

The Construction of Fear: Americans' Preferences for Social Distance from Children and Adolescents with Mental Health Problems*

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Debates about children's mental health problems have raised questions about the reliability and validity of diagnosis and treatment. However, little research has focused on social reactions to children with mental health problems. This gap in research raises questions about competing theories of stigma, as well as specific factors shaping prejudice and discrimination toward those children. Here, we organize a general model of stigma that synthesizes previous research. We apply a reduced version of this model to data from a nationally representative sample responding to vignettes depicting several stigmatizing scenarios, including attention-deficit/hyperactivity disorder (ADHD), depression, asthma, or "normal troubles." Results from the National Stigma Study—Children suggest a gradient of rejection from highest to lowest, as follows: ADHD, depression, "normal troubles," and physical illness. Stigmatizing reactions are highest toward adolescents. Importantly, respondents who label the vignette child's situation as a mental illness compared to those who label the problem as a physical illness or a "normal" situation report greater preferences for social distance, a pattern that appears to result from perceptions that the child is dangerous.

In recent years, clinical researchers, policy makers, and service providers have increasingly devoted attention to the prevalence, correlates, and causes of children's mental health problems. Concerns center on identifying and diagnosing mental disorders among children, especially at younger ages; providing access to

help via multiple entry "portals"; and questioning the dramatic rise in the prescription of psychoactive medication (Burns et al. 1995; Costello et al. 1996; Stiffman, Pescosolido, and Cabassa 2004; Zito et al. 1998). Social scientists have extended these concerns by exploring the medicalization of childhood behavior

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(Conrad 2000), public response to the use of psychiatric medications for children (McLeod et al. 2004), and the use of children's mental health services (Olfson et al. 2004). We still know relatively little, however, about the larger cultural context surrounding identification and treatment of, and public response to, children's mental health problems.

Simply put, researchers' notions concerning the public's reactions to children's mental health problems have stemmed more from assumptions than from systematic study. Indeed, while children's mental health problems are identified as a central concern in the U.S. Surgeon General's report on mental illness (U.S. Department of Health & Human Services 1999) and the President's New Freedom Commission on Mental Health report (U.S. Department of Health & Human Services 2003), few studies systematically address fundamental issues of "bias, distrust, stereotypes, fear, embarrassment, anger and/or avoidance" facing children with mental health problems and their parents (U.S. Department of Health & Human Services 1999:6).

The past 15 years have witnessed a resurgence of research on the causes and correlates of mental health stigma, guided by sociologists and social psychologists. In local, national, and international studies, scholars have again begun to compile operationalizations of relevant constructs to assess the prevalence of stigmatizing attitudes and behaviors (Pescosolido et al. 2000; Angermeyer and Matchinger 1995; Stuart and Arboleda-Florez 2000; Link et al. 2004) and to understand how stigma processes operate. However, these efforts are limited in two ways: (1) virtually all of these studies focus on adults, and (2) there is no overall organization of the many factors thought to shape prejudice.

In this paper, we seek to address these limitations. First, focusing on one aspect of discrimination associated with mental illness—social rejection—we draw together existing literature to organize factors shown to be important in public perceptions and reactions to stigma. Second, using the *Etiology and Effects of Stigma (EES)* model, we examine public rejection of children with mental health problems.

THEORETICAL BACKGROUND: THE EES MODEL

Because the role of theory is to provide a framework for organizing what is known and to

guide further investigation (Pellmar and Eisenberg 2000), we take advantage of an emerging body of work on public stigma (vs. self-stigma) toward adults with mental illness. This core set of concepts frames our understanding and provides the foundation for our research questions. As Link and Phelan (2001) conclude, social scientists have specified and compiled a solid research base "to understand how persons construct categories and link these categories to stereotyped beliefs" (p. 364). Several researchers have tried to identify the critical ingredients that may exacerbate or moderate stigmatizing reactions, but this inquiry has tended to test these notions in a piecemeal fashion. We seek to move beyond these middle-range approaches by organizing and testing part of a more systematic model of the causes and consequences of mental health stigma.

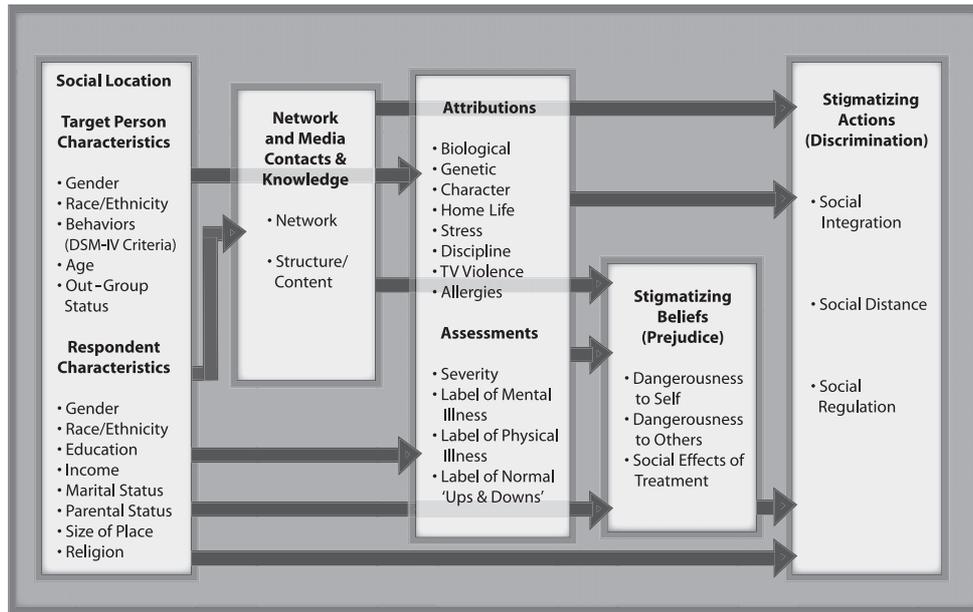
Figure 1 synthesizes the extant theoretical and empirical research on stigma. While the definition of mental health stigma has been contested and has been used to refer to a wide range of phenomena (see Clausen 1981; Link and Phelan 2001), we limit our focus to the absence or presence of negative attitudes (prejudice) and predispositions to engage in exclusionary behaviors (discriminatory potential).

The EES suggests that the sociodemographic characteristics of both the person with mental illness and those in a position to support or reject the mentally ill person influence knowledge and past experiences regarding mental health problems. In turn, these background characteristics and network-based factors shape attributions and evaluations that reflect individuals' beliefs about underlying causes, the nature of the "problem," likely outcomes, and utility of treatment. The EES also asserts that stigmatizing responses and assessments ultimately lead to prejudice and stereotypes (i.e., perceived dangerousness) and public endorsement of these beliefs (i.e., beliefs about the stigma associated with treatment). Finally, to the extent that these beliefs are endorsed, the potential for discrimination increases and shapes the social regulation and control likely to be exerted on children dealing with mental health problems, and the parents of such children.

The Role of the Target Child's Illness Characteristics

The experiences that individuals with mental illness bring to social interactions have im-

FIGURE 1. The Etiology and Effects of Stigma Model (EES) with Constructs Relevant to Children's Mental Health Problems and the Data from the National Stigma Study–Children



portant implications for stigma. The probability of stigmatization increases when the disorder is perceived as severe (e.g., psychotic “breaks”) and when it is associated with behaviors that lie outside conventional norms (e.g., making “inappropriate” verbal remarks, demonstrating unseemly affect). Such factors also affect whether and how the person acquires a label for their behavior, and how others assign attributions to underlying causes. For example, Link et al. (1987) found that reaction to psychotic symptoms was distinct from reactions to less severe symptomatology. Similarly, in national studies conducted in both the United States and the United Kingdom, evaluators provided a much more positive response to individuals with behaviors associated with depression than to those with the more eccentric behaviors associated with schizophrenia (Pescosolido et al. 2000; Crisp et al. 2000). These findings suggest the following hypothesis:

H1: The profile of an individual with a mental illness (e.g., behavioral dispositions, “symptoms”) shapes the discriminatory dispositions (e.g., preferences for social distance) of those who encounter that individual. Specifically, profiles consistent with clinical descriptions of attention-

deficit/hyperactivity disorder (ADHD) or depression are more likely to result in stigmatizing reactions than profiles consistent with descriptions of “normal” troubles.

The Role of Background Attributes

As Link and Phelan (2001) point out, stigmatization is contingent upon access to social, economic, and political power that allows certain individuals to identify others as different and to apply negative sanctions to them. While empirical findings are not consistent on this point, the sociodemographic characteristics of both “senders” and “receivers” of stigma seem to be important (Martin, Pescosolido, and Tuch 2000). Briefly, the sociodemographic characteristics (e.g., race, sex, and age) of the individual with an illness condition shape the evaluator’s assessment and behavioral predisposition (either positive or negative), as well as the probability that the individual with an illness condition will be identified as a person with mental health problems (e.g., that the individual possesses a “mark,” Goffman 1963).

A long tradition of social science research on racial prejudice and labeling theory argues that members of disadvantaged groups are more likely to have negative labels attached to them and to encounter rejection (see Martin

and Tuch 1997; or Scheff 1966). In particular, research has highlighted the importance of the race/ethnicity of the person with mental illness in shaping public reactions to the person (McGovern et al. 1994; National Institute of Mental Health 2002; Schnittker 2000). Yet the situation regarding mental illness is not clear. Thoits (2005) finds marginal and inconsistent support for the effect of race on coerced mental health treatment, once behaviors are controlled. However, official labeling or self-labeling are not the same as social rejection. At this point, we hypothesize:

H2: The racial or ethnic out-group status of children with mental health problems will be associated with heightened endorsement of stigmatizing attitudes and increased discriminatory dispositions.

In addition to out-group status, the controversy over the diagnosis and treatment of children (versus adolescents) suggests a difference in responses by age (Zito et al. 1998). In light of a series of much-publicized episodes of violence (i.e., school shootings), there is reason to believe that adolescents and boys with mental health problems are perceived as being more dangerous than younger children and girls (Nangle et al. 2002). This suggests:

H3(a): Adolescents with mental health problems will engender heightened endorsement of stigmatizing attitudes and increased discriminatory dispositions.

H3(b): Boys with mental health problems will engender heightened endorsement of stigmatizing attitudes and increased discriminatory dispositions.

Although the results of prior research are inconsistent, the sociodemographic characteristics of the evaluator may also be associated with stigmatizing responses. Specifically, some mix of race and ethnicity appears to influence how people respond to mental illness (Fosu 1995; Whaley 1997). Being better educated (Bhugra 1989) and being a woman (Schnittker 2000) have been associated with greater tolerance, while being older (Chou and Mak 1998; Fosu 1995) and having a rural residence (Rost, Smith, and Taylor 1993) have been found to increase prejudice.

Because prior research has been equivocal on the role of sociodemographics in structuring responses to mental health problems, we return

to Dohrenwend and Chin-Song's (1967) early suggestion that lower-status groups (i.e., blacks and those at lower income levels) tend to be less tolerant. Additionally, based on studies of racial intolerance, we expect respondents residing in the South and in smaller communities where homogeneity (rather than diversity) is the rule to also be less tolerant of persons with mental health problems (Tuch 1987; Tuch and Martin 1997). Finally, we expect that as guardians and protectors of children, parents and those likely to be parents (i.e., married persons) will express stronger preferences for social distance. Thus,

H4(a): Members of lower-status groups will express greater prejudice and discriminatory potential toward children with mental health problems than will members of higher-status groups.

Further,

H4(b): People who are guardians of children will be more likely to endorse stigmatizing attitudes and discriminatory potential toward children with mental health problems than people who are not guardians.

The Role of Contact and Knowledge

As Biernat and Dovidio (2000) point out, intergroup contact has long been psychology's and sociology's prescription for changing attitudes and stereotypes (e.g., Allport 1954; Williams 1947; Kolodziej and Johnson 1996; Penn and Drummond 2001). Early studies of workplaces, organizations, and neighborhoods supported the notion that increases in interaction between persons of different groups, "marked" and "unmarked," is accompanied by increased sentiments of "liking" (Homans 1951; Caplow 1964). The parallel expectation is that experience with persons with mental illness will be associated with fewer negative reactions, less discrimination, and more tolerant attitudes (Adams and Partee 1998; Penn et al. 1994).

Further, many governmental and advocacy initiatives assert that increasing knowledge, or decreasing misperceptions, will reduce the stigma of mental illness (e.g., the work of the National Alliance on Mental Illness). While such assertions are based on the proposition that ignorance and fear are positively related to rejection, some studies reveal a contrary set of

findings. For example, Callaghan et al. (1997) found that interpersonal contact had little effect on stigmatizing attitudes. Similarly, Brunton (1997) found that increased community contact had no effect—or even a “hardening” effect—on local public attitudes toward persons with mental health problems. Finally, Gatherer and Reid (1963) documented that attitudes became more negative with more personal contact. For example, in the United States, knowledge of the symptoms associated with schizophrenia was associated with negative reactions (Penn et al. 1994). Additionally, some reviews contend that the positive effects of interpersonal contact are modest (e.g., Kolodziej and Johnson 1996), suggesting that the contact hypothesis has not yet received sufficient support (Desforges et al. 1991).

The effects of contact, however, may be conditioned by a number of factors that may explain these findings. Originally, Allport (1954) suggested that contact will only reduce prejudice under conditions of equal status, high degree of collaboration, high motivation, repeated contact, personal interaction, and institutional support. Later studies confirmed that the hypothesis holds only where contact is voluntary, equal, intensive, prolonged, rewarding, or where there are a number of people involved (Jackman and Crane 1986; Weller and Grunes 1988). In other words, the mere presence of contact cannot be assumed to increase “liking” and decrease stigma. Rather, it is the quality of the contact that matters (Estroff 1981; Rook 1984; Pagel, Erdly, and Becker 1987).¹ Thus, we hypothesize:

H5: The amount of interpersonal contact and the nature of the contact shape stigmatizing beliefs and behaviors. Specifically, individuals who have had contact with persons with mental illness and who report positive outcomes of that interaction will report lower levels of stigmatizing attitudes and discriminatory potential.

The Role of Attributions

Attributions draw on explanations about the underlying causes, actions, or conditions that produce outcomes (Dovidio, Major, and Crocker 2000). The sociological literature focusing on racial attitudes suggests that an important factor shaping individuals’ attitudes is attributions regarding causes of the out-group’s behavior (Schuman et al. 1997). This model of

racial antipathy, along with Weiner’s (1995) psychological theory of the influence of attributions, can be adapted to understand the stigma of mental illness. That is, “when people understand that mental illness disorders are not the result of moral failing or limited will power, but are instead the result of legitimate illnesses that are responsive to specific treatment, the stigma of mental illness will be lessened” (U.S. Department of Health & Human Services 1999:9). Thus, attributing the sources of mental health problems to biological factors, medical causes (i.e., allergies), or stressful life circumstances should diminish prejudice and discriminatory potential.

The issue of genetic attribution may be more complex. As Phelan (2005) has suggested, while genetics may be out of an individual’s control, people responding to the individual may also take genetics to signal a “fundamental flaw” that may shape some types of social distance. Alternatively, attributing mental health problems to bad character, the way an individual was raised, or “free will” should be associated with a desire for greater social distance (Martin et al. 2000; Crocker 1981; Mechanic et al. 1994). Thus, we expect:

H6: Attributing the cause of mental illness to factors out of the individual’s control will reduce stigmatizing attitudes and preferences for social distance. However, if the causes of mental illness are seen as being the result of the individual’s actions, the public will be more likely to endorse stigmatizing attitudes and discrimination.

Labeling and Perceptions of Dangerousness

In labeling theory’s original formulation (Scheff 1966), the label of “mental illness” was seen as having a powerful effect on societal reactions to people receiving the label. However, a subsequent critique argued that it is the “disturbing behaviors” associated with mental health problems, not the label per se, that elicit negative reactions (Gove 1970). To separate the power of labels from behaviors, Martin et al. (2000) used a vignette approach that described behaviors meeting DSM-IV criteria coupled with a question that asked respondents to identify the “case” as demonstrative of a mental illness, a physical illness, or the “ups and downs” of life. Consistent with labeling theory, they found that respondents who attached the label of “mental illness” to any vi-

gnette were less willing to interact with that person. Further, rejection appeared to be linked to perceptions of dangerousness (Link et al. 1999; Phelan et al. 2000; Pescosolido et al. 1999; Rogers and Pilgrim 2001). Drawing from these findings, we hypothesize:

H7: Labeling the child's situation as "mental illness" as opposed to physical illness or "the ups and downs" of normal life will increase stigmatizing beliefs and discriminatory potential.

Additionally:

H8: The public's assessments of the dangerousness of individuals with "mental illness" will mediate the influence of the label on the endorsement of stigmatizing beliefs and discriminatory dispositions.

The Role of the Endorsement of Stigmatizing Beliefs

Individuals who endorse stigmatizing beliefs are expected to also support the notion that there should be limits on the ability of children with mental illness to enjoy full participation in society. Indeed, across the scientific and policy literature, the acceptance of stigmatizing beliefs is central in explanations of low rates of service utilization, slowed progress toward recovery from mental illness, and hindered reintegration into society (Markowitz 2001; Okazaki 2000; Sartorius 1998; Wahl 1999). Thus, we hypothesize:

H9: The endorsement of stigmatizing beliefs will be associated with increased discriminatory dispositions.

DATA AND METHODS

Data for this study come from the 2002 General Social Survey (GSS) administered by NORC. The GSS is a nationally representative face-to-face interview of noninstitutionalized adults living in the United States (see Davis and Smith 2002 for a complete discussion of sampling and methodologies). The 2002 interview averaged 90 minutes in length and included a special topical module, the National Stigma Study-Children (NSS-C), which was administered to a random sample of 1,393 respondents. The overall response rate for the 2002 survey was 70.1 percent and has a sam-

pling margin of error of approximately ± 3.2 percent.²

Measures: The Dependent Variable

The dependent variable, preferences for social distance, is indexed by responses to four items. Adapted from a measure previously used to assess social distance preferences from adults (see Link et al. 1999; Martin et al. 2000), respondents were asked to indicate how willing they would be to "move next door to a family" with a child described in one of four vignettes (see Appendix 1); to "have their child make friends" with that child; to "spend an evening socializing with that child's family;" and to have that child "in their child's classroom." Responses of "definitely willing," "probably willing," "probably unwilling," and "definitely unwilling" were coded 1 to 4, respectively, and averaged to produce a composite scale of preferences for social distance that ranged from 1.0 (low social distance) to 4.0 (high social distance). The reliability for the four-item scale was .87.

Measures of social distance are often employed in studies of mental illness stigma, but they are not without limitations. Like other measures of intolerance, these scales may be subject to social desirability biases. Specifically, the various educational and anti-stigma efforts of advocacy groups may have sensitized the public to the impropriety of reporting a desire to avoid individuals who suffer from mental health problems (Link et al. 2004). While we are unable to adjust our measure for this possibility, it is appropriate to note that a social desirability response set would reduce estimates of rejection. Moreover, if we assume that social desirability response is constant across respondents, this bias will not impact parameter estimates. As such, the social distance preferences reported here are likely conservative but stable estimates. Finally, our strategy for measuring prejudice, described in the next section, was constructed to minimize socially desirable responses to problems of "mental illness."

Measures of the Independent Variables: Type of Mental Health Problem

Assessing levels of prejudice toward children with mental health problems is challenging for at least three reasons. First, the nature of children's problems and their categorization as "mental illness" are the subject of scientific

debate and public controversy. Second, the public has likely been sensitized to know the “correct” responses regarding prejudice toward stigmatized groups. Third, examining adults’ prejudices regarding children with mental health problems may be confounded by the role of adults as protectors of children.

The NSS-C follows a strategy developed in the 1996 National Stigma Study (Pescosolido et al. 2000) that attempts to avoid these problems by describing four children, each with a different unlabeled problem condition, via a vignette technique.³ Two vignettes describe children meeting criteria for DSM-IV disorders: (1) ADHD, and (2) major depression. For comparative purposes, we also include a vignette describing a child with a physical health problem, asthma, and a fourth vignette that describes a child experiencing more or less routine but subclinical problems (i.e., a child with “normal troubles”).⁴ These vignette types are coded into a set of binary variables (e.g., ADHD, depression, asthma), with the “normal troubles” vignette serving as the reference category.⁵ Exact vignette wording is provided in the Appendix.

Respondents were randomly assigned to one of the four vignette conditions (approximately 25% to each). Each respondent received a printed card describing the condition, was read the description aloud by the interviewer, and was then asked a series of questions specific to the child described in the vignette. Three characteristics of the children are randomly varied within vignettes: gender, race (black vs. white), and age (14 years old vs. 8 years old).

Respondent Attributes

Our analyses consider 10 relevant sociodemographic variables describing GSS respondents. These include: *age*, measured in years; dummy variables for *gender* (1 = men, 0 = women); *marital status* (1 = currently married, 0 = others); *parental status* (1 = parent, 0 = nonparent); a two-variable set for *race* (*black*, 1 = black, 0 = others, i.e., whites, Asians, other races; and *other races*, 1 = other race, 0 = others, i.e., blacks, whites); *family income*, expressed in tens of thousands of dollars; and *education*, measured in years of schooling. We also include a dummy variable for *region* of residence (coded 1 if the respondent resided in the South, and 0 for residents of non-Southern states) and *size* of place of residence, measured on a ten-category, ordinal-level inverted metric

ranging from 1 (large central city with a population over 250,000) to 10 (people residing in open country).

Causal Attributions

Respondents’ attributions of the causes of the vignette child’s situation were assessed by responses to eight items referencing medical, genetic, dietary, social, and moral individual-level causes of the condition. Specifically, respondents were asked to indicate how likely it was that the vignette child’s situation might be caused by: (1) “bad character,” (2) “a chemical imbalance in the brain,” (3) “the way he or she was raised,” (4) “stressful circumstances,” (5) “a genetic or inherited problem,” (6) “a lack of discipline,” (7) “food or chemical allergies,” and (8) “watching violent TV or playing violent video games.” Based on the distributions, responses of “very likely” or “somewhat likely” were collapsed and coded 1, while responses of “not very likely” or “not at all likely” were collapsed and coded 0. No answer and “don’t know” responses were eliminated from the analysis (61 respondents or 4.4% of the total sample).

Assessments of the Child’s/Adolescent’s Situation

Labeling was assessed by three items. Respondents were asked whether the vignette child’s problem represented a mental illness, a physical illness, or part of the “normal ups and downs” of childhood. Response categories on each were “not likely at all,” “not very likely,” “somewhat likely,” and “very likely,” coded 1 to 4, respectively.

Stigmatizing Beliefs

Stigmatizing beliefs were assessed via two variables. First, *perceptions of dangerousness* were measured by two items asking whether the child described in the vignette was likely to do violence to self or others. Responses were coded using the 1–4 scale, with the low values corresponding to low assessed probability of danger. Second, *stigma associated with receiving mental health treatment* was scaled as the combination of four items assessing whether the respondent believed that (1) a child receiving mental health treatment would be “an outsider at school,” (2) a child receiving mental health treatment would “suffer as an adult if others learned he/she had received mental

health treatment when young,” (3) that the parents of the child in the vignette “would feel like a failure” if their child received mental health treatment, and (4) that “regardless of laws protecting confidentiality, most people in the community still know which children have had mental health treatment.” The four items were summed to yield a final scale score ranging from 4 (low stigma) to 16 (high stigma). The reliability of this scale is .69.

Interpersonal Contact

Responses to two questions were used to create a set of binary variables to measure the extent and results of interpersonal contact. Respondents were coded as either having had contact with someone with mental illness in which the relationship became stronger; having had contact with someone with mental illness in which the relationship was unchanged; or having had contact with someone with mental illness in which the relationship became worse or ended. Individuals who reported no previous contact with persons with mental illness serve as the omitted category. Distributions and summary statistics on the independent variables are displayed in Table 1.⁶

Analyses

We begin our analysis by describing the bivariate distributions on each social distance item and the composite scale by vignette type. We then use a series of multivariate analyses to evaluate the hypotheses from the EES regarding social distance preferences. We assess the impact of characteristics of the child’s condition, background characteristics of the focal child and the evaluator, attributions regarding the sources of the child’s problem, the nature of the problem (label), stigmatizing beliefs (perceived dangerousness and stigma), and the impact of previous interpersonal contact.⁷

RESULTS

Preferences for Social Distance

Table 2 displays the percentage of respondents reporting that they were “definitely unwilling” or “probably unwilling” to have social contact with children with various mental or physical health problems. Across interactional venues, preferences for social distance are highest for children in the ADHD and major depression conditions. Roughly one in five respondents prefers that their family or their chil-

dren avoid social contact with children who have feelings and behaviors consistent with ADHD (20.47%) and major depression (19.15%). Levels of rejection for the ADHD and depressed children are two to three times higher than those reported for a child with asthma (5.85%) or “normal troubles” (9.18%).

Analysis of the specific social distance items sheds additional light on the social situations where the public is least willing to have contact with these children. More than one-fifth of respondents report not wanting to have a child with ADHD move next door (22.19%) or not wanting to have their child make friends with a child with ADHD (23.47%). Rejection is only somewhat lower with respect to spending an evening with these children and their family (16.9%) or having a child with ADHD in their child’s classroom (19.3%). Similarly, with regard to major depression, the public reports a stronger desire for social distance regarding their children having friends with symptoms of depression (29.64%) or living next door to a family with a depressed child (18.45%). Finally, respondents who evaluated the child with asthma were least likely to report a desire for social distance. Indeed, in no case did more than 10 percent of respondents reject interactions or proximity to the child with asthma. Low levels of rejection were also reported for the child with “normal” problems. Finally, regardless of the interactional venue, respondents preferred significantly greater social distance from children suffering from ADHD or depression (panel 2, Table 2; ANOVA: $F = 40.66$, $df = 3$, $p < .001$).

Models of Social Distance

The bivariate analyses demonstrate that many Americans are reluctant to interact with, or to have their children interact with, children with mental health problems. In Table 3 we extend the focus of the analysis and ask how preferences for social distance are influenced by the factors in the EES.

Table 3 displays results of seven ordinary least squares regression models. Model 1 is a baseline model that expresses social distance as a function of the type of problem—ADHD, major depression, asthma, and “normal troubles” (the reference group)—and includes estimates for effects of the age, race, and gender of the vignette child. Model 2 adds estimates for the effects of respondents’ sociodemographic attributes. Model 3 adds a set of dummy vari-

TABLE 1. Variable Groups and Names, Operations, Metrics, Means and Proportions, and Standard Deviations on Independent Variables, 2002 General Social Survey (N = 1,134)

Group/Name	Operation	Metric	Mean/Proportion	Std. Dev.
<i>Condition</i>				
ADHD	Symptoms of vignette child	0 = other condition; 1 = ADHD	.25	.43
Depression	Symptoms of vignette child	0 = other condition; 1 = depression	.27	.45
Asthma	Symptoms of vignette child	0 = other condition; 1 = asthma	.22	.41
"Normal troubles"	Symptoms of vignette child	0 = other condition; 1 = ADHD	.26	.42
14 years old	Age of vignette child	0 = eight years; 1 = 14 years	.50	.50
Female	Gender of vignette child	0 = male; 1 = female	.50	.50
Black	Race of vignette child	0 = white/other; 1 = black		
<i>Respondent attributes</i>				
Age	Age in years	18-89	44.40	16.46
Woman	Respondent's gender	0 = male; 1 = female	.57	.49
Black	Respondent's race	0 = other; 1 = black	.14	.35
Other race	Respondent's race	0 = other; 1 = other race	.07	.25
Family income	Family income	Tens of thousands of dollars	5.00	3.95
Education	Respondent's schooling	Years of schooling	13.55	2.74
Southern residence	Region of residence	0 = non-South; 1 = South	.35	.48
Size of place	Population of respondent's community	1 = < 10,000; 10 = 250,000+	6.75	2.73
Married	Respondent's marital status	0 = not married; 1 = married	.49	.50
Parent	Respondent is parent	0 = no children; 1 = parent	.72	.45
<i>Causal attributions</i>				
"... how likely is it that (Name) is experiencing ..."	Normal "ups and downs" of life	1 = not likely at all; 4 = very likely	3.08	.88
Ups and downs	A mental illness	1 = not likely at all; 4 = very likely	2.23	.92
Mental illness	A physical illness	1 = not likely at all; 4 = very likely	2.58	.96
Physical illness				
<i>Perceived dangerousness</i>				
"... how likely is it that (Name) will do ..."	Something violent toward self	1 = not likely at all; 4 = very likely	2.28	.96
Violence - self	Something violent toward others	1 = not likely at all; 4 = very likely	2.01	.82
Violence - others				
<i>Stigmatizing beliefs</i>				
Stigma	Mean of four component items, "... receiving mental health treatment ..."	1 = strongly disagree; 4 = strongly agree	2.32	.67
	1. Make child an outsider at school			
	2. Make child suffer as an adult			
	3. Make parent feel like failure			
	4. Community would know			

(Continued on next page)

TABLE 1. (Continued)

Group/Name	Operation	Metric	Mean/Proportion	Std. Dev.
Interpersonal contact	Combination of 2 items: 1. Any contact with mental illness 2. Qualitative outcome of contact on relationship	0 = other; 1 = contact and improvement	.22	.42
Contact		0 = other; 1 = contact and no change	.51	.50
		0 = other; 1 = contact and deterioration	.14	.34

Note: ADHD = attention-deficit/hyperactivity disorder.

ables referencing causal attributions. Model 4 adds estimates for the effects of labeling. Model 5 increments model 3 by estimating the effects of perceptions of dangerousness. Model 6 adds respondents' beliefs about the stigma of receiving mental health treatment. Finally, model 7 assesses the independent effects of the predictor variables by adding all predictors, except contact, simultaneously (see note 6).

In model 1, when compared to the reference category of a "normal troubles" child, behaviors associated with the diagnostic categories of ADHD and depression predict a significant desire to avoid social contact ($b = .317$ for ADHD, $b = .253$ for depression, $p < .001$). Americans also emerge as significantly *less* likely to desire social distance from the asthmatic child ($b = -.196$, $p < .001$). These results support the claim that behaviors associated with childhood mental disorders encourage a desire for social distance. Further, the coefficients associated with the age and gender of the vignette child yield important findings. That is, independent of disorder type, Americans are less willing to interact with older children ($b = .076$; $p < .05$) and boys ($b = .065$; $p < .05$) with mental health problems. Taken together, the behavioral characteristics of the vignette child's disorder and her or his personal background attributes account for 10 percent of the variance in social distance.

Model 2 indicates that the respondent's sociodemographic attributes also affect preferences for distance. However, the inclusion of background factors does not alter the significance or the pattern of the coefficients associated with disorder type or characteristics of the vignette child described in model 1. Considering the 10 sociodemographic variables, women ($b = -.101$, $p < .01$) and better-educated respondents ($b = -.019$, $p < .01$) are less likely to reject the vignette child. Respondents who are neither black nor white (i.e., in the "other" race category), who reside in southern states, or who are married report significantly higher preferences for distance ($b = .154$, $p < .05$; $b = .081$, $p < .05$; and $b = .070$, $p < .05$, respectively). Finally, age, race, income, parental status, and size of place of residence do not emerge as important correlates of social distance beliefs.

In model 3 we turn to whether attributions affect social distance. Here the pattern is different from that observed in previous studies (Martin et al. 2000). Preferences for social distance from children with mental health problems are not reduced when attributed causes of the problems are seen as biological, chemical, genetic, or medical. However, the one exception is allergies ($b = -.086$, $p < .001$), which renders the coefficient for asthma nonsignificant. Alternatively, endorsements of individual and family-related attributions (i.e., bad character, absence of discipline, or effects of watching violent TV or playing violent video games) are significant correlates of social distance, each associated with a significantly higher level of rejection ($b = .105$, $p < .001$; $.081$, $p < .001$; $.067$, $p < .01$, respectively). Again, there is an exception: The attribution regarding child-rearing is not significant. Overall, net of behaviors and sociodemographic attributes, the addition of causal attributions increases the model's explained variance by nearly 10 percent.

TABLE 2. Percentage of Americans “Definitely/Probably Unwilling” to Interact with Vignette Child across Four Venues (Panel 1); Means and Standard Deviations on Social Distance Scales by Vignette Type (Panel 2); 2002 General Social Survey (N = 1,134)

Panel 1: Venue-Specific Social Distance Preferences					
	“Normal troubles” %	ADHD %	Depression %	Asthma %	Venue Mean %
Have child move next door	10.49	22.19	18.45	9.31	15.11
Spend evening with family	10.49	16.90	17.48	6.45	11.23
Have child make friends	9.79	23.47	29.64	4.82	16.93
Have child as classmate	5.95	19.30	11.04	2.80	9.77
Vignette mean	9.18	20.47	19.15	5.85	

Panel 2: Overall Social Distance Scale Scores					
	“Normal troubles”	ADHD	Depression	Asthma	
Mean	6.80	8.04	7.80	6.00	
Standard deviation	2.36	2.56	2.56	2.16	
(N)	(286)	(287)	(311)	(250)	

Notes: ADHD = attention-deficit/hyperactivity disorder. $F = 40.66$; $df = 3$; $p < .001$.

Model 4 addresses whether labeling the vignette as a “mental illness” increases the tendency to shun the vignette child. These estimates indicate that independent of the factors considered to this point, respondents are significantly more likely to want to avoid children whom they label as “mentally ill” ($b = .078$, $p < .001$). Perceiving the vignette child’s problems as part of the “normal ups and downs” of childhood, on the other hand, reduces social distance preferences ($b = -.089$, $p < .001$). Including the labeling variables in the model also reduces the effect of the depression vignette to nonsignificance.

In model 5, perceptions of dangerousness are added. The addition of these variables increases the desire to avoid contact with children with mental health problems ($b = .097$, $p < .001$ for danger to self, and $b = .133$, $p < .001$ for danger to others). As in the case of the previous model, including the dangerousness variables in the specification significantly attenuates the impact of the depression vignette.

Model 6 adds the respondent’s beliefs about the stigma associated with mental health treatment. Consistent with the hypothesis, respondents who believe that mental health treatment stigmatizes children and their parents are also more likely to indicate higher preferences for social distance ($b = .047$, $p < .05$).

Finally, model 7 estimates a simultaneous model that includes all correlates considered in Figure 1. This final specification modifies previous patterns to a small extent. Net of all predictors, respondents indicate higher preferences for social distance from children described as suffering from ADHD, who are 14

years old, and whom they perceive to have problems caused by either a lack of discipline or bad character. Women, individuals who attribute the child’s problems to allergies, and individuals who see the child’s problem as part and parcel of normal childhood development express significantly lower preferences for social distance. Children perceived as being dangerous to self or others are significantly more likely to be shunned. Curiously, the significant effects of labeling the condition as a “mental illness,” attributable to watching violent TV and playing violent video games, or depression disappear when dangerousness is included in the specification. This pattern suggests, as has other research (Martin et al. 2000; Phelan et al. 2000), that dangerousness and “mental illness” appear to be linked in the public mind.

Our final analysis includes the subsample of respondents who answered questions about interpersonal contact with persons with mental health problems (see footnote 6). In data analyses not shown here, we reestimated model 7 in Table 3 to assess the impact of interpersonal contact with the reduced sample. These findings are similar to those reported in Table 3, although two points stand out. First, gender is not significant in this subsample. This is not surprising, because individuals who were eliminated from the analysis due to the skip problem were disproportionately men. Second, as expected, when the respondent reports having had contact with persons with mental health problems in which the relationship improved, the reduction in social distance preferences is significant ($b = -.110$, $p < .05$, one-tailed test).

TABLE 3. Unstandardized Estimates for the Regression (ordinary least squares) of Social Distance Preferences from Children with Mental Health Problems on Vignette Characteristics, Respondent Attributes, Causal Attributes, Problem Type, Perceived Dangerousness, and the Endorsement of Stigmatizing Beliefs, 2002 General Social Survey (N = 1,134)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Vignette characteristics</i>							
ADHD	.316***	.319***	.257***	.167***	.213***	.254***	.166**
Depression	.251***	.261***	.233***	.096	.089	.234***	.035
Asthma	-.197***	-.187***	.095	-.023	.094	.093	.011
14 years old	.076*	.078*	.073*	.084**	.073*	.071*	.080**
Female	-.065*	-.062*	-.034	-.030	-.014	-.032	-.012
Black	-.006	-.001	.034	.036	.034	.035	.037
<i>Respondent attributes</i>							
Age	—	.002	.002	.001	.002	.001	.001
Female	—	-.101**	-.081*	-.081**	-.081**	-.077*	-.078*
Black	—	.043	.030	.021	.043	.031	.040
Other race	—	.151*	.000	.057	.052	.078	.035
Family income	—	-.001	.001	.001	.001	.001	.001
Education	—	-.019**	-.006	-.007	-.005	-.006	-.005
South	—	.083*	.045	.051	.039	.044	.042
Size of place	—	.003	.001	.004	.004	.002	.005
Married	—	.070*	.045	.050	.061	.043	.057
Parent	—	.006	.018	.016	.016	.021	.016
<i>Causal attribution</i>							
Chemical imbalance	—	—	.039	.006	-.006	.041	-.009
Genetic or inherited problem	—	—	.017	-.004	.009	.020	-.001
Stressful circumstances	—	—	-.011	-.018	-.029	-.013	-.029
Way the individual was raised	—	—	.032	.037	.024	.031	.026
Lack of discipline in the home	—	—	.081***	.090***	.069**	.078***	.076**
Bad character	—	—	.105***	.112***	.099***	.105**	.106***
Violent TV or video games	—	—	.067**	.061**	.029	.064**	.030
Food or chemical allergies	—	—	-.086***	-.091***	-.076***	-.088***	-.083***
<i>Problem type (label)</i>							
Normal ups and downs	—	—	—	-.089***	—	—	-.069***
Mental illness	—	—	—	.078***	—	—	.016
Physical illness	—	—	—	.032	—	—	.018
<i>Perceived dangerousness</i>							
Violent toward self	—	—	—	—	.097***	—	.088**
Violent toward others	—	—	—	—	.134***	—	.112***
<i>Stigma associated with mental health treatment</i>							
Stigma scale	—	—	—	—	—	.047*	.038
Constant	1.694	1.823	1.037	1.276	.845	.923	1.00
R-squared	.104	.129	.215	.238	.259	.217	.268
F	21.68***	10.34***	12.66***	12.81***	14.88***	12.30***	13.43***

* $p < .05$; ** $p < .01$; *** $p < .001$ (one-tailed tests)

DISCUSSION

We sought to address a gap in the understanding of the social and cultural climate that surrounds children's mental health problems, bringing together extant theory and research on "stigma" to examine Americans' willingness to interact with children with mental health problems. Our theoretical framework organizes past research into the EES, which suggests a series of hypotheses about the role of "disturbing" behaviors," characteristics of affected children and respondents, causal attributions and evaluations, and interpersonal contact.

At a bivariate level, our analyses indicate that even when the focus is on children, a substantial minority of American adults are reluctant to interact, or to have their children interact, with children described in ways consistent with clinical symptoms. Indeed, about one in five adults is unwilling to have these children living next door, in his or her child's classroom, or as his or her child's friend.

In multivariate analyses, we found at least partial support for each research hypothesis. Consistent with H1, we found clear evidence that the "disturbing" behaviors associated with ADHD and depression increase preferences for

social distance, a pattern that, in the case of ADHD, persisted across all models. Also, as expected and consistent with H3, older children and boys engendered higher rejection; but, contrary to H2, being black was not related to social distance.

Evidence was mixed for the fourth set of hypotheses. As expected and consistent with H4(a), residents of the South and members of nonwhite races preferred more social distance, and women and better-educated respondents preferred less social distance. Contrary to expectations, however, being older, residing in smaller communities, and having higher incomes were not found to influence discriminatory potential. Moreover, taken alone, the addition to the explanatory power of the EES attributable to respondents' sociodemographic characteristics was nominal. All sociodemographic characteristics but gender lost significance when attributions were controlled, suggesting that most of these background factors are associated with the endorsement of individual-level explanations for children's mental health problems. Last, consistent with H4(b), married individuals expressed significantly higher discriminatory preferences than nonmarried individuals, but parents were not significantly different from nonparents in discriminatory preferences. Thus, few characteristics of adults who interact with children with mental health problems matter. Instead, as the EES suggests, characteristics of adults may only be indirectly related to stigma, inasmuch as these characteristics only tap how people attribute and evaluate mental health problems, a finding consistent with previous studies (Pescosolido et al. 2000).

While reported beliefs may be less virulent than observed behaviors (Pager and Quillian 2005), the behavioral profile associated with ADHD (and, to a lesser extent, depression) elicit rejection. Further, consistent with H6, when Americans locate the cause of a child's behavior in the child's character or home life, social distance generally increases (see "way raised" as an exception). However, contrary to H6, our findings also suggest that acceptance of medical attributions (i.e., chemical imbalance or genetics) is not likely to reduce stigma when the focus is on children.

A more troubling finding involved tests of H7 and H8, regarding the impact of the label of "mental illness" and perceptions of dangerousness. As suggested in H7, the label of "mental

illness" has a significant negative impact on the public's willingness to socially engage with children with mental health problems. Consistent with H8, the perception of dangerousness also significantly increases social distance preferences. Further, considering both dimensions (i.e., labeling and dangerousness) attenuates or eliminates the otherwise robust effects of the "disturbing" behaviors associated with ADHD and depression. Again, these findings lend support to our suggestions that the organization of influences into a theoretical model offers insights not possible when only single factors are considered.

The association of labeling, behaviors, and perceptions of dangerousness can be interpreted in ways crucial to future research, advocacy, and public policy efforts. Notably, perceived dangerousness may mediate the effect of the label of "mental illness," decreasing the impact of the label. This finding suggests that the label of "mental illness" evokes rejection because, in the mind of the public, it is associated with the likelihood of violence.

Finally, we are only able to provide an equivocal test of the effect of interpersonal contact on social distance (H5; see footnote 6). We found that interpersonal contact significantly reduced preferences for social distance, but only if the outcome of that contact was positive. However, given the data limitations that we described previously, we advise caution regarding interpretations of this finding.

CONCLUSION

We contend that an understanding of how various influences highlighted in past research work together, against, or through one another is possible only by organizing the system of influences into one explanatory scheme like the EES. On balance, our analyses seem to provide preliminary support for that model. While our analyses are largely consistent with findings from stigma research on adults (cf. Martin et al. 2000), other findings are at odds with such studies. Most notably, unlike the chemical and stress-based attributions found to reduce adults' preferences for social distance, similar attributions for children emerged as nonsignificant. In our data, only attributions that suggest individual or family-based failings increased preferences for distance from children.

In line with the 1999 Surgeon General's report on mental illness (U.S. Department of Health & Human Services 1999), our analyses

point to continuing barriers to public acceptance. While not as significant an obstacle as the rejection of adults, social distance does reflect the stigma surrounding children's mental health problems. Further, if, as it seems, the "mental illness" of either children or adults signals danger to the public, this barrier must be addressed by future political, legal, and research agendas. If the perception of threat accounts for what is "disturbing" about behaviors associated with mental health problems or the label of "mental illness," then media images of children and adults also need to be investigated, and public service campaigns about "underlying causes" need to be replaced with or accompanied by attempts to uncouple the conflation of dangerousness and "mental illness." Only an understanding of the underlying roots of stigma will lead to effective efforts to confront the persistent lack of social acceptance for children and adults with "mental illness"; and only that understanding will offer refined sociological insights into prejudice and discrimination.

APPENDIX: VIGNETTES

Next I'm going to describe a youth named (John/Mary). After I read a description of (him/her) I'll ask you some questions about how you think and feel about (him/her).

ADHD Vignette

(John/Mary) is a (white/black) (male/female) (child who is 8/youth who is 14) years old. (John/Mary) has always had trouble in school, especially in completing assignments on time, even though (he/she) has average intelligence. (John/Mary)'s teachers note that (John/Mary) is very distractible, and that they often have to remind (John/Mary) to get back to the task at hand. (John/Mary) is often up and down, out of (his/her) seat, looking out the window, or talking to classmates. (John/Mary) does similar things at home. (His/Her) parents notice that (he/she) easily forgets what (he/she)'s supposed to be doing, has trouble getting up in the morning and going to bed at night, and loses things like toys and games. (John/Mary) also has difficulty making and keeping friends.

Depression Vignette

(John/Mary) is a (white/black) (male/female) (child who is 8/youth who is 14) years

old. In the last few months, (John/Mary) has been increasingly moody, staying in (his/her) room after school, and seems to have lost interest in (his/her) favorite hobbies and in friends. (John/Mary) says that (he/she) always feels very tired even though (he/she) is sleeping more than normal, and (he/she) doesn't feel like eating. (John/Mary) has been having trouble concentrating on what (he/she) is doing both in school and at home, and has told (his/her) parents that "I wish I hadn't been born." One of (John/Mary)'s friends has also heard (him/her) talk about committing suicide.

"Normal Troubles" Vignette

(John/Mary) is a (white/black) (male/female) (child who is 8/youth who is 14) years old. (John/Mary) has several friends in (his/her) neighborhood that (he/she) gets together with one or two times per week, and is involved in several hobbies, including sports and music. (John/Mary) usually gets along fairly well with other kids, but occasionally has some problems with needing to have (his/her) own way or go first in games. (John/Mary) is of average intelligence and behaves appropriately at school, although (he/she) tends to be somewhat shy about participating in class. (John/Mary)'s parents note that (he/she) is sometimes moody, but this comes and goes.

Asthma Vignette

(John/Mary) is a (white/black) (male/female) (child who is 8/youth who is 14) years old. (John/Mary) has a history of breathing problems. (John/Mary) often has bouts of coughing at night and doesn't sleep very well. (His/Her) parents and teachers have noticed that these problems seem to be particularly bad during challenging situations, in the spring and fall, and during strenuous sports activities. (John/Mary) used to enjoy playing soccer but recently gave it up because of these problems. (John/Mary) feels badly about (his/her) breathing problems, which seem to be getting worse, and wishes (he/she) could "be just like other kids." (John/Mary) is involved in several hobbies, including sports and music, and shares these activities with several friends.

NOTES

1. While face-to-face exposure to persons with mental illness is expected to have direct effects on attributions, emotional and cogni-

- tive reactions, and stigma, exposure to media images of mental illness is also likely to affect evaluations. Specifically, when real-life exposure is low, information about mental illness gleaned from the media is likely to be influential. Alternatively, when real experience with mental illness exists, and when that experience disconfirms media messages, the influence of media is likely to be insignificant. Unfortunately, the General Social Survey does not provide media exposure items to allow for a test of relationship.
2. In an attempt to assess the possibility of nonresponse biases, we compared the distributions on the major sociodemographic variables to those of the 2000 Census. With the exception of gender (the GSS tends to overrepresent women), GSS distributions on age, education, income, and other major sociodemographic variables are within the range of sampling error.
 3. Beginning with the early work of Star (1955), the use of vignettes in the study of mental illness stigma has been common practice. For example, a recent review of more than 120 studies of stigma conducted between 1995 and 2003 found that 28 (22.7%) experimental and survey-based studies employed a vignette-based methodology (Link et al. 2004).
 4. These vignettes were composed by a child psychiatrist, modified by members of the research team, and reexamined and approved by the consulting child psychiatrist.
 5. The physical health vignette affords the opportunity to tap into public reactions to children's problems in general, while the "normal troubles" vignette presents a comparison of behavioral problems of a low-severity and nonspecific nature.
 6. One limitation in the NSS-C data has to do with the operationalization of the interpersonal contact variables and results from an error in administration. Due to a programmed error in the skip pattern, only individuals who indicated that they had heard of ADHD were asked the contact questions. While this subsample includes the majority of respondents ($n = 742$, or 65%), it is not a random subsample of GSS respondents. In order to examine the potential bias, when running the analyses, we first compared the reduced- n model to the full- n model and then entered the contact variables. We urge caution, however, with regard to the generalizability of the contact effects.
 7. The analyses reported utilize the unweighted GSS data. We assessed weighting these data to take into account the number of eligible respondents in selected households and potential design effects associated with the clustering of sample elements in segments (see Davis and Smith 1992 for a discussion of the matter of weighting the GSS data). Neither adjustment appreciably altered the pattern or significance of the unweighted coefficients reported. Details of this analysis are available from the corresponding author upon request.

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