

Chapter 11

Social Stratification, Social Closure, and Social Class as Determinants of Mental Health Disparities

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Abbreviations

DIS	Diagnostic Interview Schedule
DSM	Diagnostic and Statistical Manual of Mental Disorders
ECA	Epidemiologic Catchment Area
FMD	Frequent Mental Distress
NCS	National Comorbidity Survey
NCS-R	National Comorbidity Survey Replication
NMSC	Neo-Marxian social class
SES	Socioeconomic status
SEP	Socioeconomic position
UK	United Kingdom
US	United States
WHO-WMH	World Health Organization World Mental Health

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From its inception, the sociology of mental health has attempted to identify and explain how social inequalities result in mental health disparities based on the theoretical assumption that societies are composed of individuals and groups with different levels of political, cultural, or economic advantage (Faris & Dunham, 1939; Hollingshead & Redlich, 1958). To advance this tradition, this chapter (a) considers how best to conceptualize *advantage/disadvantage*, focusing in particular on socioeconomic status (SES) and social class; (b) describes and explains the impact of advantage/disadvantage on the mental health of individuals and populations; and (c) identifies unresolved issues and enduring debates in the extant literature. Social inequalities are defined as the unequal positioning of individuals and groups in the social structure by their differential access to socioeconomic resources, their status and power related to occupations, and their relationship to means of production (Krieger, Williams, & Moss, 1997; Liberatos, Link, & Kelsey, 1988). This discussion centers on whether the impact of social inequalities on mental health should be conceptualized in terms of social stratification (e.g., inequality as a gradational ordering of attributes and material conditions of individuals and populations) or social relations (e.g., inequality as relations between groups holding unequal control over economic resources and productive assets). We conclude that social stratification and social relations (social closure and social class) identify distinct and complementary aspects of social inequality, with important consequences for mental health.

We consider the following five topics. First, we provide a brief review on publication trends over time and critically appraise classic and recent empirical findings on the association among stratification, closure, and class and mental illness. Second, we define gradational (social stratification) and relational (social closure and social class) approaches and their specific dimensions, focusing on supporting evidence and measurement issues. Third, we discuss the interrelationships between social inequalities and race, ethnicity, and gender—to give a comprehensive view of mental health disparities. Fourth, we consider the extent to which the observed mental health associations reflect processes of social causation and social selection. In closing, we recommend directions that research can take to address theoretical limitations and methodological challenges.

Publication Trends

There has been a long-standing interest in sociology in socioeconomic status and social class as risk factors for mental disorders (Cockerham, 2001; Davis, 1938). We summarize this work in two ways: identifying publication trends and reviewing the historical literature across three generations of research. As discussed above, conceptualizing social inequalities in mental health often involves two sociological variables: SES and social class. Figure 11.1 shows mental health publication trends based on a search of peer-reviewed papers listed in *Sociological Abstracts* ($N=238$) and *PubMed* ($N=6,651$) from 1950 to 2009 with either “socioeconomic status and mental health” versus “social class and mental health” in the title, keywords, or abstract. Research on social class has increased steadily over time, while the number of articles on SES exploded during the 1990s and continues to grow. Social class exceeded SES as a topic only from 1950 to 1979 in the *Sociological Abstracts* database. Across both databases there is a 2.5-fold difference in favor of SES papers ($n=4,895$) over social class articles ($n=1,994$). These findings underscore the extent to which social class lags behind SES in research interest and suggest that increased attention to social class is warranted.

Owners	Wage Laborers			
1 Capitalists (Hires 10 or more employees)	4 Managers experts	7 Managers semi-skilled	10 Managers "unskilled"	+ > 0 - Relation to organization/management
2 Small employers (Hires 2-9 employees)	5 Supervisors experts	8 Supervisors semi-skilled	11 Supervisors "unskilled"	
3 Petit Bourgeoisie (Hires no more than 1 employee)	6 Workers skilled	9 Workers semi-skilled	12 Workers "unskilled"	
	+	> 0	-	Relation to skills/credentials

Fig. 11.1 Erik O. Wright’s scheme of social class locations (Source: Wright 1989. Reprinted with permission)

Classic Studies

According to Dohrenwend and Dohrenwend (1982), the historical literature on mental health research can be understood across three generations, each successively producing more sophisticated evidence on the inverse association of SES and social class with mental disorders. First generation studies, conducted between the turn of the last century and shortly after the Second World War, were characterized by the use of key informants, hospital samples, and clinical diagnoses of a small number of “classical” psychiatric diagnoses to assess broad patterns of mental disorder in the community. A seminal study by Faris and Dunham (1939) examined the preadmission neighborhood locations of over 30,000 psychiatric patients treated in Chicago’s public and private psychiatric hospitals from 1922 to 1931, finding high rates of schizophrenia and substance abuse disorder “in the deteriorated regions in and surrounding the center of the city, no matter what race or nationality inhabited that region” (p. 35). This study not only linked low SES neighborhoods with mental illness but also signaled an important shift in methodology, moving beyond individual personal histories within clinical settings to considering shared group characteristics, such as contextual and environmental risk factors (Switzer, Dew, & Bromet, 1999).

A second ground-breaking study of this era was *Social Class and Mental Illness* by Hollingshead and Redlich (1958). They identified all residents of New Haven, Connecticut, who were receiving treatment by contacting private psychiatrists and all public and private institutions, and operationalized income level into five groups using the roman numerals I through V (V being the poorest). Primary findings revealed a significant inverse relationship between social class and mental illness in both type and severity, as well as in the nature and quality of treatment that was provided. Whereas individuals from the lowest socioeconomic strata had a much higher incidence of severe, persistent, and debilitating forms of mental illness and received the least adequate forms of treatment (e.g., intrusive methods such as electroshock and lobotomies delivered in public institutions), the upper two social classes received insight or talking therapy which was nonbodily intrusive and took place in private settings.

However, these first-generation studies used prevalence estimates that were based on treated samples instead of population-based estimates, which grossly underestimates prevalence rates in the population

and produces biased estimates of risk factors because only a fraction of those with mental disorders ever seek treatment (Dohrenwend & Dohrenwend, 1982).

The second generation of studies identified by the Dohrenwends extended from the end of the Second World War to the 1970s and was stimulated by dramatic changes in the conceptualization and measurement of psychiatric disorders (Dohrenwend & Dohrenwend, 1969; Leighton, Harding, Macklin, Macmillan, & Leighton, 1963; Srole, Langner, Michael, Opler, & Rennie, 1962). Instead of assessing specific types of discrete psychiatric disorders, these studies measured mental disorders along a continuum using psychological distress scales (e.g., the Selective Service Neuropsychiatric Screen Adjunct). These studies found additional empirical evidence that the prevalence rates of various types of psychiatric disorders were inversely associated with socioeconomic status and social class in the general population (Dohrenwend & Dohrenwend, 1969; Leighton et al., 1963; Srole et al., 1962). Two innovative studies from this second generation include the Midtown Manhattan Study in New York (Srole et al., 1962) and the Stirling County Study in Nova Scotia (Leighton et al., 1963). The former used a large sample of persons randomly selected from the population and found that mental health risks were greatest among low-socioeconomic status groups and racial inequalities in mental illness appeared to be due to racial differences in SES. The latter found that during the 1950s and 1960s the prevalence of depression was significantly and persistently higher in low-SES groups compared to other SES levels. The incidence of depression also was highest among those who were initially in the low-SES group, supporting the social causation view that poverty increases the risk of depression (Murphy et al., 1991).

Advantages of these second-generation studies over previous efforts included the use of probability sampling methods to select respondents who were representative of their respective communities, longitudinal designs to measure changes over time, and the use of sophisticated assessment techniques that had not previously been feasible. These methodological improvements provided stronger evidence of the inverse link between SES and psychiatric disorders and also extended its generalization beyond treatment samples to the general population.

The 1980s and 1990s saw the emergence of third-generation studies, which established the methods of modern medical sociology and psychiatric epidemiology in the US. Population-based efforts such as the Epidemiological Catchment Area (ECA) study, the National Comorbidity Survey Replication (NCS), and the National Comorbidity Survey Replication (NCS-R) are notable for their use of reliable lay-administered structured diagnostic assessment tools to ascertain standardized diagnostic criteria (Kessler & Merikangas, 2004; Robins, Helzer, Croughan, & Ratcliff, 1981), the comparison of clinical interviews with lay interviews to evaluate diagnostic validity (Spitzer, Williams, Gibbon, & First, 1992), and the application of sampling strategies to demonstrate that mental disorders were highly prevalent in the general population (Kessler et al., 1994).

The ECA study, designed to estimate the prevalence and incidence of mental disorders in five US metropolitan areas was conducted between 1980 and 1985 (Eaton, Regier, Locke, & Taube, 1981; Robins & Regier, 1991). The Baltimore ECA site followed up its cohort of 3,481 respondents using the Diagnostic Interview Schedule (DIS) as the measurement instrument (Eaton et al., 1997). Studies using ECA data consistently found a strong and graded relationship between SES and psychiatric disorders (Dohrenwend, 1990; Holzer et al., 1986; Regier et al., 1993); however, the strength of associations varied by the type of psychiatric disorder examined. Overall, low-SES groups were 2.5 times more likely than the highest SES group to meet criteria for any DIS-disorder, even after controlling for age, gender, race, ethnicity, and marital status (Regier et al., 1993). The impact of SES on mental disorders was strongest for schizophrenia (eightfold difference between the lowest and highest SES groups), intermediate for alcohol abuse or dependence (fourfold difference), and weakest for major depression (twofold difference) (Holzer et al., 1986).

The NCS, conducted in 1990–1992, yielded 12-month and lifetime prevalence rates for a nationally representative sample of persons aged 15–54. Echoing ECA results, NCS findings consistently revealed an inverse association between SES and psychiatric illness: The highest rates of psychiatric disorders were found among low-SES groups, and increases in income and education were associated

with decreases in mental disorders (Kessler et al., 1994). Inverse associations were also found between financial (e.g., income from property, royalties, estates, trusts, earned interest) and physical assets (e.g., motor vehicle and home ownership) and mood, anxiety, alcohol, and drug disorders (Muntaner, Eaton, Diala, Kessler, & Sorlie, 1998).

A decade after the original NCS, the NCS-R was carried out in a new national sample of 10,000 respondents to investigate time trends and their correlates over the 1990s (Kessler et al., 2005; Kessler & Merikangas, 2004). To date, SES findings from the NCS-R are broadly consistent with previous surveys in finding that low education increases the risk of substance use disorders (Kessler, Chiu, Demler, & Walters, 2005), living in or near poverty increases the risk of major depression (Kessler et al., 2003), and low childhood SES increases the risk of onset of all classes of disorders at every life-course stage (McLaughlin et al., 2011).

Taken together, third-generation studies have confirmed the link between low SES and poor mental health, finding that this association remains strong across different measures of education, income, and occupation and across mental health outcomes (Yu & Williams, 1999). However, research often does not explicitly discriminate the way that gradational and relational aspects of social inequality relate to mental health, and we next turn to these complementary approaches.

Gradational Approaches to Social Inequality

One dominant approach to understanding social inequalities in mental health involves the empirical use of social stratification measures, which focus on ways in which individuals are ranked along a hierarchical continuum of social, economic, or cultural attributes such as educational attainment, income or wealth, and occupational classifications and prestige (Lahelma, 2001). Social stratification rankings are often referred to as “simple gradational measures” (Wright, 2000), “SES” (Braveman et al., 2005), “socioeconomic position” (Krieger et al., 1997; Lynch & Kaplan, 2000), or “social class” (Stansfeld, Head, & Marmot, 1998). From the gradational perspective, mental health disparities exist between all hierarchical strata, with those at the bottom of the ladder having poorer mental health than those in the middle and at the top.

Defining Dimensions of Social Stratification

A number of options exist to measure social stratification in empirical studies on mental health disparities. We review education, income, and occupational classifications, and the supporting evidence on how each dimension helps to explain mental health disparities.

Education, measured as years of training or credentials, is perhaps the most common indicator of social stratification in the sociology of mental health disparities (Liberatos et al., 1988). Education is strongly associated with both material (e.g., income, wealth, living conditions) and nonmaterial resources (e.g., psychosocial factors, sense of control and mastery) (Ross & Mirowsky, 2011; Ross & Wu, 1995). Education can be measured using completed years or highest credential and offers distinct advantages. For example, education is established relatively early in the life course and tends to be stable over the remainder of adulthood. It is also equally suitable for men and women, has high response rates in surveys, demonstrates good reliability across time and place, and is generally comparable across countries (Kaplan & Keil, 1993). The drawbacks of using education as an SES indicator include its different labor market and psychosocial consequences according to gender (e.g., patriarchal institutions), age (e.g., older individuals are likely to have only completed elementary school), and cohort (e.g., education varies across cohorts) factors (Ross & Mirowsky, 2006; Ross & Wu, 1996).

The positive association between education and mental health is strong, consistent, and well-established. For example, a comprehensive meta-analysis of depression included 26 studies in which education was the measure of SES, and all but two found that persons with lower educational attainment have a higher prevalence of depression than those with less education (Lorant et al., 2003). Two types of explanations have been advanced to explain these observed associations: (1) education directly results in better mental health outcomes because it empowers individuals with greater knowledge and increases their cognitive resources, sense of control, and health-enhancing behaviors (Ross & Wu, 1995); and (2) education improves mental health indirectly because it provides greater access to valued labor market skills, which are kept in short supply by “credentialing” processes (e.g., obtaining a postgraduate degree) (Muntaner, Wolyniec, McGrath, & Pulver, 1994), which in turn leads to better work conditions and material resources (Ross & Wu, 1995), with positive mental health consequences. Recent research suggests that the education-mental health link is likely dominated by the effects of lower education on the chronicity of depression, as opposed to its incidence (Miech, Eaton, & Brennan, 2005).

Income is a measure of the availability of economic resources for individuals or households (Liberatos et al., 1988). When combined with data on family size, it can be used to calculate *poverty thresholds* at the level of the individual (Costello, Compton, Keeler, & Angold, 2003) and at the level of neighborhood, census tract, or other social aggregates (Aneshensel, Ko, Chodosh, & Wight, 2011; Wight, Ko, & Aneshensel, 2011). Income is widely used as a social stratification indicator because it most clearly captures material resources and allows for ordinal rankings or interval measures (Lynch & Kaplan, 2000). Drawbacks in measuring income include higher nonresponse in surveys compared to education and occupation queries, due to the unwillingness of respondents to disclose financial information (Kaplan & Keil, 1993; Liberatos et al., 1988), and difficulty in establishing causal relationships because income fluctuates throughout the life course. Also, given that wealth is more unequally distributed than income (Wolff, 1996), reliance on income as the primary indicator of economic resources may overlook even greater economic inequalities in mental health (Hajat, Kaufman, Rose, Siddiqi, & Thomas, 2011).

Similar to education, direct links between income, measured in various ways, and mental health have long been observed, with the affluent doing better on most measures of mental health compared to those less well-off economically and the poor (McLeod & Shanahan, 1996). As revealed in the NCS, for example, individuals with annual household incomes of less than \$20,000 per year were found to have a 1-month prevalence of major depression that was twice as high as that for individuals with annual household incomes of \$70,000 or more (Blazer, Kessler, McGonagle, & Swartz, 1994). Studies of metropolitan areas in the US have found even larger differences between high- and low-income respondents’ risks of depression (Eaton, 2001). In a 13-year follow-up study of participants in East Baltimore, poverty at baseline was found to increase the onset of depression by 2.5 times (Eaton, Muntaner, Bovasso, & Smith, 2001). Interestingly, this study also found a relatively weak relationship between late onset of depression and education and occupational prestige, but a strong relationship with receiving welfare payments at baseline, suggesting that poverty and absolute deprivation are more important mental health determinants than relative deprivation (Eaton et al., 2001).

Occupational classification is another important indicator of social stratification, since it relates people to social structures. Arguably, the most popular occupational classification among empirical sociologists in the UK is the “British Registrar General’s Classification” (Reid, 1989), which distinguishes between (I) professional, higher administrative (lawyer, doctor); (II) managerial and technical/intermediate (manager, teacher); (IIIN) skilled nonmanual (police, secretary); (IIIM) skilled manual (bus, driver); (IV) partly skilled (farm worker, security guard); and (V) unskilled (cleaner, building laborer). Other ordinal grades in this category include the British Whitehall studies (Marmot, Bosma, Hemingway, Brunner, & Stansfeld, 1997) and the French GAZEL cohort (Melchior et al., 2005).

Recent studies show that blue-collar workers are between 1.5 and 2 times as likely to be depressed as white-collar workers (Eaton et al., 2004). Being born to parents employed in manual labor occupations confers almost twice the risk of depression for women and almost four times the risk of depression for men compared with those born to at least one parent not in the manual labor

occupations (Eaton et al., 2004). In the US, two- to threefold differences in prevalence between high- and low-occupational strata have been found for substance use disorders, alcohol abuse or dependence, antisocial personality disorder, and anxiety disorders (Eaton, 2001; Regier et al., 1988).

Occupational prestige scales reflect a culturally shared assessment of the prestige associated with employment positions, resulting in the ranking of occupational titles from high to low. Examples include “Nam-Powers Occupational Status Scores” (Nam & Powers, 1965), and Duncan’s (1961) “Socioeconomic Index”, the International Standard Classification of Occupations (Ganzeboom, De Graaf, & Treiman, 1992), and the “Cambridge Scale” (Prandy, 1999), which has been used in population health and mental health research (Prandy, 1999; Sacker, Bartley, Firth, & Fitzpatrick, 2001).

The impact of occupational prestige on mental health operates primarily through psychosocial and lifestyle mechanisms (Sacker et al., 2001). Given that an individual’s occupational prestige reflects what is known about an occupation in terms of work characteristics, consumption of goods and services, and social behaviors, prestige therefore may be viewed as a proxy of job characteristics such as control, autonomy, authority, stress, and job security. The benefit of using occupational schemes in mental health research lies in their explicit theoretical link to the Weberian notion of status—individuals are conceptualized as workers who are attached to social structures based on their status related to different occupations (Lahelma, 2001).

Relational Approaches

Whereas gradational approaches emphasize the ranking of individuals along a hierarchy, relational approaches conceptualize social inequalities in terms of conflict between various groups struggling for advantage over the distribution of valuable resources (Parkin, 1979). Social inequalities are generated and reproduced because the advantage of some groups causally depends upon others being disadvantaged (Roemer, 1982). From this viewpoint, mental health disparities are viewed in relational terms, or the ways in which some people have control over economic resources while excluding others (e.g., credentialed vs. noncredentialed) or the ways in which social class positions empower some people control over the work of others (e.g., owner vs. manager vs. worker). Social closure and social class are two approaches that begin by examining the relations among SES positions and their impact on mental health outcomes.

Defining Social Closure

Social closure refers to the process by which a collective group seeks to maximize rewards by restricting access to resources and opportunities to a limited circle of eligible group members (Weber, 1946). Viewing social closure as a mechanism of exclusion reveals how unequal amounts of resources lead to mutually exclusive social cleavages (Wright, 1979) and how access to and exclusion from certain economic opportunities create social inequalities and mental health disparities. For example, in order for certain jobs to confer high income, special advantages, and occupational prestige, it is necessary for their incumbents to have various means of excluding others from access to these positions. Examples of social closure are found in all privileged groups, for example, systems of accreditation, formal membership of professional associations, and social clubs with expensive or limited memberships.

The idea of social closure, also referred to as opportunity hoarding, was first developed by Weber, and has been advanced through the works of Parkin (1979) and Bourdieu (1986). According to Parkin, two types of social closure are exclusion and usurpation. The former refers to practices that separate the group from “outsiders,” and the latter refers to a strategy adopted by less privileged groups to gain advantages that others are monopolizing. Forms of social closure deemed as legitimate in modern

capitalist societies are property relations (class) and qualifications (credentials) (Parkin, 1994). Class and credentials are considered mostly meritocratic forms of social closure as opposed to ascribed criteria such as race or gender (Parkin, 1994).

Bourdieu (1986) argues that social inequalities arise between various groups competing over three basic forms of capital: economic, cultural, and social. Each form of capital represents an important sector of society and can be transferred from one sphere into another. Economic capital, measured as income and wealth, is exercised through property rights and financial capital by the economic and productive sectors (Calhoun, 2000). One common form of economic hoarding is the protection and enforcement of citizenship rights through restrictive and punitive immigration policies (Milanovic, 2011). Cultural capital assumes various forms and is most often conceptualized as educational credentials (Bourdieu & Passeron, 1990). Social capital refers to social obligations of acquaintance and recognition inherent to a valued position within a collectivity (Bourdieu & Passeron, 1990), including the recognition of authority positions in organizations, for example.

Taken together, these three different forms of capital are held and exercised by individual actors and social groups, all of whom are engaged in a *social game* and *social struggle* to acquire more capital (Calhoun, 2000), contributing to the production of social inequalities.

Social closure limits access to valued forms of capital through the acquisition of skills, knowledge, credentials, and credentialism. Credentialism refers to the requirement that individuals hold advanced degrees as a condition of employment (Parkin, 1979). Skills and knowledge are valuable characteristics that are earned and possessed by individuals (Bourdieu, 1986). Credentials distinguish which skills and knowledge bases are socially valued (e.g., high school, bachelor's, professional degrees), and recognized as important forms of cultural capital (Bourdieu, 1986). As such, credentials contribute to social inequalities through access to restricted labor markets, privileged organizational positions, and advantageous social networks (Clement & Myles, 1994); and through exchange for other highly valued forms of capital such as income and wealth (Bourdieu & Passeron, 1990).

To date, how social closure might produce mental health disparities remains relatively unexplored in sociological research. One of the few examples includes a study by Vanroelen, Levecque, Moors, and Louckx (2010) examining mechanisms linking credentialed skills with emotional well-being. Using a representative cross-sectional sample of 11,099 Flemish wage earners, credentialed skills were assessed using three educational levels (no/lower secondary; secondary; higher non-university and university education) and eight occupational categories (un/semi-schooled manual; schooled manual; non-manual routine; educational; healthcare; other professionals; middle management; higher management). Credentialed skills had a clear indirect effect on well-being through differential exposure to occupational stressors, suggesting that credentialed skills both reinforce and moderate the link between socioeconomic status and mental health disparities (Vanroelen et al., 2010).

Defining Social Class

While social stratification and social closure emphasize, respectively, the ranking of individuals and restriction of privileged opportunities, social class calls attention to the ongoing conflict between employers, managers, and workers that generate social inequalities and mental health disparities (Muntaner et al., 1998). This relational framework begins with the concept of neo-Marxian social class (NMSC), which represents an alternative approach to social stratification with its emphasis on relations of ownership and control over productive assets (e.g., physical, financial, organizational) as the primary determinant of social inequalities in economic resources (Wright, 2000). NMSC conceptualizations are derived from the perspective that capitalist societies are systematically structured into distinct social classes and that social actors and groups are related to each other through relations of production; that is, by control over productive assets, namely technology (e.g., means of production)

and work organizations (e.g., labor) (Wright, 1985). In recent decades, NMSC measures have been used to test sociological hypotheses on class structure in various countries (e.g., the relation between social class and gender, political attitudes, cross-class friendships) and have empirically documented the rise of the middle class (Wright, 1985, 1989, 2000).

Accompanying these developments has been a greater interest in understanding and explaining the relationship between social class and mental health disparities. Instrumental to this work has been Erik Olin Wright's social class scheme, which measures social class relations along three dimensions: (1) *ownership* of productive assets, (2) *control* and *authority* relations in the workplace (e.g., control over organizational assets), and (3) *skills* and *expertise* (Wright, 2000). Wright's map of social class locations is shown in Fig. 11.1.

Using data from the ECA survey, Muntaner and colleagues (1998) tested Wright's class scheme, and in particular, the mental health consequences of "contradictory class location," which refers to situations where supervisors are caught between managers and workers, and have little impact over the decisions of top management, but are responsible for workers' performance. Low-level supervisors displayed higher rates of major depression and alcohol disorders than either managers or workers, and were 2.6 times more likely to suffer from anxiety disorders compared to high level managers (Muntaner et al., 1998). These findings lend support to Wright's contradictory class location hypothesis and the idea that mental health may be affected by role conflict and divided loyalties posited by (Wright, 2000).

The primary advantage of adopting a social class approach to mental health involves its potential to add explanatory power over and above conventional gradient approaches (Muntaner et al., 1998). Although social stratification approaches have proven to be powerful predictors of mental health disparities, they do not reveal the social mechanisms that explain how individuals come to accumulate different levels of these economic, power, and cultural resources. In this respect, NMSC's theoretical value lies in its conceptualization of social classes as being the result of mechanisms of domination and exploitation. Acknowledging that some economic positions accord power over the lives and activities of others leads to different explanations for observed mental health gradients. Despite the potential importance of control over productive assets (property and power at work) as determinants of population mental health and mental health disparities, most sociological research on mental health does not include measures of social class (Eaton, 2001). At the same time, Wright's social class scheme is limited in its capacity to measure exploitation, since it relies on the degree of *domination* between *ownership* capitalists (exploiters) and workers (exploited) as an approximation of exploitation.

In theory, NMSC analysis should focus on how the realization of exploiters' interests harms the economic interests of the exploited; however, in practice, the concept of contradictory locations within class relations focuses almost exclusively on relations of domination rather than exploitation (Wright, 1989). Another limitation stems from the lack of differentiation between different types of capitalists (industrial, landlord, financial), a common distinction of classical Marxian class theory (Muntaner & Lynch, 1999). The differentiation among workers according to contract type (temporary, flexible, on call, contract work, self-employed worker, informal work), also known as nonstandard work arrangements, supports the need to refine measures relevant to working class groups. The growing prominence of financial capital and nonstandard work arrangements in the last 30 years (Quesnel-Vallée, DeHaney, & Ciampi, 2010) reveals the urgent need to develop new class indicators that can adequately deal with the complexity of contemporary capitalism.

Sociological Approaches to Social Inequalities in Mental Health: A Summary

Table 11.1 summarizes the major differences between social stratification, social closure, and social class approaches to mental health, presenting key conceptual differences on the nature of social inequalities, power dynamics, and policy implications for reducing mental health disparities.

Table 11.1 Sociological approaches to social inequalities in mental health: a summary

	Social stratification	Social closure	Social class
<i>Theoretical paradigm</i>	Weber	Neo-Weberian/Bourdieu	Neo-Marxian
<i>Nature of inequality</i>	Gradational	Relational	Relational
<i>Orientation</i>	Microlevel	Micro/mesolevel	Meso/macrolevel
<i>Focus</i>	Individual attributes, material conditions, and “life chances” (e.g., income, education, occupation, wealth)	Accreditation, licensing, private-property rights	Social class relation to productive assets, exploitation and domination, skills/credentials
<i>Causes of social inequality</i>	Individuals are stratified into different positions based on life chances	Social classes are generated and protected through exclusionary mechanisms	Social classes are generated and reproduced along exploitative production relations
<i>Source of power</i>	Individual power results from possession of attributes and material life conditions	credentials, licenses, managerial and property rights provide access to and exclusion from economic opportunities	Employment relations accord some people power over the lives and activities of others
<i>Distribution of power</i>	highly concentrated between individuals (e.g., affluent vs. poor)	Highly concentrated between opportunity hoarders and non-hoarders (property owners and property less, credentialed vs. uncredentialed)	highly concentrated between exploiters vs. exploited (e.g., capitalists vs. workers)
<i>Inequality mechanism</i>	“Life chances” stratifies individuals into different groups	Opportunity hoarding and social closure protects the privileges and advantages of specific groups	The process of production appropriation and distribution of surplus value between different social classes generates economic inequality
<i>Illustrative question</i>	How do people obtain the SES resources that affect their occupations in the labor market which in turn affect their mental health?	What mechanisms of exclusion sustain the privileges of those in middle-class positions?	How do exploitation and conflict between owners of means of production and workers who supply labor lead to systematic differences in mental health?
<i>Hypothesized effects</i>	Gradient effect, SES corresponds to mental health status	Gradient effect, opportunity hoarding and excluded status predicts to mental health status	Nonlinear, mental health dependent on level of exploitation and domination exerted and experienced by different social classes
<i>Implications for improving mental health</i>	Redistribute resources, provide college loans, increase minimum wage and employment opportunities	Removing mechanisms of exclusion to undermine the advantages of those who benefit from hoarding (adopt a single payer NH system, citizenship rights to undocumented immigrants)	Increase working class power and unionization rates, elect pro-labor political parties, organize social movements to reduce exploitation
<i>Advantages</i>	SES indicators offer high-predictive value of risk factors, easy to interpret, widely available	Acknowledges the economic advantages gained from being in a privileged position is causally connected to the disadvantages of those excluded	Considers social relations in capitalist societies, identifies inequality generating mechanisms in the labor market and in the workplace simultaneously
<i>Limitations</i>	Mostly descriptive; limited explanatory power	Does not deal with how social class works at the point of production	Measurement of exploitation is underdeveloped; the concept is controversial and contested

A significant difference among three approaches that receives little to no attention is how power is understood in terms of producing social inequalities in mental health. The stratification approach implicitly adopts a power-elite model that views power as highly concentrated among high SES individuals (Mills, 1956). High SES individuals constitute a privileged group of people who possess the majority of society's wealth, occupy its most prestigious professions, and exercise a disproportionate share of power. As a result, mental health disparities represent the unequal SES outcomes of powerful and powerless individuals. From a NMSC point of view, power is understood within a political economy context. It follows that economic institutions and capitalists relations are inherently biased toward producing socioeconomic inequalities, which are connected to the class structure and sustained by the exercise of power. Capitalists or power elites are not natural actors in the social structure; they are constructions of capitalism itself. Reducing mental health disparities, therefore, requires resolving inherent problems rooted in capitalist relations (e.g., exploitation, supervision, monitoring of labor, and sanctions to enforce discipline). Given these power dynamics, social struggles seeking to challenge these forms of power could narrow and redress mental health disparities. Measuring social class taps into parts of the social variation in mental health that are not captured by conventional measures of social stratification, leading to new hypotheses such as Wright's contradictory class location.

Another important difference among these approaches includes the potential policy options that reduce mental health disparities. While the stratification model favors redistributive policies (e.g., progressive taxation, college loans, and basic income entitlements) to improve mental health, the social class framework endorses more fundamental shifts in power and social relations, such as workplace democratization, workers' bargaining rights, and union representation to redress social inequalities (Muntaner et al., 1998).

Recent Developments

In this section, we briefly describe emergent research in the areas of SES, social closure, and social class.

Assessing the mental health effects of contextual SES indicators (e.g., rates of neighborhood poverty or income inequality) has emerged as an important area of sociological inquiry (see Chap. 23), showing an impact of contextual SES on mental disorders even after accounting for individual SES. Findings consistently support an inverse relationship between neighborhood SES and mental disorders across various study designs, geographic areas, levels of aggregation, and outcomes. In addition, the contextual effect of income inequality has also been found to be an important sociological predictor of mental health disparities (Henderson, Liu, Diez Roux, Link, & Hasin, 2004; Weich, Lewis, & Jenkins, 2001). It follows that the distribution of income in society has a contextual impact over and above individual incomes on population levels of mental health, such that individuals tend to have worse mental health in unequal societies (Subramanian & Kawachi, 2004). However, questions remain about potential confounding (e.g., by the compositional characteristics of areas such as race/ethnicity, education, and individual income), and there is only limited information about pathways and mechanisms. Given that income inequality studies have also primarily relied on cross-sectional or short-term prospective studies, more longitudinal are needed to establish causality (Driessen, Gunther, & van Os, 1998).

Sociological research on the impact of social closure and opportunity-hoarding mechanisms on mental health remains in its infancy. Yet, early evidence suggests that possessing credentialed skills and knowledge translates into possessing material and psychosocial resources, which then increase the likelihood of better mental health, positive health behaviors, and illness prevention (Lahelma, 2001). Thus, apart from the health-promoting potential of skills and knowledge with regard to health behaviors and coping resources, credentials can be assumed to have their own mental health effects. In the context of employment, credentials are related to the rewards and costs associated with work.

As a consequence of the skills rent (e.g., compensation paid to skilled employees that exceeds the cost of producing and reproducing their labor power), higher material rewards can be expected for employees who possess high credentials (Wright, 2005). Skills and credentials also influence job content, revenue, exposure to psychosocial and physical workplace hazards, social protection, and benefits, all of which are related to mental disorders (Borrell, Muntaner, Benach, & Artazcoz, 2004; Vanroelen et al., 2010).

A small yet growing body of research has examined the link between social class and mental health within a neo-Marxian framework (Borrell et al., 2004; Muntaner, Borrell, Benach, Pasarín, & Fernandez, 2003; Muntaner & Parsons, 1996; Muntaner et al., 1998; Muntaner et al., 2009; Wohlfarth, 1997). These studies begin with the sociological hypothesis that social class has important consequences for the lives of individuals insofar as social class determines an individual's legal right and power to control productive assets and to acquire income and material resources. For example, the class position of "business owner" compels its members to hire "workers" and to extract labor from them, while the "worker" class position compels its members to find employment and perform labor. Given that social class is conceptually distinct from social stratification, it is not surprising that research has found that social class affects mental health over and above standard SES indicators. To date, two findings have emerged from this research: (1) social class and socioeconomic the relation between socioeconomic position (SEP) and mental disorders status models lead to different hypotheses regarding; and (2) measures of social class and socioeconomic status are not empirically equivalent (Muntaner, Borrell, & Chung, 2007; Muntaner, Li, et al., 2004). One study (Wohlfarth, 1997) found a small overlap between socioeconomic status and social class measures, but the association between social class and depression, as assessed by the Research Diagnostic Criteria (Spitzer et al., 1992), could not be accounted for by socioeconomic status (i.e., education and occupational prestige).

Recent studies have found compelling evidence of a nonlinear relation between social class and mental health (Muntaner et al., 1998, 2003). For example, Muntaner and colleagues (Muntaner et al., 2003) examined the association between social class and mental health among working men aged 16–64 and found that low-level supervisors, who do not have policy-making power but can hire and fire workers, reported higher rates of depression and anxiety than both high-level managers (who have organizational control over policy and personnel) and front-line and nonmanagerial workers. Control over organizational assets is determined by the possibility of influencing company policy (making decisions over number of people employed, products or services delivered, amount of work performed, and size and distribution of budgets) and by sanctioning authority over others in the organization (granting or preventing pay raises or promotions, hiring, and firing or temporally suspending subordinates). The repeated experience of organizational control at work protected most upper-level managers against mood and anxiety disorders. Low-level supervisors, in contrast, were simultaneously subjected to "double exposure": The demands of upper management to discipline the workforce and the antagonism of subordinate workers, while exerting little influence over company policy. Thus, supervisors, occupying a "contradictory class location" had higher levels of depression and anxiety than upper management or non-supervisory workers.

Given that gender inequalities represent a substantial source of socioeconomic inequality, more gender-specific studies are needed. One of the few examples on the gendered patterned between social class and mental was undertaken by Borrell and colleagues (Borrell et al., 2004), who tested the link between ownership and control over productive assets and self-perceived health, a consistent and reliable correlate of mental health (Singh-Manoux et al., 2006). Among men, results revealed that the prevalence of poor health was significantly higher among small employers and petit bourgeois, supervisors, semi-skilled and unskilled workers compared to managers and supervisor experts. In contrast, among women, only unskilled workers had poorer health status than managers and skilled supervisors. Explaining these associations involved different mediating factors for men and women. For men, part of the association between social class positions and poor health was accounted for by psychosocial and

physical working conditions and job insecurity. For women, the association between worker class positions and health was explained in large part by working conditions, material well-being at home, and amount of household labor. These findings underscore the need for future research to incorporate household measures of social class and wealth, and also examine gender-specific exposures to comprehensively explain the effects of social class on mental health disparities.

Interrelationships

Different power relations need to be integrated into sociological models to better understand how mental health variations reflect multiple social positions and the full intersection of various political, economic, and cultural resources. To provide a fuller picture of social inequalities in mental health, we review the interrelationships between social inequalities and race, ethnicity, and gender.

Race and Ethnicity

Both race and ethnicity are socially created categories, which are representative of social relations such as nationalism, colonialism, imperialism, and racism. We agree with Karlsen and Nazroo's (2002) notion that race and ethnicity reflect the dualism of individual identity and social structure, both of which influence access to resources. Psychiatric epidemiology and sociology have both found general trends of inverse associations between social inequalities and mental health across racial and ethnic groups (Williams, Takeuchi, & Adair, 1992; Williams, Yu, Jackson, & Anderson, 1997). Zahran and colleagues (Zahran et al., 2005) examined the prevalence of frequent mental distress (FMD) among US adults by race/ethnicity and SES using aggregate data from the Behavioral Risk Factor Surveillance System surveys for 1993–2001. Across all racial/ethnic populations, respondents with high SES were least likely to have FMD. For high-SES respondents, the prevalence of FMD was highest among non-Hispanics of other race (7.9%) and American Indians/Alaska Natives (7.7%) and lowest among Asians/Pacific Islanders (3.8%). Non-Hispanic whites, non-Hispanic blacks, and Hispanics had intermediate FMD prevalence rates (4.7%, 6.1%, and 5.9%, respectively). In all racial/ethnic populations, persons with low SES were at least twice as likely to have FMD as those with high SES (Zahran et al., 2005). More detailed observations have found that at low levels of SES, African Americans experience higher rates of psychological distress compared to their white counterparts (Kessler & Neighbors, 1986). In terms of social class models, no studies, to date, have examined the interactive effects of NMSC concepts and race on mental health.

Explaining the associations between SES and racial differences in mental health reveals an ongoing debate among sociologists as to whether primacy should be given to race or social class to explain mental health outcomes. A race-based explanation argues that unequal power relations (e.g., individual and institutional levels of racism) between racial groups results in differential exposures to SES attainment and stressful experiences, which lead to negative mental health outcomes (Keyes, Barnes, & Bates, 2011). For example, African Americans are overrepresented in low-SES positions because historical and contemporary forms of racism and discrimination have denied them the educational and employment opportunities necessary for upward social mobility (Williams, Neighbors, & Jackson, 2003). Thus, racial minorities experience higher rates of mental disorders because they are more likely to be materially deprived (e.g., poverty, low-paid jobs, unemployment, poor housing). From a class-based approach, various scholars have theorized that racial inequalities reflect neo-Marxian class relations (Miles & Phizacklea, 1984). Though this work remains unexplored in the empirical literature, it offers some provocative ideas on the potential links between racial minorities, exploitation,

and mental health. It follows that racial inequalities may emerge as an epiphenomenon of social class and its relation to means of production (Miles & Phizacklea, 1984). For example, countries in high demand of labor often fill this need with racial minorities, who are relegated to manual, lower-level, and unskilled jobs, thus forming a racialized working class. According to Bolaria and Li (1988), this process of racialization occurs in capitalist systems because “race problems begin as labor problems” (p. 7). Racism, therefore, serves as a rationale for exploiting labor, which in theory contributes to the social production of racial inequalities in mental health.

Gender

Males and females experience similar aggregate rates of mental health disorders; however, they suffer from different types of psychiatric problems (Macintyre, Hunt, & Sweeting, 1996). Females are more likely to internalize disorders such as depression and anxiety (Jenkins et al., 1998), while males predominate in externalizing disorders (e.g., aggressive and antisocial personality traits) (Kessler et al., 1994). Men also tend to experience more problems with work and family because of drugs and alcohol abuse and dependence (Kessler et al., 1994). Although gender differences in mental health are well-documented, research on gender and SES inequalities and mental health lags significantly behind. This lack of research may be explained in part by the differential and inconsistent effects of SES measures (e.g., income vs. education) for men and women. For example, Matthews, Manor, and Power (1999) examined the relation among income, education, gender, and psychological distress using a national British sample. Findings revealed that the relationship between SES and mental health was different for men and women. SES inequalities showed greater inequality among women for poor health at age 23 and psychological distress at age 33, revealing an inconsistencies across SES indicator, outcome measure, and life stage. Even less research has explored the mental health consequences of gender inequalities, understood in terms of organizational inequality, gendered occupations, and wage inequalities.

Understanding gender differences in mental health in terms of social inequalities often relies on gender-specific theoretical frameworks based on occupational segregation. For men, the primary focus has been on understanding mental health outcomes through characteristics of paid work (Karasek & Theorell, 1990). These studies examine how features of male-dominated jobs (e.g., dangerous and prestigious occupations such as construction trades and positions that confer a great deal of income and power, respectively) affect psychological orientations and mental health status. In general, the extant literature supports the predictive value of job characteristics such as lack of control, job/environmental strain, inadequate rewards, and low levels of decision latitude and social support to predict poor mental health among workers. Though informative, much of this work does not account for larger macroeconomic structures.

The mental health outcomes of women are often understood in terms of balancing work and home responsibilities (see Chap. 21). On one hand, women are overrepresented in the lowest paid jobs (e.g., clerical and service work), which offer limited opportunities for advancement and increase the likelihood of psychological distress. On the other hand, women are also burdened with the “second shift” of tending to household duties and responsibilities. Women disproportionately perform most of the domestic labor yet have less control over domestic resources (Moss, 2002). The importance of household labor for women’s mental health has been substantiated in several studies (Hartley, Popay, & Plewis, 1992). Also key are differences among women themselves which play an important role in determining material circumstances and mental health outcomes. For example, women are more likely to be single parents, which are associated with material disadvantage and with poorer mental health for both mothers and their children (Arber & Thomas, 2001).

Altogether, the complexities of social inequalities in mental health in terms of race, ethnicity, and gender are best understood when these factors are simultaneously tested for interactions. To disentangle

the complex interactions between these variables, studies need to examine the joint and isolated effects of each variable. For example, Williams et al. (1992), using ECA data, found that low-SES black women had higher rates of alcohol and drug abuse disorders compared to their white counterparts. Conversely, low-SES white males had higher rates of psychiatric disorder than their low-SES black counterparts. In another study, Almeida-Filho and colleagues (Almeida-Filho et al., 2004) examined the association between gender, social class (upper, middle, working class, poor), race/ethnicity (white, Moreno, mulatto, black), and prevalence of depressive disorders in an urban sample in Bahia, Brazil. Findings indicate a strong, consistent three-way interaction: (1) none of the racial/ethnic subgroups among the upper middle class yielded a significant gender effect; (2) women had a higher prevalence of depression in all racial/ethnic subgroups (except whites of poor and working-class origin); and (3) poor, working class, black women were nine times more likely to have a depressive disorder than men in the same social class. These examples and their interactive findings demonstrate the inherent complexity involved with understanding the relationship between mental health outcomes and multiple systems of stratification and inequality. Associations between social inequalities, race, ethnicity, gender, and mental health are neither simple nor straightforward. As a consequence, future research should exercise greater sensitivity to the differential effect of ascriptive factors on social inequalities and mental health.

Social Selection and Social Causation

An important and longstanding debate concerns the interpretation of social inequalities and mental disorders (Dohrenwend et al., 1992; Faris & Dunham, 1939; Hudson, 2005; Link, Lennon, & Dohrenwend, 1993; Miech, Caspi, Moffitt, Wright, & Silva, 1999): Do societal differences in advantages and disadvantages cause individual differences in mental health, which is the *causation* hypothesis, or do individual differences in mental health lead to differences in social advantage, which is the *selection/drift* hypothesis (Eaton et al., 2001)? These two influences operate with varying degrees of strength across a wide spectrum of mental disorders (Dohrenwend et al., 1992; Johnson, Cohen, Dohrenwend, Link, & Brook, 1999; Miech et al., 1999; Ritsher, Warner, Johnson, & Dohrenwend, 2001). However, it also seems likely that disabling disorders with high levels of inheritance and clear developmentally early biological origins, such as schizophrenia, are much more likely to be consistent with the selection/drift alternative, even if *social* reaction to mental illness can account for the degree of “selection/drift” (Saraceno, Levav, & Kohn, 2005). Aside from some major mental disorders, such as schizophrenia and bipolar disorder that have very strong inherited influences (Eaton et al., 2006; Eaton, Pederson, Nielsen, & Mortensen, 2010), most mental disorders are less strongly influenced by inherited factors and vary considerably in the disability they produce, thus making it critical to further explore and understand how social inequalities contribute to their development and course (Eaton, 2001).

Social selection refers to the idea that individuals who have or who are predisposed to mental disorder have lower than expected educational, occupational, and social class attainment. This hypothesis gives causal priority to the onset of mental illness as a factor preceding the disadvantaged placement of individuals into socioeconomic positions or social classes. Drift suggests that those with mental disorders are likely to move down the SES ladder or social class positions. Alternatively, social causation explanations emphasize how the social experiences of members of different social classes influence their likelihood of experiencing poor mental health (Link et al., 1993; Ritsher et al., 2001). Causation accounts emphasize stratification indicators and social class relations as primary determinants of mental health disparities. Variations do exist within the social causation approach, including economic stress (e.g., poor mental health results from stressful economic conditions, such as poverty, unemployment, and housing affordability) and family fragmentation (e.g., poor mental health is a function of the fragmentation of the family structure and lack of family supports). We review the

explanatory power of each approach to separate the “causes” and “effects” of social inequalities and mental health. Since the predictive power of selection-causation explanations is strongly related to the type and rigor of research designs, we organize our review by study design: cross-sectional designs, natural experiments, and longitudinal studies.

Cross-sectional studies are the most common approach used to examine whether inverse associations between psychiatric disorders and SES are due more to causation or selection (Kessler, House, Anspach, & Williams, 1995; Link, Dohrenwend, & Skodol, 1986). For example, Dohrenwend and colleagues (Dohrenwend et al., 1992) compared patterns of illness among various ethnic and social class groups in a birth cohort sample from Israel ($N=4,914$) using a cross-sectional design. The temporal order of variables was controlled through ethnicity’s ascriptive status and SES’s dependence on educational and occupational attainment. Findings indicate social causation was stronger than social selection in producing the inverse association between SES and major depression in women, and substance abuse and antisocial personality in men. For schizophrenia, however, the evidence was more supportive of the social selection explanation. These findings were instrumental to the overall field, suggesting that selection-causation accounts can differ in relative importance by gender and mental health outcome.

A second approach involves taking advantage of naturally occurring events in the social world, following individuals over time, and determining the temporal ordering of variables. For example, Hamilton, Broman, Hoffman, and Renner (1990) examined the mental health effects of plant closings among auto workers and found that redundant employees were more likely to experience mental health problems. Similarly, Fenwick and Tausig (1994) used natural experimental methods to examine the occupational and mental health impact of Census based unemployment rates. Higher unemployment rates resulted in lower levels of worker job satisfaction and well-being. Since the mental health outcomes in these examples could not have *caused* the closing of auto plants or increased unemployment rates, the results largely support a social causation interpretation. To date, natural experiments have not been widely used in the extant literature due to the inherent difficulties with carrying out such designs.

Longitudinal designs also have been used to clarify whether social inequalities precede the onset of mental health outcomes or vice versa. Several studies have found strong and consistent negative associations between socioeconomic conditions and mental illness after controlling for confounding variables, providing convincing evidence for role of social causation. These studies include, for example: community-level SES affecting rates of acute psychiatric hospitalization (Hudson, 2005); low parental education increasing the risk of offspring depression (Ritsher et al., 2001); higher status occupations that afford more control and planning duties reducing the risk of depression (Link et al., 1993); job layoffs leading to the emergence or reemergence of alcohol abuse (Catalano, Dooley, Wilson, & Hough, 1993); and low family SES increasing the risk for offspring of anxiety, depressive, disruptive, and personality disorders (Johnson et al., 1999).

Past research has considered selection and causation mechanisms among youth and young adults, leading to new and stimulating findings. For example, using data from the Dunedin Multidisciplinary Health and Development Study ($N=1,037$), Miech and colleagues (Miech et al., 1999) followed a cohort from birth to age 21, and tested the relation between four mental disorders and educational attainment. Findings revealed a unique relationship with SES for each outcome variable: (a) social causation explained anxiety; (b) neither causation nor selection explained depression, suggesting the absence of effects of SES on depression before age 21; (c) antisocial disorders were jointly influenced by selection and causation effects; and (d) attention deficit disorder pointed to selection processes among youth.

Existing evidence supports both social selection and social causation explanations; however, their respective mechanisms are not mutually exclusive. Instead, selection and causation processes appear to operate independently at times, jointly at others, and sometimes these influences operate in both directions, varying in importance depending on the mental health outcomes that are studied, the

research designs that are used, and whether life-course dynamics are considered (Dohrenwend et al., 1992). Next steps include refining theoretical paradigms to account for more disorder-specific dynamics, replicating provocative findings across different cultures and historical periods, and integrating causation and selection to understand mental health trajectories over the life cycle (Eaton & Muntaner, 1999). As with most questions concerning the association of SES and mental disorders, the answer to this question requires the continued use of longitudinal studies with repeated measures of social inequalities and mental health outcomes. It is worth noting that our review could not identify any studies using NMSC concepts to test the direction of causal processes leading to mental health disparities, revealing a significant gap in our knowledge base.

Directions for Future Research

Based on this chapter's review and conclusions, it is clear that systematic inequalities in mental health exist across social stratification and social class, and that these are modified by other forms of social inequality such as race, ethnicity, and gender. However, limitations remain and more work is needed to further conceptualize the nature of mental health disparities, adequately explain their underlying determinants and causal mechanisms, and most importantly, from the perspective of public sociology, identify, implement, and evaluate policies that narrow the gap between social strata and social classes. To guide future work, we identify three directions for further inquiry: improving social class measures, collecting new prospective data over a nontrivial proportion of the life course, and studying labor-specific populations.

More theoretically grounded measures based on inequality-generating mechanisms (e.g., employment relations), and in particular exploitative relations, are needed to advance sociological research on social class and mental health. To date, the field has primarily followed the lead of Wright (2000) and has tested his social class scheme based on property relations (Eaton & Muntaner, 1999; Wohlfarth, 1997). However, the underlying mechanism of exploitation, or the amount of labor effort extracted from the "employee by the employer" (Wright, 2000), remains largely unmeasured and is not taken into consideration. A handful of studies have attempted to overcome this limitation. For example, recent investigations have assessed the predictive value of class exploitation and depression using organizational level measures that capture both property relations and the extraction of labor effect (Muntaner, Eaton, et al., 2004; Muntaner et al., 2006). Results find that exploitation measures, for-profit ownership, managerial domination, and lack of wage increases are strong predictors of depressive symptoms, suggesting the potential utility of this line of inquiry.

Increasingly, mental health disparities research has been devoted to understanding SES as time varying exposure (e.g., childhood, young adulthood, active professional life, and retirement) (McLeod & Fettes, 2007; Miech et al., 1999). Adverse SES in early life is a strong predictor of adult mental illness independent of adult SES (Wickrama, Conger, Lorenz, & Jung, 2008). Prospective studies report higher mental disorders among those who experience adverse SES at different periods of the life course. Existing databases and future data sources should not only incorporate refined measures of social class relations (e.g., Jha et al., 2006) but also increase the methodological rigor of their study designs. The reliability and validity of new social class indicators would benefit from being tested in longitudinal designs with repeated assessments using DSM-style diagnostic instruments. This would significantly improve upon current studies, which heavily rely on cross-sectional designs (Borrell et al., 2004; Muntaner et al., 1998, 2003; Wohlfarth, 1997), and would also expand the scope of hypothesis testing to include critical period effects (birth, childhood, adulthood, old age), as well as selection-causation issues. The combination of using new measures over time would provide new insights on how stratification and social class processes interact with periods of high vulnerability to produce different mental health outcomes over the life course (George, 2007).

Studies using social class measures have generally relied on working population samples (Stansfeld, Head, Fuhrer, Wardle, & Cattell, 2003). Although this option is intuitive and straightforward, exclusively focusing on employed individuals tends to overlook the extent of economic inequality in the general population and the mental health effects among persons not currently employed. Samples comprised of workers studies reflect a healthy worker bias insofar as workers tend to have at least a minimum level of mental health to be employed, whereas the general population includes the full spectrum of positive and negative mental health cases (Martikainen & Valkonen, 1999). Therefore, an important challenge for future research involves applying social class indicators based on employment relations beyond those formally employed such as informal workers, nonstandard employment arrangements, household labor, and unpaid labor. Of specific importance in social class indicators based on employment relations is the integration of situations of underemployment, nonstandard employment relations, or precarious employment.

In 2002–2003, the NCS-R was replicated in 72 countries from all regions in the world under the auspices of the World Health Organization and through its World Mental Health Survey Initiative (WHO-WMH) (Kessler & Üstün, 2000). Obtaining global information about social inequality variables and mental disorders represents an important development in the sociology of mental health disparities. This includes taking advantage of comparative methods to gain a better understanding of the causal forces that operate at macrolevels (e.g., institutions, structures, and processes) and are determinants in their own right of systems of social stratification, social closure, and social class. For example, global studies adopting comparative methods can identify fundamental similarities and dissimilarities across social inequalities in mental health. If mental health disparities in one country are worse and larger than in another, this offers guidance on reducing these disparities in the latter country. Studies using the WHO-WMH to examine social inequalities in mental health within and among countries have been limited and warrant further attention.

Conclusions

We have reviewed the nature of mental health disparities by comparing and contrasting gradational (social stratification) and relational (social closure and social class) approaches to explaining how social inequalities are generated within a society and the underlying pathways and mechanisms that are responsible for mental health disparities. It is clear that systematic inequalities in mental health exist across social stratification (e.g., income and education), occupational hierarchies (e.g., prestige), and social class (e.g., capitalists vs. managers vs. workers). Further, we have seen that these variables interact with other systems of stratification such as race, ethnicity, and gender, producing a complex social pattern of differences in mental health across populations.

The key message from this chapter is that social class indicators based on employment relations are able to uncover a set of social mechanisms (e.g., employer-worker; manager-supervisor-nonmanagerial worker) that are associated with mental health disparities. Despite a relatively small amount of studies compared to the stratification indicators, the encouraging evidence on mental health associations with relational indicators supports the continued use and development of social class concepts and measures in the sociology of mental health. Overall, the empirical literature reviewed gives support to the notion that the degree of social inequalities in population mental health is both a function of individual attributes *and* of the social relations that constrain and regulate the process of acquisition and distribution of income and other distal or proximal exposures to risk and protective factors. Social stratification and social class remain complementary and fertile traditions in the sociology of mental health because of the key problems they address (e.g., the causes of mental health disparities), the strength of their theoretical foundations (e.g., neo-Weberian and neo-Marxian ideas about fundamental social divisions), and the explanatory power of the concepts and mechanisms that both continue to generate.

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