

Marital Status and Psychiatric Disorders Among Blacks and Whites*

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This paper examines the association between marital status and psychiatric disorder for Blacks and explores the extent to which these patterns differ from those for Whites. Widowed and separated/divorced Black males and females have higher rates of disorder than the married; never-married Blacks do not have an elevated risk of psychiatric illness. The association between marital status and disorder for White males is similar and stronger than that observed for Blacks. For White women, the separated/divorced have a higher risk of disorder than the married, and unmarried White females have higher rates of the substance abuse disorders, but lower rates of the anxiety disorder than the married. Across all marital status groups, Black males and White males have higher rates of disorder (except for depression), than females. A complex pattern emerges when gender differences in the relative rates of disorder for unmarried Blacks compared to married Blacks are considered. Separated/divorced Black men, widowed Black women, and never-married Black men are worse off than their respective peers. Except for the separated/divorced, opposite patterns are evident for Whites. Directions for further research are outlined.

INTRODUCTION

Previous research suggests that married persons are less likely to be mentally ill than the unmarried. However, most studies have concentrated on the White population, and relatively little is known about the association

between marital status and psychiatric illness within the Black (or African-American) population. It also has been suggested that men benefit more from marriage than women. We do not know for the Black population whether rates of mental disorder are higher

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The Epidemiologic Catchment Area Program was established as a series of five epidemiologic research studies performed by independent research teams in collaboration with staff of the Division of Biometry and Epidemiology (DBE) of the National Institute of Mental Health (NIMH). The five sites are Yale University, U01 MH 34224; Johns Hopkins University, U01 MH 33870; Washington University, U01 MH 33883; Duke University, U01 MH 35386; and University of California, Los Angeles, U01 MH 35865.

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MARITAL STATUS AND MENTAL HEALTH

One of the most important findings in psychiatric epidemiology is that married persons enjoy better mental health than unmarried (Bebbington and White 1978; 1980). Researchers have found the highest rates of disorder among the divorced and separated, followed by the single and widowed (Martin 1976). Compared to married persons, divorced persons are more likely to use inpatient psychiatric services, are times more likely to be hospitalized in clinics (Seagraves et al. 1980). There is evidence for the association between marital status and psychiatric illness in studies of patient hospitalization rates, and in cross-sectional findings to the general population. At the same time, there is evidence of distress and life dissatisfaction in the national population. Interestingly similar findings about the association between marital status and mental illness is robust across cultures (Siddique 1980; 1960; Warheit et al. 1980).

Most of our knowledge about the association between marital status and mental health comes from studies of the White population. About this relationship, however, the changing patterns in the Black community are less understood. The association between marital status and mental health during the last few decades of married persons has declined dramatically in the hood of Black females (et al. 1990; Wilsnack et al. 1980). It is likely that Whites (married), divorced

for males or females within specific marital status groups, or whether unmarried males or females have greater risk of psychiatric disorder than the married. This paper uses data from the Epidemiologic Catchment Area (ECA) program to assess the association among marital status, gender, and psychiatric illness for Black people and White people.

MARITAL STATUS, RACE, AND MENTAL HEALTH

One of the most consistent findings in psychiatric epidemiology is that married persons enjoy better mental health than the unmarried (Bebbington 1987; Bloom, Asher and White 1978; Gove 1972; Seagraves 1980). Researchers have consistently found the highest rates of mental disorder for the divorced and separated, the lowest rates for the married, and intermediate rates for the single and widowed (Bloom et al. 1978; Martin 1976). Compared to the married, divorced persons are 6-10 times more likely to use inpatient psychiatric facilities and 4-5 times more likely to be clients in outpatient clinics (Seagraves 1980). Since much of the evidence for the association between marital status and psychiatric disorder comes from studies of patients in treatment and of hospitalization rates, the applicability of these findings to the general population is not clear. At the same time, studies of psychological distress and life satisfaction in local and national population-based samples yield strikingly similar findings and suggest that the association between marital status and mental illness is robust and generalizable (D'Arcy and Siddique 1985; Gurin, Veroff and Feld 1960; Warheit et al. 1976).

Most of our knowledge of the association between marital status and mental health comes from studies of Whites. Little is known about this relationship among Blacks. However, the changing family structure in the Black community suggests a critical need to understand the association between marital status and mental health among Blacks. During the last four decades, the proportion of married persons in the Black population has declined dramatically, as has the likelihood of Black females ever marrying (Taylor et al. 1990; Wilson 1987). Blacks are more likely than Whites to be single (never-married), divorced, and separated, and are

less likely to remarry after marital dissolution. Currently, 47 percent of Black families are headed by women, and over half of these female-headed households are poor (Bennett 1987). Thus, unmarried Black women are especially likely to be under severe financial stress, a known risk factor for mental health problems (Pearlin et al. 1981). If being unmarried predisposes individuals to mental health problems, then a large and growing portion of the Black population is at risk for psychiatric disorder.

The available evidence on the marital status-mental health association among Blacks is equivocal. According to findings from a study in the southeastern United States, marital status was not significantly related to psychological distress for Black males (Warheit et al. 1976). Separated and widowed Black females had significantly higher psychological distress scores than single, married, and divorced Black females. Moreover, among the marital status groups, divorced Black females had the lowest rate of psychological distress. Dressler and Badger (1985) studied the relationship between marital status and depressive symptoms across three Black communities: rates of depression were elevated for the separated and divorced compared to the married. However, single persons had the highest rate of depressive symptoms at one site but the lowest in another. The widowed had the lowest rate in the third site, but tied with the separated and divorced for the highest rate in one of the other sites.

One reason for the lack of clear information on marital status variations in mental health for Blacks is that research on the mental health of African-Americans has been dominated by a race-comparison paradigm in which the health status of Blacks is compared to that of Whites. Much research on Blacks merely compares them to Whites in a mechanical and atheoretical manner (Gary and Howard 1979). Blacks and Whites may be culturally distinct groups (Neighbors 1984) that vary across a broad range of socioeconomic factors (Jaynes and Williams 1989). A comparative approach is needed that focuses on variability within the Black population (Neighbors 1984). Such analyses can advance our theoretical understanding of the relationship between social stratification position and health outcomes and enlighten us to the

causes and consequences of social status variations in health.

Some limited evidence suggests that marital status variations in mental health for Blacks may differ from those for Whites. Divorce, for example, appears to be less stressful for Blacks, especially Black females, than for Whites. Compared to their White peers, divorced Black females experience less stigmatization, more support from family and friends, and less erosion of their sense of self-worth (Gove and Shin 1989). Other important differences between Black and White family life may have implications for mental health. Black women are more likely to be employed outside of the home than White women (Taylor et al. 1990), and paid employment is positively related to mental health for women (Ross, Mirowsky and Goldsteen 1990). Black men are more likely to endorse the view that women should be employed and also are more likely to assist in housework and child care than their White counterparts (Taylor et al. 1990). This race difference in levels of egalitarianism among married couples could affect mental health functioning.

MARITAL STATUS, GENDER, AND MENTAL HEALTH

The role of gender in modifying the association between marital status and mental health has been a subject of considerable research and controversy, but virtually no effort has been made to address this issue for the Black population. Gove (1972) argued that the overall rate of mental illness for women exceeds that for men because married women are more likely to be mentally ill than married men; unmarried women are as likely or less likely to be mentally ill as men. Some early evidence based on admissions to psychiatric facilities indicated that married women had higher rates of disorder than married men (Bernard 1972; Gove and Tudor 1973). More recent evidence presents a more complex picture. Inpatient data indicate that disorder rates are higher for males than for females in all marital status categories, while outpatient treatment data suggest that rates are higher for women than men (Bloom et al. 1978).

Fox (1980), using three national surveys in a comprehensive test of Gove's theory, found

that women had higher levels of psychological distress than men in all marital status groups. Moreover, the greatest excess of psychiatric impairment among females was for the widowed, the separated, or the divorced, rather than for the married. Findings from another national study revealed that although there was no gender difference in psychological well-being among unmarried persons, divorced women were in poorer mental health than divorced men, but widowed women were in better mental health than their male peers (Gove, Hughes and Style 1983). An elevated rate of mental health problems among widowed males is consistent with other evidence which indicates that widowed males have a significantly higher mortality risk than widowed females (Helsing and Szklo 1981).

A related but distinct issue still unresolved by previous research centers on the benefits of marriage for both sexes: which sex benefits more? In addition to indicating that the rates of treated mental illness were higher for married women than for married men, the early evidence also revealed that the relationship between marital status and mental illness was stronger for men than for women (Bloom et al. 1978). These findings were used to advance the notion that the unmarried state is more stressful for men than for women, and marriage is more health-enhancing for men than for women (Bernard 1972; D'Arcy and Siddique 1985). Riessman and Gerstel (1985) found that separation and divorce were more strongly linked to psychiatric care for men than for women. However, when these researchers considered psychiatric symptoms in the general population, divorce was associated with a greater adverse effect on men than on women, while separation predicted poorer mental health for women than for men.

One reason for the conflicting findings is the lack of uniformity in the assessment of mental health status (Gove et al. 1983). In a comprehensive assessment of gender differences in the effects of marital dissolution on physical and mental health, Riessman and Gerstel (1985) found that separated and divorced men are at greater risk of more extreme physical and mental health outcomes than separated and divorced women. For less severe problems, separated and divorced women have higher rates than their male peers. Similarly, a case-control study of the

relationship between illness found that the advantage varied for disorders (Briscoe et al. 1983). Widowed women had higher rates of alcoholism and while women had high

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Families both ex social context (Ro distribution of psych status is probably social conditions groups. Enhanced un context of marriage needed in order to ic link marital status. Research must iden tions in social circun extent to which mari tive of health afte factors. Prior resear omic status (SES), tion are related both variations in marital

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relationship between divorce and psychiatric illness found that the nature of the gender advantage varied for specific psychiatric disorders (Briscoe et al. 1973). Divorced women had higher overall rates of disorder than divorced men, but men had higher rates of alcoholism and antisocial personality, while women had higher rates of depression.

THE SOCIAL CONTEXT

Families both exist in and constitute a social context (Ross et al. 1990). The distribution of psychiatric disorder by marital status is probably linked to the particular social conditions experienced by marital groups. Enhanced understanding of the social context of marriage and marital dissolution is needed in order to identify the pathways that link marital status to psychiatric disorder. Research must identify marital status variations in social circumstances and examine the extent to which marital status remains predictive of health after adjustment for these factors. Prior research indicates that socioeconomic status (SES), age, and social integration are related both to mental health and to variations in marital status.

Socioeconomic factors affect the likelihood of getting married (Wilson 1987), and the social and psychological resources for dealing with the stressors that may be caused by marital loss also vary by SES (Williams 1990; Williams and House 1992). Married persons have higher household incomes than the unmarried, with the economic benefits of marriage being stronger for women than for men (Ross et al. 1990). Marital dissolution also produces changes in economic resources, with the effects again more marked for women than for men. Declines in income after divorce, for example, are larger for women than for men (Ross et al. 1990). Thus, although marriage provides economic and social benefits to both sexes, it may be more of an economic benefit for women and an emotional-support benefit for men (Ross et al. 1990).

In recent years, considerable research has focused on the health-enhancing benefits that social ties can provide. Marriage is the cornerstone of most measures of social integration (House and Khan 1985). For the unmarried, the presence of others in the household may compensate, at least in part,

for the absence of a spouse. Previous research indicates that the presence of others in the household may represent greater availability of social support and that the support of persons in the household may be more salutogenic than support from persons outside of the household (Ross et al. 1990). However, in a study of a predominantly White population where race differences were not tested, Hughes and Gove (1981) found that the mere presence of others in the household did not explain the association between marriage and psychological distress. We do not know if these findings hold for Blacks. What is known is that Blacks, especially the unmarried, are more likely than Whites to live with extended family members and that these living arrangements can moderate the adverse effects of stress on health by providing crucial support (Taylor et al. 1990).

Other persons in the household also can have an adverse effect on health. Two possible stressors are the experience of excessive demands and a lack of privacy (Hughes and Gove 1981). Among unmarried Black women, for example, the presence of children in the household can be a chronic source of stress (Taylor et al. 1990). At the same time, children can provide structure to a parent's life, serve as a source of companionship, and link their parents to wider social networks (Riessman and Gerstel 1985). The number of persons in the household also can be a critical determinant of the economic resources available to the family unit by either placing additional strain on limited financial resources or by providing an additional source of revenue.

Age affects the likelihood of experiencing particular forms of marital loss and also may condition the nature of the experience. Divorce and widowhood usually occur at different stages of the life course, with the widowed being older than the divorced (Gove and Shin 1989). Opportunities for social contact and remarriage as well as the amount of stress associated with marital dissolution are related to the age at which it occurs; widowhood among the young and divorce among the old are especially stressful (Bloom et al. 1978; Gove and Shin 1989).

Several unresolved issues are addressed in this paper. First, we examine marital status differences in psychiatric disorders within the Black population. The ECA data includes a large sample of Blacks; unlike earlier studies,

the study population is not confined to persons who are hospitalized or in treatment. Second, we examine the association between marital status and specific psychiatric disorders. Most studies of the mental health of Blacks have used symptom checklist scales (Neighbors 1984). While rates of symptoms are important in understanding general distress or demoralization, they are not useful indicators of clinical disorders (Myers and Weissman 1980). Third, using the available measures, the social context in which marital status groups are embedded is explored. We assess the extent to which social factors mitigate or intensify the association between marital status and mental health. Fourth, we assess the extent of gender differences in rates of disorder across marital status groups and in the protective effect of marriage. Finally, although this study focuses explicitly on the heterogeneity of the Black population, all analyses performed for Blacks are replicated in the large White sample of the ECA program. The purpose of this replication is to explore the extent to which patterns of association by marital status vary across race, and highlight the distinctiveness, if any, of the Black population.

METHODS

Study Population

The analyses reported here are from the first wave of interviews of community residents in the ECA Program. Between 1980 and 1983, 18,571 adults were interviewed in five mental health catchment sites in the United States. The five sites are the Greater New Haven Area of Connecticut; three mental health catchment areas in eastern Baltimore, Maryland; three mental health catchment areas in St. Louis, Missouri; five counties in North Carolina; and two mental health catchment areas in Los Angeles, California. The completion rate at each site ranged from 68 to 79 percent and comparable interview schedules were used at all sites. A detailed description of the sampling procedures and data collection methods is available (Holzer et al. 1985).

Measures

The Diagnostic Interview Schedule (DIS), a highly structured interview administered by

lay interviewers, is used to measure psychiatric disorders (Robins, Helzer, Croughan and Ratcliff 1981). Computer algorithms generate DSM-III diagnoses based on the presence, severity, and duration of symptoms. In this paper, we estimate whether or not respondents experienced a recent (i.e., within six months of the interview) episode of each of the five more prevalent psychiatric disorders assessed by the DIS: alcohol abuse/dependence, drug abuse/dependence, major depression, anxiety disorders (i.e., obsessive-compulsive and panic), and schizophrenia/schizophreniform. An additional indicator, Any Disorder, is a composite indicator of any of these DIS disorders as well as anorexia nervosa, antisocial personality, bipolar disorder, and somatization. This composite measure may be a particularly good indicator to use when examining differences across gender and race. Men and women or Blacks and Whites may differ in their manifestation of the same underlying psychopathology. For example, major depression in women may be equivalent to alcohol abuse in men. Phobias are excluded from our analyses because they were assessed differently across sites (Myers et al. 1984).

All respondents are divided into four mutually exclusive groups based on current marital status: married, widowed, separated/divorced, and never married. Age is measured in years, and household size is a count of the number of persons resident in the household. We use the Nam and Powers (1983) procedure to develop a composite SES measure based on occupation, education, and income. Occupational scores are formed based on the rank-ordering of average percentage scores of income and education for each occupational category. Percentile scores also are created for each respondent's education and income using the 1980 U.S. Census *Characteristics of the Population*. The SES index is formed by averaging the education, occupation, and household income percentiles. When one component of the index is not available, as in St. Louis where income data were not collected, the SES measure uses the average of the available scores.

Analysis

The data are weighted to take into account differential probabilities of selection and to

adjust the demography of the community from (Holzer et al. 1985). pooled the samples of five ECA community use a combined sample relatively low distribution of psychiatric disorders. Even the samples of the ECA specific DIS diagnoses analyses of marital rates of disorder. Which the association and disorder varied preliminary analyses. nary least squares regression (al. 1989) were used between ECA sites predicting disorder to significant effects were ical parsimony, as analysis and present pooling the data. For intersite differences disorders, we included analyses.

Because our results suggest an interaction between marital status, and mental illness, all analyses are presented for males and females. These analyses are used to present differences in the distribution of regression models. statistical significance control for age, household size, and economic status. Four models are presented for each race and gender model, a continuous model with dummy variables. The second model adds marital status and the third model adjusts for marital status and household size. the covariates of the interest of parsimony, only the first model are presented.

The statistical model assume simple random sampling underestimate variance. statistical significance design is complex (1987). Accordingly of significance are

adjust the demographics of the sample to that of the community from which it was drawn (Holzer et al. 1985). For all analyses, we pooled the samples of respondents from the five ECA community sites. Our decision to use a combined sample was based on the relatively low distribution of clinically defined psychiatric disorders in community samples. Even the relatively large Black samples of the ECA provide too few cases of specific DIS diagnoses to allow site-specific analyses of marital status differences in the rates of disorder. We explored the extent to which the association between marital status and disorder varied across the five sites. In preliminary analyses, both logistic and ordinary least squares regression (Landerman et al. 1989) were used to test for interactions between ECA site and marital status in predicting disorder levels among Blacks. Few significant effects were found. Thus, theoretical parsimony, as well as the economy of analysis and presentation, are served by pooling the data. However, to control for intersite differences in the prevalence of disorders, we include controls for sites in the analyses.

Because our review of the literature suggests an interaction among sex, marital status, and mental illness (e.g., Gove 1972), all analyses are performed separately for males and females. Simple descriptive analyses are used to present marital status differences in the distribution of disorder. Logistic regression models are estimated to test for statistical significance and to simultaneously control for age, household size, and socioeconomic status. Four models were estimated for each race and gender group. In the first model, a continuous age variable is included with dummy variables for marital status. The second model adds socioeconomic status. The third model adjusts the association between marital status and psychiatric disorder for age and household size. The final model includes the covariates of the previous models. In the interest of parsimony and clarity of presentation, only the first, second, and final models are presented.

The statistical procedures employed assume simple random sampling and tend to underestimate variances and overestimate statistical significance when the sampling design is complex (Bruce, Freeman and Leaf 1987). Accordingly, standard errors and tests of significance are estimated with Taylor

Series Linearization procedures, using the SUDAAN software (Research Triangle Institute 1989). To facilitate interpretation, the logistic coefficients are presented as odds ratios. The odds ratio, the antilog of the logistic coefficient, approximates the greater likelihood (or unlikelihood that) psychiatric disorders will be present among the unmarried groups as compared to the married, or among males as compared to females.

RESULTS

Table 1 presents the rates of recent (six-month) psychiatric episodes for Black and White males by marital status. The top panel shows the marital status-mental illness relationship for Black males. Overall, 14 percent of African-American males had one of the DIS disorders with the rate ranging from 9 percent for the married to 20 percent for the separated/divorced. As expected, the overall rates of psychiatric disorders are higher for the unmarried groups than for the married. Prevalence rates vary considerably, with alcohol abuse or dependence being highest, especially among the separated and divorced. The lower panel of Table 1 shows the distribution of disorders by marital status for White males. White males are more likely to be married than their Black peers. Variations in psychiatric disorders by marital status for White males are similar to those observed for African-American males.

Six-month prevalence rates of psychiatric disorder by marital status for Black and White females are presented in Table 2. The prevalence of any psychiatric disorder among Black females (10.5) is lower than that observed earlier among Black males (13.9). Nonetheless, the marital status variation in any psychiatric disorder among African-American females is similar to that observed for their male peers. Married Black women are less likely to be diagnosed as having a psychiatric disorder than their unmarried peers. While alcohol abuse was highest for Black males, depression is highest for Black females, followed by the anxiety disorders. White women are more likely to be married than their Black counterparts; for both races, being married is associated with a lower rate of psychiatric illness. However, there appears to be some racial variation in the rates of disorders among the unmarried groups. The

TABLE 1. Rates (/100) of Recent (6-month) Psychiatric Disorders by Marital Status for Black and White Males

| | Black Males | | | | | | |
|--------------------|-------------|------|------|-------|-----|-----|-------|
| | N | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| Married | 617 | 9.1 | 4.9 | 2.1 | 0.4 | 0.8 | 0.8 |
| Widowed | 129 | 14.1 | 12.9 | 0.0 | 2.7 | 0.8 | 0.8 |
| Separated/Divorced | 295 | 20.0 | 17.7 | 1.7 | 1.7 | 1.4 | 0.4 |
| Never Married | 415 | 17.5 | 9.0 | 5.4 | 3.4 | 1.3 | 2.0 |
| Total | 1456 | 13.9 | 8.5 | 3.0 | 1.7 | 1.1 | 1.1 |

| | White Males | | | | | | |
|--------------------|-------------|------|------|-------|-----|-----|-------|
| | N | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| Married | 3097 | 8.5 | 5.5 | 1.1 | 1.1 | 1.5 | 0.5 |
| Widowed | 371 | 15.0 | 10.4 | 1.0 | 2.3 | 6.3 | 1.3 |
| Separated/Divorced | 516 | 25.6 | 18.2 | 3.1 | 3.5 | 3.4 | 1.5 |
| Never Married | 1080 | 19.4 | 11.2 | 6.8 | 2.1 | 2.9 | 1.0 |
| Total | 5064 | 12.7 | 8.0 | 2.7 | 1.6 | 2.1 | 0.7 |

ANY = Any DIS Disorder, including those listed as well as Anorexia Nervosa, Bipolar Disorder, Antisocial Personality, Somatization; ALC = Alcohol Abuse or Dependence; DRUGS = Drug Abuse or Dependence; ANX = Anxiety Disorders; MDD = Major Depressive Disorder; SCHIZ = Schizophrenia/Schizophreniform.

Unweighted N's, percentages weighted to population.

prevalence of disorders for widowed Black females is about twice that of their White peers, while the rates of disorders for separated/divorced White females are consistently higher than that of their Black counterparts.

Our unadjusted rates of psychiatric disorder confirm that for Blacks as well as Whites, the married are less likely to be psychiatrically impaired than the unmarried. We now consider the social situations in which marital status groups are embedded as a prelude to exploring how these varying social contexts

may affect marital status variations in psychiatric illness.

Table 3 shows the distribution of selected sociodemographic characteristics by marital status for Blacks and Whites. Widowed Black males (average age 65 years) are about 20 years older than the married and the separated/divorced, and 40 years older than the never married. Married Black males have the highest total household income followed by the never married, separated/divorced, and widowed. Average household size varies by marital status for Black males with the

TABLE 2. Rates (/100) of Recent (6-month) Psychiatric Disorders by Marital Status for Black and White Females

| | Black Females | | | | | | |
|--------------------|---------------|------|-----|-------|-----|-----|-------|
| | N | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| Married | 742 | 7.6 | 1.0 | 0.4 | 2.2 | 3.4 | 0.9 |
| Widowed | 559 | 9.5 | 2.5 | 0.8 | 3.1 | 4.7 | 2.0 |
| Separated/Divorced | 716 | 12.6 | 3.5 | 1.6 | 4.0 | 4.6 | 1.9 |
| Never Married | 737 | 12.7 | 1.5 | 4.0 | 2.5 | 6.7 | 1.6 |
| Total | 2754 | 10.5 | 1.9 | 1.8 | 2.8 | 4.8 | 1.5 |

| | White Females | | | | | | |
|--------------------|---------------|------|-----|-------|-----|-----|-------|
| | N | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| Married | 3047 | 6.6 | 0.7 | 0.3 | 2.6 | 3.5 | 0.4 |
| Widowed | 1972 | 4.5 | 0.2 | 0.0 | 1.9 | 2.7 | 0.2 |
| Separated/Divorced | 882 | 17.1 | 3.3 | 2.0 | 4.4 | 9.0 | 2.4 |
| Never Married | 1008 | 13.0 | 3.8 | 3.6 | 2.0 | 4.1 | 1.6 |
| Total | 6909 | 8.6 | 1.5 | 1.0 | 2.6 | 4.1 | 0.8 |

ANY = Any DIS Disorder, including those listed as well as Anorexia Nervosa, Bipolar Disorder, Antisocial Personality, Somatization; ALC = Alcohol Abuse or Dependence; DRUGS = Drug Abuse or Dependence; ANX = Anxiety Disorders; MDD = Major Depressive Disorder; SCHIZ = Schizophrenia/Schizophreniform.

Unweighted N's, percentages weighted to population.

TABLE 3. The Distribution (Means) of Selected Sociodemographic Characteristics by Marital Status for Blacks and Whites

| Characteristics | Blacks | | | | | Whites | | | | |
|------------------------|---------|---------|---------|---------|--|---------|---------|---------|---------|--|
| | MARRIED | WIDOWED | SEP/DIV | NEV MAR | | MARRIED | WIDOWED | SEP/DIV | NEV MAR | |
| Males | | | | | | | | | | |
| 1. Age (years) | 43.9 | 64.7* | 44.6 | 26.1* | | 47.8 | 69.6* | 43.3* | 27.8* | |
| 2. Income (dollars) | 20,171 | 10,837* | 15,525* | 16,492* | | 26,984 | 14,010* | 24,237* | 25,494* | |
| 3. Household Size | 3.8 | 2.3* | 2.9* | 3.9 | | 3.2 | 1.8* | 1.90* | 3.1 | |
| 4. Income (per capita) | 6,312 | 7,250 | 8,748* | 6,835 | | 9,513 | 10,501 | 16,307* | 10,904* | |
| 5. Education (years) | 10.7 | 6.8* | 10.2 | 11.4* | | 12.4 | 9.2* | 12.6 | 13.1* | |
| 6. Occupation Score | 42.3 | 32.8* | 40.9 | 35.3* | | 60.0 | 47.2 | 56.7* | 48.5* | |
| 7. SES Score | 44.4 | 25.3* | 38.7* | 40.6* | | 59.3 | 38.1* | 57.0* | 56.3* | |
| Females | | | | | | | | | | |
| 1. Age (years) | 41.8* | 63.7* | 41.0 | 26.9* | | 45.0 | 69.9* | 43.4* | 30.2* | |
| 2. Income (dollars) | 18,543 | 7,320* | 9,443* | 13,129* | | 25,518 | 10,511* | 16,852* | 23,316* | |
| 3. Household Size | 4.1 | 2.7* | 3.4* | 4.3* | | 3.2 | 1.8* | 2.4* | 3.0* | |
| 4. Income (per capita) | 5,486 | 3,817* | 4,013* | 4,352* | | 8,922 | 7,291* | 9,327 | 9,706* | |
| 5. Education (years) | 11.3 | 8.3* | 11.0 | 11.7* | | 12.2 | 9.7* | 12.1 | 13.2* | |
| 6. Occupation Score | 34.6 | 20.8* | 31.5* | 32.7 | | 46.3 | 36.8* | 47.0 | 48.3* | |
| 7. SES Score | 42.0 | 21.5* | 34.3* | 39.8* | | 52.7 | 32.4* | 47.9* | 55.9* | |

* Significantly different from the married, $p \leq .05$.

married (3.8) and never married (3.9) living in larger households than the separated/divorced (2.9) and widowed (2.3). We created a per capita income measure by dividing the total household income by the number of persons in the household. We believe that this is a more accurate indicator of available economic resources than total household income.¹ This per capita income measure reverses the pattern observed for total household income; the married have the lowest income, followed by the never married, widowed, and separated/divorced, in order of increasing quantity. Compared to the married, the widowed are markedly lower on years of education, occupational score, and the composite SES score. The never married have higher levels of education but lower levels of occupational status and overall SES than the married. White males are older, higher in socioeconomic status, and reside in smaller households than their Black peers, but the marital status variations in the social factors considered are generally similar to those of Black males.

Black women tend to be younger, poorer, and residents of larger households than Black men, but the marital status distribution of age, household size, and SES for Black females generally mirrors that for their male counterparts. One important exception to this generalization is the marital status variation in per capita income. Similar to Black males, married Black females have a higher total household income than the unmarried. However, unlike the pattern for Black men, married Black women have a per capita income level significantly higher than that of all their unmarried peers. Prior research indicates that Black female-headed families are twice as likely as White female-headed families to be poor (Jaynes and Williams 1989, pp. 277-82). Similarly, we note that the per capita income of the separated/divorced and the never-married Black female is only one-half that of her Black male or White female peers and one-third that of separated/divorced and never-married White males. Across all marital status categories, Black women are younger than their White peers. Interestingly, income levels, occupational scores, and SES scores are markedly higher for White women than for Black women, while years of education are only slightly higher for Whites. This is consistent with other research which indicates that the

economic returns of formal education are larger for Whites than for Blacks (Jaynes and Williams 1989, pp. 299-301).

Table 4 presents logistic regression analyses estimating the magnitude of the association between marital status and psychiatric disorder, adjusted for age, SES, and household size. For each race, odds ratios for the relationship between marital status and mental illness are presented under three conditions. First, the age-adjusted relationship between marital status and psychiatric disorder is displayed. The second panel shows how this association is altered when controlled for SES, and the final panel shows the marital status-mental illness relationship further adjusted for household size.

Widowed and separated/divorced Black males have higher age-adjusted rates of Any Disorder than the married. In terms of specific diagnoses, widowed Black males are 2.8 times more likely than the married to be diagnosed with alcohol abuse and 6.8 times more likely to have anxiety disorders. For the separated/divorced, an elevated risk of a specific disorder exists only for alcohol abuse, with separated/divorced Black males being four times more likely to have this disorder than the married. In addition, unmarried Black males are almost nine times more likely to be diagnosed with anxiety disorders than the married. There is no significant marital status variation in drug abuse, depression, and schizophrenia. When controlling for socioeconomic status, the association between marital status and psychiatric disorder is reduced but remains significant. In contrast, the significant relationship between marital status and disorder becomes stronger when the age-adjusted relationship is simultaneously controlled for household size (analyses not shown). Thus, in the final model presented, the odds ratios for Any Disorder and alcohol abuse are larger than those in the model with age and SES.

Similar to Blacks, never-married Whites do not have higher rates of psychiatric disorder than the married. However, important differences are also evident. First, the association between marital status and psychiatric disorder is stronger (in terms of odds ratios and significance) for Whites than for Blacks. Widowed White males have age-adjusted rates of any disorder, alcohol abuse, drug abuse, and depression that are higher than the married. Similarly, the separated/divorced

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TABLE 4. Odds Ratios
Married Ma

| |
|-----------------------------|
| Controlling for Age |
| Married |
| Widowed |
| Separated/Divorced |
| Never Married |
| Controlling for Age and Soc |
| Married |
| Widowed |
| Separated/Divorced |
| Never Married |
| Controlling for Age, Socioe |
| and Household Size |
| Married |
| Widowed |
| Separated/Divorced |
| Never Married |

| |
|--------------------------|
| Controlling for Age |
| Married |
| Widowed |
| Separated/Divorced |
| Never Married |
| Controlling for Age and |
| Socioeconomic Status |
| Married |
| Widowed |
| Separated/Divorced |
| Never Married |
| Controlling for Age, Soc |
| Status, and House. Size |
| Married |
| Widowed |
| Separated/Divorced |
| Never Married |

¹ From logistic regression.
ANY = Any DIS Disorder;
Personality, Somatization;
ANX = Anxiety Disorders;
† p ≤ .10; * p ≤ .05; ** p ≤ .01;
NE = Not Estimatable.

have higher rates of abuse, drug abuse, anxiety disorders, and married. Second, controlling for household size reduces marital status-mental illness relationships with the exception of relationships remain in the final model.

Table 5 presents the association between psychiatric disorder for Black males. Widowed Black males have age-adjusted rates of psychiatric disorder higher than their married counterparts.

TABLE 4. Odds Ratios for Current (6-month) Psychiatric Disorders of Unmarried Compared to Married Males, for Blacks and Whites¹

| | Black Males | | | | | |
|--|-------------|--------|--------|--------|--------|-------|
| | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| <i>Controlling for Age</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 2.42* | 2.83* | NE | 6.79* | 1.33 | 1.41 |
| Separated/Divorced | 2.55** | 4.04** | 0.92 | 4.04 | 1.79 | 0.54 |
| Never Married | 1.59† | 1.90 | 0.94 | 8.75* | 1.41 | 2.53 |
| <i>Controlling for Age and Socioeconomic Status</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 2.29* | 2.55† | NE | 6.35* | 1.73 | 1.30 |
| Separated/Divorced | 2.47** | 3.71** | 1.01 | 3.91 | 2.05 | 0.53 |
| Never Married | 1.45 | 1.51 | 1.08 | 8.08† | 1.90 | 2.31 |
| <i>Controlling for Age, Socioeconomic Status, and Household Size</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 2.36* | 2.72* | NE | 5.50† | 1.95 | 1.14 |
| Separated/Divorced | 2.52** | 3.93** | 0.90 | 3.23 | 2.30 | 0.47 |
| Never Married | 1.46 | 1.56 | 1.04 | 6.97† | 1.99 | 2.16 |
| <i>White Males</i> | | | | | | |
| <i>Controlling for Age</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 4.46** | 4.06** | 11.12* | 3.20 | 8.70** | 5.55 |
| Separated/Divorced | 3.28** | 3.59** | 2.05† | 2.96** | 2.04 | 3.32* |
| Never Married | 1.33† | 1.28 | 1.27 | 1.26 | 1.15 | 1.32 |
| <i>Controlling for Age and Socioeconomic Status</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 3.46** | 3.40** | 5.32 | 2.37 | 6.94** | 4.65 |
| Separated/Divorced | 3.13** | 3.45** | 1.95† | 2.71** | 1.95 | 3.17* |
| Never Married | 1.15 | 1.16 | 1.23 | 1.04 | 1.00 | 1.21 |
| <i>Controlling for Age, Socioeconomic Status, and Household Size</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 3.22** | 3.35** | 4.61 | 2.26 | 5.26** | 4.26 |
| Separated/Divorced | 2.84** | 3.40** | 1.66 | 2.52** | 1.36 | 2.81* |
| Never Married | 1.11 | 1.15 | 1.20 | 1.01 | 0.87 | 1.16 |

¹ From logistic regression analysis.

ANY = Any DIS Disorder, including those listed as well as Anorexia Nervosa, Bipolar Disorder, Antisocial Personality, Somatization; ALC = Alcohol Abuse or Dependence; DRUGS = Drug Abuse or Dependence; ANX = Anxiety Disorders; MDD = Major Depressive Disorder; SCHIZ = Schizophrenia/Schizophreniform.

† p ≤ .10; *p ≤ .05; **p ≤ .01.

NE = Not Estimable.

have higher rates of Any Disorder, alcohol abuse, drug abuse (marginally significant), anxiety disorders, and schizophrenia than the married. Second, controls for both SES and household size reduce the magnitude of the marital status-mental illness association, but with the exception of drug abuse, all relationships remain statistically significant in the final model.

Table 5 presents odds ratios for the association between marital status and psychiatric disorder for Black and White women. Widowed Black females have higher age-adjusted rates of psychiatric disorders than their married counterparts. These differences

are in a consistent direction for all of the disorders and except for alcohol abuse, are statistically significant. Compared to the married, separated/divorced Black women have higher age-adjusted rates of Any Disorder and alcohol abuse. Separated/divorced women also are four times more likely than the married to be diagnosed with drug abuse but this difference is only marginally significant. Never-married African-American women do not have an elevated risk of psychiatric impairment. Similar to the pattern observed for Black males, controlling for SES reduces the marital status differences in psychiatric disorder while adjusting for

TABLE 5. Odds Ratios for Current (6-month) Psychiatric Disorders of Unmarried Compared to Married Females, for Blacks and Whites¹

| | Black Females | | | | | |
|--|---------------|--------|--------|-------|--------|--------|
| | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| <i>Controlling for Age</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 2.82** | 4.25 | 13.94* | 2.11* | 3.04* | 6.22* |
| Separated/Divorced | 1.75* | 3.39* | 4.04† | 1.90 | 1.39 | 2.14 |
| Never Married | 1.12 | 1.02 | 3.04 | 0.89 | 1.37 | 0.91 |
| <i>Controlling for Age and Socioeconomic Status</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 2.40** | 3.18 | 13.40* | 1.77* | 2.88* | 4.90* |
| Separated/Divorced | 1.56† | 2.73* | 3.93* | 1.66 | 1.32 | 1.83 |
| Never Married | 0.99 | 0.78 | 2.98 | 0.76 | 1.31 | 0.78 |
| <i>Controlling for Age, Socioeconomic Status, and Household Size</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 2.49** | 3.45 | 13.45* | 1.90† | 2.90* | 5.03† |
| Separated/Divorced | 1.63* | 3.00* | 4.02† | 1.82 | 1.34 | 1.90 |
| Never Married | 1.03 | 0.82 | 3.01 | 0.82 | 1.32 | 0.78 |
| <i>Controlling for Age</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 1.53* | 1.12 | NE | 1.74† | 1.45 | 0.85 |
| Separated/Divorced | 2.84** | 4.17** | 5.86** | 1.70* | 2.66** | 5.70** |
| Never Married | 1.29 | 2.46** | 3.77* | 0.48† | 0.82 | 2.43† |
| <i>White Females</i> | | | | | | |
| <i>Controlling for Age and Socioeconomic Status</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 1.28 | 0.75 | NE | 1.41 | 1.28 | 0.55 |
| Separated/Divorced | 2.59** | 3.54** | 5.77** | 1.52 | 2.45** | 4.50** |
| Never Married | 1.24 | 2.38** | 3.78* | 0.46* | 0.79 | 2.26† |
| <i>Controlling for Age, Socioeconomic Status, and Household Size</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 1.19 | 0.65 | NE | 1.27 | 1.25 | 0.52 |
| Separated/Divorced | 2.45** | 3.12** | 4.91** | 1.41 | 2.41** | 4.25** |
| Never Married | 1.19 | 2.18** | 3.41* | 0.44* | 0.78 | 2.17 |

¹ From logistic regression analysis.

ANY = Any DIS Disorder, including those listed as well as Anorexia Nervosa, Bipolar Disorder, Antisocial Personality, Somatization; ALC = Alcohol Abuse or Dependence; DRUGS = Drug Abuse or Dependence; ANX = Anxiety Disorders; MDD = Major Depressive Disorder; SCHIZ = Schizophrenia.

† p ≤ .10; * p ≤ .05; ** p ≤ .01.

NE = Not Estimatable.

household size increases them. All of the age-adjusted differences are reduced, but remain at least marginally significant in the final model that includes controls for age, SES, and household size. For Blacks, we consistently find that the relationship between marital status and psychiatric disorder is suppressed when household size is not considered. That is, the presence of persons in the household appears to be an intervening variable that ameliorates some of the adverse mental health consequences of being unmarried (Wheaton 1985).

In contrast to Black females (where the widowed have an elevated risk of disorder),

separated/divorced White females have significantly higher age-adjusted rates for all of the disorders compared to their married peers. These differences are reduced when adjusted for SES and household size, but with the exception of the anxiety disorders, they all remain significant in the final model presented. Compared to the married, widowed White females have a higher age-adjusted risk of Any Disorder and a marginally significant higher risk of anxiety disorders. Both of these differences are reduced to non-significance when adjusted for SES and household size. The risk of disorder for never-married White women also differs from that of their Black

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peers. Never-married higher rates of alcohol the married. In addition significant tendency for have a lower risk of a higher risk of schizophrenia. The lower risk of anxiety stronger when controlling household size, but all tions become weaker model, never-married times more likely to abuse more likely to abuse (reciprocal of 0.44) / anxiety disorder than t

In sum, primarily alcohol abuse, both and widowed Black of psychiatric disorder Elevated rates of disorder experienced marital stronger for Whites, extending to a broad Separated/divorced widowed Black female psychiatric disorder the terparts. Never-married and never-married White higher risk of mental In contrast, never-married have higher rates for disorders than the male the anxiety disorder sexes, controls for SES differences in disorder

TABLE 6. Odds Ratios for Current (6-month) Psychiatric Disorders of Unmarried Compared to Married Females¹

| | | | | | | |
|---|--------|--------|--------|-------|--------|--------|
| <i>Controlling for Age</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 1.28 | 0.75 | NE | 1.41 | 1.28 | 0.55 |
| Separated/Divorced | 2.59** | 3.54** | 5.77** | 1.52 | 2.45** | 4.50** |
| Never Married | 1.24 | 2.38** | 3.78* | 0.46* | 0.79 | 2.26† |
| <i>Controlling for Age and Socioeconomic Status</i> | | | | | | |
| Married | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Widowed | 1.19 | 0.65 | NE | 1.27 | 1.25 | 0.52 |
| Separated/Divorced | 2.45** | 3.12** | 4.91** | 1.41 | 2.41** | 4.25** |
| Never Married | 1.19 | 2.18** | 3.41* | 0.44* | 0.78 | 2.17 |

¹ From logistic

ANY = Any DIS

Personality, Som-

ANX = Anxiety Dis

† p ≤ .10; * p ≤ .05

NE = Not Estimatable

peers. Never-married White females have higher rates of alcohol and drug abuse than the married. In addition, there is a marginally significant tendency for the never married to have a lower risk of anxiety disorders and a higher risk of schizophrenia than the married. The lower risk of anxiety disorders becomes stronger when controlling for SES and household size, but all of the other associations become weaker. Thus, in the final model, never-married White females are 2.2 times more likely to abuse alcohol, 3.4 times more likely to abuse drugs, and 2.3 times (reciprocal of 0.44) less likely to have an anxiety disorder than the married.

In sum, primarily due to higher rates of alcohol abuse, both the separated/divorced and widowed Black males have higher rates of psychiatric disorder than the married. Elevated rates of disorder for males who experienced marital dissolution are even stronger for Whites, with the increased risk extending to a broader range of disorders. Separated/divorced women of both races and widowed Black females have a higher risk of psychiatric disorder than their married counterparts. Never-married Blacks of both sexes and never-married White males do not have a higher risk of mental illness than the married. In contrast, never-married White females have higher rates for the substance abuse disorders than the married but lower rates for the anxiety disorders. For Blacks of both sexes, controls for SES reduce marital status differences in disorder, while controls for

household size increase them. For Whites, adjustment of both these factors reduces the differences in marital status.

Table 6 presents the association between gender and disorder for each marital status category. Research reviewed earlier provides conflicting predictions about the sex that will have the higher rate of disorder. For each race, within each marital status group, we estimated the association between gender (coded 1= male, 0= female) and psychiatric disorder in logistic regression models that included controls for age, SES, and household size. Married Black males do not have a higher overall rate of psychiatric disorder than their female peers, but have much higher rates for the substance abuse disorders and a lower rate for depression. Married Black males also are three times less likely than females (reciprocal of 0.33) to have an anxiety disorder, but this difference did not reach statistical significance. For all unmarried groups, Black males have an elevated risk of Any Disorder, with higher rates of alcohol abuse and lower rates of depression.

The pattern for Whites is generally similar to that of Blacks. White males in all marital status groups have a significantly higher risk of Any Disorder than their female peers. In terms of specific disorders, compared to females, the rates for males are higher for the substance abuse disorders but lower for depression (and anxiety for the married only). One notable exception to this pattern is that widowed White males are 2.6 times more

TABLE 6. Odds Ratios for Current (6-month) Psychiatric Disorders for Males Compared to Females¹

| | Blacks | | | | | |
|----------------------------|--------|---------|--------|-------|--------|-------|
| | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| <i>Controlling for Age</i> | | | | | | |
| Married | 1.46 | 5.14** | 6.37** | 0.33 | 0.26* | 0.94 |
| Widowed | 2.32* | 13.48** | NE | 1.00 | 0.24 | 16.28 |
| Separated/Divorced | 2.13** | 7.93** | 1.16 | 0.44 | 0.31* | 0.28 |
| Never Married | 1.50* | 7.53** | 1.30 | 1.43 | 0.18** | 1.16 |
| | Whites | | | | | |
| | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| Married | 1.62** | 9.55** | 6.00** | 0.53* | 0.47** | 1.33 |
| Widowed | 3.96** | 55.92** | NE | 1.16 | 0.63* | 6.78 |
| Separated/Divorced | 2.08** | 9.59** | 1.60 | 1.01 | 0.38** | 0.71 |
| Never Married | 1.59** | 3.15** | 1.97* | 0.97 | 0.68 | 0.59 |

¹ From logistic regression analysis; all models include controls for age, socioeconomic status, and household size.

ANY = Any DIS Disorder, including those listed as well as Amnesia Nervosa, Tic Disorder, Antisocial Personality, Somatization; ALC = Alcohol Abuse or Dependence; DRUGS = Drug Abuse or Dependence; ANX = Anxiety Disorders; MDD = Major Depressive Disorder; SCHIZ = Schizophrenia.

* $p \leq .10$; ** $p \leq .05$; *** $p \leq .01$.

NE = Not Estimable.

likely to have a major depressive disorder than their female counterparts. It has been argued that the loss of a spouse is more stressful for men than for women (Stroebe and Stroebe 1983). For White men, widowhood appears to be sufficiently stressful to reverse the more general trend for women to have higher rates of depression than men.

Riessman and Gerstel (1985) have argued that gender differences in mental health are linked to the indicator of health status utilized. Given that a DIS-defined disorder is at the extreme of mental health outcomes, our finding that for both races, across all marital status groups, men tend to have a higher overall risk of psychiatric disorder than women is consistent with the view that men are more likely to have serious mental health problems than women. At the same time, our analyses also highlight the importance of looking at gender differences for specific disorders. Women in all marital status groups are less likely to be depressed than men.

We also are interested in ascertaining which sex benefits more from marriage. One way to address this question is to determine which sex is hurt most by the unmarried state. Following Riessman and Gerstel (1985), we examine this issue not by looking at absolute rates but by comparing the mental health of unmarried males relative to married males, with the mental health of unmarried females relative to married females. In this computation of a ratio of ratios, the health of the married of each gender is used as the standard of comparison to ascertain the relative risk associated with being unmarried. We calcu-

lated this summary measure of relative risk by dividing the odds ratios from the final models for males in Table 4 by the equivalent ones for females in Table 5.

Table 7 presents the results of these analyses. A value greater than 1.00 indicates that men have a greater risk of disorder, while a score less than 1.00 indicates that women have a higher risk. Among African-Americans, gender advantage or disadvantage varies depending on the specific disorder and the unmarried category considered. The risk of Any Disorder for widowed Black males is slightly lower than that for their female counterparts, but is markedly reduced for alcohol abuse, depression, and schizophrenia. The ratio for drug abuse could not be calculated (since there is no case of drug abuse among widowed Black males), but it is in the direction of lower risk for males. Compared to the married, widowed Black males are more likely than their female peers to have an increased risk for anxiety disorders.

The between-group differences in ratios for the separated/divorced reveal that Black men have a higher risk than Black women of Any Disorder, alcohol abuse, the anxiety disorders, and depression. Black women have a higher risk of drug abuse and schizophrenia. For the never married, with the exception of drug abuse, Black men have a greater risk of mental illness than their females peers on all of the outcome measures. This higher risk is particularly large for anxiety disorders.

In sum, widowed Black women are more likely than widowed Black men, relative to

their married counterparts, risk of psychiatric disorders are the exception. On the other hand, compared to the married, separated/divorced and never married men are generally more likely to have a psychiatric disorder than separated/divorced and never married women. Drug abuse is more common among unmarried groups and separated/divorced men.

For Whites, the risk of being widowed is the opposite of that for Blacks. Between-group differences consistently indicate that for White men than for White women, separated/divorced, and never married are generally similar to the married, with the exception of having greater risks of Any Disorder, alcohol abuse, and depression, but lower risks of anxiety disorders, but lower risks of depression, and schizophrenia. For married Whites, the risk of being widowed by gender again diverges. Being never married is more likely for men in terms of alcohol abuse, drug abuse, and depression. At the same time, compared to their counterparts, never-married men are more likely than never-married women to have anxiety disorders.

DISCUSSION

Our analyses indicate that the rates of psychiatric disorders vary by race, gender, and marital status. Blacks and Whites, the marital status-norm, on a descriptive level, provide a foundation for future research to identify the causal processes responsible for differences in mental health. In our analyses, the marital status-norm is robust after controlling for household size, income, and adequately marital status. Married and never married, in particular, identifies living on the edge of this

TABLE 7. Gender Ratios for Current (6-month) Psychiatric Disorders for the Unmarried Compared to the Married

| Marital Status | Blacks | | | | | |
|--------------------|--------|------|-------|------|------|-------|
| | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| Widowed | 0.95 | 0.79 | NE | 2.89 | 0.67 | 0.23 |
| Separated/Divorced | 1.55 | 1.31 | 0.22 | 1.77 | 1.72 | 0.25 |
| Never Married | 1.42 | 1.90 | 0.35 | 8.50 | 1.51 | 2.77 |
| Marital Status | Whites | | | | | |
| | ANY | ALC | DRUGS | ANX | MDD | SCHIZ |
| Widowed | 2.71 | 5.15 | NE | 1.78 | 4.21 | 8.19 |
| Separated/Divorced | 1.16 | 1.09 | 0.34 | 1.79 | 0.51 | 0.66 |
| Never Married | 0.93 | 0.53 | 0.35 | 2.30 | 1.12 | 0.53 |

¹ Rate of unmarried males relative to married males divided by the rate of unmarried females relative to married females (male ratio/female ratio). A ratio of more than 1.00 indicates a greater relative risk for males. A ratio of less than 1.00 indicates a greater relative risk for females.

ANY = Any DIS Disorder, including those listed as well as Anorexia Nervosa, Bipolar Disorder, Antisocial Personality, Somatization; ALC = Alcohol Abuse or Dependence; DRUGS = Drug Abuse or Dependence; ANX = Anxiety Disorders; MDD = Major Depressive Disorder; SCHIZ = Schizophrenia/Schizotypaliform; NE = Not Estimatable.

their married counterparts, to be at greater risk of psychiatric illness. The anxiety disorders are the exception to this pattern. On the other hand, compared to the married, both separated/divorced and never-married Black men are generally more likely to have a disorder than separated/divorced Black women. Drug abuse for both of these unmarried groups and schizophrenia for the separated/divorced reverse this pattern.

For Whites, the risk of disorder for the widowed is the opposite of that observed for Blacks. Between-group differences in ratios consistently indicate that widowhood is worse for White men than for White women. For the separated/divorced, the pattern for Whites is generally similar to that for Blacks, with men having greater risks than women of Any Disorder, alcohol abuse, and the anxiety disorders, but lower risks of drug abuse, depression, and schizophrenia. Among never-married Whites, the pattern of disorder risk by gender again diverges from that of Blacks. Being never married is worse for women than for men in terms of Any Disorder, alcohol abuse, drug abuse, and schizophrenia. At the same time, compared to their married counterparts, never-married White males are more likely than never-married White females to have anxiety disorders and depression.

DISCUSSION

Our analyses indicate that psychiatric disorders vary by marital status for both Blacks and Whites. This documentation of the marital status-mental illness relationship on a descriptive level is an indispensable foundation for future work that seeks to identify the causal dynamics that influence this association. The mechanisms and processes responsible for marital status differences in mental disorders need to be identified. In our analyses, the relationship between marital status and mental illness remained robust after adjustment for age, SES, and household size. These variables do not adequately capture the social sources of marital status variations in mental illness. Married and unmarried persons are embedded in particular social contexts, and research that identifies the pathogenic features of their living environments can increase our knowledge of the social origins of disease. Research of this kind also must attend to the extent to

which the meaning of marriage and marital dissolution is shaped by the social context. Particular social roles may have different meanings in different social groups.

Research must address the extent to which the social and psychological context of marital dissolution for Whites differs from that of Blacks. For example, race differences in the meaning of marriage and in the ramifications of its dissolution may account for the weaker relationship between marital disruption and psychiatric disorder for Black compared to White males. For Whites, marriage may be the key institution on which other social relationships are based. The dissolution of marriage can then have devastating consequences on social ties, especially for males. In contrast, among Blacks, marriage may be one of several family and community relationships that provide social support (cf. Cherlin 1981; Stack 1974). Thus, for example, while widowed White males experience great social isolation and loneliness (Stroebe and Stroebe 1983), widowed Black males may be likely to receive high levels of support from the extended family and friendship networks and also may benefit from a very favorable sex ratio imbalance in the marriage market. Given that divorce is still somewhat stigmatized (Kitson et al. 1980), these alternative sources of support may be more available to widowed Black males than to the divorced.

Our analyses also indicate important similarities across race in the association between marital status and disorder. Most striking is our finding that for both Blacks and Whites, the married do not enjoy a mental health advantage over the never married. (The only exception to this pattern is for White women, where the never married have higher rates than the married for the substance abuse disorders but lower rates for the anxiety disorders.) This has important implications for the study of marital status and mental health. Much of the literature is centrally focused on identifying the specific characteristics of marriage that promote mental health (e.g., Kessler and Essex 1982; Martin 1976; Thoits 1986). Our analyses suggest that marriage per se may not be health-enhancing, but the loss of a spouse through death, divorce, or separation is especially predictive of ill health. Researchers should give increased attention to identifying the critical aspects of the loss of the marital role that are

especially deleterious to mental health. The literature indicates that the loss of a spouse can result in grief and loneliness, reductions in social support, increased exposure to health risks because of the loss of a role, and the assumption of new family responsibilities that were previously performed by the other spouse (see Stroebe and Stroebe 1983 for a review). At the present time, we do not clearly understand how these factors relate to each other and how they combine to affect health and well-being.

Another similarity between Blacks and Whites concerns the prevalence of psychiatric morbidity which is higher for men than for women across all marital status groups. In contrast, the literature on marital status and mental health clearly indicates that married women are more psychologically distressed than married men, and women in all never-married groups exhibit higher levels of distress than their male peers. Both sets of findings are probably correct, but they dramatically illustrate the difference between the assessment of mental health status as psychological distress versus psychiatric disorder. Scales of psychological distress assess symptoms (depression, anxiety) that women are more likely to report, but neglect those of male-dominated disorders such as substance abuse and antisocial personality (Robins et al. 1984). Not surprisingly, we note that males have higher rates of alcohol abuse, while females have higher rates of depression.

Never-married Black women did not emerge in our analyses as especially vulnerable to psychiatric illness; they do not have higher rates of disorder than the married. When we compared ratios between groups, we found that never-married Black men are more likely to be psychiatrically-impaired than never-married Black women. These findings underscore the need for research efforts that focus explicitly on identifying the health-enhancing cultural strengths and resistance resources in the African-American community. Much research on the Black population addresses only existing problems and pathologies. While this research is important, an exclusive focus on social pathology presents a distorted view of the struggles and strengths of a disadvantaged population that continues to survive, and that does not have the excess psychiatric illness that would be consistent with its socioeconomic position. Systematic attention to the

health consequences of Black women's participation in religious activities (Griffith, English and Mayfield 1980; Griffith, Young and Smith 1984; Williams et al. 1991) and in informal networks of mutual aid (Stack 1974) appear to be two of the more promising directions for further research.

Our analyses also clearly reveal considerable variation in mental health status among the unmarried groups. This certainly calls into question the common practice of using marital status as a variable in health research based on a simple dichotomy of the married versus the unmarried. Grouping all of the unmarried categories together may serve to obscure rather than illumine important relationships. Because of relatively small numbers (especially for Black males), the separated and divorced were combined into one category in all of our analyses. Future mental health research in the Black population should distinguish between divorce and separation. Some evidence from prior research indicates that separation is more stressful than divorce and that rates of mental illness are higher for separated persons than for the divorced (Bloom et al. 1978).

There are important limitations linked to the cross-sectional nature of our analyses. Psychiatric disorder can be either a cause or consequence of current marital status, and cross-sectional analyses provide no basis for identifying the causal direction of the observed associations. Processes of both social selection and social causation may be reflected in our results. Persons with psychiatric illness are less likely to marry, and the underlying illness may lead those who do marry to have an elevated risk of divorce (Bloom et al. 1978). At the same time, widowhood, divorce, and marital separation are three of the most stressful life events and are thus capable of precipitating adverse changes in health status (Gove et al. 1983). The relevance of a given causal explanation also may be disorder-specific. For example, social causation is likely to play a larger role in marital status variations in depression than in schizophrenia. Despite our inability to address the issue of causality, we believe that our findings are generally consistent with the conclusions of earlier research which indicate that although social selection does occur, it is not a central determinant of marital status variations in mental illness in the general population (Gove et al. 1983). A recent report

from the New H further evidence increase subsequent (Bruce et al. 1990).

Another limitation is the lack of information on loss events. The data are cross-sectional and residual population of divorced and widowed persons and those selected out. Those are likely to have at least problems and (Gove and Shin 1983). vary by type of event. Divorced persons have more problems than widowed persons. Widowed males have more problems than females (Bloom et al. 1978). At the same time, despite the greatest at the time (al. 1978), the data consistently show that loss makes a difference in health status. For example, for females, the rate of psychiatric disorder is not higher for those who have lost a spouse. For males, the rate of psychiatric disorder for persons who have lost a spouse is the fluctuates.

In summary, the first limitation is the sample that was used in the analysis. The African-American sample indicate distinct patterns of psychiatric disorder by marital status (widowhood) and risk of psychiatric disorder by sex and for Whites is stronger for Whites than for Blacks. For Whites, the marital status is linked to an elevated odds ratios for psychiatric disorder than for Blacks. For Blacks, economic status but do not eliminate the pattern of gender differences in illness also exists between-group (widowed, Black men,

from the New Haven ECA site provides further evidence that psychiatric episodes increase subsequent to the loss of a spouse (Bruce et al. 1990).

Another limitation of our analyses is our lack of information on the recency of marital loss events. The divorced and widowed in our cross-sectional sample probably represent a residual population from which those divorced and widowed persons who had few problems and those who had many have been selected out. Those with the most problems are likely to have died, and those with the least problems are likely to have remarried (Gove and Shin 1989). These outcomes also vary by type of marital loss and by gender. Divorced persons are more likely to remarry than widowed persons, and both divorced and widowed males are more likely to remarry than females (Bloom et al. 1978). At the same time, despite claims that the trauma is greatest at the time of marital loss (Bloom et al. 1978), the empirical evidence does not consistently show that the timing of marital loss makes a difference in predicting changes in health status. Helsing and Szklo (1981), for example, found that for both males and females, the increased risk of mortality was not higher immediately after the loss of a spouse. Future longitudinal studies can follow persons experiencing marital loss and monitor the fluctuation of health status over time.

In summary, our analyses document, for the first time in community-based probability samples, that marital status predicts variations in the prevalence of psychiatric disorders for African-Americans. Moreover, our analyses indicate distinctive patterns to the distribution of psychiatric disorders across race. All forms of marital dissolution (separation/divorce and widowhood) are associated with an increased risk of psychiatric illness for Blacks of both sexes and for White males, but the association is stronger for White men than for their Black peers. For White females, separation/divorce is the marital status category most strongly linked to an elevated risk of disorder, and the odds ratios for Whites are consistently larger than for Blacks. Adjustment for age, socioeconomic status, and household size reduce but do not eliminate these relationships. The pattern of gender vulnerability to psychiatric illness also contains race differences. Between-group ratios reveal that among the widowed, Black women are worse off than Black men, while an opposite pattern is

evident for Whites. This paper shows that assessing the association between marital status and psychiatric disorders for both Blacks and Whites can make a useful contribution to understanding the uniqueness and similarities of Black and White communities.

NOTES

1. Because income data were not collected in St. Louis, we are unable to use the per capita income measure in later analyses. Almost one-third of the Black population in the ECA data come from the St. Louis site; if it is excluded the sample size for Black males becomes too small for disorder-specific analyses.

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