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Social Perspectives on Mood Disorders

DAVID R. WILLIAMS, PH.D., M.P.H.

HAROLD W. NEIGHBORS, PH.D.

GROWING SCIENTIFIC EVIDENCE indicates that the prevalence of depressive disorders increased markedly in the last half of the twentieth century (Kasen et al. 2003; Kessler and Zhao 1999). Although debate persists regarding the underlying reasons for increasing rates of depression, it is implausible that they reflect marked changes in the genetic constitution of the population. Instead, changing environmental factors, including changes in social arrangements and role expectations, are likely to play a role. Given the substantial societal costs that are associated with mood disorders, including role impairment and disability, it is imperative that we develop an enhanced understanding of the social underpinnings of these disorders. In this chapter, we seek to provide an overview of factors in the social environment that can play a role as risk factors for the onset, course, and inappropriate treatment of mood disorders.

Social Distribution of Mood Disorders

The distribution of mood disorders is strongly patterned by several social factors, suggesting that the social environment may play a role in the onset of these disorders. We begin by examining some of these associations. We do not intend to be comprehensive but to provide some illustrative examples of the extent to which various social categories are associated with elevated rates of mood disorders. We draw heavily on examples from the Epidemiologic Catchment Area (ECA) study, a study of almost 20,000 institutionalized and noninstitutionalized adults, conducted between 1980 and 1983 in five communities in the United States (Robins and Regier 1991) and from the National Comorbidity Survey (NCS), the first study

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to use a national probability survey to assess psychiatric disorders in the United States, interviewing more than 8,000 adults between ages 15 and 54, and the NCS Replication.

Marital Status

Researchers have long noted a strong relation between marital status and the risk of depression. In the ECA study, both current marital status and marital history were strongly associated with the prevalence of mood disorders, even after sex, age, and race were controlled (Weissman et al. 1991). The widowed, and especially the separated and divorced, persons had higher adjusted odds of both major depression and bipolar disorder than did the currently married persons. Persons who were cohabiting or had a history of divorce, irrespective of current marital status, had elevated rates of bipolar disorders compared with married or widowed persons without a history of divorce. A similar relation existed for major depression. Persons who had never been married also had higher rates of bipolar disorder and major depression compared with married persons who had experienced no marital dissolution.

Data on the relation between household size and major depression (Weissman et al. 1991) may shed light on the strong relation between marital status and the prevalence of this disorder. In the ECA study, the prevalence of major depression was twice as high among persons living alone compared with those who lived with others, suggesting that social isolation may be a risk factor. However, among individuals not living alone, rates of mood disorders did not vary by household size. Further analyses suggest that it is the loss of being married (the disruption of marital status) that is the key risk factor for the elevated rates of mood disorders and not social isolation itself. For example, in the ECA study data, living alone was not related to an increased risk for mood disorders among unmarried adults. Similarly, other analyses of the ECA data found that for blacks and whites, men and women, never having been married was not significantly associated with an increased risk for major depression (Williams et al. 1992a).

Gender

One of the most consistent findings in psychiatric epidemiology is that the prevalence, incidence, and morbidity of mood disorders are higher for women than for men. These differences exist in many different cultures and countries throughout the world. In the ECA study, rates of bipolar disorder were comparable in men and women, but women had rates of major depression and dysthymia

that were more than twice as high as those in men (Weissman et al. 1991). Similarly, in the NCS, the prevalence of ever experiencing an episode of major depression and dysthymia was almost twice as high for women as for men (21.3 vs. 12.7 for major depressive episode and 8.0 vs. 4.8 for dysthymia) (Kessler and Zhao 1999). No gender difference was seen for mania; the lifetime prevalence was 1.6 for men and 1.7 for women. Piccinelli and Wilkinson's (2000) review of the determinants of gender differences in depression concluded that the gender differences in depressive disorders are not artifactual but reflect differences in the social experiences of males and females. Specifically, the available evidence suggests that gender differences in early exposures in childhood, sociocultural roles, and responses to adverse experiences play a critical role in the observed gender differences in depression. In addition, gender differences in psychological attributes and patterns of coping are likely to play a role. In contrast, fewer data indicate that genetics and biological factors play a role in the emergence of gender differences in rates of depression.

Socioeconomic Status

Low socioeconomic status (SES) is a risk factor for a broad range of health conditions, including mental illness. However, one report from the ECA study found a surprisingly weak association between SES and mood disorders. Measures of income, occupation, and education were unrelated to major depression, and only lower levels of education were associated with elevated rates of bipolar disorder (Weissman et al. 1991). However, the ECA findings differ by the indicator of SES used. When Holzer et al. (1986) used a composite measure of SES in the analyses of the ECA data, they found elevated rates of major depression at the lower levels of SES. These findings are consistent with those of the NCS. The NCS documented that the lowest levels of education and income were associated with elevated rates of any affective disorder (Kessler et al. 1994). Nonetheless, note that the association between SES and psychiatric disorders was weaker for mood disorders in both the ECA study and the NCS than for anxiety disorders or substance abuse (Holzer et al. 1986; Kessler et al. 1994).

Other data suggest that the association between SES and mood disorders varies by race/ethnicity (Dohrenwend 1990). For example, in the ECA study, major depression was inversely related to a composite measure of SES for white patients but unrelated for black patients (Williams et al. 1992b). Recent evidence also indicates that the association between SES and mood disorders is not limited to industrialized countries. A recent review

documented that lower levels of income were consistently associated with elevated risk of depressive disorders in 11 community studies in six developing countries (Patel and Kleinman 2003).

Several other social status categories closely related to SES also have been associated with elevated rates of mood disorder. A study in Canada found that single motherhood was associated with an increased risk of mood disorder (Lipman et al. 1997). Both economic deprivation and social isolation may be key underlying factors. Additional analyses showed that low-income single mothers were 2.5 times more likely to meet criteria for a mood disorder in the past year compared with more economically favored mothers in two-parent families. However, single mothers who did not have low income and low-income mothers in two-parent families did not have an elevated risk for mood disorder. In the ECA study, welfare recipients (persons financially dependent on public aid) had a risk of both bipolar disorder and major depression that was three times that of persons who were financially independent (Weissman et al. 1991). Other recent studies have continued to document that rates of depression are high among welfare recipients (Lennon et al. 2002).

Some evidence also suggests that exposure to sustained economic hardship may have a cumulative adverse effect on mental health status. The Alameda County Study defined economic hardship as total household income that was less than twice the federal poverty level and examined the association between exposure to economic hardship in 1965, 1974, and 1983 and mental health status in 1994. The study found a graded association between major depression and depressive symptoms with exposure to economic hardship (Lynch et al. 1997). Persons who had experienced economic hardship at all three waves were 3.2 times more likely to be clinically depressed than were those who had never experienced economic hardship. For depressive symptoms, the odds ratio was 1.7 for those who had experienced economic hardship once but 3.8 for those who had experienced economic hardship two or three times, compared with those who had not experienced economic adversity.

Employment status also has been related to the risk for mood disorders. Among persons younger than 65 in the ECA study, the currently unemployed had a higher risk of major depression than did those who were working. Similarly, persons who had been unemployed for at least 6 months in the previous 5 years were more than three times as likely as others to meet criteria for major depression (Weissman et al. 1991). In the NCS, the currently employed subjects had lower rates of any mood disorder than did homemakers or the unemployed, retired, and

disabled subjects (Kessler and Zhao 1999). Employment status also was more strongly associated with disorder risk for men than for women.

Urbanization

Increasing urbanization and exposures of larger proportions of the population to conditions linked to urban life may play a critical role in the increases observed in mood and other psychiatric disorders in the last century (Weissman et al. 1991). According to this view, large differences should be observed in the levels of psychiatric disorder in urban and rural areas.

This issue was examined at two sites of the ECA study—St. Louis, Missouri, and Durham, North Carolina—that provided variation in urbanicity. A profound pattern of urban–rural differences was observed in Durham, whereas the pattern in St. Louis was mixed. Rates of bipolar disorder were almost 4 times higher in urban than in rural areas in Durham, whereas rates of major depression were more than twice as high. In contrast, although rates of bipolar disorder were 2.2 times higher in urban St. Louis than in surrounding rural areas, the rates of major depression were significantly lower in urban St. Louis than in the adjacent rural areas.

Weissman and colleagues (1991) suggested that paying greater attention to the particular characteristics of specific geographic areas may be important in future research because they can shed light on the observed patterns. They noted, for example, that many of the rural areas in the Durham site of the ECA were substantially farther away from an urban center and less affected by urban spread than were the “rural areas” outside St. Louis. Accordingly, the greater urbanization of the St. Louis “rural areas” compared with those in Durham could account for the pattern of findings (Weissman et al. 1991). In the NCS, residents of rural areas reported slightly lower levels of mood disorders than did residents of urban areas, but the differences were not statistically significant (Kessler and Zhao 1999).

More generally, a comprehensive review of the literature on urban and rural differences in the prevalence of depressive and other psychiatric disorders also has found that the pattern of findings is mixed (Judd et al. 2002). This review concluded that a variety of sociodemographic factors are more strongly related to the prevalence of psychiatric disorders than is geographic location of residence. Judd and colleagues (2002) emphasized the need for future research that pays more attention to interactions between location of residence and other social and demographic characteristics.

Psychosocial Mechanisms: Stress, Social Roles, and Individual Vulnerability

It is very difficult to interpret the causal direction for all of the relations highlighted between the risk of mood disorders and social factors. Bidirectional influences are likely for many of the examples considered. For example, persons who are depressed may have greater challenges in both obtaining and maintaining a stable job. Similarly, someone with a history of mood disorders may be less desirable as a potential spouse, and the challenges of living with a depressed spouse could lead to marital disruption. In a similar vein, the presence of mood disorders could hinder individuals from obtaining or keeping jobs that would maintain their SES position or enhance social mobility. Thus, the presence of mood disorders or other mental illness could cause individuals to drift into lower SES groups or to fail to climb out of low SES positions at rates comparable to those of healthy adults. Nevertheless, the social distribution of mood disorders highlights the need to identify the social and psychological exposures that may lead to increased risk. We now consider the available research on key social processes and experiences that may affect the mental health risk of all people but that may systematically be differentially distributed across social groups.

Stress and Mood Disorders

A large body of research suggests that exposure to stressful life experiences may be an important link between the social environment and the risk for mood disorders. Stressful life experiences are often divided into acute life events and chronic stressors. Life events are discrete, observable stressors, whereas chronic stress refers to ongoing problems that can be divided into major role-related ones and minor irritations that are often called daily hassles. A comprehensive review of the literature on life events and depression came to four major conclusions (Kessler 1997):

1. A consistent association is seen between exposure to life events and subsequent reports of the onset of major depression.
2. The magnitude of this association varies by the assessment of life events; the association is stronger when specific features of stressful life experience are taken into account.
3. The association between life events and depression is consistently one of a dose-response relation; severe events are more strongly associated with major depression compared with events that are not severe.

4. Life events occur at a relatively high frequency in the general population, and most depressed patients experience a stressful life experience shortly before the onset of their depression. At the same time, most people who experience life events do not become depressed.

Other recent reviews provided additional evidence to support a strong association between exposure to life stress and mood disorders (Paykel 2001; Tennant 2002).

The work of George Brown and colleagues (Brown 2002; Brown and Harris 1978) illustrates both the strength of the association between stressful life events and major depression and many of the complexities in understanding and studying this association. These researchers have been studying the psychosocial factors linked to the onset of depression among working-class women in London, England. This body of research views depression as closely linked to the quality of core social roles and emphasizes the importance of understanding both the meaning that stressful life experiences has for the individual and the social context in which these experiences unfold. For example, an experience of unemployment must be understood in the light of the unemployment rate in the local community, the probability of that individual obtaining a new job, the economic resources of the individual's household, and the likely psychological and economic effects that the loss of income would have on the household unit.

The early research of Brown and Harris (1978) suggested that depression was triggered by exposure to severe events that included loss. *Loss* was broadly defined and could include the loss of a person, a social role, an important plan, or a cherished idea about one's self or a significant other. This view that loss was the key pathogenic characteristic of stressful experiences differed markedly from the prevailing view of the time, which focused on the change and adjustment caused by life events. Interestingly, Brown's work showed that severe stressful events that involved only danger were not important in predicting the risk for depression, although they played an important role in predicting the risk for anxiety disorders. However, subsequent analyses of these data suggested that the key aspects of stressful life experiences that increase the risk for major depression are those that engender feelings of entrapment and humiliation (Brown 2002). It appears that the perception of attacks on an individual's self-esteem; the undermining of a person's sense of rank, attractiveness, or value; and the experiences that seem to afford no opportunity of escape are the key factors that trigger depression. The finding that humiliation and entrapment are the key pathogenic aspects of stressful experiences was initially observed in studies of working-class women in London but has since been replicated cross-

culturally in contexts as diverse as Zimbabwe, rural Spain, and the Outer Hebrides (Brown 2002).

Social Context, Social Roles, and Exposure to Stress

Exposure to stress is not randomly distributed in society. The larger social context of the individual, such as the stage of the life course and the social roles that one occupies in society, can determine exposure to stress and thus the risk for mood disorders. For example, the probability of exposure to certain stressful experiences increases with age. These include the onset or exacerbation of severe or life-threatening illness, the loss of a spouse or other loved one, disability, and a lack of social contact. In turn, all of these specific stressful experiences have been associated with the onset of depression among the elderly (Bruce 2002).

Research on gender and depression provides an illustration of how occupying certain roles in society can affect stress exposure and mental health risk. A British study of couples who had shared in the experience of a severe stressful event found that a gender difference in depression did not exist for the small number of men who had major domestic responsibilities within the household (Brown 2002). Other evidence suggests that gender differences are markedly reduced when men hold traditional women's roles. For instance, the higher prevalence of symptoms of depression among women than men is reversed when men and women are not in their traditional roles (Rosenfield 1999a). Similarly, wives who are employed have lower depression scores than do their husbands, and when women or men earn less relative to their spouses, they experience more symptoms of depression (Rosenfield 1999b). A study of teachers in Australia also found a reduction in gender differences in depression when gender roles converged (Wilhelm and Parker 1989). In addition, although women are generally better at providing emotional support than men, men who are the primary providers of child care have social support skills that are comparable to those of women (Risman 1987). Other evidence suggests that compared with men, women have lower levels of self-esteem and mastery, stronger identification with the feelings of others, and higher levels of emotional distress in response to the stressful events that happen to others (Rosenfield 1999b). All of these factors are linked to the risk of mental health problems and rooted in the socialization experiences. Thus, gender differences in socialization and social arrangements appear to play a major role in the stable pattern noted for gender differences in mood disorders.

Early Life Stressors and Adult Risk of Mood Disorders

Kendall-Tackett (2002) reviewed the literature on the relation between early childhood abuse and its behavioral, social, cognitive, and emotional sequelae. The conclusion of this review was that depression is one of the most common consequences of early childhood abuse. Some evidence suggests that the risk for depression is four times greater among adult survivors of childhood sexual abuse compared with those who do not have a history of abuse. Moreover, the evidence suggests that childhood sexual abuse makes an independent contribution to the risk for depression over and above other adverse events in childhood. Kessler (1997) also concluded that separation from a parent, family turmoil, parental psychopathology, and physical and sexual abuse are childhood adversities that have been reported more often by depressed adults.

The work of Brown (2002) and colleagues also has highlighted the importance of understanding how the social factors that determine the risk for depression unfold over the life course. Moreover, it is crucial to understand how these factors are related to one another and can create a "conveyor belt" of adversities. For example, the loss of a mother before age 11 years was associated in the initial work of Brown with an increased risk for depression once a severe event had occurred. Other childhood factors that increase the risk for depression in adulthood include marked parental neglect, physical abuse from a core social tie, or sexual abuse.

Brown's (2002) research also has identified some of the mechanisms that link exposure to early life stressors to the risk for mood disorders. For example, the early loss of a mother turned out to be important primarily because it increased the risk for neglect and abuse during childhood. In addition, the early experience of abuse and neglect could adversely affect a woman's self-esteem as well as her long-term ability to relate to others by leading to either an avoidance style that creates difficulty in establishing intimacy with others or an overdependent style in intimate relationships. That is, early childhood adversity can create psychological vulnerability that, in turn, can affect one's ability to relate to others and obtain social support, as well as increase exposure to severe events. For example, underlying social and psychological vulnerability can affect one's choice of a partner, which can determine exposure to a broad range of stressful life experiences.

Economic Change as a Macro Stressor

The stress literature identifies macro stressors as a distinct subtype of stress. Macro stressors are large-scale,

systems-related stressors such as major economic changes and recessions. Aggregate indicators of such changes also have been related to rates of mental health problems. Economic change has long been suspected to have effects on mental health beyond the employees involved in the change (Weyerer and Wiedenmann 1995). Durkheim (1951) suspected that rapid economic change led to various forms of instability and suicidal behavior. Brenner (1969) studied the relation between economic change and psychological well-being. In a seminal study of mental hospitals in New York State, Brenner found that those belonging to lower socioeconomic groups experienced more psychiatric symptoms than those belonging to higher socioeconomic groups during periods of economic change. Although these results highlighted the importance of economic change for mental health, the actual causal factors to explain this link were not fully detailed. Catalano and Dooley's (1977) study of Kansas City, Missouri, residents represented an attempt to explain the link between economic change and depressive symptoms. These researchers documented that economic change was related to a significant increase in stressful events, which led to an increase in depressed mood.

Weyerer and Wiedenmann (1995) identified economic change as consisting of five broad indicators: 1) supply indicators, 2) activity indicators, 3) labor market indicators, 4) business statistics indicators, and 5) indicators of field structure change. Supply indicators include price index or income changes, whereas activity indicators include alterations in traffic, export, production, or investment volume caused by economic change. Labor market indicators include changes in unemployed and employed quotas and labor force participation, and business statistics indicators include information such as bankruptcy rates and the number of businesses in a particular area. Finally, indicators of field structure change may include changes in the distribution of the gainfully employed in a geographically defined area (Weyerer and Wiedenmann 1995).

Some research has examined the various components of these indicators. For example, Catalano and Dooley (1977) found large effects of economic change, when defined by supply indicators, on depressed mood for low-income groups. Ganzini et al. (1990) used "catastrophic financial loss" as a supply indicator and found positive associations with depressive symptoms. These two studies suggested that sudden changes in personal or household income may increase the risk for depression. Other studies have assessed the mental health correlates of activity and labor market indicators. Aneshensel and Sucoff (1996) used social disorder as an indicator of economic activity change and found positive associations with depression and anxiety in an adolescent population. Cohen and Glass

(1973) measured neighborhood noise as an activity indicator and found positive associations with anxiety.

These relations may be consistent for labor market indicators as well. For example, Tiggemann and Winefield (1984) found positive associations with depression, whereas Trovato (1986) found significant positive associations between labor market indicators and depression and suicide. Furthermore, Weyerer and Wiedenmann (1995) found positive associations between labor market indicators such as "frequency of bankruptcy" and "unemployment" and rates of depression and suicide. Similarly, Dooley et al. (2000) found higher rates of underemployment associated with increased risk of depression. Also, Beiser and Hou (2001) used "unemployment due to language fluency" as a labor market indicator and also found positive associations with depression. Other labor indicators of economic change assessed in the literature include concentration in secondary labor market and welfare system (Bennett 1987), level of managed health care (Domino et al. 1998), and transition from welfare (Dooley and Prause 2002). Bennett (1987) and Domino et al. (1998) focused on these indicators associated with depression, and Dooley and Prause (2002) considered the effect of transition to welfare on various psychiatric symptoms.

Finally, several investigators have reviewed the contributions of field structure characteristics and business statistics as indicators of economic change. Neff (1983) assessed levels of urbanization to evaluate field structure and found great usefulness in this consideration during a critique of the issue, whereas Desjarlais et al. (1995) assessed urban life as a field structure characteristic and found positive associations with depression. Heffernan and Heffernan (1986) assessed farm economic crisis as a field structure characteristic and found a positive relation with anxiety and depression, whereas Hoyt and colleagues (1997) show how rural economic stress is also a field structure that can affect psychological distress. Investigators also have used real income and frequency of bankruptcy as business statistics indicators and have found associations with depression and suicide (Weyerer and Wiedenmann 1995).

In summary, considerable empirical evidence suggests that exposure to stressful circumstances, at multiple levels of analysis, may play an important role in the onset of mood disorders. Moreover, they may importantly account for the social distribution of mood disorders. For example, Avison's (1997) research in Canada documented that stress plays a crucial role in the increased risk for major depression in single mothers. This relation is a result of the greater exposure of single mothers to acute and chronic stress but not a result of deficits in social competence or psychological resilience. Similarly, in a study of

couples who had experienced the same severe event, Brown (2002) and colleagues found that the gender difference in the risk for depression could be completely accounted for by women's greater susceptibility to stressful events involving children, procreation, and housing.

Stress and Mood Disorders: Vulnerability and Protective Factors

As noted earlier, it is well documented that most individuals who are exposed to stress do not become depressed. For example, the initial work of Brown (2002) and his colleagues found that only about 20% of women who experienced a life event that was rated as severe according to their strict criteria developed depression, and only about one-third of those who had a severe event involving humiliation or entrapment developed clinical depression. There are several reasons that most persons exposed to stressful life experiences do not become depressed (Bruce 2002). First, many of the measures of stress do not adequately capture the relevant characteristics of stressors that are consequential for increasing the risk of mood disorders. Second, several stressors may work to increase the risk for mood disorders only in the context of other biological, genetic, or psychosocial variables that modify risk. Gender is an example of the latter. The risk of major depression associated with marital separation and divorce is greater for men than for women. Finally, the effect of a stressful life event may be dependent on other personality factors such as neuroticism or on the background level of chronic stressors in the individual's life.

Social status itself may also be a vulnerability factor. Persons of lower SES, as indicated by fewer years of education, low occupational status, and low income, are more vulnerable to undesirable life events, including loss of income, ill health, marital separation and divorce, other love loss, death of a loved one, and negative events within the respondents' network. Exposure to these stressors is more likely to lead to psychological distress for those of low SES than for more advantaged persons (McLeod and Kessler 1990).

The work of Brown (2002) and colleagues illustrated the central role played by vulnerability factors in affecting the strength of the association between exposure to stressful life experiences and major depression. They identified two classes of vulnerability factors: 1) psychological factors, such as low self-esteem and chronic clinical or subclinical anxiety or depression, and 2) a negative environmental factor related to the quality of social relationships in the home or the absence of a close confiding relationship with someone seen regularly. These two factors are also related to each other in complex ways. For

example, the quality of core social ties in adulthood has an important influence on current self-esteem. Importantly, their work showed that a severe stressful event seldom led to the onset of major depression without the presence of at least one of these vulnerability factors. Other research confirmed that the quality of core social ties and the receipt of emotional support from family or close friends can be crucial protective factors from depression (Paykel 1994).

Social factors also shape exposure to these vulnerability factors. For instance, Brown (2002) illustrated the multiple ways in which poverty can shape exposure to the vulnerability factors for depression. Poverty can lower a sense of self-esteem and morale and adversely affect the quality of emotional support while contributing to a sense of continuing entrapment and hopelessness and increasing the individual's exposure to abuse and neglect during childhood.

Religion as a Resource

There is growing research interest in the ways in which religious involvement and participation may play a role in mental health. Religious involvement appears to be a neglected resource that can beneficially affect mental health in multiple ways (Ellison and Levin 1998; Ellison et al. 2001; Williams 1994). First, religious institutions can supply friendship networks that can provide emotional and instrumental support as well as a feeling of connectedness and belonging. Second, religious beliefs and values can provide systems of meaning that can help individuals to interpret and reinterpret stressors in ways that can reduce their negative emotional consequences. Third, religious beliefs can provide feelings of strength to cope with adversity. Fourth, by encouraging moderation in all things and discouraging negative health behaviors, religious involvement can reduce risk-taking behavior and exposure to stress. Finally, it is also recognized that there can be a dark side to religiosity. Religious beliefs and participation can generate stress, role conflicts, social conflicts, criticism, and ostracism that can adversely affect mental health.

Levels of religious involvement are very high in the United States and some other countries. A national study of prayer in the United States concluded that despite the neglect of religion by researchers, more Americans (88%) pray than have sex (Poloma and Gallup 1991). Moreover, many persons turn to religion when coping with stress. For example, a national survey that was conducted within 3–5 days of the September 11, 2001, terrorist attacks in the eastern United States found that 90% of the adults reported that they turned to prayer, religion, or spiritual

feelings to cope with these events (Schuster et al. 2001). However, the relation between religiosity and prayer is complex and may vary by the indicator of religious involvement under consideration. One community survey found that in response to stress, prayer increased, but church attendance declined (Lindenthal et al. 1970).

Several studies have found that higher levels of religious attendance are associated with lower levels of depressive symptoms (e.g., Levin et al. 1996; Strawbridge et al. 1998). A review of some 80 studies concluded that individuals with high levels of general religious involvement, public participation (religious attendance), religious salience, and intrinsic religious motivation were at a reduced risk for depressive symptoms and depressive disorders (McCullough and Larson 1999). Similarly, compared with the religiously affiliated, people with no religious affiliation and from certain affiliations had an elevated risk of depressive symptoms and disorders. At the same time, private religious activity showed no reliable relation with depression, and people with extrinsic religious motivation (involved with religion for utilitarian reasons) were at increased risk for depressive symptoms. This review concluded that although the observed patterns were consistent, they were modest in size and substantially reduced in multivariate research. A more recent meta-analysis of 147 studies that examined the association between religiousness and depressive symptoms also concluded that the relation of high religious involvement to fewer symptoms of depression was strong but modest in size (Smith et al. 2003). This review also found that both an extrinsic religious orientation and negative religious coping were associated with elevated symptoms of depression.

Other evidence suggests that religious involvement can buffer or reduce the negative effects of stress on mental health (Schnittker 2001). For example, in a prospective analysis of data from New Haven, Connecticut, religious attendance did not directly reduce psychological distress, but it buffered the negative effects of undesirable life events and health problems on subsequent mental health (Williams et al. 1991). A more recent study found that a strong belief in eternal life reduced the negative effects of work-related stress on psychological distress (Ellison et al. 2001). However, cross-sectional analysis from the Alameda County Study highlights the complexity of these associations. This study found that religiosity reduced the negative effects of nonfamily stressors (financial problems, neighborhood stress, chronic illness) on depressive symptoms (Strawbridge et al. 1998). At the same time, it exacerbated the effects of child problems and family stressors on depression. The authors suggested that stressors

that raise conflicts with values emphasized by religious organizations (e.g., unruly children, difficult marriages) may lead to feelings of stigmatization and low levels of active conflict resolution.

Further evidence of the potential positive and negative effects of religious involvement comes from research on religious coping. For example, a study of members of two churches coping with the 1995 bombing of the federal building in Oklahoma City, Oklahoma, found that positive religious coping (e.g., looking to God for strength, support, and guidance; trying to find a lesson from God in the crisis) was more strongly related to improved mental health status over time than was negative religious coping (e.g., felt that the bombing was God's way of punishing me; wondered whether God had abandoned us) (Pargament et al. 1998).

Investigators have much to learn about the ways in which religious involvement can enhance or impair mental health. The current literature on religion and mental health is characterized by inadequate conceptualization of religious variables and limited assessment of religion (Hill and Pargament 2003). Greater attention needs to be given to the mental health consequences of explicitly religious beliefs and behavior, such as forgiveness (Krause and Ellison 2003; Toussaint et al. 2001). The role of religious rituals and symbols has been neglected, and there are some suggestions in the literature that both the psychosocial environments of some congregations (Pargament et al. 1983) and the aspects of some religious services can facilitate the reduction of tension and the release of emotional distress (Gilkes 1980; Griffith et al. 1980). In fact, some evidence suggests that the rituals of at least some religious services provide all the key elements of a therapeutic encounter between a patient and a clinician (Griffith et al. 1980, 1984).

The extent to which spirituality as distinct from religiosity can affect mental health is another important issue to be resolved (Nelson et al. 2002). A recent national study highlighted some of the challenges in this area. More than half of Americans (52%) rated themselves as high on religiosity and spirituality, with 10% as spiritual only, 9% as religious only, and 29% as neither spiritual nor religious (Shahabi et al. 2002). Interestingly, respondents who were both spiritual and religious manifested the highest levels of public and private religious practice and the lowest levels of psychological distress. Other important issues requiring further study are the role of the clergy as gatekeepers to the mental health system (Neighbors et al. 1998; Wang et al. 2003), the counseling activities of the clergy (Young et al. 2003), and the efficacy of religiously oriented psychotherapy (Berry 2002).

Social Factors and the Course of Mood Disorders

Riso and colleagues (2002) have explored a broad range of factors that might play a role in determining the chronicity of depression. They reviewed the literature on developmental factors, personality and personality disorders, psychosocial stressors, comorbid disorders, biological factors, and cognitive factors. They concluded that at present, the strongest evidence is for the role of developmental factors in predicting the chronicity of depression. The key developmental factors are sexual or physical abuse in childhood or poor early relationships with parents. However, neuroticism, an important personality characteristic that refers to emotional instability, also seems to be a strong predictor of the chronicity of depression. Neuroticism is often used as a marker for heightened stress reactivity. Heightened stress reactivity and chronic stressors, such as ongoing medical illness or extended unemployment or marital discord, are also implicated as predictors of chronic depression (Riso et al. 2002). Other research indicates that difficulties are associated with a slower speed of recovery from a major depressive episode (Kessler 1997).

Lewis (1998) reviewed the literature suggesting that the quality of marital relationships is a strong predictor of both the severity and the course of mood disorders. This research found that high levels of emotional support from a spouse or high levels of marital conflict were among the strongest predictors of positive or negative outcome, respectively, of the treatment of major depression. Other studies found that adults who are vulnerable to depression because of the loss of a parent during childhood, for example, are protected from such risk if they receive a high level of emotional support from their spouses. In general, this research documented that a close, confiding relationship can buffer against the onset of depression, whereas diminished marital quality can increase the severity and recurrence of depression (Lewis 1998).

Social Factors and the Treatment of Mood Disorders

Social factors are also related to both access to mental health treatment and quality of treatment for mood disorders. The organization and financing of mental health services vary across different societies, and these differences can create large inequities in the treatment of mood disorders. For example, the mental health system in the

United States is fragmented organizationally and in its various sources of funding (U.S. Department of Health and Human Services 1999). These organizational characteristics combined with more generous insurance coverage for general medical care than for mental disorders have created many barriers to care. System-related barriers (e.g., inadequate funding, time pressure) often combine with patient-related (e.g., denial of psychological symptoms because of stigma) and provider-related ones (e.g., underdetection of depression and suicide risk) to adversely affect the quantity and quality of care for mood disorders.

Many individuals with mood disorders never contact a mental health care professional about their symptoms. The estimated utilization rate for individuals with depression ranges from 18.7% to 64.0% in various studies (Bland et al. 1997; Galbaud du Fort et al. 1999; Goodman and Huang 2002; Schichor et al. 1994). Some evidence suggests that help-seeking rates for major depression are increasing over time. The NCS Replication recently reported that 57% of the respondents meeting criteria for major depressive disorder in the past 12 months had received some type of treatment (Kessler et al. 2003).

Several social factors are associated with the likelihood of help seeking: being a woman, being younger than 45 years, living alone, living in a big city, and having more severe symptoms increased the likelihood of seeking treatment. Galbaud du Fort et al. (1999) reported lifetime treatment-seeking rates of 69.0% for those with major depression, 59.0% for those with a depressive illness in association with bereavement, and 57.0% for those with dysthymia. This study also found that being female and having psychomotor retardation, suicidal ideation, older age at first onset, and comorbidity with mania and panic disorder increased the likelihood of treatment seeking. In addition, comorbidity with drug abuse or dependence reduced the likelihood of professional contact (Galbaud du Fort et al. 1999). Parikh et al. (1996) found significant urban-rural differences in professional help seeking for depression. Specifically, 55% of the urban respondents compared with only 40% of the rural respondents with depression sought help. Factors found to significantly increase treatment seeking were being female, having increased associated functional impairment, and having other psychiatric disorders comorbidly. Other barriers to help seeking include difficulties in setting aside time for seeking help among working men and women (Fox et al. 2001) and the general public's attitude toward psychiatric disorders (Mojtabai et al. 2002).

Social factors also appear to affect the type of treatment received. Some research indicates that the quality of treatment for mood disorders varies by the place where it is received, with specialty mental health settings provid-

ing better overall quality than primary care settings. In particular, the rates of recognition of mood disorders and the appropriate treatment of them are low in primary care settings. Poor recognition can lead to unnecessary and expensive diagnostic procedures, and fewer than one-half of the depressed patients in primary care settings receive antidepressant medication according to recommended guidelines for dosage and duration (U.S. Department of Health and Human Services 1999). It is not surprising that 40% discontinue their medication during the first 4–6 weeks of treatment. In the United States, African American and Hispanic patients are more likely than white and Asian patients to seek treatment in the general medical sector rather than mental health specialty settings (Cooper et al. 2003; Sussman et al. 1987). Low SES is also associated with consulting a primary care physician rather than a specialist (Goodman and Huang 2002).

Mood disorders affect individuals in various ways, and people react quite differently to symptoms. Many people and their families do not recognize the symptoms of depression, are not aware that it is a medical illness, and do not know how it is treated. For example, one study found that among those individuals who met criteria for mood, anxiety, or substance use disorder, only 32% actually perceived a need for professional help. Furthermore, only 59% of those who saw a need for treatment actually sought help (Mojtabai 1999). Many in the general public think that depression is a normal part of aging. Many others, particularly men, view depression as a character flaw and as a sign of weakness. As a result, a significant amount of stigma remains attached to the idea of admitting or acknowledging symptoms of depression. The stigma against individuals with mood disorders has a major influence in determining whether an individual seeks treatment (U.S. Department of Health and Human Services 1999).

A report from the Institute of Medicine in the United States suggested that social factors also may systematically affect the quality and intensity of treatment of a broad range of health conditions, including mood disorders (Smedley et al. 2003). This review of the available research showed that across virtually every therapeutic intervention, ranging from high-tech procedures to the most elementary forms of diagnostic and treatment interventions, minorities received fewer procedures and poorer-quality medical care than did whites. Moreover, these differences persist even after differences in health insurance, SES, stage and severity of disease, comorbidity, and the type of medical facility are taken into account. Mental health was no exception to this pattern. We provide one example of the many studies of mental health treatment.

A study of 13,065 Medicaid patients diagnosed with major depressive episode found that black patients (28%)

were less likely than white patients (44%) to receive antidepressant medication within 30 days of initial diagnosis (Melfi et al. 2000). This finding is important because clinical trials showed that black patients are more likely than white patients to respond to adequate antidepressant treatment. Moreover, after the investigators adjusted for demographics, provider type, and comorbidity, black patients were 55% less likely than white patients to receive any antidepressant. Of those receiving an antidepressant, black patients were 25% less likely than white patients to receive selective serotonin reuptake inhibitors compared with tricyclic antidepressants as the initial antidepressant. This difference is also instructive because other research indicated that black patients are more susceptible than white patients to side effects linked to tricyclic antidepressant use.

These racial disparities in care are striking. The ability to identify them was linked to the availability of racial identifiers in the medical records. It is likely that other social characteristics such as SES and gender also may predict variations in the quality of care provided to patients with mood (and other) disorders. Understanding the generalizability of these patterns and the factors causing them is an important priority for future research.

Needed Research

Several methodological problems need to be addressed in future research on the relation between stressful life experiences and major depression (Kessler 1997). Existing research has given inadequate attention to the role that accuracy in reporting life events may play in the observed relation between depression and stress. Given that depression can cause some life events, it is important to be able to clearly date the occurrence of stressful life experiences in relation to depression. Some research has attempted to address this issue by distinguishing the relation between dependent events and independent events with depression. Dependent events are those that could plausibly be a consequence of the individual's own action. Importantly, this research found that independent events are related to the risk for depression (see Kessler 1997).

Issues regarding the accuracy of reporting of stressful experiences are especially salient for the measurement of childhood adversities. Retrospective reports of childhood experiences have been critiqued because of the following observations: 1) the low reliability and validity of autobiographical memory, 2) memory impairment among individuals who have psychiatric disorders, and 3) mood-congruent memory biases that are also associated with psychopathology. Although some of the association be-

tween major life events and depression may be a result of events that cause depression, the condition itself may elicit difficulties or make them worse. More recent studies considering memory biases and reciprocity in the causal relation between life events and mood disorder still have detected a significant relation that is attributed in part to one or more precipitating life events.

Another important issue for future research is the need to enhance our understanding of the ways in which chronic and acute stress relate to each other and combine to affect the risk for mood disorders. Chronic stress is difficult to measure well, but chronic stress in major domains such as work and marriage likely plays an important role in exacerbating the effects of life events on episodes of major depression (Wethington et al. 1995). Other evidence suggests that chronic stress may mediate the relation between life events and depression. For example, research indicates that the adverse effects of unemployment on depression are partially mediated by chronic financial stress, and the relation between the loss of a spouse and depression is partly mediated by social isolation (Kessler 1997).

Future research must distinguish social factors that affect the first onset of mood disorders from those that affect recurrence, as well as those that affect the speed of recovery (Kessler 1997). Greater attention to the role of the history of depression also can shed important light in helping us to understand the pathways by which social factors affect depression risks. For example, Kessler (1997) showed that although the point prevalence of major depression is higher among women than among men, no sex difference is found in the recurrence of depression or in the speed of recovery from an episode of depression. He showed that in the ECA data, 91% of the respondents who reported an episode of depression in the past 12 months had a history of depression. Thus, it is important to control the history of depression in studying the short-term effects of stressors on depression. Relatedly, future work on risk factors for depressive episodes needs to look separately at the predictors of onset and the predictors of recurrence.

With the explosion of research on genetic risks for mood disorders that is likely to accompany the recent characterization of the human genome, new opportunities to understand how genetic predispositions combine with environmental triggers to affect the risks for mood disorders are probable. Variability within the gene pools of populations is unlikely to explain the large differences in rates of depression that have been observed across populations; nonetheless, genetics may play an important role in depression by determining certain temperamental aspects of personality that may increase vulnerability to environmental exposures (Brown 2002).

Conclusion

We suggest that there are pervasive ways in which social factors affect the risk for mood disorders and the course and treatment of these conditions. The evidence that the levels of these disorders and their societal costs are, at least in part, socially determined suggests that multiple opportunities exist for interventions to potentially reduce rates of mood disorders and the disability burden that they create in society. More research is needed to better delineate both pathogenic and health-enhancing psychosocial factors and the mechanisms and processes by which they operate. A central goal of such efforts should be to facilitate the identification of key intervention strategies that can improve mental health and well-being.

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