Research in Mental Health: Social Etiology versus Social Consequences*

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This article differentiates a social etiology model focused on identifying the social antecedents of one particular mental disorder from a social consequences model concerned with the overall mental health consequences of various social arrangements. In the social etiology model, people with disorders other than the one particular disorder singled out for investigation are implicitly classified as “well.” This disorder-specific model is inappropriate for the more general sociological task of identifying the consequences of various social arrangements, such as concentrated poverty, racial segregation, and gender stratification. It is problematic because these consequences are typically nonspecific, not limited to one particular disorder. From this perspective, persons classified as “well” in the disorder-specific model who have a different disorder are misclassified. Consequently, the impact of social arrangements is underestimated, and estimates of causal effects are biased. To address these problems, the full range of theoretically derived mental health outcomes needs to be simultaneously analyzed.

Sociological research on mental health is typically focused on identifying how social organization and processes affect mental health. This orientation has tended to emphasize the impact of social structure, examining in particular the mental health consequences of socioeconomic stratification (McLeod and Nonnemaker 1999). Other research in this tradition has emphasized gender stratification, especially differences in the occurrence of disorder between men and women, but also variation among women according to their social role occupancy (Bird 1999; Simon 2002). Other aspects of stratification studied within this tradition include race-ethnicity (Williams, Takeuchi, and Adair 1992; Jackson 1997), age (Mirowsky and Ross 1992; Schieman, Van Gundy, and Taylor 2001), and marital status (Barrett 2000; Simon 2002). The stress process (Pearlin 1999) has figured prominently in attempts to connect social stratification to risk of mental disorder, along with the elaboration of mediating concepts such as mastery, social support, and coping. The common element linking these specific undertakings is a shared focus on explaining how society influences the mental health of its members and this connection is the topic of this article, specifically its differentiation from seemingly similar endeavors. The key issue to be addressed is whether the task at hand concerns identifying the social antecedents of a specific disorder, or the overall mental health consequences of various social arrangements.

THE SOCIAL ETIOLOGY MODEL

The social etiology model is concerned with the occurrence of one particular disorder and the identification of social risk factors associ-
ated with its occurrence. It is etiological given that its motivation is to locate the causes or origins of the disorder. Primary goals of this type of inquiry pertain to the prevention and treatment of the disorder under investigation. This model is employed in not only sociology but also public health, but it derives from medicine insofar as it is concerned with etiology. Although sociological investigators have begun to examine multiple or alternative mental health outcomes (e.g., Simon 2002), the disorder-specific etiologic model continues to predominate in sociological research published, for example, in the Journal of Health and Social Behavior.

The defining characteristic of this model is its focus on a single disorder, such as major depression. Persons with the disorder are treated as being positive on the outcome under investigation, that is, depressed. Other persons are treated as negative on the outcome, that is, not depressed. In very simplistic terms, people who have the disorder are compared to those who do not, that is, depressed versus not depressed. This classification strategy is internally consistent with the etiologic goals of this type of study. In other words, the intent of the research—to identify the causes of a particular disorder—and the measurement method match one another.

Within this disorder-specific model, people with different disorders are implicitly classified as “well” because they do not have the one particular disorder singled out for investigation. For example, a study of major depression will by default consider a nondepressed person who has a substance abuse disorder to be “well” (i.e., negative on the outcome) because the person does not have major depression. Indeed, the presence of other disorders may not be assessed, despite evidence that comorbidity for psychiatric disorders is extensive (Kessler et al. 1994). Again, this measurement strategy is consistent with the goal of identifying the causes of the one disorder singled out for investigation, major depression in our running example.

As an aside, I am using the term “disorder-specific” to refer to studies of a single disorder irrespective of whether that disorder is operationalized as a discrete disorder, such as major depression, or as a set of symptoms, such as nonspecific psychological distress. There has been extensive debate in the sociological literature about whether psychiatric disorders exist as discrete states versus occurring on a continuum with normal functioning at the opposite pole (Aneshensel 2002; Kessler 2002; Mirowsky and Ross 2002; Wheaton 2001). This debate has questioned the validity of measurement strategies that classify people into discrete categories, as discussed above, versus measuring quantitative variation based on symptom scales. I am setting this debate to the side because it is immaterial to the primary subject at hand insofar as the issues pertaining to the single-outcome study apply to both “illness” and “distress” orientations. In other words, one can conduct a disorder-specific etiologic study with pseudodiagnostic type measures or with psychometric symptoms scales. The two approaches are similar insofar as they analyze only one state of mental health at a time. Those who do not manifest symptoms of the underlying disorder are scored as asymptomatic in the same manner as those who do not meet diagnostic criteria are scored as negative for the underlying disorder. Both approaches judge the mental health of people with a single indicator. By default, people are treated as mentally healthy on all ignored indicators. Once again, this is unproblematic for attempts to uncover the etiology of that one disorder, whether it is conceptualized as a discrete psychiatric disorder or as a high level of symptoms of psychological distress.

That having been said, I submit that both disorder and distress are suitable outcomes for research into the mental health consequences of social arrangements. Elsewhere I have concluded that nonspecific psychological distress exists separately from distress associated with psychiatric disorder (Aneshensel 2002). From a psychiatric perspective, it may seem that such distress is of little import because it is seen as an ephemeral response to understandably difficult circumstances. However, such distress is pervasive, persistent, and recurrent, and is associated with substantial impairment in social roles and considerable health services utilization (Aneshensel 1985). On the one hand, these considerations make it an excellent candidate for sociological inquiry. On the other hand, the contemporary predominance of biological psychiatry in defining disorder as something within an individual may lead some to place disorder outside the purview of sociological inquiry. However, epidemiologic surveys clearly demonstrate that disorders are unevenly distributed in society (e.g., Kessler et al. 1994). Although some of these associations may reflect social selection, it is premature and misguided to rule out
social causation. Thus, I intend my comments to apply equally to disorder and distress.

In addition, I am referring throughout this commentary to the analysis of mental health outcomes as distinct from their assessment. It is not uncommon for mental health surveys to assess multiple outcomes but to analyze these outcomes one at a time. This approach is equivalent to having repeated disorder-specific models because other outcomes are ignored as each specific outcome is analyzed.

The disorder-specific etiological model is an extremely powerful model. It is used in most medical and epidemiological research. This model has generated a good deal of what we know about what makes people sick, including most of what we know about the social factors that make people sick. It is a good model—when used in the service of the etiologic goals of epidemiological and medical research.

THE SOCIAL CONSEQUENCES MODEL

The disorder-specific etiological model is a problem for sociologists, however, because the goals of sociological inquiry are usually not etiological, but rather emphasize the consequences of various social arrangements on people’s lives. The subject of inquiry is the structural factor, such as concentrated poverty, racial segregation, or gender stratification. Disorder is of interest, by and large, because it is seen as an important outcome of these social factors; it is not the object of explanation in and of itself. In other words, the goal is to elucidate the ways in which society impacts mental health as distinct from isolating the causes of a particular mental health problem in order to prevent or treat it.

When sociological research limits itself to identifying the social antecedents of a particular disorder, the research is indistinguishable from the disorder-specific etiological model; all that differs, perhaps, is the disciplinary background of the investigators and the journals in which the research is published. In other words, social etiological investigations implicitly adopt an inherently medical model as distinct from what I am labeling the social consequences model. Whereas the etiologic model is concerned with the social antecedents of a particular disorder, the social consequences model, I reiterate, is concerned with the mental health consequences of specific social arrangements.

Moreover, from the sociological perspective, the mental health consequences of social organization are typically assumed to be nonspecific, not limited to one particular disorder. Although a good deal of this literature focuses on depression and nonspecific psychological distress, research into the mental health consequences of social organization has examined a diverse set of other disorders as well. This list includes anger, violence, antisocial behavior, alcohol and substance abuse, anxiety, antisocial personality disorder, and suicide.

By and large, examples such as those just cited examine single mental health outcomes in isolation from other potential outcomes of the same set of social conditions. Consequently, these studies implicitly adopt the disorder-specific model. The point, however, is that findings from these studies collectively demonstrate that social organization is associated with a broad spectrum of potential mental health outcomes and is not linked to a single disorder to the exclusion of other disorders. Studies examining multiple mental health outcomes also support the conclusion that the mental health effects of social organization are nonspecific (e.g., Aneshensel, Rutter, and Lachenbruch 1991; Barrett 2000; Horwitz and White 1987; Horwitz, White, and Howell-White 1996; Pearl 1989; Simon 1998, 2002). In other words, the assumption of nonspecific effects is a viable one.

The best evidence supporting the need for multiple outcomes studies comes from two epidemiologic studies that estimated the prevalence of a broad range of common psychiatric disorders, the Epidemiologic Catchment Area Study (Robins and Regier 1991) and the National Comorbidity Survey (Kessler et al. 1994) and its replication (Kessler et al. 2003). These investigations examined the distribution of each of these disorders across a variety of social risk factors.

Two general patterns of findings can be distinguished. In the first, the social characteristic has a fairly consistent association with a broad range of psychiatric disorders. For example, socioeconomic status, operationalized as education and income, is inversely associated with the rates of almost all disorders (Kessler and Zhao 1999). In the second pattern, the social characteristic is associated with some disorders, but not others, or in the extreme case bears a positive association with the occurrence of some disorders but a negative association with the occurrence of other disorders. Gender fits this pattern, for example, with females having higher
rates than men of mood disorders (with the exception of mania for which there is no gender difference), anxiety disorders, and nonaffective psychoses, and men having higher rates than women of substance use disorders and antisocial personality disorder (Kessler and Zhao 1999).

Findings from these studies demonstrate quite conclusively that empirical results concerning associations between social attributes and mental health outcomes are contingent on the specific type of disorder selected for investigation. If the goal is, as it so often is in sociological research, to address the general mental health impact of the social attribute, then the full range of relevant outcomes needs to be considered.

A second key element of the social consequences model is the assumption that the impact of social organization on mental health is causative in nature (Aneshensel 1992; Wheaton 2001). Empirical associations between indicators of social placement and mental health have also been studied for evidence of social selection (e.g., McLeod and Kiser 2004). For example, Miech and colleagues (1999) examine anxiety, depression, antisocial disorder, and attention deficit disorder and find that each disorder has a unique relationship in terms of causation versus social selection regarding educational attainment. However, most work in this area has been devoted to explicating models that assume a causal connection between social placement and risk of adverse mental health outcomes.

From this perspective, indicators of social placement, such as socioeconomic status, gender, race or ethnicity, and age, are often cast in the role of independent variable, indeed are often the focal point of the investigation. In this tradition, Link and Phelan (1995) treat social placement as a fundamental cause of disease, including mental disorder. In contrast, etiologic studies often treat this same set of variables as potential confounders, set to the side as control variables. This distinction, between causality and noise, is one of the key differences between sociological and etiological research, emphasizing explanation and prediction, respectively. The social consequences model treats indicators of social placement as signifying ongoing social processes that organize people's lives in ways that influence their mental health. For example, indicators of social placement are associated with mental health at least in part because these statuses and roles regulate exposure to social stress and access to psychosocial resources (Aneshensel 1992; Pearlin 1989; Turner and Lloyd 1999; Turner, Wheaton, and Lloyd 1995).

A final key element of the social consequences model is the idea that mental and emotional disorder is a normal byproduct of society (Aneshensel 1992; Aneshensel and Phelan 1999; Pearlin 1989). In other words, the very structures and processes that make social life possible for most people create circumstances that are intolerable for some persons. For example, in a capitalist society, some people will always experience the stress of unemployment; the only question is who is most likely to encounter it. Unemployment-related disorder, then, is an inevitable occurrence given the organization of the occupational sphere.

This orientation distinctly differs from the disease model of medicine in which disorder is viewed as abnormal, the outcome of some dysfunction in social or other etiological factors. This pathological orientation leads inevitably to the individualization of risk. In contrast, the social consequences model examines regularities in social organization and processes that place populations, as distinct from individuals, at elevated risk. This means that sociological research tends to look for the sources of mental disorder in the usual, not the esoteric (Pearlin 1989). For example, the emphasis is more likely to be on ongoing strains within marital and occupational roles than on the once-in-a-lifetime occurrence of a natural disaster. (However, sociologists may well be concerned with how social status shapes responses to such unusual occurrences.) Thus, the social consequences model is typically concerned with the ways in which location in society shapes everyday experiences in ways that are deleterious to the mental health of some.

DOPPELGANGER

The social etiologic model and the social consequences model are easily confused with one another. One source of confusion lies with the set of social antecedents of interest to epidemiologists and the set of social arrangements of interest to sociologists. These two sets overlap to a substantial degree. Indeed, these sets are often operationalized by a common set of variables that include age, gender, race or ethnicity, and socioeconomic status. As mentioned above,
the social etiology model often treats these variables as control variables, whereas these variables occupy the role of independent variable in the social consequences model. This distinction may not be immediately apparent from the results sections of research conducted in these traditions, however, because control and independent variables may be analyzed as part of a common regression-type model. That is, the research itself may not make a distinction on the analytic role of the variable, thus fostering a conflation of the two approaches.

The two models are also easily confused because they share a common set of mental health outcomes. In the etiological model these outcomes are, as stated above, appropriately operationalized as specific disorders, such as depression or substance abuse or symptoms of nonspecific psychological distress. This single-disorder approach is inappropriate for social consequences research, however, because the effects of structural conditions tend to be nonspecific, not limited to one particular disorder, as described above. In other words, the impact of structure is likely to be felt across a broad band of functioning, such as depression and substance abuse and symptoms of nonspecific psychological distress. Although most sociological research assumes a nonspecific effect of social organization, only a handful of studies have explicitly examined multiple outcomes (e.g., Aneshensel et al. 1991; Barrett 2000; Horwitz and White 1987; Horwitz et al. 1996; Miech et al. 1999; Simon 1998, 2002). Consequently, most research that uses a sociological conceptual model actually applies a medical or epidemiologic analytic model insofar as outcomes are analyzed one at time even when multiple outcomes are collected as part of the study design.

In simplistic terms, the etiologic model seeks to determine the social antecedents of outcome A, whereas sociological theories seek to identify consequences that include outcomes A, B, C, and D. In the abstract, there would be no incongruity if A was somehow representative of B, C, and D, but depression is not interchangeable with substance abuse, nor are symptoms of distress comparable to those of cognitive impairment. The problem is not condition A; it is counted in both approaches. Instead, the problem is the set of B, C, and D, which are not counted in the etiologic model, but should be counted in the social consequences model. Persons who have conditions B, C, and D are implicitly considered “well” and therefore “not affected” in the etiologic model; these persons are, in essence, misclassified for the social consequences model.2

In sum, the similarity in independent and dependent variables contributes to the common confusion of the social etiological model and the social consequences model. However, control variables in the etiological model function as true independent variables in the social consequences model. In addition, the social etiological model focuses on a single disorder, whereas the social consequences model is concerned, at least in theory, with multiple disorders. These distinctions arise because the etiological model is concerned with identifying the social antecedents of one particular disorder, whereas the social consequences model is concerned with identifying the spectrum of outcomes associated with particular social arrangements. Thus, although the etiological and sociological approaches may address the same antecedent variables and outcomes, they do so with different objectives, and consequently the research approaches should differ as well.

IMPLICATIONS

These considerations may seem to be the splitting of disciplinary hairs, but sociological research shortchanges itself by adopting the social etiological model.

First, the mental health consequences of various social arrangements are underestimated. The mental health “cost” of poverty among children is not limited to the impact of poverty on problematic behavior but includes as well its impact on emotional distress (McLeod and Edwards 1995). In the disorder-specific model, only those children having the condition under investigation, for example, problem behavior, are counted, whereas those who adversely react to poverty in other ways are counted as “well,” for example, those who are emotionally distressed. That is, these children are misclassified as “unaffected” by their exposure to poverty. Thus, the disorder-specific model undercounts the number of persons affected by adverse social conditions. This undercount occurs whenever the social condition affects more than one domain of functioning. Since many social conditions meet this criterion, the extent of this undercount is pervasive.

Second, we obtain a biased estimate of the
mental health impact of social arrangements when we consider only one condition instead of the full range of relevant conditions (Aneshensel et al. 1991). In most empirical applications, impact is estimated either as an ordinary least squares or a logistic regression coefficient. For example, the logistic regression coefficient for condition A (relative to not A) is obviously not equivalent to one for conditions A, B, C, or D (relative to none of these conditions). The direction of this bias is unknown; it depends on the strength of the association for the various outcomes. When we estimate the social antecedents of disorder A, then, we get a biased estimate of the mental health consequences of that social condition whenever the condition also impacts any other mental health outcome, that is, B, C, or D.

Third, estimates of conditional relationships are biased as well. This point follows from the previous one and is self-evident. If the estimate of the impact of poverty is biased, then the estimate of the interaction of poverty with any other characteristic, such as gender, is biased as well. This problem is particularly pronounced if the "third variable" in the interaction is associated with the single disorder being studied. As a result, this problem has received the most attention for the specific instance of gender, depression, and substance abuse disorders (Aneshensel et al. 1991; Simon 2002).

Unfortunately, there is no easy solution, in large part because different types of disorder are not equivalent to one another precisely because they represent distinctly different domains of functioning. This is the proverbial problem of trying to add apples and oranges. Thus, attempts to create a composite of various domains of functioning seem to be fraught with more conceptual and empirical difficulties than warrant the effort. Instead, the optimal approach, in my opinion, is to examine a broad array of outcomes. This conclusion is based on the assumption, stated above, that the impact of social arrangements on mental health tends to be nonspecific.

The array of outcomes to be investigated should include at least a sample of the full spectrum of outcomes that are relevant to the social arrangements being examined. The identification of outcomes should begin with the nature of the social arrangements being studied. Existing research has emphasized, as noted earlier, aspects of social stratification and inequality, an emphasis that is relevant to depressive outcomes but also easily applies to other outcomes, such as substance use. This focus on stratification, however, should not divert attention from other aspects of society that impact mental health, such as family relationships, socialization practices, or stigmatization. The key point is that the nature of the outcomes to be investigated should be dictated by the aspect of social life that is being probed, not vice versa.

The question of selecting several outcomes ought to be fundamentally the same as selecting the outcome when only one disorder is being investigated. I suspect, however, that the selection of a specific disorder is more often driven by its own characteristics than by the aspect of society being probed. Prominent among these characteristics are considerations that make a disorder a public health concern, such as high prevalence, severity of disability, or chronic course. In this regard, sociological research has often fashioned itself on epidemiologic research and has, on more than one occasion, lost sight of its sociological objectives.

As a result, theory is generally underdeveloped with regard to why particular aspects of social life ought to be related to specific types of disorder. As pointed out by a reviewer of this article, Brown's work (2002) provides an exception in linking the occurrence of losses to depression and threats to anxiety. The processes and dynamics linking various aspects of social organization to particular outcomes warrant further development. This task is usually undertaken for the one disorder under investigation, showing its relevance to the aspect of society being studied. This step is necessary but not sufficient from the perspective of the social consequences model. Theory should also address what other outcomes are relevant and identify those that are not pertinent. These considerations are often overlooked insofar as the disorder-specific model by default treats all other disorders as nondisorders. In sum, theories need to specify not simply that a particular outcome is relevant but rather to identify the full range of relevant outcomes in order to operationalize the social consequences model.

It should be clear that the array of outcomes investigated need not include all possible outcomes. It is not necessary to assess, for example, all disorders identified in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association 2000). If one concludes that a large array of outcomes is nec-
necessary, one could sample disorders much in the way we sample populations or constructs. Indeed, this is often done already insofar as mental health surveys typically measure more than one outcome. The goal is to better articulate the reasons why these particular outcomes are most relevant to the social conditions under investigation. Moreover, once measured, these multiple outcomes need to be simultaneously analyzed. Investigators following this dictum may find themselves using techniques such as multivariate analysis of variance or multinomial logistic regression to handle these outcomes.

Finally, it should also be apparent that the specific outcomes are likely to differ from one study to another.

CONCLUSIONS

The social etiology and social consequences models are not in opposition to one another, but they do serve different purposes and therefore require distinctive research approaches. I think sociologists are uniquely advantaged to articulate a research agenda that emphasizes the broad impact of social conditions on mental health. This viewpoint is underappreciated in a research environment that is organized around specific diseases, such as at the National Institutes of Health, and, as I have emphasized, is bound to underestimate the influence of social arrangements on people’s mental health. The way in which society is organized is consequential to the ways in which people think, act, and feel. This impact is broad in scope, and the method we use should reveal this impact, not conceal it. We as sociologists should take the lead, I submit, in developing a research agenda that speaks to the multitude of ways in which society affects the mental health of its members.

NOTES

1. The term nonspecific psychological distress might seem to capture a broad spectrum of disorder appropriate to the social consequences model I describe, but in practice the term applies primarily to measures of symptoms of anxiety and depression.

2. This issue may seem similar to the issue of “super-healthy” versus “normal” control in case control studies, specifically the exclusion from the control of persons with disorders other than the one being investigated. Both issues concern the classification of persons with other disorders as “normal.” However, from the social consequences perspective this group should not be counted out, but rather counted as a “case.”

REFERENCES


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