THEORY & REVIEW

MOTHERHOOD FOR WOMEN WITH SERIOUS MENTAL ILLNESS: Pregnancy, Childbirth, and the Postpartum Period

Carol T. Mowbray, Ph.D., Daphna Oyserman, Ph.D., Judith K. Zemencuk, M.A., Scott R. Ross, B.S.

Although women with serious mental illness have normal fertility rates, the literature points to multiple risk factors and a paucity of emotional and economic support during the initial phases of parenthood. Since most research has focused on child outcomes, the extent and nature of parenting problems experienced by these mothers are not adequately understood. An emphasis on the context of parenting and the meaning of pregnancy and childbearing to these mothers is called for and implications for research and clinical practice are discussed.

Demographic trends and deinstitutionalization are among the reasons for the great increase in the number of persons with serious mental illness (SMI) who are now living in the community (Johnson, 1990). SMI refers to long-term, persistent mental illness, usually encompassing diagnostic categories of schizophrenia and related disorders plus major affective disorders, combined with utilization of intensive forms of mental health services for a period of more than one year. The term "seriously mentally ill" is preferred over the frequently used "chronically mentally ill" by psychiatric consumer groups.

In community-based life, it is often necessary to confront developmental tasks and life crises that might not have arisen in institutional environments, among them a greater likelihood of being involved in sexual activity and, for women, becoming pregnant and bearing children (Apfel & Handel, 1993; Miller, 1992). It is thus important that women with a serious mental illness (SMI) be as knowledgeable as possible in these areas and that service providers should make these concerns an important focus for intervention.

Novelists have presented accounts of motherhood and madness that reflect the significance and diversity of this experience. Pregnancy has been seen as a loss of confidence in one's own body or even total loss of control over one's physical being. It

A revised version of a paper submitted to the Journal in May 1993. Authors are at: School of Social Work, University of Michigan, Ann Arbor (Mowbray); and Wayne State University, Detroit, Mich (Oyserman, Zemencuk, Ross).

can be seen as a forced accommodation to an internal rhythm of life that is not in harmony with one's own, or as subjection to the tortures of delivery. On the other hand, motherhood may also be seen as an opportunity for positive self-endorsement through creativity, as a chance to reintegrate the fragmented parts of the self, order and focus life's tasks, affirm life, overcome stigma, and experience an emotionally rich and rewarding role—even rebirth (Apfel & Handel, 1993; Yalom, 1975). Yet, published research on seriously mentally ill women, particularly in regard to parenting, is notably lacking (Mowbray & Benedek, 1986; Test & Berlin, 1981; Wahl & Hunter, 1992). Greater knowledge in this domain is vital for several reasons. Parenting is a central life task of adulthood, and pregnancy, childbirth, and the postpartum period mark the often stressful entry points into the parent role. In addition, dysfunctional parenting and parental psychiatric disorder have often been linked to psychiatric and behavioral problems in children (Benn, 1994; Gizynski, 1985). To help assure effective parenting and to reduce the possible disruptive effects of a mother's mental illness on her children, a better understanding of the experience of motherhood and of maternal functioning, needs, and concerns must be reached.

To determine what is known concerning pregnancy, childbirth, and the postpartum period for women with SMI, this article examines demographic data for the frequency of motherhood in this population. A psychiatric rehabilitation framework (Wallace, 1986) is then used to put this information into perspective, examining: 1) the environmental circumstances or demands that form the context within which the mothering takes place; 2) maternal competency and coping; and 3) emotional, informational, and economic resources and supports available to the mothers. Results obtained by studies on pregnancy and childbirth and on the postpartum period are presented. Implications for practice are discussed, as are recommendations concerning future research directions.

RESEARCH BASE

Computerized literature searches on parenting and related experiences for women with SMI were conducted for the years 1983–1992. A total of 36 research articles involving primary data collection were located, along with reviews and epidemiological studies. The primary data studies are summarized in TABLE 1, in terms of participants' demographic characteristics (age, race, socioeconomic status (SES), marital status, age and number of children, when available); diagnosis, symptomatology and their determination; and the sources from which study participants were obtained.

The limitations of the research base are evident from the table. Many of the studies use small convenience samples, over-representing white and married women. Most use research participants from psychiatric treatment settings, usually inpatient, rather than individuals with a psychiatric history who are currently functioning in the community. This sampling strategy can bias results to emphasize dysfunction, deficits and problems among respondents. Omission of untreated persons with mental illness in the community may promote biases towards compliance and more acceptable behavior. Several of the studies not involving treatment populations were conducted outside the United States, so that generalizations to U.S. populations may be problematic. As can be seen in TABLE 1, one research study used International Classification of Diseases (ICD-9) (U.S. Department of Health and Human Services, 1991) and a few utilized Research Diagnostic Criteria (RDC) (Spitzer, Endicott, & Robins, 1981) for diagnoses. Many others utilized DSM III, but were not specific as to the reliability of the assessment or used diagnoses from treatment records. This heterogeneity of study samples is cause for concern in interpreting differences but, where findings converge across several different sites and methods,

Table 1
SUMMARY OF STUDIES ON MENTALLY ILL MOTHERS

SUMMARY OF STUDIES ON MENTALLY ILL MOTHERS							
STUDY	SUBJECTS	SOURCE	DIAGNOSIS/SYMPTOMS	PERIOD COVERED			
Bagedahl-Strinlund (1986a, 1986b)	matched on delivery date,	(Sweden), giving birth 1976- 77, admitted to any psych-	RDC diagnosis: 27.2% mood dis- order, 19.2% unspecified function psychosis, 12.4% schizophrenia, 3.9% schizoaffective, 37.3% other psychiatric disorder.	Pregnancy—1 yr postpartum			
Buist et al. (1990)	•	unit in an Australia psychiatric	DSM-III diagnosis (by consultant psychiatrist): 38.3% major depression, 29.8% schizophreniform, 17.1% schizophrenia, 8.5% bipolar, 4.2% anxiety, 2.1% not diagnosed.	6.7-16.5 wks. postpartum			
Coverdale & Aruffo (1989)	N=80. Age (M): 31 yrs. 59% white, 41% nonwhite (mostly black).16% married, 51% prev. married at least once.		DSM-III diagnosis: 50% schizo- phrenia, 28% major affective, 11% schizoaffective, 11% other.				
DeChillo et al. (1987)	Chart reviews, 121: 55% fe- male. 32% married, 31% nev- er married, 36% prev. mar- ried. SES: 46% I or II, 16% III, 3% IV. No. children in home: 66% none or not noted, 17% one, 13% two, 3% three/four.	Private vol. teaching hosp.	55% major affective; 16% schiz- ophrenic; 12% substance abuse; 11% organic mental disorder, personality disorder, anxiety, or ad- justment disorder; 5% schizo- affective or atypical.	Less than 3 through 18 yrs			
Dowlatshahi & Paykel (1990)	ed on age, birth parity, marital	mother-and-baby in-patient	ICD-9 diagnoses: 36% depression, 27% schizoaffective, 9% schizophrenia, 18% mania, 9% other.	At 3 mos. postpartum			
Field (1984)	N=12, Control=12. Grps matched on age, birth parity, SES, educ. Ms: age 27.2, parity 2.3, educ. 11.8 yrs.	at university hosp.	Depressed: Beck Depression Inventory score 16 or above.	At 3 mos. postpartum			
Forcier (1990)	N=16. Age range: 20-40 yrs. 12.5% married.	Inpatient psychiatric unit of gen. hosp.	Psychotic behavior, history of psychiatric hospitalizations.	Pregnancy & early postpartum			
Friedman & Harrison (1984)	30.8 yrs. 80% black, 10% white, 10% Hispanic. 15%	Patients: female acute psy- chiatric inpatient service. Con- trols/normal volunteers: mi- nority female employees at several hosps.	DSM-III criteria for schizophrenia.	Retrospective study (single data collection, child age varied)			
Goodman & Emory (1992)	N=85, Control=31 (mother- child pairs). 93% black, 75% single. Predom. low SES	Inner-city outpatient clinics.	DSM-III-R diagnosis: 67% schizo- phrenic, 33% depressive.	Birth-5 yrs			
Gotlb et al. (1989)		urban hosp., private practice.	RDC diagnosis, major or minor de- pression: 10.2% at pregnancy, 3.4% at postparturn.				
Gotlib et al. (1991)	sives and nondepressives	dept. of large, urban Cana- dian hosp., private practices.	RDC diagnosis, major or minor de- pression: 10.3% at pregnancy, 4.9% at postpartum.				
	N=75 (depressed). Age (M): 27.6 yrs. 93.3% married. Educ. (M): 13.5 yrs. No. children in home: 40% none, 37.3% one, 17.3% two, 5.3% three or more.		As above.	As above.			
Hopkins et al. (1987)	N=25, Controls=24. All white, married, primiparous, middle class.		RDC criteria for major or minor de- pression (excluded those with depressive onset during preg- nancy).	6-11 wks. postpartum.			

Table 1
SUMMARY OF STUDIES ON MENTALLY ILL MOTHERS (Continued)

STUDY	SUBJECTS	SOURCE	DIAGNOSIS/SYMPTOMS	PERIOD COVERED
(rener et al. (1989)		Obst. clinic, other community sources.	DSM-III-R diagnoses: 30% schiz- ophrenia, 30% affective unipolar, 19% affective bipolar, 21% atypi- cal psychosis.	Late pregnancy
Aartin et al. (1989)		Mother-and-baby psychiatric unit & maternity unit of univer- sity hosp.	RDC diagnosis: 43% depression w/t schizoaffective disorder, 57% other.	15 mos.: pregnancy through postpartum
McEvoy et al. (1983)	N=23. Age: range 20-58 yrs; M 33 yrs. 52.2% had prev. births. Children up to 9 yrs age.	Inpatients in chronic care unit.	DSM-III criteria for chronic schizophrenia.	Retrospective study (single data collection, child age varied)
McNeil et al. (1983, 1984)	N=88, Control=104. Age (M): 28.7 yrs. 64.8% married, 26.1% unmarried, 9.1% div./widowed.	prehensive med. system in	Diagnosis by project psychia- trists: 20.4% postpartum psy- chosis, 19.3% schizophrenia, 19.3% other psychoses, 17.1% cycloid psychosis, 17.1% affec- tive disorder, 6.8% psychogenic psychosis.	Pregnancy
McNeil et al. (1985)	N=48, Control=80 (at 3.5 mos.). N=52, Control=79 (at 6 mos.). Grps matched on maternal parity, age, status at pregnancy (when poss.), social class.	Prenatal clinic, Sweden.	3.5 mos. sample: 29.2% nonendogenous psychosis, 27.1% affective disorder, 22.9% schizophrenia, 20.8% cycloid. 6 mos. sample: 28.9% nonendogenous psychosis, 26.9% schizophrenic, 25.0% affective disorder, 19.2% cycloid.	At 3.5 & 6 mos. postpartum
Meltzer & Kumar (1985)	№ 142. 63 % primiparous.	with infant to psychiatric hosp. in G. Britian w/n 12 mos. of childbirth.	RDC diagnosis: 44.3% major & minor depression; 23.9% manic disorders; 11.9% schizophrenic disorders; 9.2% cyclothymic or anti-social personality, unspecified functional psychosis; 4.2% generalized anxiety; 6.3% unclassifiable.	To 1 yr. postpartum
Miller (1990)	N=26. Age (M):31.6 yrs. 58.3% black, 41.7% white. 25% married, 66.7% single, 8.3% div. 100% unemployed.	tient program for pregnan mentally ill women in a 1-yr	DSM-III-R Diagnosis: 57.8% t schizophrenia, 19.2% major mood dis., 7.7% personality disorder, 7.7% adjustment disorder, 3.8% schizoaffective, 3.8% organic syndrome.	Pregnancy
Miller et al. (1990)	tients). Age: range 15-42 yrs., M 26.4 yrs. 58.3% black, 41.7% white. 34% married.	patients of psychiatric units 1982–1988. Obst. follow-up determined through chart review and/or	t DSM-III diagnosis: 32% schizo- i, phrenia, 27% adjustment disor- der, 18% substance abuse, 9% d depressive or bipolar disorder, or 7% conduct disorder, 5% schizo- affective, 2% atypical psychosis	Pregnancy
Muqtadir et al. (1986)	N=10. Age: range 22–37 yrs, M: 29 yrs.	Admissions to a medical psychiatric unit in general hosp.	 DSM-III diagnosis: 60% schizo- phrenia-paranoid, 20% schizo- phreniform, 10% schizophrenia- related, 10% brief reactive psy- chosis. 	Pregnancy
Nasiund et al. (1985)	N=42, Control=60 (at 3 wks.) N=51, Control=78 (at 6 wks.) Grps. matched on materna parity, age, social class, mari tal status.	I	3-wk. sample: 31.0% nonendogenous psychosis, 26.2% schizophrenia, 26.2% affective disorder, 16.5% cycloid. 6-wk. sample: 35.3% nonendogenous psychosis, 27.5% schizophrenia, 19.6% affective disorder, 17.6% cycloid.	
O'Hara (1983), O'Hara et al. (1986)	N=99, Age (M): 26.5 yrs. 98% white.	 ObGyn. clinic, private pra tices. 	c- RDC criteria for major or minor depression: 9% at 2nd trimester, 12% at nine wks. postpartum.	

Table 1
SUMMARY OF STUDIES ON MENTALLY ILL MOTHERS (Continued)

STUDY	SUBJECTS	SOURCE	DIAGNOSIS/SYMPTOMS	PERIOD COVERED
Persson-Blennow et al. (1984)	N=51, Control=73. Grps matched on maternal parity, age, social class, marital status.	Prenatal clinic, Sweden.	Diagnosis by project pscyhiatrists: 37.2% nonendogenous psychosis, 21.6% schizophrenia, 21.6% affective illness, 19.6% cycloid psychosis.	At 3 days postpartum
Pfost et al. (1990)	N=69 (pregnant women). Age (M): 27.7 yrs. 100% white. 95.7% married. 49.3% multi- parous. Educ. (M): 14.4 yrs. Income (MD): \$30k.		Beck Depression Inventory antepar- turn score (M)=7.8.	At 8th mo. of pregnancy and at 1 mo. postpartum
Philipps & O'Hara (1991)	N=70. Age (M): 31.4 yrs. 98.6% white. 91.5% married, 8.5% sep./div. Educ. (M):15.7 yrs. 47% employed.		RDC diagnosis, major or minor de- pression.	4-1/2 yrs. follow-up study
Rogosch (1987)	N=48. Age: range 17–50 yrs, M 31.4 yrs. 65% black, 35% white. 21% now married, 52% never married, 27% sep./div. Majority low SES No. children (M): 2.1		Hospital diagnosis: 65% schizophre- nia, 21% affective disorders, 13% schizoaffective.	
Rudolph et al. (1990)	N=35. Age range: 28-33 yrs. 68% white, 17% Native Amer., 6% black, 6% Asian, 3% Hisp. 9% married, 82% single, 9% cohabitating.		Hospital medical records: 66% schizophrenia, 26% atypical psychosis, 8% manic-depressive.	Pregnancy
Stein et al. (1989)	N=24 (with postnatal depression, of 483 assessed)	Admissions to hosp. antena- tal clinic, Oxford, England.	Montgomery Asberg Depression Scale, General Health Questionnaire, Present Stale Exam: depression	• • • • • • • • • • • • • • • • • • • •
Stewart (1989)	•	general hosp, psychiatric unit	DSM-III diagnosis: Mother-infant admissions: 56.3% major affective, 28.1% schizophrenia/schizophreniform, 9.4% atypical psychosis, 3.1% anxiety disorder, 3.1% mental retardation. Mother-only admissions:)5 major affective, 26.9% schizophrenia/shcizophreniform, 3.8% atypical psychosis, 0% anxiety disorder, 7.7% mental retardation, 0% personality disorder, 61.5% sub. abuse.	7–10 days postpartum
Thiels & Kumar (1987)		•	ICD-9 diagnosis: 46.2% schizo- phrenic, 26.9% affective psychosis, 23.1% neurotic disorders, 3.8% drug- induced psychosis.	To 1 yr. postpartum
Verhulst et al. (1981)	N=12. Age: range 21–45 yrs, M 33 yrs. 17% separated, 33% single, 42% divorced, 8% married.		DSM-III criteria for schizophrenia.	Retrospective study, (single data collection, child age varied)
Watson et al. (1984)	N=128, 82% married, 53% planned preg. 73% white, 14% West Indian.		IDC diagnosis, affective disorder: 4% at pregnancy, 12% at postnatal.	Pregnancy-1 yr. postpartum

more confidence in conclusions may be warranted.

Demographic Data

National weighted estimates have revealed that while a majority of men with serious mental illness never marry (54%—

69%), only a minority of women do not (25%-45%) (National Institute of Mental Health, 1986). Women with SMI are also less likely to be childless than men (Saugstad, 1989). Epidemiological studies have consistently found that women, compared to men, are more likely to have a later aver-

age age of onset of severe psychiatric symptoms-27 years versus 21 years for DSM-III schizophrenia (Gottesman, 1991), 25 versus 23 for unipolar depression, and 20 versus 18 for bipolar disorder (Burke, Burke, Regier, & Rae, 1990). Women are thus more likely to be sexually active and become parents prior to the onset of their illness. Furthermore, many women with SMI in treatment have children: 45% of female Intensive Case Management clients in New York (Final Report: Task Force on Mentally Ill Parents With Children, February 25, 1993; A. Blanch, personal communication), 41.9% of women admitted to San Francisco General Hospital's psychiatric unit. In fact, birth rates among mentally ill women now appear to be approaching those for the general population (Apfel & Handel, 1993).

Evidence from clinical research complements these findings. Thus, in a sample of 12 female schizophrenic patients between 21 and 45 years of age (M=33), only four were single; the remaining women were married, separated, or divorced. Age at first intercourse for these women ranged from 12 to 25, and the little clinical research that has been done on sexuality suggests that women with SMI are likely to be sexually active, although casual sexual encounters often come to replace stable sexual relationships (Verhulst & Schneidman, 1981). Sexual intercourse within the last year was reported by 73% of female outpatients interviewed by Coverdale and Aruffo (1989). Of these women, 72% reported intercourse during the prior three months. Similarly, McEvoy, Hatcher, Appelbaum, and Abernethy (1983) found that the majority of women with chronic schizophrenia in their study reported both an interest in sexual activity and actual sexual intercourse during the previous three months, including time hospitalized. Nursing staff corroborated this high level of sexual activity (McEvoy et al., 1983). Finally, many women in Friedman and Harrison's (1984) small sample of women who were acute

psychiatric inpatients reported having intercourse frequently (5% daily or more often; 40% on a weekly to monthly basis).

Burr, Falek, Strauss, and Brown (1979) found schizophrenic women in psychiatric outpatient care to have normal fertility rates. In a study of medical records of 35 pregnant hospitalized women, Rudolph, Larson, Sweeny, Hough, and Arorian (1990) found 12% had had one pregnancy, 38% two pregnancies, 20% three pregnancies, 20% four pregnancies, and 9% five or six pregnancies. Other studies have found that women with SMI have a higher than average number of children (Rudolph, et al., 1990; Test & Berlin, 1981), and that 32.5% are responsible for childcare (Test, Burke, & Wallisch, 1990).

EXPERIENCES DURING PREGNANCY

Contextual Issues

In the general population, stress and maternal functioning during pregnancy and the postpartum period are related to factors such as the planning or desirability of the pregnancy, concerns about the health of the fetus, and the support received from the father of the child and from the family in general (Benn, 1994). Problematic circumstances before childbirth, such as unplanned pregnancies, use of psychotropic medication, and health factors, appear more likely for women with SMI.

Unplanned pregnancy. Despite Bachrach's (1985) contention that family planning for women with SMI is a "fully established area of professional concern, with a sophisticated literature and several tested solutions" (p. 1066), recent clinical studies suggest that this topic still suffers from serious neglect (Coverdale, Aruffo, & Grunebaum, 1992). Unplanned pregnancies were reported by 61% of women in a study by Rogosch (1987), by 53% in one by Buist, Dennerstein, and Burrows (1990), and by 52% in one by Forcier (1990).

Clinical studies suggest that lack of education concerning birth control may be a major factor in unintentional pregnancies

of women with SMI. Thus, McEvoy et al. (1983) found that only ten of 23 women understood that they could use birth control to avoid pregnancy. Although 74% of the sexually active women in Coverdale and Aruffo's (1989) study indicated that they did not wish to become pregnant within the next year, 33% reported they had not used birth control at the time of last intercourse. McNeil, Kaij, and Malmquist-Larsson (1983) found that unintentional pregnancies occurred most often when women in their sample were not using contraceptive measures. A review of the hospital records of psychotic pregnant patients showed that in 19 of 35 cases there was no record of whether birth control had been discussed (Rudolph et al., 1990).* Finally, Cook (1992), describing the experience of a psychosocial rehabilitation agency working with groups of women with SMI, commented on the difficulties these women have utilizing birth control methods: many are unfamiliar with their bodies and reject insertion devices, the consistency required to take birth control pills presents problems, and requesting a male partner to use a condom requires assertiveness skills that these women often lack.

Health factors. A number of clinical studies indicate that prenatal care may be either lacking or inadequate for most women (Forcier, 1990; Krener, Simmons, Hansen & Treat, 1989; Miller, Resnick, Williams, & Bloom, 1990; Muqtadir, Hamann, & Molnar, 1986). Goodman and Emory (1992) found less adequate prenatal care and more complicated births for women with a schizophrenic diagnosis (compared to depressed or well women). Relatively high rates of miscarriage may also be likely: 23% were reported by Coverdale and Aruffo (1989) in their sample of women with SMI.

Early pregnancies, which can also pro-

duce health problems for women and their babies, are frequent among women with SMI. Thus, the average age at first pregnancy of the mothers in Rogosch's (1987) study was 20.4 years (ranging between 11 and 36), and their average age at childbirth was 21.1 years. Almost a third (29%) had given birth before age 18 and 36% were pregnant before that age.

Psychotropic medication. Although many women undergo remission of psychosis during pregnancy (Driscoll and Sozanski, 1990), some may require continuation of psychotropic medication. The safety of antipsychotic drugs used in the first trimester, when organ development occurs and teratogenetic risk is greatest, has been questioned (Cohen, 1989). The use of tricyclic antidepressant drugs has been associated with an increased risk of birth defects (Berkowitz, Coustan, & Mochizuki, 1981; Goldfarb & Keating, 1981); and the teratogenicity of lithium carbonate is well established (Schou, 1990). This issue is of particular concern because so many pregnancies of women with SMI are unplanned. Furthermore, physicians often disagree about the relative risks to the fetus of psychotropic drugs and severe maternal psychiatric symptoms (Cohen, 1989). Psychiatric caregivers may make these decisions on behalf of patients (Krener et al., 1989), but concerns surrounding the issue of medication may nevertheless be particularly stressinducing to pregnant women with SMI (Packer, 1992). No studies have been found on this matter in the literature, however.

Maternal Competency and Coping

Rogosch (1987), Rudolph et al. (1990), and McNeil et al. (1983; 1984) have described problematic functioning in many pregnant women with SMI, despite differences in research designs (two small clini-

^{*}At one time, competency to provide informed consent for contraceptive procedures appears to have been an ethical issue (Grunebaum & Abernethy, 1975); recognition of the rights and abilities of psychiatric patients to make informed decisions seems to have minimized this factor in the last 15 years.

cal samples and a national registry sample with a control group, respectively) and differences in sample characteristics (hospitalized women, unemployed women, and working women in stable familial circumstances, respectively). In Rogosch's (1987) study, 34% of the participants experienced psychiatric hospitalization during a pregnancy. All the seriously mentally ill pregnant women in Rudolph et al.'s (1990) study were hospitalized for behavior dangerous to themselves or their fetus (inability to carry out activities of daily living, lack of resources, psychotic behavior, and suicidal ideation, in that order). In a study by McNeil et al. (1984), 39% of pregnant women with a history of hospitalization for nonorganic psychosis (versus 4% of controls) were found to have significantly increased rates of active mental disturbance during pregnancy, whether based on selfreport or assessed by an interviewer. In the same sample, 20% of mentally ill women versus 7% of controls were "panicked" about the coming delivery, 19% versus 3% were concerned about the state of their mental health in the near future, and 24% versus 4% expressed great concern about mothering (McNeil et al., 1983).

Denial of pregnancy is reported occasionally in the clinical literature describing women with SMI (Apfel & Handel, 1993), often due to fear of losing the baby. Such denial reduces the chances of receiving prenatal care and increases the risk of postpartum emotional disturbance, precipitous or unassisted delivery, fetal abuse, and neonaticide (Miller, 1990). In two studies, (Forcier, 1990; Miller, 1990), a majority of the pregnant, women with SMI exhibited psychotic denial or related behavior, often attributing their enlarged abdomens to other causes (e.g., weight gain, a blood clot) and attempting to reverse these conditions. The women who denied their pregnancies had significantly more often lost custody of previous children, in most cases due to inability to care for them. They were also significantly more likely to expect separation from the babies they were carrying immediately after birth. Apfel and Handel (1993) noted that, in their experience, pregnancy denial often fluctuates and can coexist with both normal and delusional feelings about the baby.

Resources and Supports

Emotional. Emotional support may serve as a buffer from stresses involved in pregnancy (Benn, 1994). During pregnancy, the social contacts of mentally healthy women with family and friends usually increase (Oyserman, Radin, & Benn, 1993). Increased social contact has not been reported, however, for pregnant women with SMI in either clinical samples (Rudolph et al., 1990) or larger, more representative ones. Thus 49% of psychotic pregnant women versus 17% of the control group in McNeil et al.'s (1983) study lacked support for their pregnancies from near relatives. Similarly, though 64% of controls met all of the same study's optimal conditions for pregnancies (intentional pregnancy, a positive relationship to the child's father and her own parents, and emotional support for the pregnancy from important relatives), this was true for only 26% of women with SMI.

Frequently, women with psychiatric disorders are not married when they become pregnant or give birth. Marital rates of 34% to 38% at time of pregnancy have been reported in clinical samples (Krener et al., 1989; Miller et al., 1990; Rudolph et al., 1990). While 92.5% of Test et al.'s (1981) "ever married" sample had borne children, not all of these children were born while the women were married. Similarly, Rogosch (1987) found that only 21% of hospitalized mothers with SMI were currently married, while 52% had never been married, and 69% had given birth while not married. Only two of the 16 patients in Forcier's (1990) study were married and very few were still in contact with the men who impregnated them. For several of the women, the paternity of their child was unknown.

Other studies suggest that even when a spouse is present, the relationship may be conflictual or that spouses may not be functioning optimally and therefore may not be supportive. Thus, Talovic (1984) reported Danish findings that 66% of schizophrenic women had a spouse with a DSM-III principal disorder, 42.4% of them with schizophrenia). Krener et al. (1989) found that many women reported conflicts with or abuse from spouses, conditions not conducive to a healthy adjustment to pregnancy (Benn, 1993).

For mentally ill women who live with their families of origin, conflicts with their mothers regarding finances, housekeeping, and childrearing are common (Casiano & Hawkins, 1987). Furthermore, pregnant women with SMI have been found to have little contact with significant others, family members, or community-based professionals (Rudolph et al. 1990).

Economic. Women with SMI appear to have inadequate access to the economic resources needed to support them while pregnant or rearing children. Thus, there are reports that pregnant women with SMI are likely to be low SES (Krener et al., 1989), receiving disability payments or other types of public assistance (Rudolph et al., 1990), unemployed and indigent (Forcier, 1990; Miller, 1990), undomiciled or homeless, and not in treatment (Miller, 1990; Rudolph et al., 1990).

POSTPARTUM PERIOD

Postpartum depression (as measured with standardized instruments) affects 5% to 8.8% of women who give birth (Richards, 1990), and women with postpartum depression may experience long-term or recurrent psychiatric problems (True-Soderstrom, Buckwalter, & Kerfoot, 1983). Postpartum psychosis is a severe illness, and a first psychotic episode occurs only after one in 500 to 1000 births (Bagedahl-Strindlund, 1986b; Buist et al., 1990; Thiels & Kumar, 1987). It usually manifests with clinical features similar to

nonpuerperal psychosis, with additional delusional content related to childbirth, confusion, and mania (Beck, 1991). Postpartum psychosis may also fulfill RDC criteria for manic disorder or major depressive disorder, but with an admixture of schizophrenic and confusional symptoms (Kendell, 1985). For women with a preexisting mental disturbance, there appears to be a significant increase in psychiatric episodes during the postpartum period, especially within one month of delivery, compared to pregnancy or to the nine months following the postpartum period (Bagedahl-Strindlund 1986a; Kendell, 1985). Gotlib, Whiffen, Wallace and Mount (1991) found that, of the 6.8% of a large sample of women found to meet diagnostic criteria for post-partum depression, 50% had also been depressed during pregnancy.

Women with a first episode of depression or psychosis in the postpartum period may be at increased risk of future episodes (Casiano & Hawkins, 1987; Dean, Williams, & Brockington, 1989; Dowlatshahi & Paykel, 1990; O'Hara & Zekoski 1988; Philipps & O'Hara 1991; Watson, Elliott, Rugg, & Brough, 1984), especially women with bipolar disorder (Packer, 1992). Recurrences may be so severe as to eventually fit the criteria for a long-term or chronic mental illness. For example, an epidemiological study of psychiatric problems during and after pregnancy found that of 10.3% of a representative sample of women obstetric patients who fit a depressive diagnosis, 28% maintained this diagnosis at a postpartum assessment (Gotlib, Whiffen, Mount, Milne, & Cordy, 1989). Mc-Neil (1986) similarly found that 28% of women with a psychiatric history experienced postpartum psychotic episodes, compared to those with no such history. On the other hand, a subgroup of these women experienced dramatic reductions in postpartum psychotic episodes with each childbirth experience (McNeil, 1988).

This review of the literature concerning depression and psychosis in the postpartum

period excludes, to the extent possible, research samples of women with "maternity blues." However, few investigators have used operational criteria to define postpartum mental illness (Kendell, 1985). As can be seen from TABLE 1, many studies do not adequately describe the seriousness of the mental disturbances in their samples. Other methodological limitations include confounding of diagnosis with SES, small sample sizes, and use of nonstandard diagnostic approaches (Benn, 1993). Thus, only tentative conclusions can be reached.

Contextual Issues

Etiology. Given the findings that pregnant women with SMI are likely to receive less support, be more stressed, and be at risk of less adequate prenatal care, complications in delivery might be expected. Few studies have addressed this. Difficulties in pregnancy or labor were reported in 28% of a small sample of women with SMI, while 19% required the use of instruments in delivery, 19% had a lower Caesarian, and 8.5% had postpartum hemorrhage (Buist et al., 1990). Chang & Renshaw (1986) reported that schizophrenic women had shorter gestation periods, babies of lower birth weight, and more neonatal deaths than did controls. Similarly, a larger Swedish study (Bagedahl-Strindlund, 1986a) found a higher frequency of pregnancy and delivery complications reported in records of mentally ill women obstetric cases; however, these were primarily experienced by acute, not long-term mentally ill patients. Only one study examined the experiences of the latter group. Forcier's (1990) clinical research described these women as frequently going through labor with no pain, discomfort, or even verbalizations—perhaps reflecting medication side effects. Apfel and Handel (1993) noted that schizophrenia has sometimes been associated with failure to register pain and report similar case studies.

Antecedents of postpartum psychosis remain unclear (Kendell, 1985) and no major

recent research findings have further illuminated its etiology (Murray & Gallahue, 1987). Obstetrical complications are not consistently related to postpartum depression (Kendell, 1985; True-Soderstrom et al., 1983), nor have consistent results been obtained in establishing a relationship between hormone levels and postpartum psychiatric diagnoses (Murray & Gallahue, 1987; Richards, 1990). Personal and family history of mental illness, marital status, poor social support (particularly from the spouse), unplanned pregnancy, psychiatric distress before childbirth, and negative life events associated with childbirth are more strongly associated with postpartum depression (Kendell, 1985; Melhuish, Gambles, & Kumar, 1988; O'Hara, & Zekoski, 1988; Stein et al., 1990; True-Soderstrom et al., 1983: Watson et al., 1984). Postpartum depression has been found to be significantly predicted by depressive symptoms during pregnancy and by perceptions of low parental care during the mother's own childhood (Gotlib et al.; 1989) and by low family income and lack of a confidant (Stein et al., 1989). However, McNeil (1988) found no relationship with complaints during pregnancy, negative birth attitudes, current material or interpersonal problems, or support from relatives.

Psychotropic drug use and nursing. The extent to which psychiatrically ill mothers are breastfeeding has not been established, although in a clinical study of an inpatient unit which encouraged its use, 38% of mothers did so (Buist et al., 1990). Psychotropic medications are secreted in breast milk; however, concentrations vary greatly among individual women-even those on comparable dosage levels-because of metabolic differences (Mortola, 1989; Cohen, Heller, & Rosenbaum, 1989). These differences, combined with the interaction of specific drug effects and infant characteristics mean that while many infants are unaffected, others may have symptoms such as apnea, lethargy and hy-

potonia (Cohen, 1989). Lithium carbonate, used as a treatment for mania, has been found to produce toxic effects in nursing infants under certain conditions (Guze & Guze. 1989: Mortola, 1989). Potential risks to infants means difficult choices for mothers: they must weigh the immunological advantages of breast milk against potential long-term effects of psychotropics on the infant's developing brain, as well as take into account their own psychiatric status and, possibly, the positive or negative effects of the drugs on their mothering capabilities. These choices are made more difficult by the fact that medical authorities themselves do not agree on the advisability of breastfeeding while taking psychotropic medication, Cohen (1989), for example, takes a different position from Buist et al. (1990). Technical reviews (Mortola, 1989; Thiels, 1987) make differential recommendations with regard to breastfeeding, depending on the specific psychotropic drug. However, mental health practitioners may not possess such differentiated knowledge of psychotropic drug effects.

Maternal Competency and Coping

A few studies have reported on the psychiatric status of the mother postpartum. Most have used research participants from specialized mother-baby psychiatric units located outside the U.S., have presented qualitative rather than quantitative data, and often involve atypical women (e.g., more often married) (Buist et al., 1990; Meltzer & Kumar, 1985). In addition, reported results do not differentiate women diagnosed with puerperal mental illness (onset within two to four weeks of delivery and of supposedly short duration) from those whose postpartum psychiatric problems reflect a pre-existing psychiatric history. The latter group has been found to constitute anywhere from 14.4% (Bagedahl-Strindlund, 1986b) to 40% (Meltzer & Kumar, 1985) of samples.

In considering the results from the quantitative studies that follow, findings should

be used with caution in view of these limitations. Thiels and Kumar (1987) found that severity of psychiatric illness correlated strongly with disturbances of maternal activities. A Swedish prospective study of mothers with a history of psychiatric illness found that, three days after delivery, they had more negative mother-infant interaction scores than did matched normal controls (Persson-Blennow, Naslund, Mc-Neil, Kaij, & Malmquist-Larsson, 1984). Follow-up studies of this cohort of women continued to find decreased social contact and responsiveness to infants' needs at 3 weeks, 6 weeks, 3.5 months and 6 months of age, for all except those diagnosed with an affective disturbance (McNeil, Naslund, Persson-Blennow, & Kaij, 1985; Naslund, Persson-Blennow, McNeil & Kaij, 1985). In all of these Swedish studies, raters were blind to the mother's psychiatric status.

Findings from qualitative research and studies using small samples are mixed. In a laboratory study with observers blind to the mother's depression rating, but using a small patient sample, interactions between depressed mothers and their infants aged three months and younger were found to be less responsive to context, less positive, more negative, and less frequent (Field, 1984). Thiels and Kumar (1987) found eight of 26 infants in a London Mother-Baby Unit to be definitely or possibly at risk of harm from their mothers, though ratings did not differentiate between risk from the mother's impulses to harm the child and risk from unintentional neglect (often due to overmedication). Some mentally ill women, often multiparous, have been found to care for and interact with their infants normally, in spite of severe mental disorganization, even when first admitted to the hospital (Stewart, 1989; Thiels & Kumar, 1987). The literature also contains reports of multiparous women who have been consistently hospitalized for their psychiatric condition following childbirth and who come to blame their infants and appear to welcome loss of custody (Stott, Musick, Clark, & Cohler, 1984). Data from one case study found that nursing staff tended not to leave infants alone in their mother's care due to their concerns about the mother's unpredictability (Forcier, 1990). However, this pattern appears to characterize very few of the women studied in Mother-Baby Units. In most cases, over the course of hospitalization, recovery from illness is associated with improved interactions with infants and greater caregiving abilities, even for thought-disordered and delusional patients (Buist et al., 1990; Stewart, 1989; Thiels & Kumar, 1987) although this was not true for the study by Crossling, Brooker, and McGrath (1988). There may be numerous women with a long-term persistent psychiatric illness who care for infants and have not been studied because they have not been identified or referred by their treating physicians; if so, their number and mothering capabilities are not known. In their review, O'Hara and Zekoski (1988) concluded that postpartum mood disturbances are on a continuum and consequently reflect a heterogeneity of impairment levels.

Resources and Supports

Benn (1994) summarized research indicating that mothers with fewer resources and supports (e.g., black female heads of households, adolescents) have higher rates of depressive symptomatology. Yet few of the identified research reports specifically studied stress and social supports and their relationship to psychiatric illness in the puerperium. O'Hara and colleagues (O'Hara, 1986; O'Hara, Rehm, & Campbell, 1983) found that women experiencing postpartum depression reported more stressful life events and less support following delivery than did nondepressed women. Watson et al. (1984) found postnatal affective disorder to be associated with marital dissatisfaction. In contrast, studying recent stressful life events, Martin, Brown, Goldberg, and Brockington (1989) found that women with a postpartum onset of depression were

less likely to have had such experiences. Other studies (Dowlatshahi & Paykel, 1990; Gotlib, et al., 1991; Hopkins, Campbell, & Marcus, 1987) found no differences between controls and mothers who were psychiatric patients. However, Hopkins et al. (1987) did find that infant-related stressors differentiated depressed from nondepressed women. It should be noted that the samples studied varied across a number of significant domains that could account for divergent findings: the inclusion of women with major and minor depressive episodes or women entering a psychiatric hospital, the range of SES represented, and the proportion of women who were married. Krener et al. (1989) suggested that the discrepant findings might be due to underreporting by psychiatric patients of the actual instability and stressful events in their lives. Thus, despite conflicting research results, it seems appropriate to assume that, overall, resources and supports available to seriously mentally ill women in the postpartum period are below average and that this can adversely affect functioning.

Though treatment or services might help buffer the stress experienced in caring for a new baby, it appears that treatment providers rarely consider parenting issues. Reviews of the records of women in inpatient psychiatric treatment have found that clinical documentation normally does not mention the patient's children (DeChillo, Matorin & Hallahan, 1987; Rogosch, 1987). In surveying state Mental Health Departments, Nicholson, Geller, Fisher and Dion (1992) found that less than one-third of the states even collect data on whether mentally ill clients have children. If even the children's existence is not noted, it seems unlikely that issues of childcare or parenting are given much attention in mental health service provision. Waldo, Roath, Levine, and Freedman (1987) noted that most mental health facilities are not able to provide targeted assistance in mothering to their SMI clients. Conversely, psychiatric disorders appear to be insufficiently con-

sidered in hospital obstetric units, and it has been suggested that consultation liaison psychiatrists should play a bigger role in hospital obstetric practice (Casiano & Hawkins, 1987; Krener et al., 1989). Apfel and Handel (1993) have noted that mental health professionals often disapprove of female clients' active sexuality and that ward staff in psychiatric hospitals frequently experience negative feelings towards psychiatric patients who are pregnant or have recently given birth, feeling they do not deserve a child. Also, staff often resent the extra work that such clients create.

Custody. The extent to which mothers with SMI retain responsibility for their children is unclear, although a number of studies have indicated that such mothers are not caring for their children. In a study of children born to 80 chronic psychiatric patients, 1% had died, 5% had grown up and were living independently, 33% were being reared by their biological mothers, and 60% were being reared by others, most commonly the child's father or an adoptive family (Coverdale & Aruffo, 1989). A study by Test et al. (1990) found that of 14 women in long-term community care programs who had living children, 2 mothers had relinquished parental responsibility for their children at birth; the remaining 12 had given up parenting responsibilities over varying periods, in some cases due to hospitalization. Of 26 patients admitted to a program for the care of pregnant mentally ill women, ten had experienced prior custody loss and 13 anticipated such loss (Miller, 1990). Spielvogel and Wile (1986) reported, on placement outcomes of infants born to nine disturbed patients, that four infants were placed in foster care, one was adopted, and four remained in their biological mothers' custody. Case workers in a California social service department estimated that 60% to 75% of the mentally ill mothers on their caseloads were likely to lose custody of their children (Bazar, 1990).

Three review articles were identified that described state appeals court decisions of

termination of parental rights hearings for seriously mentally ill mothers. Of 22 appeals, 19 decisions affirmed the termination (Mental and Physical Disability Law Reports, 1985; 1986a; 1986b). In a clinical study of new mothers in a psychiatric unit, the infant was reportedly placed separately from the mother in most cases(Forcier, 1990). In a large national study in Sweden, nearly 40% of children of mentally ill mothers who had a psychiatric hospitalization after the 20th week of pregnancy or within one year following confinement did not live with their biological mothers during the preschool ages (Bagedahl-Strindlund, 1988). However, it should be noted that loss of custody may not mean loss of contact or of caretaking responsibilities. In some cases, the extended family may assume custody and the mother may inhabit the same house with them and her children. In general, it appears that custody and caretaking have been insufficiently studied.

DISCUSSION

The findings in the research literature on pregnancy, birth, and the postpartum period for women with SMI are diverse. For purposes of maximum generalizability of the results, only those that have been replicated across studies, especially studies with larger, more representative samples and with greater methodological rigor are considered. Topics on which there is considerable disparity of findings are discussed in terms of their implications for future research.

Overall, a review of the literature suggests that psychiatric disability and pregnancy can interact to produce problems and stresses for mothers and infants. As is generally true for individuals with a major psychiatric disorder, women with SMI are often disadvantaged to begin with, having few social supports and low SES. In addition, their mental illness makes them more vulnerable to job and housing discrimination, sexual exploitation or coercion, and stigma within their community (Bachrach

& Nadelson, 1988). SMI may impede a woman in securing and comprehending information on contraception, and the result may be an unwanted pregnancy. Psychiatric disability may also mean that problems are experienced as more stressful; experiences of stress, whatever their cause, are likely to be debilitating and related to increased dysfunction (e.g., Belle, 1982).

In addition to the usual stresses of pregnancy, a woman with SMI faces significant obstacles to a safe and healthy pregnancy. Economic hardships, lack of information, or previous experience of having children removed from her care may prevent her from seeking appropriate prenatal care, endangering her health and that of her fetus. Without prenatal care, issues relating to her role as a mother will probably not be addressed. A significant number of women with SMI give birth out of wedlock, and the social support available to them may be inadequate; lack of such support during pregnancy may increase the stress already being experienced; and increased stress, particularly when coupled with cessation of medication during pregnancy could cause exacerbation of the mental illness. In addition, a woman with SMI must face the possibility of losing custody or contact with the child she carries, and may find this especially difficult if she has lost custody or contact with previous children.

Pregnancy may thus precipitate hospitalization for psychosis and delivery during that state. Even if she is not actively psychotic, delivery for a woman with SMI may be extremely problematic due to lack of prenatal care, pre-existing psychiatric problems, lack of support, poverty level, and consequent inability to obtain adequate medical care. After delivery, the same problems of lack of social and economic support continue, exacerbating parenting problems. Loss of custody becomes a continual threat. Not surprisingly, studies document maternal dysfunction, especially concerning social contacts and responsiveness to the infant, for most women with SMI.

By and large, it seems clear that women with psychiatric histories are seriously at risk on all scores for problems associated with childbirth. Accordingly, the low rate of response from treatment providers is difficult to explain. Nevertheless, reviews of records suggest that birth control, sex education, and family planning issues are not addressed in mainstream programs, even though individuals with serious mental illnesses frequently experience thought disorders, cognitive deficits, and medication-related complications that make it difficult to exercise good judgment.

These, then, are issues that must be addressed by those who provide these women with professional care. It is necessary that therapists and case managers be aware of the sexual activity of their female clients on an ongoing basis, and that, for women who are heterosexually active, attention to sexual safety and birth control issues are included as an important part of treatment planning. Choice of appropriate methods for such interventions and their correct and consistent use need to be made. Women with SMI must be provided with assistance and support in taking control of their reproductive experiences if they are to function and be integrated into their communities in any meaningful sense.

Unfortunately, training programs for mental health professionals often omit sexual topics, which indicates that academicians also need to be educated in them. Complex issues are involved, including ethical considerations about the clinician's support for a client's short-term wishes versus longer-term outcomes, the rights and protection of unborn children, among others. Psychosocial rehabilitation approaches (Farkas & Anthony, 1989), which emphasize giving clients assistance and support in making choices, may be helpful.

Those women with SMI who bear children are not likely to find that the status or even existence of children is frequently noted in treatment plans, according to the research literature. Clearly, a major aware-

ness-building and educational effort needs to be put into place so that treatment programs pay attention to the childcare and parenting problems faced by their female clients. Intake assessments should mandate the collection of information concerning whether a woman has children, her attitude toward them, the extent and quality of her relationship with them, and how she feels about her situation as a mother. Attention to parenting issues should be included in all treatment plans for women who are mothers. Even if clients have lost custody, support and counseling are needed to adjust to the loss and to explore the possibility of getting the children back. Women who have caretaking responsibilities for their children may need parenting education, respite, or assistance for their children. Even when stable functioning has been achieved, mothering issues should be monitored.

A few specialized programs, that focus on psychiatrically ill women and their babies have been described in the literature. Many, however, are in specialized inpatient settings with somewhat nonrepresentative samples. Other, outpatient-oriented programs reportedly experience high (averaging over 50%) drop-out rates (Oyserman, Mowbray, & Zemencuk, 1994). Continued efforts to develop relevant interventions for SMI women with children are necessary. They would be strengthened, of course, if a more empirical basis for their development were available.

Clearly, more and better-designed research is necessary. Improvements would include, at minimum, more representative samples, use of comparison groups, standardized instruments, and more reliable assessment techniques. In addition to these design issues, there are also major gaps in research content that are not, perhaps, so obvious. First, the extent to which social supports function to mediate the relationship between serious mental illness and problems during pregnancy and after child-birth should be explored. Groups of wom-

en with naturally or artificially provided social support systems should be systematically contrasted to those without such systems. Such research would permit recontextualization, allowing researchers and practitioners to make sense of the ways in which context affords and constrains outcomes for these women. Affonso and Domino (1984) note that substantial research has focused on improving the survival and health of newborns and that the same level of attention should now be given to new mothers and their risk of postpartum psychiatric disturbance.

Secondly, no research study was identified which sought to understand the meaning of pregnancy and childbirth from the perspective of the mother herself. Research must go beyond measures of anxiety levels, fears, problematic maternal attitudes, etc., to find out how the mother perceives her own status and feels about her infant. Research has ignored the positive aspects of parenting for women with a psychiatric history (Perkins, 1992), yet client anecdotes reveal the pride of having taken care of someone else and the motivating force that resumption of parenting can have for attaining wellness (Schwab, Clark, & Drake, 1991). Clinical notes suggest that becoming pregnant can bring about a rallying of resources for patients and be a positive event (Casiano & Hawkins, 1987; Krener et al., 1989). Thus, understanding pregnancy and childbirth experiences must incorporate the perspective of the mothers themselves. From this perspective, it may be possible to uncover personal strategies and get information on the ways in which natural support systems can intervene to make the experience of maternity rehabilitating to the benefit of both mother and child.

In the meantime, researchers and clinicians alike should recognize that parenting represents a major problem area for women with SMI. It is an area that has been ignored in treatment, and one that has been studied infrequently, usually by inadequate

methods. Perkins (1992) has criticized the lack of attention to parenting experiences of women with serious mental illness. She concluded:

...neither feminists nor service providers hav shown any serious concern about the 'interests of the mother' when that mother is severely socially disabled by a major psychiatric problem. (p. 111)

Let us make sure that this situation does not continue.

REFERENCES

- Affonso, D.D., & Domino, G. (1984). Postpartum depression: A review. Birth, 11, 231-235.
- Apfel, R.J., & Handel, M.H. (1993). Madness and loss of motherhood. Washington, DC: American Psychiatric Press.
- Bachrach, L.L. (1985). Chronic mentally ill women: Emergence and legitimation of program issues. Hospital and Community Psychiatry, 36, 1063–1069.
- Bachrach, L.L., & Nadelson, C.C. (Eds.). (1988). Treating chronically mentally ill women. Washington, D.C.: American Psychiatric Press, Inc.
- Bagedahl-Strindlund, M. (1986a). Parapartum mental illness: Timing of illness onset and its relation to symptoms and sociodemographic characteristics. Acta Psychiatrica Scandinavica, 74, 490-496.
- Bagedahl-Strindlund, M. (1986b). Mentally ill mothers and their children. Acta Psychiatrica Scandinavica, 74, 32-40.
- Bagedahl-Strindlund, M. (1988). Parapartum mentally ill mothers and their children. Dissertation Abstracts International, 49, 610.
- Bazar, J. (1990, December) Mentally ill moms aided in keeping their children. APA Monitor, 32.
- Beck, C.T. (1991). Maternity blues research: A critical review. *Issues in Mental Health Nursing*, 12, 291-200.
- Belle, D., (Ed.). (1982). Lives in stress: Women and depression. Newbury Park, CA: Sage Publications.
- Benn, R. (1993). Conceptualizing eligibility for early intervention services. In D.M. Bryant & M.A. Graham (Eds.), *Implementing early intervention* (pp. 18-45). New York: Guilford Press.
- Berkowitz, R.L.; Coustan D.; & Mochizuki T. (Eds.). (1981). Handbook for prescribing medications during pregnancy. Boston: Little, Brown.
- Buist, A.E., Dennerstein, L., & Burrows, G.D. (1990). Review of a mother-baby unit in a psychiatric hospital. Australian and New Zealand Journal of Psychiatry, 24, 103-108.
- Burke, K.C., Burke, J.D., Regier, D.A., & Rae, D.S. (1990). Age at onset of selected mental disorders in five community populations. Archives of General Psychiatry, 47, 511-518.
- Burr, W.A., Falek, A., Strauss, L.T., & Brown, S.B. (1979). Fertility in psychiatric outpatients. Hospital and Community Psychiatry, 30, 527-531.
- Casiano, M.E., & Hawkins, D.R. (1987). Major mental illness and childbearing. Psychiatric Clinics of North America, 10, 35-51.

- Chang, S.S., & Renshaw, D.C. (1986). Psychosis and pregnancy. *Comprehensive Therapy*, 12, 36-41.
- Cohen, L.S. (1989). Psychotropic drug use in pregnancy. Hospital and Community Psychiatry, 40, 566-567.
- Cohen, L.S., Heller, V.L., & Rosenbaum, J.F. (1989). Treatment guidelines for psychotropic drug use in pregnancy. *Psychosomatics*, 30, 25–33.
- Cook, J. (1992, May). Women's issues in psychosocial rehabilitation. Paper presented at the annual meeting of the International Association of Psychosocial Rehabilitation Services, Oakland, CA.
- Coverdale, J.H., & Aruffo, J.A. (1989). Family planning needs of female chronic psychiatric outpatients. American Journal of Psychiatry, 146, 1489–1491.
- Coverdale, J., Aruffo, J., & Grunebaum, H. (1992). Developing family planning services for female chronic mentally ill outpatients. Hospital and Community Psychiatry, 43, 475-478.
- Crossling, P., Brooker, A., & McGrath, G. (1988). Nursing mentally ill mothers with their babies. Journal of Reproductive and Infant Psychology, 6, 41-50.
- Dean, C., Williams, R.J., & Brockington, I.F. (1989). Is puerperal psychosis the same as bipolar manic-depressive disorder? A family study. *Psychological Medicine*, 19, 637-647.
- DeChillo, N., Matorin, S., & Hallahan, C. (1987).
 Children of psychiatric patients: Rarely seen or heard. Health and Social Work, 12, 296-302.
- Dowlatshahi, D., & Paykel, E.S. (1990). Life events and social stress in puerperal psychoses: Absence of affect. Psychological Medicine, 20, 655-662.
- Driscoll, J.W., & Sozanski, G.K. (1990). Care of the pregnant woman with a pre-existing mental illness. Naacogs Clinical Issues in Perinatal & Womens Health Nursing, 1, 186-193.
- Farkas, M.D., & Anthony, W.A. (1989). Psychiatric rehabilitation programs: Putting theory into practice. Baltimore: John Hopkins University Press.
- Field, T.M. (1984). Early interactions between infants and their postpartum depressed mothers. *Infant Behavior and Development*, 7, 517-522.
- Forcier, K.I. (1990). Management and care of pregnant psychiatric patients. *Journal of Psychosocial Nursing*, 28, 11-16.
- Friedman, S., & Harrison, G. (1984). Sexual histories, attitudes, and behavior of schizophrenic and "normal" women. Archives of Sexual Behavior, 13, 555-567.
- Gizynski, M.N. (1985). The effects of maternal depression on children. Clinical Social Work Journal, 13, 103-116.
- Goldfarb, C., & Keating, G. (1981). Use of antidepressants from conception to delivery. *Journal of the Medical Society of New Jersey*, 78, 357-360.
- Goodman, S.H., & Emory, E.K. (1992). Perinatal complications in births to low socioeconomic status schizophrenic and depressed women. *Journal* of Abnormal Psychology, 101, 225-229.
- Gotlib, I.H., Whiffen, V.E., Mount, J.H., Milne, K., & Cordy, N.I. (1989). Prevalence rates and demographic characteristics associated with depression in pregnancy and the postpartum. *Journal of Con*sulting and Clinical Psychology, 57, 269-274.

- Gotlib, I.H., Whiffen, V.E., Wallace, P.M., & Mount, J.H. (1991). Prospective investigation of postpartum depression: Factors involved in onset and recovery. *Journal of Abnormal Psychology*, 100, 122-132.
- Gottesman, I.I. (1991). Schizophrenia genesis: The origins of madness. New York: W.H. Freeman.
- Grunebaum, H., & Abernethy, V. (1975). Ethical issues in family planning for hospitalized psychiatric patients. American Journal of Psychiatry, 132, 236-240.
- Guze, B.H., & Guze, P.A. (1989). Psychotropic medication use during pregnancy. Western Journal of Medicine, 151, 296-298.
- Hopkins, J., Campbell, S.B., & Marcus, M. (1987).
 Role of infant-related stressors in postpartum depression. *Journal of Abnormal Psychology*, 96, 237-241.
- Johnson, A.B. (1990). Out of bedlam: The truth about deinstitutionalization. New York: Basic Books.
- Kendell, R.E. (1985). Emotional and physical factors in the genesis of puerperal mental disorders. *Jour*nal of Psychosomatic Research, 29, 3-11.
- Krener, P., Simmons, M.K., Hansen, R.L., & Treat, J.N. (1989). Effect of pregnancy on psychosis: Life circumstances and psychiatric symptoms. International Journal of Psychiatry in Medicine, 19, 65-84.
- Martin, C.J., Brown, G.W., Goldberg, D.P., & Brockington, I.F. (1989). Psycho-social stress and puerperal depression. *Journal of Affective Disorders*, 16, 283-293.
- McEvoy, J.P., Hatcher, A., Appelbaum, P.S., & Abernethy, V. (1983). Chronic schizophrenic women's attitudes toward sex, pregnancy, birth control, and childrearing. Hospital and Community Psychiatry, 34, 536-539.
- McNeil, T.F. (1986). A prospective study of postpartum psychoses in a high-risk group. Acta Psychiatrica Scandinavica, 74, 205-216.
- McNeil, T.F. (1988). Women with nonorganic psychosis: psychiatric and demographic characteristics of cases with versus without postpartum psychotic episodes. Acta Psychiatrica Scandinavica, 18, 603-609.
- McNeil, T.F.; Kaij, L.; & Malmquist-Larsson, A. (1983). Pregnant women with nonorganic psychosis: Life situation and experience of pregnancy. Acta Psychiatrica Scandinavica, 68, 445-457.
- McNeil, T.F., Kaij, L., & Malmquist-Larsson, A. (1984). Women with nonorganic psychosis: Mental disturbance during pregnancy. Acta Psychiatrica Scandinavica, 70, 127-139.
- McNeil, T.F., Naslund, B., Persson-Blennow, I., & Kaij, L. (1985). Offspring of women with nonorganic psychosis: Mother-infant interaction at three-and-a-half and six months of age. Acta Psychiatrica Scandinavica, 71, 551-558.
- Melhuish, E.C., Gambles, C., & Kumar, R. (1988). Maternal mental illness and the mother-infant relationship. In R. Kumar & I.F. Brockington (Eds.), Motherhood and mental illness: 2. Causes and consequences (pp. 191-211). Boston: Wright.
- Meltzer, E.S., & Kumar, R. (1985). Puerperal mental illness, clinical features and classification: A study

- of 142 mother-and-baby admissions. British Journal of Psychiatry, 147, 647-654.
- Mental and Physical Disability Law Reports (1985). 9, 187–189.
- Mental and Physical Disability Law Reports (1986a). 10, 104–106.
- Mental and Physical Disability Law Reports (1986b). 10, 182–183.
- Miller, L.J. (1990). Psychotic denial of pregnancy: Phenomenology and clinical management. Hospital and Community Psychiatry, 41, 1233-1237.
- Miller, L.J. (1992). Comprehensive care of pregnant mentally ill women. Journal of Mental Health Administration, 19, 170-177.
- Miller, W.H., Resnick, M.P., Williams, M.H., & Bloom, J.D. (1990). The pregnant psychiatric inpatient: A missed opportunity. General Hospital Psychiatry, 12, 373-378.
- Mortola, J.F. (1989). The use of psychotropic agents in pregnancy and lactation. Psychiatric Clinics of North America, 12, 69-87.
- Mowbray, C.T., & Benedek, E.P. (1986). Women's mental health research agenda: Services and treatment of mental disorders in women (Women's Mental Health Occasional Paper Series). Rockville: National Institute of Mental Health.
- Muqtadir, S., Hamann, M.W., & Molnar, G. (1986).
 Management of psychotic pregnant patients in a medical-psychiatric unit. *Psychosomatics*, 27, 31-33.
- Murray, J.B., & Gallahue, S.L. (1987). Postpartum depression. Genetic, Social, and General Psychology Monographs, 113, 195-212.
- Naslund, B., Persson-Blennow, I., McNeil, T.F., & Kaij L. (1985). Offspring of women with nonorganic psychosis: Mother-infant interaction at three and six weeks of age. Acta Psychiatrica Scandinavica, 71, 441-450.
- National Institute of Mental Health. (1986). Client/patient sample survey of inpatient, outpatient, and partial care programs. Rockville, MD: Department of Health and Human Services. NIMH, Survey & Reports Branch, Div. of Biometry.
- Nicholson, J., Geller, J.I., Fisher, W.H., & Dion, G.L. (1992). Mentally ill mothers in the public sector: State policies and programs.
- O'Hara, M.W. (1986). Social support, life events, and depression during pregnancy and puerperium. Archives of General Psychiatry, 43, 569-573.
- O'Hara, M.W., Rehm, L.P., & Campbell, S.B. (1983). Postpartum depression: A role for social network and lifestress variables. *Journal of Ner*vous and Mental Diseases, 171, 336-341.
- O'Hara, M.W., & Zekoski, E.M. (1988). Postpartum depression: A comprehensive review. In R. Kumar & I.F. Brockington (Eds.), Motherhood and mental illness: 2. Causes and consequences (pp. 17-63). Boston: Wright.
- Oyserman, D., Mowbray, C.T., & Zemencuk, J. (1994). Resources and supports for mothers with severe mental illness. *Health and Social Work*, 19, 132-142.
- Oyserman, D., Radin, N., & Benn, R. (1993). Dynamics in a three-generational family. *Developmental Psychology*, 29, 564-572.

- Packer, S. (1992). Family planning for women with bipolar disorder. Hospital and Community Psychiatry, 43, 479-481.
- Perkins, R. (1992). Catherine is having a baby... Feminism & Psychology, 2, 110-112.
- Persson-Blennow, I., Naslund, B., McNeil, T.F., Kaij, L., & Malmquist-Larsson, A. (1984). Offspring of women with nonorganic psychosis: Mother-infant interaction at three days of age. Acta Psychiatrica Scandinavica, 70, 149-159.
- Pfost, K.S., Stevens, M.J., & Lum, C.U. (1990). The relationship of demographic variables, antepartum depression, and stress to postpartum depression. *Journal of Clinical Psychology*, 46, 588-592.
- Philipps, L.H.C., & O'Hara, M.W. (1991). Prospective study of postpartum depression: 4½-year follow-up of women and children. *Journal of Abnormal Psychology*, 100, 151-155.
- Richards, J.P. (1990). Postnatal depression: A review of recent literature. British Journal of General Practice, 40, 472-476.
- Rogosch, F.A. (1987). Causal modeling of parenting attitudes in mothers with severe psychopathology (Doctoral dissertation, Michigan State University, E. Lansing). Dissertation Abstracts International, 49, 919A.
- Rudolph, B., Larson, G.L., Sweeny, S., Hough, E.E., & Arorian, K. (1990). Hospitalized pregnant psychotic women: Characteristics and treatment issues. Hospital and Community Psychiatry, 41, 159-163.
- Saugstad, L.F. (1989). Social class, marriage, and fertility in schizophrenia. Schizophrenia Bulletin, 15, 9-43.
- Schou, M. (1990). Lithium treatment during pregnancy, delivery, and lactation: An update. *Journal* of Clinical Psychiatry, 51, 410-413.
- Schwab, B., Clark, N.E., & Drake, R.E. (1991). An ethnographic note on charts of parents. Psychosocial Rehabilitation Journal, 15, 95-99.
- Spielvogel, A., & Wile, J. (1986). Treatment of the psychotic pregnant patient. *Psychosomatics*, 27, 487-492.
- Spitzer, R., Endicott, J., & Robins, E. (1981). Research diagnostic criteria (3rd ed.). New York: State Psychiatric Institute, Biometrics Research.
- Stein, A., Cooper, P.J., Campbell, E.A., Day, A., & Altham, P.M.E. (1989). Social adversity and perinatal complications: Their relation to postnatal depression. *British Medical Journal*, 298, 1073-1074.
- Stewart, D.E. (1989). Psychiatric admission of mentally ill mothers with their infants. Canadian Journal of Psychiatry, 34, 34-37.

- Stott, S., Musick, J., Clark, R., & Cohler, B. (1984). Interventions for the severely disturbed mother. In B.J. Cohler & J.S. Musick (Eds.), Interventions among psychiatrically impaired parents and their young children (New directions for mental health services No. 24, pp. 7-32). San Francisco: Jossey-
- Talovic, S.A. (1984). High risk for schizophrenia: Father's contribution to child outcome (Doctoral dissertaion, University of Southern California, Los Angeles). Dissertation Abstracts International, 45, 2324A.
- Test, M.A., & Berlin, S.B. (1981). Issues of special concern to chronically mentally ill women. *Profes*sional Psychology, 12, 136–145.
- Test, M.A., Burke, S.S., & Wallisch, L.S. (1990). Gender differences of young adults with schizophrenic disorders in community care. Schizophrenia Bulletin, 16, 331-344.
- Thiels, C. (1987). Pharmacotherapy of psychiatric disorder in pregnancy and during breastfeeding: A review. Pharmacopsychiatrica, 20, 133-146.
- Thiels, C., & Kumar, R. (1987). Severe puerperal mental illness and disturbances of maternal behavior. Journal of Psychosomatic Obstetrics and Gynaecology, 7, 27-38.
- True-Soderstrom, B.A., Buckwalter, K.C., & Kerfoot, K.M. (1983). Postpartum depression. Maternal Child Nursing Journal, 12, 109-118.
- United States Department of Health and Human Services. (1991). International classification of diseases, 9th rev.: Clinical modifications (4th ed.). Washington, DC: DHHS, Public Health Service, Health Care Financing Administration.
- Verhulst, J., & Schneidman, B. (1981). Schizophrenia and sexual functioning. Hospital and Community Psychiatry, 32, 259-262.
- Wahl, O.F., & Hunter, J. (1992). Are gender effects being neglected in schizophrenia research? Schizophrenia Bulletin, 18, 313-317.
- Waldo, M.C., Roath, M., Levine, W., & Freedman, R. (1987). A model program to teach parenting skills to schizophrenic mothers. Hospital and Community Psychiatry, 38, 1110-1112.
- Wallace, C.J. (1986). Functional assessment in rehabilitation. Schizophrenia Bulletin, 12, 604-630.
- Watson, J.P., Elliott, S.A., Rugg, A.J., & Brough, D.I. (1984). Psychiatric disorder in pregnancy and the first postnatal year. *British Journal of Psychiatry*, 144, 453-462.
- Yalom, I.D. (1975). The theory and practice of group psychotherapy. New York: Basic Books.