are the most common.[87] In girls younger than 15, person offenses were most common. Girls accounted for a small proportion, less than one-fifth, of violent crime index offenses, which included rape, armed robbery, and aggravated assault. On the other hand, females accounted for 43% of status offenses (actions considered delinquent due to the juvenile's age which includes truancy, curfew violations, and running away), a much larger percentage than the delinquency caseload (28%). The typical female status offense involved a girl 15 years or older. The most common status offense for both males and females was truancy. However, females accounted for more truancy and running away cases than did their male counterparts.

Across all offense categories, females were less likely to be detained and, even if referred to juvenile court, more likely to receive informal sanctions. When adjudicated, females usually received probation and were less likely to be placed in out of home placements. Interestingly, public order violations, such as obstruction of justice, which included probation violations and escape from custody, were more likely to result in placement.[87]

Specialized Assessment and Treatment Approaches for Justice-Involved Female Youths

In response to the harmful effects of trauma on youth offenders and frontline staff, the U.S. Department of Justice has called for creating trauma-informed juvenile justice systems. A relative consensus regarding the core domains of a trauma-informed juvenile justice system exists in the literature, but there is much less agreement on the specific implementation and policies.[88] When possible, health care and facility leadership staff should attempt to incorporate a coordinated multi-disciplinary trauma-informed perspective in their diagnostic and treatment practices to enhance the quality of care for these youths. This perspective should include routine screening of youths for trauma exposure; evidence-based practice adopted by service providers; accessible resources on trauma to adolescent health care providers, youths, and their families; and consistency that there is a continuity of care across service systems.[89]

Important issues that are particularly relevant with detained or adjudicated female youths include weighing the risks and benefits of the proposed psychotropic medication: the medication's risk of overdose, pregnancy, short- and long-term side effects such as sedation and weight gain, anticipated youth compliance, and the facility custody (if no health care staff are on-site to administer), "cheeking" and trading medication for various reasons, and the parent or legal guardian's reliability to supervise the youth's medication and ensure follow-up psychiatric treatment. Other important variables to consider include prescription coverage, health plan benefits, and the potential for medication abuse and diversion (e.g., psychostimulants). The youth's treating psychiatrist should consult with the youth's treatment team and reassess the need for continuation or adjustments to various psychotropic medications based on compliance, side effects, current symptoms, level of functioning, and treatment needs. The clinical team, other relevant staff, and family members when appropriate, should explore the circumstances and rationale for a youth's pattern of medication refusal.[90]

Menstruation and Criminal Evaluations:

Premenstrual tension was described in the medical literature by Frank, who described women who experienced emotional symptoms during the days preceding their menstrual cycle.[91] The term "premenstrual syndrome (PMS)" was coined by Greene and Dalton, who described symptoms prior to the onset of the menstrual cycle, which could vary from mild to severe.[92]

Dalton and Green published their theory of "premenstrual syndrome" or PMS in British medical journals in 1953.[93] Today, both the American Congress of Obstetrics and Gynecology and the American Psychiatric Association have developed overlapping but distinct disorders that constitute premenstrual disorders. Premenstrual disorders include psychiatric and somatic symptoms that develop during the luteal phase of the menstrual cycle, impair functioning, and resolve after the onset of menstruation. In the psychiatric literature, both the DSM-5 and the ICD-11 support the disorder as Premenstrual Dysphoric Disorder (PMDD) and Premenstrual Tension Syndrome (PMT).[94] The DSM-5 diagnostic criteria for the diagnosis of PMDD comprise at least five predominately affective symptoms associated with functional impairment. The ICD-11, unlike the DSM, also includes the diagnosis of Premenstrual Tension Syndrome (PMT). PMT is a more liberal diagnostic classification compared to PMDD, consisting of a severe form of premenstrual syndrome.[95] The forensic considerations in the setting of premenstrual symptoms include the insanity defense, diminished capacity, mitigation, and aid in sentencing evaluations.

Available studies estimate the prevalence of PMS to be 20-30% and the prevalence of PMDD to be 1.2-6.4%.[96,97] About 80% of women report at least one physical or psychiatric symptom during the premenstrual phase, but most do not report significant impairment in function.[92] The prevalence of PMS is not associated with age, education, or employment status.[92]

Regarding etiology, the role of serotonin, modulated by estradiol, is supported by many studies and supports the role of SSRIs in treatment.[98] Imaging studies suggest differences in brain structure and function in women with PMDD and those without.[99]

PMDD is associated with both mood and anxiety disorders. Major depressive disorder was the most prevalent comorbid lifetime psychiatric disorder in women with PMDD.[100] Women with trauma histories were more likely to have PMDD. Personality disorders were not associated with PMDD, but traits of impulsivity, anger, and affective lability were.[101]

Treatment for PMDD includes nonpharmacological approaches such as lifestyle changes, including diet and exercise; psychotropic treatment such as selective serotonin reuptake inhibitors (SSRIs), hormonal agonists and antagonists, surgery, and complementary medicines.[92]

Dalton described the three most common symptoms in women who had committed illegal acts as depression, irritability, and psychosis.[102] Each of these symptoms can impact behavior, judgment, and impulsivity. Dalton and others suggested that more women commit

crimes during the premenstrual period compared to other times in the menstrual cycle.[103,104,105] A number of studies, however, question the validity of these findings.[106]

Langer, in "That Time of Month-Premenstrual Dysphoric Disorder in the Criminal Law-Another Look," contends that women with PMDD are eligible for legal defenses which address their culpability in this setting.[107] The Trial of Mary Harris in 1865 was the first US case in which the defendant was found NGRI due to PMS.[108] Mary Harris was nine years old when she met Professor Higgins. For the next seven years, they exchanged love letters. She moved to be with him in Chicago, and he was courting another woman by that time. She was enraged and began following him, eventually shooting and killing him in his office. Expert testimony included a forensic physician who stated that Ms. Harris was insane from the combination of "being cursed in love and suffering from painful dysmenorrhea" at the time of the homicide.[109] The jury deliberated for five minutes and acquitted Ms. Harris.

In the United Kingdom, the first major case using PMS as a mitigating factor was *Regina v. Craddock* in 1980.[110] Sandie Craddock, a woman with 45 prior convictions, including theft, arson, and assault, was arrested for stabbing a fellow barmaid to death. Her psychiatric history was significant for multiple suicide attempts. The temporal relationship between Ms. Craddock's menstrual cycles and suicide attempts was discovered by her attorney who reviewed Ms. Craddock's diaries finding each criminal offense or suicide attempt occurred at within her menstrual cycle. The expert for the defense, Dr. Dalton, diagnosed her with PMS and prescribed progesterone therapy. Ms. Craddock's murder charge was reduced to manslaughter and the trial court released her on probation with conditions that she continue treatment.

In 2013, PMDD was recognized in the DSM-5. Nonetheless, there still exists a great deal of controversy about using PMDD in the courtroom. The admissibility of PMDD remains a challenge despite including the diagnosis in the DSM-5 and ICD-11. To date, there is no universally accepted medical consensus on the etiology, symptomatology, or treatment of PMDD, and the reliability of diagnostic tools is challenged. Another concern among critics is the threat to a women's credibility and thereby equality of women, created by a PMS defense. Legal scholars and feminists warn that using the PMS defense will distort the view of woman as deficient and bar their advancement in society. Furthermore, many critics fear recognizing that the PMS defense could stigmatize women as vulnerable to mental and physical instability. This stigma may be used against women in legal proceedings.

The use of premenstrual syndrome as a criminal defense should be informed by the case law in the jurisdiction and scientific data. The use of scientific data to demonstrate the validity of such a diagnosis, the use of standardized tools to show that the defendant suffers from such a disorder, and the application of the legal standard are the core components of such an evaluation. An opinion supported by scientific data, as well as awareness of one's potential biases, is important in safeguarding against an uninformed, biased opinion.

Postpartum: Criminal Evaluations

Baby Snatchers and Kidnapping by Caesarean

D'Orban[111] described impulsive psychotic offenses, "comforting offenses," and "manipulative offenses." The impulsive and psychotic offenses often included midlife women who had been unable to care for their children and believed that the infant was their own. The "comforting offenses" were noted to be "committed by young girls from deprived backgrounds with immature, hysterical personality traits, sometimes associated with mild mental handicap." Finally, the "manipulative offenses" were committed with the intention to consolidate an insecure relationship with a man and influence his feelings, pretending to him that he is the stolen child's father." D'Orban[112] noted "the motives underlying pseudocyesis include the need to secure a husband's wavering affections and bolster a faltering marriage and to obtain a child as a play thing and companion. The motives are clearly similar to the motives found in the manipulative and the comforting types of child theft."

An investigation of hospital abductions of infants studied seventy-seven American cases over the decade from 1983 to 1992. Seventy-three of those were returned safely within a fortnight. Rabun[113] noted that almost all abductors were women who tended to be overweight and impersonating a nurse. Male partners were noted to be naïve about infants and childbirth. The women had simulated pregnancies and nesting prior to the abductions and had histories of feigned pregnancies, miscarriages, and stillbirths. Almost half of the non-family infant abductions from 1983 to 2006 were taken from healthcare settings (47% were taken from the hospital, birth center, or pediatric clinic).[114] Two-fifths (40%) were taken from homes. Almost all abductors were women, and almost half impersonated a healthcare worker. Almost one-fifth (18%) used violence and 13% had made a previous attempt at abduction. Hospital staff thus play a key role in the prevention of hospital infant abduction.

Fetal abduction (also known as caesarean kidnapping) accounts for 3% of all infant abductions. The pregnant woman is usually killed prior to the removal of the fetus. The perpetrator uses a confidence-style approach. The abductor has usually faked a pregnancy and plans to dispose of the mother's body.[115] Frierson[115] noted that steps involved in fetal abduction include: faking a pregnancy, identifying and contacting pregnant women, obtaining weapons for the murder and cesarean-section; choosing a location; subduing and killing the mother; the cesarean-section itself; disposing of the mother's body; and finally convincing others that the baby is hers.[115] The abductor may trick others into believing she is pregnant by wearing padding, which simulates pregnancy, and researching how to feign positive pregnancy tests.

Fetal abductors will rarely meet legal criteria for insanity.[115] The overwhelming majority of women who feign pregnancy do not become baby snatchers. However, there may be an elevated risk of suicide after a foiled attempt.[115]

Neonaticide and Safe Haven Laws

Neonaticide refers to child homicide on the first day of life.[116] In neonaticide cases, the mother almost always acts alone, as the father is often no longer part of her life. Mothers who commit neonaticide are often in their teens or twenties, have limited resources, unmarried, and with an unwanted pregnancy.[117] They have rarely been diagnosed with a mental illness prior to the homicide, and suicide is rare in the Western world among women who commit neonaticide.[117] Neonaticides often occur after denial or concealment of pregnancy, as discussed above.[117] Evolutionary psychiatry has been used as an explanatory model to help explain some filicides as rational acts.[117]

Regarding neonaticide, it is important to consider where the study originated and the sample population. In general population studies maternal perpetrators of neonaticide have been generally found to be single and young of lower socioeconomic status, living with their parents, experiencing denial or concealment of pregnancy and thus a lack of prenatal care, and fearful of repercussions.[117] They tend to lack any serious mental illness prior to the offending,[118] though they may develop PTSD or anxiety, or depression subsequently. A study of American neonaticide pretrial detainees primarily referred by defense attorneys for psychiatric evaluation found both denial of pregnancy and dissociative symptoms were often

self-reported.[119] However, no measure for malingering was able to be used, and the study relied on self-report measures.

Most neonaticides occur at home. Fathers rarely participate in neonaticides.[120,121] Multiple women have committed serial neonaticides. DNA evidence has recently been used to identify women who, years later, were identified as neonaticide perpetrators.[122]

In America, Safe Haven laws have existed since 1998 with the goal of decreasing rates of newborn abandonment and neonaticide. These now exist in all 50 states.[118] Safe Havens vary in different states but may include hospitals, police stations, and fire stations as safe places for women to drop off their unwanted infants. Mothers will often remain anonymous and will not be prosecuted. Age ranges vary for Safe Havens, including those under 72 hours old to up to a year old, depending on state and location. Data is not systematically available, but some studies suggest this may decrease the number of neonaticides. However, neonaticides do still occur. It has been noted: "Women make quite different choices when they choose abandonment in a Safe Haven (hospital), abandonment in a place where the infant is not likely to be found (trash receptacle), and neonaticide. It may be different groups of women who act in these different ways."[118]

Opposition to Safe Haven laws includes that it may potentially encourage women to conceal their pregnancies and to birth infants outside hospitals unsafely, thereby encouraging abandonment. Another concern is that these laws are not well publicized and thus are not well-known by the population in need of them. Outside of the US, other prevention methods are used, such as anonymous free delivery of unwanted babies in France. Also, baby hatches exist at similar locations (hospitals) outside of the US— where mothers can safely relinquish their unwanted infant unharmed.[118]

Infanticide, Infanticide Acts, and Filicide*:*

Infanticide and filicide both involve the murder of one's child. Infanticide is a less precise term, which overlaps a legal definition that only includes certain mothers who kill their infant up to one year of age. Filicide includes child murder by the parent, usually up to age 18, while the child is still living in a dependent relationship with the parent.[120]

Though the United States does not have an Infanticide Act, approximately two-dozen countries other than the United States—including Canada—have an Infanticide Act. These

laws decrease penalties for mothers who kill their child within the first year of life in general, though, in parts of Australia and New Zealand, the law includes older children.[117] In the 24 nations that have Infanticide Acts, they tend to follow the original British Infanticide Act of 1922 (amended in 1938). This act has allowed mothers to be charged with what is akin to manslaughter rather than murder if they were suffering a mental disturbance at the time that they killed their infant under age one. Initially, this law was based on the concept of "lactational insanity." Historically, women servants killed their infants, whom they could not look after and still work. The public has often given leniency to women who are convicted of infanticide; women will often receive sentences of probation and referral to mental health treatment rather than incarceration.[123] Those criticizing infanticide laws often point out the following: fathers are not eligible; the life of the child may be devalued; and a woman in the same mental state may kill a young child under age one and an older child and would only be eligible for infanticide for one of the children killed.[123, 117]

Identification and treatment of parental mental illness, personality disorders, and substance use disorders is part of prevention of infanticide. Infanticide is related to mental illness in some cases. When postpartum psychosis is not treated, the risk of both suicide and infanticide rises, as well as the risk of child maltreatment. This risk of child maltreatment may be due to the mother's confused or delusional thinking.[124] It is critical to understand whether the mother's hallucinations and delusions involve the infant; infanticidal ideas and behaviors have both been associated with a mother having psychotic thoughts about her infant.[125]

In addition to parental risk factors, risk factors in the infant or child that may increase the risk of maltreatment and death include colic, autism, and developmental disability.[126] In one study, approximately one-quarter of maternal and paternal filicide offenders were mentally ill at the time of their offense.[127] Both mood disorders and substance use disorders are common.

In evaluating filicide research, it is vital to consider that common factors among mothers or fathers who kill vary depending on the type of population studied. For example, jail and correctional studies will have different expected results than studies of mothers in the forensic hospital than, coroner studies, or general population studies.[120] What is commonly found among mothers who kill is "a pattern of powerlessness, poverty, and emotional isolation."[120]

When evaluating international studies about filicide, caution must be used since rates across countries may significantly differ related to societal and cultural differences.[128] In the US,

infant homicide rates are higher than in most countries. A recent study[129] found that those children at the highest risk of being killed in Denmark included young children whose mothers had been hospitalized because of mood disorders or schizophrenia. However, to decrease the risk of filicide as one does with other types of violence, one should consider the various static and dynamic risk factors.[128]

General population studies of women who killed their children often demonstrate that these mothers are often socially isolated, have poor socioeconomic status, and full time caregivers, who may have been violently victimized themselves.[123] Persistent crying or other child factors were sometimes the described precipitant to the filicide. Substance misuse occurred in this group as well. Mental illness may or may not have occurred in this group.[123] In the corrections population, mothers who killed tended to be similarly unemployed victims of abuse themselves who had limited social support and education. Mental health concerns and substance use concerns were also noted, as were multiple stressors. Finally and alternatively, in psychiatric samples of women who had killed their children, studies found frequent psychosis, suicidality, depression, and a history of mental health care. Some personality disorders and some intellectual disorders were noted. Significant life stressors were common.[123]

In a study regarding psychiatrists' knowledge about maternal thoughts of child harm, most psychiatrists underestimated how often depressed mothers experienced thoughts of harming their child. Approximately one-half of the psychiatrists indicated that they did not ask specifically about filicidal thoughts but rather asked about general homicidal thoughts.[130] This is critical in performing risk assessments.

When filicide is committed jointly with suicide, mental illness may often have been involved. Though many mothers attempt suicide with filicide, just as in suicide cases, they may be less likely to die by suicide than men based on the attempted method. Fathers and mothers commit filicide at similar rates,[117] yet fathers are approximately twice as likely to commit filicide-suicide.[120, 132,131]

Regarding infanticide and filicide motives, not all are related to serious mental illness. Resnick[116] described the five motives for infanticide in a categorization that remains commonly used today. The five motives currently include: Fatal Maltreatment, Unwanted child, Partner Revenge, Altruistic, and Acutely Psychotic.[123] Fatal Maltreatment is the most common cause of child murder and occurs as the result of abuse or neglect, which is often

chronic.[124,117] In an Unwanted child case, they are unwanted, such as due to inconvenience or other plans for a new partner or new life. Partner Revenge is meant to cause psychological pain and suffering in the other surviving parent, such as during custody battles. In distinction, in Altruistic filicide, a parent, often with a psychotic or depressive disorder, kills their child out of what their perception of love is, believing that they're preventing suffering on earth, or kills a child when they are themselves suicidal, to prevent that child from being parentless. Finally, in Acutely Psychotic filicide cases, parents kill their child for no comprehensible motive. This may occur in response to command hallucinations or in confusion or delirium. The final two motives: Altruistic and Acutely Psychotic, are most likely related to a psychotic or depressive disorder, whereas the others may or may not involve serious mental health issues.[123]

When completing a Not Guilty by Reason of Insanity (NGRI) evaluation for filicide, the definition of the cognitive prong in the case or statutory law of the jurisdiction should be considered. In addition to the routine assessment of collateral records, additional records that may be useful include prenatal care records, pediatrics records, and Child Protective Services records.[117] Recommendations for questions in a comprehensive interview after filicide are outlined in Hatters Friedman et al (2020) chapter on writing a maternal filicide report.[133]

In cases of Fatal Maltreatment, there certainly may be mental illness, but there may also be evidence of personality disorder, anger problems, intellectual disability, or substance use.[117] Similarly, in Unwanted child cases, there is often an absence of severe mental illness. Parents who engage in Partner Revenge filicide may have a personality disorder. Regarding Altruistic filicide cases, these parents often suffer from a psychotic disorder or depressive disorder, and similarly, parents with Acutely Psychotic filicide often have a psychotic disorder.

Among mothers found NGRI in two American states, almost three-quarters had previous treatment by mental health care providers.[134] Over two-thirds were experiencing auditory hallucinations, frequently command hallucinations. Approximately half were depressed at the time of the filicide. Almost three-quarters experienced considerable developmental stressors, including incest or the death of their mother, for example. The motives among the mothers found Not Guilty by Reason of Insanity were predominately considered altruistic motives or acutely psychotic motives.[134]

Correctional Facilities and Forensic Hospitals: Reproduction

Pregnancy

Rates and Pregnancy Testing

A significant number of women in the U.S. are confined to either correctional institutions or psychiatric hospitals. In recent decades, the number of women incarcerated in the U.S. has risen dramatically from 26,378 in 1980 to 222,455 in 2019, with most of these women being within their reproductive years.[135,136] Even higher numbers of women enter mental health facilities each year, with approximately 400,000 women of childbearing age being psychiatrically hospitalized in 2016.[137] Data on pregnancy among incarcerated or psychiatrically hospitalized women are sparse due to inconsistent screening and reporting practices in these settings.[137,138] It is estimated that anywhere from 3-10% of female inmates are pregnant at the time of admission to a correctional institution,[136,138] and no statistics regarding pregnancy rates among psychiatric inpatients are available in the current literature.

Pregnancy testing is needed when a woman is admitted to a correctional or psychiatric facility because reports of sexual, contraceptive, and menstrual histories are often unreliable.[139] Up to 80% of female inmates endorse heterosexual activity in the weeks leading up to incarceration, with less than 30% using a reliable form of contraception.[140] Knowledge of pregnancy status upon admission to either a correctional or a mental health facility is crucial to providing timely initiation of prenatal care, counseling regarding abortion or adoption, identifying women at risk of pregnancy-related complications, ensuring appropriate activity restrictions (e.g., work and bunk assignments), analyzing risks and benefits of treatment decisions, and minimizing risks of adverse pregnancy outcomes related to medication use and other interventions.[141,136]

Despite being an important aspect of medical evaluation, pregnancy testing is not uniform across correctional or inpatient psychiatric facilities, with a recent report showing less than 40% of jails routinely obtaining pregnancy tests at intake,[142] and pregnancy testing rates ranging from 59% to 94% upon admission to psychiatric hospitals.[137] Screening for pregnancy has been identified as a high priority measure to improve the quality of inpatient psychiatric care,[137] and several organizations, including the American College of Obstetricians and Gynecologists (ACOG) and the National Commission on Correctional Health Care (NCCHC), have recommended that all women of reproductive age be offered pregnancy testing upon reception to correctional institutions.[141,143] Even when pregnancy testing is negative, screening upon incarceration or psychiatric hospitalization allows

providers to discuss family planning strategies with a group of women at increased risk for unintended pregnancies.[137,144]

Abortion Access

Women with psychiatric illnesses and women in the criminal justice system have elevated rates of unplanned pregnancies.[145,144] Being incarcerated or psychiatrically hospitalized does not preclude a woman's legal right to abortion, though the state in which she is hospitalized may restrict abortion access to citizens. However, timely access to abortion for these populations is often inconsistent and unreliable due to variations in policies, ill-defined counseling practices, concerns about potential coercion, and logistical challenges involving appointment scheduling, transportation, and payment.[146,147,148] In some instances, abortion is viewed as an elective procedure and therefore denied until a woman's release, resulting in delays in care.[147] Given the time restrictions on pregnancy termination, abortion should be considered a medically necessary procedure and arranged as expeditiously as possible.[147]

Informed consent is especially important when abortion is being considered, given that the procedure is time-sensitive and irreversible and that the decision-making process may be complicated by conflicting opinions among stakeholders, socio-political controversies, and strong emotional reactions from patients or clinicians.[149] Consenting to abortion should be assessed similarly to the capacity to consent to any significant, permanent medical procedure.[150] Pre-abortion counseling should be comprehensive and non-directive.[149]

Contraception

Psychiatric hospitalization and incarceration both offer an opportunity to provide family planning services to women whose reproductive health care needs often go unmet.[151,145,147] Taking a sexual history upon admission may allow for the use of emergency contraception. A study of newly arrested women found that nearly 30% were eligible for emergency contraception, and of those, almost half indicated a willingness to take emergency contraception if available.[152] In surveys of female inmates in Rhode Island, half of the respondents indicated they did not wish to become pregnant. However, less than 30% reported consistent pre-incarceration birth control use, over 80% had prior unintended pregnancies, 35-40% had previous abortions, and over 80% anticipated resuming sexual

activity after release.[145,147] Studies have found that female inmates are amenable to starting contraception during incarceration and are much more likely to initiate birth control when provided free-of-charge by the correctional institution rather than post-release.[145,147] ACOG recommends that all incarcerated women be offered services for contraceptive methods, including emergency contraception, based on the medical need to minimize the risk of unintended pregnancy.[141]

Like incarcerated women, women with serious mental illness have relatively low rates of contraceptive use compared to the general population, and high rates of unintended pregnancies.[151] Women with psychiatric illness may have limited access to obstetrical or gynecological services, and contact with mental health care providers may serve as their only chance to address reproductive needs.[151] However, many mental health care clinicians do not routinely discuss birth control with their patients.[153]

Female permanent contraception, or tubal ligation, is one of the most common methods of birth control used by women in the U.S.[154] However, permanent sterilization among incarcerated women and women with psychiatric illnesses has a dubious history and raises several ethical concerns relating to informed consent and coercion. Long-acting reversible contraceptives (LARC) are extremely effective in preventing pregnancy, have high continuation rates, and may be a more suitable alternative in these populations.[151] Admission to a correctional facility or psychiatric hospital is an opportune time to address family planning in a population at risk for unintended pregnancy and other adverse reproductive health outcomes.

Pregnancy Management

Providing prenatal care to women in correctional and psychiatric settings poses several challenges due to complex logistics and conflicts between institutional priorities and healthcare needs. Treatment is often shared between facility medical staff and community obstetrical providers, and problems may arise involving transportation, coordination of care, and delays in obtaining emergency services. Security presence during appointments may give rise to confidentiality concerns. Furthermore, women housed in correctional or psychiatric institutions lack control over their surroundings, including noise levels, clothing, food choices, sleep schedules, and the timing of meals and snacks, which may exacerbate pregnancy-related discomfort.

Community standards for prenatal care apply to women who are incarcerated or psychiatrically hospitalized.[155,141] and include pregnancy testing, pregnancy counseling, access to abortion, evaluation, and treatment of substance misuse, HIV, and depression; provision of appropriate vitamins and nutrition, and delivery in a hospital with facilities for high-risk pregnancies.[141] The National Commission on Correctional Healthcare (NCCHC) and the Federal Bureau of Prisons have set similar standards. Yet, compliance to such guidelines is variable across institutions, with shortcomings identified in a wide range of areas, including pregnancy testing at intake; access to abortion; provision of prenatal, labor and delivery, and postpartum care; HIV treatment; mental health services, nutrition and vitamin supplementation, special accommodations, substance misuse treatment, and pregnancy outcomes reporting.[143,156,157]

Perinatal Medication Treatment in Prison and Forensic Hospitals

For further details about prescribing for women in corrections, please refer to Friedman et al.[2] When treating mental illness during pregnancy, the psychiatrist should consider the risks and benefits of the medication to the mother and the dyad.[158] Potential medication risks during pregnancy include elevated rates of miscarriage, congenital malformation, premature delivery, perinatal syndromes (withdrawal or toxicity), and behavioral teratogenesis. Risks and benefits to both the mother and the infant should also be considered in lactation, as the vast majority of medications will pass into breastmilk.[158] The psychiatrist must weigh the risks of the specific medication with the risks of not treating mental illness, which may include violence, suicide, and not taking care of oneself or obtaining proper prenatal care.

In a correctional or forensic hospital environment, the psychiatrist should coordinate with other medical professionals, such as obstetricians and pediatricians. For those women with new onset of depressive symptoms in the mild range during pregnancy, psychotherapy alone— with close follow-up and a proactive approach and planning to start medication if symptoms worsen— may be appropriate. While a full discussion of medication use during pregnancy and postpartum is outside of the scope of this document, the psychiatrist should be aware that for depression during pregnancy and the postpartum, SSRIs are the first line agents, in particular sertraline and citalopram, which have relatively good safety profiles during pregnancy. Paroxetine is not a preferred treatment in pregnancy for major depressive illness due to its potential for increased rates of infant cardiac malformation.[158] Readers are referred to the Treatment and Management of Mental Health Conditions During Pregnancy

and Postpartum Clinical Practice Guidelines published by the American Colleague of Obstetricians and Gynecologists.[159]

Among women with bipolar disorder or schizophrenia, olanzapine and quetiapine are commonly used in pregnancy.[160,161,162] Where possible, the use of multiple agents should be avoided due to a paucity of research on polypharmacy and the potential for increased risk of adverse effects.

Pregnancy Outcomes

Data regarding births and pregnancy outcomes in U.S. correctional and psychiatric settings are minimal. No pregnancy-related reporting requirements have been standardized or mandated across American systems.[140] A study from 1998 found 1400 births across 43 state prisons.[140] More recently, a survey of 12 months of pregnancy statistics from 22 state prisons and the Federal Bureau of Prisons reported 1396 pregnancies with 753 live births (92% of outcomes), 46 miscarriages (6%), 11 abortions (1%), four stillbirths (0.5%), two were ectopic pregnancies (0.25%), three newborn deaths, and no maternal deaths.[140]

Compared to the general U.S. population, incarcerated women and women with mental illness have higher rates of adverse pregnancy outcomes, including prematurity and low birthweight.[13,163] However, when compared to similarly disadvantaged groups, depending on the timing of incarceration, imprisoned women may have improved outcomes with less prematurity, fewer stillbirths, and higher birth weights, suggesting some aspects of confinement such as adequate housing, regular nutrition, and forced sobriety, maybe health-promoting among this vulnerable population.[164,165,140,163] Relatively positive birth outcomes in correctional populations should be interpreted within the context of broader social determinants of health.[140] To date, there is no systematic published data regarding pregnancy outcomes among forensically psychiatrically hospitalized women.

Use of Restraints

Using restraints among pregnant inmates and psychiatric inpatients is controversial.[166] A restraint is defined "as any manual method that immobilizes or limits the movement of a person's arms, legs, body, or head."[167] The main reason for restraint use is to prevent escape (correctional) or harm to self or others (psychiatric).[136] In correctional settings, shackling or

restraints are routinely used during incarcerated person transport and may include ankle cuffs, handcuffs, or belly chains.[133] In psychiatric hospitals, soft restraints, restraint masks, or fabric body holders are used during behavioral crises.[167] Many organizations, including the American Civil Liberties Union, the American Psychological Association, and ACOG, have opposed the routine use of restraints among pregnant women in corrections.[136] Restraints in pregnancy may have potential adverse health effects, including impaired mobility, discomfort, increased risk of falls, delays in care during obstetrical emergencies, increased risk of blood clots, decreased placental blood flow, and interference with labor and delivery.[141,168] Restraints should be used only when there is an imminent risk of harm to the pregnant woman, her fetus or newborn, or others; and only when less-restrictive alternatives such as verbal de-escalation or increased staffing are unsuccessful.[169,170]

Postpartum and Parenting

Postpartum Epidemiology & Presentation of Postpartum Depression and Postpartum Psychosis

Postpartum depression is common, with rates as high as one in five mothers.[171] While the DSM-5 requires the symptoms to begin within a month postpartum for diagnosis, the window of vulnerability is often the entire first year postpartum, which has the highest risk of suicide for women.[172] Like in pregnancy, symptoms are often missed or overlooked, and the impact is on the woman, the infant, and the entire family unit. Recognizing the difference between postpartum depression and the "baby blues" is important). The latter is very common - upwards of three-quarters of postpartum women experience a several day period of irritability and heightened emotions related to the hormonal changes and sleep deprivation of the postpartum period.[173] This typically resolves by the end of the second week postpartum and is not associated with more concerning symptoms such as thoughts of death or difficulty with baby bonding.

Several risk factors can predispose to postpartum depression. These include biological and genetic vulnerabilities, such as a history of depression, family history of postpartum mood conditions, or experience with other hormonally mediated conditions such as premenstrual dysphoria.[174] These also include social and psychological risk factors such as ambivalence about the pregnancy and relationship and family conflict or interpersonal violence. A difficult

or traumatic delivery, poor pain management, and challenges with breastfeeding may also contribute to the risk of postpartum depression.[175]

There is also a substantial percentage of women who are labeled as treatment-resistant depression who have a bipolar spectrum condition. In a multicenter study of first-episode depression (N=885), 15% of those with first-onset postpartum episodes met DSM-IV criteria for bipolar disorder. In comparison, only 5% of those with first-onset non-postpartum episodes did.[176]

Bipolar disorder is the most common underlying diagnosis for a presentation of postpartum psychosis, a condition affecting about 1 to 2 per 1000 women, with a high risk of recurrence, and often onsetting shortly after delivery.[177] Untreated postpartum psychosis carries with it risks of suicide and infanticide.[124] It can often manifest with a delirium-like presentation, with confusion, disorientation, and depersonalization, making recognizing it more challenging.[178]

It is also important to rule out postpartum psychosis, because of its inherent risks, and postpartum OCD, with intrusive, distressing thoughts.[124] With the latter, the intrusive thoughts, often of harm befalling the baby or other family, possibly at the hands of the mother, are ego-dystonic and distressing to the woman. In contrast, with postpartum psychosis or certain personality conditions, the thoughts of self or other harm can be ego-syntonic and are cause for clinical concern.

Forced Separation and Custody Loss

Approximately three-quarters of the women incarcerated in the U.S. are mothers. In contrast to fathers in custody who often rely on their children's mothers for childcare, many incarcerated women are single parents lacking paternal support.[179,136] Few U.S. correctional facilities (and no forensic psychiatric hospitals) allow children to co-reside with their mothers, meaning that most children of incarcerated or hospitalized mothers will be placed with a family member, a friend, a foster home, or given up for adoption.[136] While in custody, mothers may maintain contact with their children through letters, telephone calls, video conferences, and face-to-face visits. However, fewer than half of incarcerated women ever have in-person visits with their children for various reasons, including transportation problems, prohibitive geographic distances, facility environment not being child-friendly, security procedures, and short visitation times.[136]

Under the Adoption and Safe Families Act of 1997, mothers with no family to care for their children and who are incarcerated for more than 15 months may have parental rights permanently terminated, regardless of parenting abilities.[180,136] Separation can be detrimental to mothers and their children, leading to psychological harm and possibly increasing recidivism rates for female offenders.[180] NCCHC recommends facilities support efforts for women to maintain contact with their children and recognize the distress that separation may cause incarcerated women and their children.[143] Forensic psychiatrists may be asked to opine about the appropriateness of such contact.

Breastfeeding

The benefits of breastfeeding have been well-documented, and many organizations, including the American Academy of Pediatrics and ACOG, recommend exclusive breastfeeding for the first six months of life.[181,182] Incarcerated or psychiatrically hospitalized women face barriers to breastfeeding, including physical separation from the infant, lack of access to breast pump and storage equipment, lack of privacy, and lack of lactation support and education.[136,183] Additionally, female inmates and women with serious mental illness often have demographic characteristics (such as low income, unstable housing, or substance misuse) that decrease the likelihood of breastfeeding.[183] Furthermore, using psychiatric medications and their effects on the newborn may cause concern among postpartum women and caregivers and deter breastfeeding initiation in these populations.[184] Information regarding prescribing for incarcerated women in the postpartum period has been previously published in JAAPL,[2] and the reader is referred there. Studies of incarcerated mothers have shown that they often view breastfeeding as important and may derive psychological benefits from it.[185,183] NCCHC has recommended that correctional facilities, wherever possible and not precluded by security concerns, devise systems to enable postpartum women to express breastmilk and directly breastfeed.[186] Doula support programs have been shown to promote breastfeeding among incarcerated women.[183]

Medication Treatment in the Postpartum*:*

During breastfeeding in the postpartum, polypharmacy should similarly be avoided where possible. The preferred antidepressant in lactation is sertraline. Olanzapine or quetiapine are the most common prescribed antipsychotics in mothers with bipolar disorder or psychotic symptoms.[118] Careful documentation of the mother's thinking and the informed consent

process should be completed. Finally, sedation as a side effect should be considered among mothers who need to care for their infant at night, for example, in Mother-Baby Units of correctional facilities or under community control.

Mother-Baby Units and Visitation:

The United Nations Children's Fund (UNICEF) noted that mothers and infants should not be separated due to incarceration, related to the child's best interest and the right to family life. Many nations outside the US offer Mother-Baby Units (MBUs). MBUs are currently offered in 10 states.[136] In Canada, depending on the jurisdiction and other factors, children may remain with their mothers until age four, seven, or twelve.[133] The cost of housing a child in a prison nursery is similar to that of foster care.[187]

MBUs allow children to live with their mothers in correctional facilities until twelve or eighteen months of age. Specific criteria must be met in order for a mother to participate, such as not having a history of child maltreatment or being incarcerated for a non-violent offense. MBUs should include a child-friendly environment and focus on the relationship between the mother and the baby. "In theory, goals for MBUs should include providing a supportive environment and training for improved parenting, improved attachment, and decreased recidivism related to the importance of the mothering role."[133]

Maternal mental health's highest risks are during the first postpartum year, during which an incarcerated woman may have the opportunity to participate in a Mother-Baby Unit. As such, it is recommended that these mothers be screened for (and treated for) maternal mental illness. As well, Child Protective Services can assist in determining whether MBU placement is appropriate for the mother and infant.[136] Current studies indicate that mothers separated from their infants are more likely to be re-incarcerated and to recidivate.[136] An American study of infants at prison nursery programs demonstrated that most developed secure attachment, which increased if they were in the MBU longer. This occurred even despite a mother's attachment style being insecure.[188] There are arguments against MBUs, including the concern about the child's rights, the suggested risk of incentivizing pregnancy, and an unnatural custodial environment for the child.[136]

Since many incarcerated women (42%) have been living as the head of a single-parent household the month before their arrest, there may often be a lack of paternal support upon the mother's incarceration. This is a gender difference since most incarcerated fathers

identify the child's mother as the primary caretaker.[189,133] Children are then often placed in grandparental care, foster care, and adoption.

Despite efforts, there may be limited contact with children when women are incarcerated, and children of incarcerated mothers are known to subsequently experience increased rates of depression, anxiety, and criminality.[190] Parenting classes are offered in many prisons. There are fewer women's prisons than men's, and they may be located in isolated areas far from population centers. This may make it difficult for the children of prisoners to visit their mothers in prison. This creates a problem as contact while the mother is incarcerated predicts successful reunification once the mother is released from prison.[191]

Menopause and Aging Women in Forensic Hospitals and Corrections:

In the past decade, individuals in the United States over 65 grew to over a third of the population.[192] Adults over 65 are predicted to comprise nearly a quarter of the American population by 2060[193] as medical care and treatment advances have dramatically increased the human lifespan. With increasing age comes a higher incidence of physical illness and an increased risk for neuropsychiatric disorders such as minor neurocognitive disorder (mNCD) and major neurocognitive disorder (MNCD). The presence of these disorders as well as psychiatric and physical disorders, are important considerations in performing forensic evaluations for older populations. Treating severe mental illness in menopause may also require specialized training or experience, as symptoms and treatment response can vary.[194]

Effects of Menopause:

Menopause is a transitional period when decreased estrogen levels can be associated with both increased physical symptoms as well as mood and psychotic symptoms.[195] The menopause transition generally starts around the age of 47 and lasts 4-7 years.[195] Physical symptoms may include irregular menstrual periods, hot flashes, night sweats, sleep disturbance, sexual dysfunction, and elevated risk of osteoporosis and cardiovascular disease.[195] Psychiatric symptoms may worsen during menopause, including more frequent symptoms of depression and a worsening of schizophrenia.[195]

Health problems related to menopause are the third most common reported health concern in older women in prison.[196] Women are at increased risk of developing mood symptoms during

perimenopause, especially women with an earlier history of depressive disorders.[197] For women, absent a prior history of depression, symptoms of depression were more than twice as likely to occur during the menopausal transition than pre-menopause.[198] Risk factors for developing depressive symptoms in menopause include a history of depression, vasomotor symptoms, sleep disturbances, surgical menopause, early age at menopause, negative attitudes about aging and menopause, and concurrent life stressors.[195]

Women with severe mental illness, such as schizoaffective disorder, schizophrenia, or major depressive disorder, reported significant vasomotor, physical, sexual, and psychosocial symptoms related to menopause.[195,199] As well, women have a second peak of onset of Schizophrenia after age 45, corresponding to the onset of menopause.[195,200]

Medication dosage may need to be adjusted in menopause to maintain efficacy. The decreasing hormonal levels associated with menopause may affect drug metabolism. Some metabolizing enzymes are estrogen-dependent. Other factors affecting drug metabolism and efficacy in older women include polypharmacy, alcohol, illicit drugs, liver mass, smoking, caffeine, and nutritional intake.[195]

Pudas et al.[201] noted that by midlife, changes in biological sex and sex hormone mediated memory circuitry become apparent. These changes during menopause may explain cognitive decline during aging.[202] Compared to premenopausal women, postmenopausal women show different hippocampal responses during verbal memory tasks.[203,204]

Diagnostic accuracy is important when treating or performing evaluations of older women. Depression and other reversible conditions can be mistaken for Neurocognitive Disorder (NCD) in older women. A careful differential diagnosis should be considered when evaluating patients with suspected NCD.

In elderly women, the first symptoms of physical illness often are psychological or behavioral in nature. The onset of delirium can signify the presence of infection or other somatic conditions.[205] Treatable medical conditions can be misdiagnosed as functional NCDs in older women.[206]

Aging Women in Corrections:

Both the male and female prison population declined from 2018 to 2019. The number of males declined by 2% from year-end 2018 to year-end 2019. The number of women declined

by almost 3% over the same period. Males accounted for 92% of the total prison population, and females 8%.[207] Despite the overall decrease in the number of inmates, certain subgroups of the prison population are increasing. Persons older than 50 are the fastest growing segment of the prison population.[208] Between 1990 and 2014, the number of prisoners over 50 had grown by more than 50%.[209] Several factors have contributed to this increase; mandatory prison sentences, three-strikes legislation resulting in a sentence of life in prison after the third felony, and longer sentences.[210,211]

Over the last 40 years, female incarceration rates in state prisons have risen substantially for all ages.[212] A contributing factor is the increased involvement in the criminal justice system of white women charged with violent, property, and drug-related offenses.[213]

The increase in the aging population, coupled with the increase in the female population, has combined to produce a substantial increase in the subgroup of older female inmates.[212] In California alone, the number of geriatric female prisoners increased by 350 percent between 1996 and 2006.[214] In 2019, 3.2% of male prisoners and 1.6% of female prisoners sentenced to more than a year were 65 or older. Approximately 15.4% of women sentenced to more than a year were age 50 and older.[215]

Because of the accelerated aging of the prison population associated with earlier development of disability, most correctional systems and facilities use the age of 50 or 55 to assign inmates to the geriatric population.[216,217,218] Those over 50 require enhanced medical services and support resources.[211]

Older female inmates have more chronic illnesses than non-incarcerated women and have higher rates of psychosocial stressors.[214,2] Inmates 55 and older have higher rates of hypertension, respiratory disease, and arthritis compared to women in the general population who are 65 and older.[196] Compared to their age-matched male inmates, older female inmates have worse physical health, more frequently disclose mental health problems,[219] and have higher rates of comorbidities than men.[214]

Neurocognitive Disorders among Aging Female Prisoners:

Women have increased risks of developing Alzheimer's Disease (AD) compared to men.[220,221] Several risk factors for neurocognitive disorder occur more frequently in the female incarcerated populations than in the general population. These include head injury,

depression, obesity, and substance misuse.[2] Several studies strongly indicate that females with AD are more affected by disease processes than their male counterparts.[222,223] Compared to men, women with AD demonstrated a greater decline in essentially all cognitive domains than AD men.[224]

28 percent of geriatric female prisoners studied in California reported memory loss, and 69 percent reported at least one impairment of Prison Activities of Daily Living (PADL).[214]

Because of the incidence of cognitive deficits in the aging populations, it is recommended that the standard patient screening and assessment process be expanded to include a standardized, objective screening measure of cognitive ability, such as the Mini-Mental State Examination and the Montreal Cognitive Assessments.[211] The "start low, go slow" strategy when prescribing cholinesterase inhibitors can help decrease the frequency of adverse events in the geriatric population, especially in women.[225] Serious events occurring immediately after initiating cholinesterase inhibitor therapy were associated with the higher starting dose. This association was stronger in women.[225] Estrogen is not considered a prophylactic treatment for dementia.[2]

Prescribing in Geriatric Female Inmates:

The same concerns about prescribing for the general geriatric population apply to the correctional population. Prescribing for geriatric patients requires attention to risks due to the prevalence of underlying medical conditions, heightened sensitivity to medication side effects, particularly in women, and the potential for drug-drug interactions.[226] Risks are further increased by medical multi-morbidity and polypharmacy, which are more frequent in aging women.[227] Polypharmacy increases the risk of adverse events and iatrogenic harm.[228] Side effects can affect cognition.[211]

Housing Older Females:

Older women present unique physical and mental health problems that institutions must address to meet their healthcare needs. In addition to access to care issues, female inmates with a neurocognitive disorder or physical limitations may be subject to disciplinary actions when cognitive and physical impairment goes unrecognized.[218]

Handtke et al[229] recommended tailored social and health interventions that address the specific needs of elderly women. Data was collected from two prisons in Switzerland housing women prisoners. Three main areas of particular vulnerability were identified: the status of "double-minority" (being a woman and being elderly), health and healthcare access, and social relations.[229] Aging women can be vulnerable to victimization by other younger inmates. There are separate housing units for older men; many advocate for these specialized units for women.[212]

A national pilot study of federal and state prisons for women looked at services available to older women. The authors found that prisons reported supplying basic physical and mental health care services, and most reported providing hospice services. Prisons housing larger percentages (or expecting to house larger percentages) of older female prisoners did not significantly differ in their approaches to assessing and providing health care compared to their counterparts. Enhanced services were recommended.[230]

Barry et al[212] conducted focus groups with healthcare workers in the Connecticut State Department of Corrections for Women to better understand the unique healthcare needs of older women prisoners. They identified challenges in caring for older women. These women had multiple co-morbidities and exhibited cognitive or communication deficits, and they needed more intensive levels of care and higher staffing levels. The healthcare workers reported difficulty finding a balance in providing the appropriate level of empathy, given this restriction within the prison system. The healthcare workers recommended that more resources needed to be allotted for mental health needs for this age group.[212]

There are also challenges in ensuring compliance with out-of-facility medical referrals. Barry[212] noted that elderly female prisoners were reluctant to travel offsite for medical care and refused treatment. The same van used for medical appointments first dropped off defendants for court appearances. Being in the van with young and disruptive defendants was very distressing to the older women, who preferred to forgo care rather than ride in the van.

Correctional facilities have to deal with the challenge of caring for persons requiring nursing home levels of care and training staff to treat older populations. Alternatives such as specialized nursing units for women are being considered. Early release programs may be appropriate for severely physically and mentally compromised inmates.[211]

Addiction in the Criminal Justice System at Different Stages of Women's Reproductive Age:

Although women represent the minority of those under the criminal justice system's supervision, their involvement rate increased by more than 100% from 1990 to 2000. This was partly due to the war on drugs in the United States, which disproportionately impacted women. In 1980, one in ten women was incarcerated for a drug-related offense, and this number had magnified to 1 in 3 by 2000.[231] The profile of the average woman incarcerated in America even today is a non-violent property offender who uses alcohol, drugs, or both. This renders the issue of substance use disorders in the reproductive woman important to forensic psychiatrists working in correctional settings.

Compared to male counterparts, women in the criminal justice system are more likely to suffer from psychiatric disorders. Depending on the population studied, they are as likely to suffer from alcohol and drug use disorders. The higher prevalence of alcohol and drug use in women compared to men in the community erodes in criminal justice involved populations. Especially early on (i.e. jails), rates of non-alcohol substance use disorders may be higher in incarcerated women.[232] Women experience a phenomenon called "telescoping," in which significant symptoms evolve more rapidly from the onset of tolerance.[233] Interventions utilizing novel modes of treatment, such as contingency management, motivational interviewing, case management, integrated longitudinal services, and pharmacotherapy, are all likely to benefit this population.

Civil Evaluations

Pregnancy

Malpractice Evaluations in Pregnancy:

When treating pregnant women with mental health issues, psychiatrists need to be aware of both the risks of failure to treat as well as the potential risks from treatment with medication. Should a forensic psychiatrist be involved in a malpractice lawsuit in this area, both of these issues should be considered in addition to routine items considered in a malpractice case.[149,234.158] Risks of untreated mental illness in pregnancy include suicide, infanticide, pre-eclampsia, poor prenatal care, increased risk of fetal exposure to drugs or alcohol, fetal exposure to maternal cortisol levels, preterm delivery, low birth weight, and failure to thrive. Just as there are reasons that serious mental illness is treated at any point in life, there are compelling reasons to treat mental illness during pregnancy, whether with medication,

psychotherapy, or both. The psychiatrist should be aware that in any evaluation of treatment during pregnancy and the postpartum period, no medication is without potential risk. All pregnancies have risks, even when the mother has done everything right. For example, approximately three percent of pregnancies in America yield infants with malformations.[158] When the psychiatrist is treating a pregnant woman with medications, considerations include the risk of miscarriage, risk of malformation, preterm delivery, perinatal toxicity, and behavioral teratogenesis.[158]

Approximately 13% of pregnant women are prescribed antidepressant medications. Those with severe or moderate depression are more likely to require treatment with antidepressants than those with mild symptoms.[158] Rational medication decisions, informed consent, and good documentation are most important when treating pregnant women. The involvement of the patient's partner and family in the discussion help improve compliance and potentially reduce misunderstandings and disagreements about treatment. Medication management in pregnancy is largely outside of the scope of this document, but the reader is referred to Hatters-Friedman et al (2019)[2]. However, in general, older medications for which there are more data available are more appropriate to utilize in pregnancy than brand new medications.[158] Exposure to agents of concern is often most critical in the first trimester of pregnancy during organogenesis. However, other medications that cause the potential for withdrawal in the newly delivered infant may be considered problematic in the third trimester. Polypharmacy should be minimized in pregnancy where possible because of the potential multiplicative rather than the additive effect of two agents. Monotherapy should be considered where possible, as well as using a medication the patient has previously done well on. The lowest effective dose should be used.[158] Further, half of all pregnancies are unplanned; thus, many patients become pregnant under the care of a psychiatrist.[158] This should be considered when treating all women of reproductive age and when possible, medications should be chosen which are safe in case she becomes pregnant.

Women may consider discontinuation of psychotropic medications upon learning they are pregnant. However, women who stop their antidepressants during pregnancy are more likely to experience a relapse than those who continue their medication. Cohen et al.235 found that 26% of those continuing their antidepressants during pregnancy relapsed, compared to over two-thirds (68%) who had stopped the medication. Viguera and colleagues236 considered recurrence rates after discontinuation of mood stabilizing medications, finding 52% recurrence within 40 weeks after lithium discontinuation during pregnancy (58% for non-

pregnant). Postpartum recurrences were more frequent than those among non-pregnant women after the length of pregnancy. Recurrence risk was higher among those with rapid (rather than gradual) discontinuation. The effects of depression on infant development, as well as the mother-infant attachment, both need to be considered.

A major ethical and malpractice issue occurring during pregnancy and the postpartum includes the psychiatrist's failure to treat the pregnant woman due to concerns about bad outcomes. Specifically, doctors may believe that when a negative outcome occurs related to an intervention, it is different than when a negative outcome occurs because of an illness.237,238 "Omission bias occurs because doctors are more concerned about acts of commission (if treatment were to lead to a negative outcome) than acts of omission (not treating a patient's illness). When one is cognizant of this potential bias, one may address it—such that one ensures equal discussion of risks of treating and the risks of leaving maternal depression untreated."239

Negative outcomes during pregnancy leading to malpractice cases may include a suicide or a homicide, an infant malformation, or another negative outcome. Suicide and homicide cases may allege the failure of the psychiatrist to treat. Evaluating forensic psychiatrists must consider, as the treating psychiatrist should have, the risks and benefits of various courses of action regarding treatment and whether the treating physician informed the mother of those risks. It is important that evaluating forensic psychiatrists be aware of the latest research, including recent research regarding valproic acid and lithium, which are never completely contraindicated in pregnancy or lactation.240,241 Working knowledge of the state of the literature is important. A reproductive psychiatry consult should be obtained when necessary and feasible.228

Forced Medications in Pregnancy:

Women with mental illness have increased risks of negative outcomes from pregnancy.[8] Schizophrenia has been associated with having infants who are premature, small, or large for gestational age, as well as maternal pre-eclampsia.[13] Additional risk factors found more commonly among women with serious mental illness include illicit substance use, use of alcohol, or smoking while pregnant. Women with serious mental illness also have elevated victimization rates and poor prenatal care.[242] Each of these is a risk factor for negative outcomes of pregnancy.

In completing evaluations for involuntary treatment in pregnancy, the following have been recommended:[8] The evaluating psychiatrist must be aware of the model used for involuntary treatment consideration in the state where the treating psychiatrist practices. The woman's diagnosis, the rationale regarding the need for treatments with consideration of current knowledge about the use of antipsychotic and mood-stabilizing medication and pregnancy (including the risk in a specific trimester of pregnancy), the concerns about why capacity is lacking, and the least restrictive alternatives as far as treatment are important. The forensic psychiatrist should also understand potential pregnancy complications stemming from both untreated illness and treatment. In forensic reports, the harms of no treatment for mental illness should be described, as well as the risk of medications. Further, communication with staff in Obstetrics and Pediatrics is important. Friedman and colleagues[8] also note, "if feasible, for involuntary medication orders in pregnancy, oral medications or possibly short-acting injectable antipsychotics are preferred over long-acting injections". Forensic psychiatrists must "consider their own biases and potential biases or fears of others involved in the process".[8] This includes treatment team members, the woman's family, and the legal system.

Substance Use During Pregnancy*:*

The use of substances during pregnancy has been shown to result in adverse infant health outcomes, including drug dependence, miscarriage, premature birth, low birth rate, and behavioral and cognitive problems.[243] Treatment options for mothers who misuse substances during pregnancy include voluntary and involuntary treatment. Depending on the jurisdiction, pregnant mothers may be involuntarily civilly committed or placed in the protective custody of the state for treatment based on the risk of danger to the unborn infant. States also vary in mandated reporting requirements in cases of mothers misusing substances during pregnancy. To date, twenty states have laws requiring health care providers to report perinatal substance use to child protective services and four states mandate health care providers to report only when the provider believes the substance misuse resulted in child maltreatment.[244]

Diagnosis of Eating Disorders and Pregnancy*:*

Eating disorders are more common in women, with a lifetime prevalence of 8.4 percent compared to 2.2 percent in men.[245] Eating disorders are serious psychiatric illnesses associated with high rates of medical morbidity and mortality. Apart from deaths from opioid abuse, eating disorders have the highest mortality rates of any psychiatric illness,[246] both due to the medical complications of eating disorders as well as from suicide.[247] Patients with severe and enduring eating disorders are a subgroup with longstanding and life-threatening disorders. These patients have a low likelihood of recovery, poor adaptive function, high levels of symptoms, and comorbid physical and psychological ills and require the regular attention of a multi-disciplinary team.[248,249,250] Treatment providers must, therefore, be realistic about the prognosis give the low odds of a cure and adjust treatment expectations accordingly.[251] Thus, managing this subgroup of patients may require trying a novel treatment modality and a shift in the goal of treatment from cure to harm reduction or ultimately to palliative or hospice care.

The bulk, 90%, of eating disorders develop before age 25.[252] Individuals with anorexia nervosa are also more likely to become pregnant at a young age compared to individuals who do not have an eating disorder.[253,254] Indicators or a suspected eating disorder include failure to achieve or maintain an appropriate weight for age and height, intense fear of gaining weight, preoccupation with feeling fat, abnormal electrolytes, such as a low serum potassium level,[252] oligomenorrhea, amenorrhea, inadequate weight gain in pregnancy.[255]

Although the absence of menstruation is no longer required for the diagnosis of anorexia nervosa, the resumption of menses is still seen as a hallmark of recovery. However, despite weight gain, amenorrhea persists in 15-35% of women with anorexia, possibly due to either a high level of exercise and/ or anxiety.[256,257]

The prevalence of eating disorders in pregnant or breastfeeding women is about 5%.[258] Despite the absence of menses in many patients, women with anorexia nervosa are twice as likely to have an unplanned pregnancy, while women with bulimia have a 30-fold increased risk of unplanned pregnancies compared with the general population.[259]

Pregnant women with eating disorders are at high risk for poor nutrition during pregnancy and negative birth outcomes, including spontaneous abortion, preterm labor, and obstetrical complications.[260,261,262] They have a greater risk of having infants with low birth weight, smaller head circumference, microcephaly, intrauterine growth restriction, and perinatal

mortality.[263] Pregnant women with eating disorders are often younger than those without eating disorders, and they are more likely to experience higher pregnancy-related maternal and perinatal morbidity and mortality than older adult women.[264]

For those who refuse treatment for their eating disorders during pregnancy, involuntary psychiatric care may be considered, especially if the patient presents an imminent danger to herself and or her unborn child or meets the statutory definition for grave disability in that particular state (e.g. if a woman is not able to provide adequate nutrition for herself).[265] If the woman is too ill to take care of her infant after birth, consideration should be made for contacting Child protective services.

Capacity and Decision-making in Eating Disorders:

Guardianship and involuntary psychiatric commitment are legal measures utilized to compel treatment. Both measures require the individual to lack capacity. In most jurisdictions, guardianship does not grant a guardian the power to admit the ward to a mental health facility without the ward's consent. Furthermore, the courts can only authorize ongoing psychiatric care and nutritional rehabilitation under commitment laws once the respondent is no longer medically compromised.[265]

Because therapeutic alliance is an important predictor of achieving a target weight and remaining in treatment, treatment providers often hesitate to initiate involuntary treatment.[266,267] However, these concerns must be weighed against concerns regarding future morbidity and mortality if a patient with severe anorexia nervosa continues to refuse life-saving care.[268]

A harm-reduction approach must consider several ethical issues to ensure clinicians understand the needs of a pregnant patient at a given time and make clinical decisions based on the jurisdictional standard of treatment decision-making. Principles such as "first do no harm" and respecting patients' right to self-determination (taking capacity for decision-making into account) should be used as guides.

Misconceptions about Child Abuse and Custody Loss

Child maltreatment includes physical abuse, neglect, sexual abuse, and emotional abuse. Historically, there is a ten-fold difference between the prevalence of self-reported child

maltreatment and the actual number of cases reported to child protective services.[269,270] In the US, psychiatrists as physicians are mandatory reporters of child abuse and neglect. Psychiatrists should report to Child Protective Services (CPS) if there is a reasonable suspicion of abuse, neglect, or significant risk to the child.[270] Hospitalization should also be considered if there is concern about the risk of child abuse or infanticide related to acute mental illness.

Psychiatrists should be certain to be aware if their patients are parents and if they have custody of their children[130] Approximately one-half of women with serious mental illness are parents; approximately 10-20% of those with serious mental illness have children living in their homes.[270,271,272] Further, approximately one-half of parents with schizophrenia eventually lose custody of their children.[273] In total, approximately one-quarter of mothers with serious mental illness may lose child custody.[274] Parents who fear the loss of custody may be hesitant to report mental health symptoms and parenting difficulties, leading to less treatment for this vulnerable population.[275,270]

While it is often suggested that mental illness leads to child maltreatment, any risk is decreased by treatment of symptoms and psychosocial support.[270] Studies of mental illness and child maltreatment are often fraught with methodological issues, including a lack of definition for mental health issues, a lack of definition for violence, or a conflation of scales.[270] Symptoms related to mental illness that may lead to increased child maltreatment may include the negative symptoms, disorganized thinking, paranoia, or hallucinations of schizophrenia; decreased motivation and energy in depression; or irritability, impulsivity, and poor judgment in mania. Treatment does reduce these symptoms, which would therefore be expected to make this protective against other types of violence.[270] A recent reanalysis of the MacArthur violence risk database indicated that, compared to their community counterparts, parents with severe mental illness who were being treated were not at increased risk towards a child. Thus, being involved in psychiatric care may be protective against child maltreatment,[270] similar to how treatment helps protect from other forms of violence.

Competency for Abortion:

Though the right to abortion was decided by the United States Supreme Court in *Roe v. Wade*[276] in 1973, the *Dobbs v. Jackson Women's Health Organization*[277] in 2022 held that the Constitution does not confer a right to abortion. As evidenced by the Supreme Court's

decision-making, abortion remains controversial across the US. Case law based on *Roe v. Wade* may be in question post-*Dobbs.* The forensic psychiatrist may be called upon in cases of abortion regarding the woman's capacity to consent to pregnancy termination.[278] Evaluations may occur among women who have been diagnosed with psychiatric illness, with intellectual disability, or who are minors. These evaluations should be approached similarly to evaluations for other types of medical procedures. The psychiatrist performing such an evaluation acts in accordance with the principles of informed consent assessments and the same principles as performing other evaluations not letting one's own opinions about abortion become part of the evaluation. Whether an evaluator is pro-choice or anti-abortion, the evaluator should examine their biases in these cases.[25,150]

Data that purport that women who have abortions are more likely to have long-term negative mental health outcomes are often based on studies that have multiple methodological issues.[150] The control group for studies examining associations with abortions should be women of similar socio-economic status and histories who sought abortions but could not procure them. When other control groups are used, such as married women with planned pregnancies, these are not true controls. The interested reader is referred to Hatters Friedman et al (2022)[150] for further discussion of the potential forensic evaluations related to abortion.

For juveniles in various states, forensic psychiatrists may be involved in assessing whether young women under the age of 18 who are pregnant qualify for judicial bypass of parental consent or parental notification for pregnancy termination. In states where abortion remains accessible and legal post-*Dobbs*, parental consent laws, including judicial bypass procedures, remain in effect—unless legislatures pass new laws or in cases where abortion may be banned for the state. For example, in Ohio, the juvenile court may find that a pregnant minor, with clear and convincing evidence, maybe "sufficiently mature and well enough informed to decide whether to have an abortion intelligently" or may find that notification of her parents is "not in her best interest"[239] for her to bypass parental consent for abortion. However, neither term has been consistently defined in this context, and scholarship in this area has been limited.[239] Friedman and colleagues[239] found that among a sample of teenage women presenting for evaluation for judicial bypass, most were over age 16, worked part-time as well as attending school, and were involved in long-term romantic relationships with the involved male, who was only slightly older than they were at the time. Though the majority had consulted with a trusted adult regarding their options of continuing pregnancy, pregnancy termination, or adoption, the person they consulted with was not their parent. Friedman and

colleagues[239] noted that "even with the politically-charged nature of these procedures, the overwhelming majority (95%) were granted a judicial bypass. However, this may represent a selection bias for pregnant minors who were persistent, proactive, assertive, and informed about the judicial bypass option, have better non-parental support, and can better overcome the barriers of this challenging process." Multiple other barriers occur, making abortion more difficult for teens, such as getting away from school and obtaining transportation.[279,280]

Elder Abuse and Neglect in Women:

One in 6 or 68 million aging women experience abuse worldwide according to a a global systematic review and meta-analysis of abuse of women aged 60.[281] In most jurisdictions, physicians are mandated reporters of elder abuse or neglect.[282,283] States' definitions of elder abuse vary.[282] Elder abuse may include physical, psychological, sexual, or financial abuse and neglect.[283,284] About 11% of community-residing older adults experienced abuse within the past year.[285] Victim risk factors include physical and mental health problems, substance misuse, dependency on the victim or caregiver, stress and poor coping skills, attitudes, negative beliefs, prior abuse victimization, and relationship problems.[284]

Conclusions

In summary, understanding women's reproductive mental health is critical for many types of criminal and civil forensic evaluations and treating women in various states of life in corrections. It is also critical that forensic psychiatrist examine their potential for gender bias in such evaluations. Forensic evaluations related to child murder by parents (both afterward and in completing risk assessments), child abuse, and forced medication in pregnancy all benefit from reproductive psychiatry knowledge. Forensic psychiatrists in treatment roles in forensic hospitals and correctional environments should also hone their understanding of mental illnesses in pregnancy, postpartum, lactation, and menopause to best serve a growing part of their patient populations.

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