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Structural Stigma and Health Inequalities: Research Evidence and Implications for Psychological Science

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Abstract

Psychological research has provided essential insights into how stigma operates to disadvantage those who are targeted by it. At the same time, stigma research has been criticized for being too focused on the perceptions of stigmatized individuals and on micro-level interactions, rather than attending to structural forms of stigma. This article describes the relatively new field of research on structural stigma, which is defined as societal-level conditions, cultural norms, and institutional policies that constrain the opportunities, resources, and wellbeing of the stigmatized. I review emerging evidence that structural stigma related to mental illness and sexual orientation (1) exerts direct and synergistic effects on stigma processes that have long been the focus of psychological inquiry (e.g., concealment, rejection sensitivity); (2) serves as a contextual moderator of the efficacy of psychological interventions; and (3) contributes to numerous adverse health outcomes for members of stigmatized groups—ranging from dysregulated physiological stress responses to premature mortality—indicating that structural stigma represents an under-recognized mechanism producing health inequalities. Each of these pieces of evidence suggests that structural stigma is relevant to psychology and therefore deserves the attention of psychological scientists interested in understanding and ultimately reducing the negative effects of stigma.

Keywords

stigma; social policies; sexual orientation; mental illness; health disparities

Psychologists have provided crucial insights into the ways in which stigmatized individuals perceive and react to stigma as well as the adverse consequences of stigma across several important life domains, such as educational attainment and health (Major & O'Brien, 2005). Despite these significant advancements, stigma research has been criticized for being too focused on individual and interpersonal processes, thereby overlooking broader, structural forms of stigma (Link & Phelan, 2001). Although this criticism largely emanates from other

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disciplines, psychologists themselves have argued that more attention should be paid to structural issues that influence the stigma process (e.g., Fiske, 1998). In the last decade, psychologists have responded to this charge by conducting theoretical and empirical research on the role of structural stigma in shaping the lives of the stigmatized.

This article reviews the relatively new field of research on structural stigma as it relates to mental illness and sexual orientation through addressing four specific issues: (1) defining structural stigma and discussing various measurement approaches that have been employed to study it; (2) evaluating evidence bearing on the important consequences of structural stigma for individual-level stigma processes (e.g., concealment, rejection sensitivity), for psychological interventions, and for health inequalities; (3) describing how the field has addressed the challenge of establishing causal inferences regarding associations between structural stigma and health; and (4) outlining future directions to advance this emerging literature.

What is structural stigma, and how is it measured?

Stigma exists at individual, interpersonal, and structural levels (Link & Phelan, 2001). *Individual stigma* refers to the psychological processes in which individuals engage in response to stigma, such as concealment (e.g., Pachankis, 2007) and self-stigma (i.e., the internalization of negative societal views about your group; e.g., Corrigan, Sokol, & Rüsch, 2013). In contrast, *interpersonal stigma* refers to interactions that occur between the stigmatized and the non-stigmatized (e.g., Hebl & Dovidio, 2005).

Researchers have recently expanded the stigma construct beyond the individual and interpersonal levels to consider broader, macro-social forms of stigma—termed *structural stigma*. Link and Phelan's (2001) influential conceptualization of stigma was among the first to distinguish between stigma at individual and structural levels. Although they did not provide a formal definition of structural stigma, Link & Phelan (2001) noted that the concept "sensitizes us to the fact that all manner of disadvantage can result outside of a model in which one person does something bad to another" (p. 382). Structural stigma has its origins in the related concept of institutional racism (e.g., Carmichael & Hamilton, 1967; Williams & Williams-Morris, 2000), which recognized the important roles of institutions (e.g., banks, governments) and cultural ideologies in perpetuating racism.[1]

Following Link & Phelan's (2001) initial use of the term structural stigma, researchers began to delineate specific components underlying it. Corrigan and colleagues (2004) posited that structural stigma includes institutional policies that either intentionally restrict the opportunities of, or yield unintended consequences for, stigmatized individuals. One prominent example is Jim Crow laws, which maintained white privilege in Southern states

[1]Structural stigma broadens the concept of institutional racism to include other groups that have also experienced a historical legacy of disadvantage, such as individuals with mental illness (Link & Phelan, 2001) and lesbian, gay, and bisexual (LGB) populations (Hatzenbuehler, in press). Institutional racism can therefore be conceptualized as a distinct subtype of structural stigma—namely, structural forms of stigma that are unique to race. In contrast to research on structural stigma related to mental illness and sexual orientation, there is a large literature on institutional racism. That literature has been extensively reviewed elsewhere (see, for example, Williams & Collins, 2001) and is thus not covered here. However, in the section on future research directions, I discuss the need for more exploration of the conceptual overlaps between the literatures on institutional racism and structural stigma.

from Reconstruction to the early 1960s (Woodward, 1955). More recent examples of policies that promulgate stigma include: same-sex marriage bans (e.g., Eskridge & Spedale, 2006); allowing special scrutiny of people "suspected" of being undocumented (e.g., Rhodes et al., 2015); and punitive responses to maternal substance use during pregnancy (e.g., Lester, Andreozzi, & Appiah, 2004).

In addition to institutional policies, researchers identified another component of structural stigma: the dominant cultural norms regarding whether certain identities/statuses are socially devalued, such as the "public stigma" of mental illness (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012) or the sexual prejudice surrounding sexual minorities (Herek, 2007). Synthesizing this literature on the components of structural stigma, Hatzenbuehler and Link (2014) offered an initial working definition of this construct: "societal-level conditions, cultural norms, and institutional policies that constrain the opportunities, resources, and wellbeing of the stigmatized" (p. 2).

These early conceptualizations of structural stigma facilitated the development of measures to study it, which have tended to come in two forms: policy analysis and aggregated measures of social attitudes. In policy analysis, the content of policies (whether at the country, state, or municipal level) is coded to determine the presence of structural stigma in institutions (e.g., Corrigan et al., 2005). The main advantage of this approach is that it relies on objective data sources to code the policies; the primary limitation is that legal content analyses often do not capture the unwritten customs or procedures that undergird more informal institutional practices (Livingston, 2013).

In the second measurement approach, researchers obtain data on individuals' attitudes towards members of stigmatized groups and aggregate these individual responses up to the community level (defined at various geographic scales, such as counties), so that the level of stigma can be compared across communities. This approach has been used to study structural forms of stigma related to mental illness (Evans-Lacko, Brohan, Mojtabai, & Thornicroft, 2012), sexual orientation (Hatzenbuehler et al., 2014), and HIV/AIDS (Miller, Grover, Bunn, & Solomon, 2011). A methodological strength of this approach is that members of stigmatized groups are not asked about their perceptions of community attitudes; instead, the community residents themselves report on their own attitudes. These data on community-level attitudes are then linked to individual-level outcomes (e.g., health) among stigmatized individuals. This approach overcomes same-source bias, which can introduce spurious results when the independent and dependent variables are measured with the same method (Diez Roux, 2007). One limitation is that this approach can underestimate levels of structural stigma, as self-reported attitudes toward stigmatized groups may be subject to social desirability biases (Livingston, 2013).

What are the consequences of structural stigma?

Despite the foundational conceptualizations of structural stigma and recent attempts to operationalize this construct, there has been a dearth of empirical research linking specific measures of structural stigma to individual-level outcomes among members of stigmatized groups. This under-representation of structural stigma (relative to individual/interpersonal

forms) has been called “a dramatic shortcoming” in the literature, given that the processes involved “are likely major contributors to unequal outcomes” (Link, Yang, Phelan, & Collins, 2004, p. 515-16). In the last decade, however, there have been several exciting advancements in the empirical literature on structural stigma. The following section reviews this literature by highlighting three important consequences of structural stigma for: (1) individual-level stigma processes; (2) psychological interventions; and (3) health inequalities.

Structural stigma exerts direct and synergistic effects on stigma processes that have long been the focus of psychological research

Influential psychological theories of stigma at the individual level, such as minority stress (Meyer, 2003) and stigma-induced identity threat (Major & O'Brien, 2005), posit structural-level sources for stigma. However, tests of these theories rarely interrogate structural sources of stigma by locating variation in them and determining their impact on psychological processes related to stigma. This represents an important lacuna, because empirical tests of most psychological theories of stigma are incomplete without explicit measurement of structural stigma.

Recent research has begun to address this gap by demonstrating that individual-level stigma processes, such as concealment and disclosure concerns (Pachankis, 2007), are generated by structural forms of stigma. Pachankis and colleagues (2015) created a measure of country-level structural stigma using a combination of national laws affecting sexual minorities and a measure of social attitudes held by the citizens of each country. They linked this measure to data from the European Men Who Have Sex with Men Internet Survey, which was administered across 38 European countries. Structural stigma significantly predicted the odds of concealment—that is, sexual minority men were more likely to conceal their sexual orientation in countries with high (versus low) levels of structural stigma (Pachankis et al., 2015). Another study assessed associations between community-level motivations to control AIDS-related prejudice (e.g., “I attempt to act in non-prejudiced ways because it is personally important to me”) and disclosure concerns among individuals with HIV/AIDS living in those communities. Individuals with HIV/AIDS reported significantly lower concerns about disclosing their HIV/AIDS status if they lived in communities where residents reported being motivated by personal values to control AIDS-related prejudice (Miller et al., 2011), providing further support that structural stigma shapes the individual-level stigma processes of concealment/disclosure.

Evans-Lacko and colleagues (2012) used a similar approach to study the relationship between structural-, interpersonal-, and individual-level stigma related to mental illness. In that study, researchers linked data on structural stigma (based on public attitudes about mental illness) from 14 European countries to individual reports of self-stigma, perceived discrimination due to mental illness, and empowerment among individuals with mental illness residing in those countries (outcome data were obtained from the Global Alliance of Mental Illness Advocacy Networks study). Individuals with mental illness living in countries with lower levels of structural stigma related to mental illness reported lower rates of self-stigma and of perceived discrimination than those in countries with higher levels of

structural stigma (Evans-Lacko et al., 2012), providing further evidence for a direct relationship between stigma across levels of analysis.

Evidence for interactive effects between structural and individual forms of stigma comes from research by Pachankis and colleagues (2014), who linked a measure of structural stigma related to sexual orientation (a composite measure of state policies and attitudes) to a daily diary study that included measures of health behaviors and psychological factors related to stigma among young sexual minority men. Structural stigma interacted with rejection sensitivity, a measure of stigma at the individual level (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002), to predict tobacco and alcohol use. The interaction revealed that sexual minority men who lived in high structural stigma states and who reported high levels of rejection sensitivity based on their sexual orientation were at greatest risk for substance use. These results suggest that structural stigma potentiates the negative health effects of individual forms of stigma.

Structural stigma serves as a contextual moderator of the efficacy of psychological interventions

It is well known that individual-level factors (e.g., age, sex, personality characteristics) render psychological interventions more or less effective, but the structural factors that impact the efficacy of these interventions are only beginning to be understood. A recent article by Reid and colleagues (2014) provided novel evidence that structural forms of stigma may be one contextual factor that undermines the efficacy of psychological interventions. For their measure of structural stigma related to race, the authors obtained two sources of data: whites' attitudes towards blacks (from the American National Election Studies), and data on racial residential segregation (operationalized from dissimilarity scores, which reflect the proportion of blacks or whites that would have to move across census tracts to achieve racial integration). These data on structural stigma were linked to a meta-analytic database with information on effect sizes from 78 HIV prevention interventions targeted toward African Americans.

Results indicated that interventions improved condom use only when communities had relatively positive attitudes toward African Americans and relatively low levels of racial residential segregation. Moreover, in communities with the least prejudicial attitudes, the intervention effectiveness improved over time. Conversely, the effect size was 0 in the highest structural stigma communities, indicating that on average interventions failed when conducted in high structural stigma environments. These results persisted after controlling for community-level poverty, educational attainment, and population density for blacks and whites. This study identifies structural stigma as an important, yet understudied, factor that can attenuate the efficacy of some psychological interventions.

Structural stigma has robust health consequences for members of stigmatized groups

Recent research has begun to generate a tantalizing set of findings concerning the role of structural stigma in the production of negative health outcomes for members of stigmatized groups. A comprehensive review of this literature is beyond the scope of this paper (for a review, see Hatzenbuehler, in press); instead, this section describes illustrative examples of

this research as it specifically relates to LGB populations. Evidence is presented across a range of health outcomes (e.g., psychiatric morbidity, physiological stress response, all-cause mortality) and from a variety of methodological approaches.

Much of the work on structural stigma and LGB health began with cross-sectional, observational designs in order to establish whether structural stigma was associated with health inequalities. In an early example of this work, Hatzenbuehler and colleagues (2009) coded all 50 states for the presence or absence of hate crime statutes and employment nondiscrimination policies that included sexual orientation as a protected class (the measure of structural stigma). They then linked this policy information to individual-level data on mental health and sexual orientation from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), a nationally representative health survey of U.S. adults. Sexual orientation disparities in psychiatric morbidity were more pronounced in high structural stigma states than in low structural stigma states. For instance, LGB adults who lived in states with no protective policies were nearly 2.5 times more likely to have dysthymia (a mood disorder) than were heterosexuals in those same states, controlling for established risk factors. Conversely, sexual orientation disparities in dysthymia were eliminated in states with protective policies (Hatzenbuehler et al., 2009).

Although cross-sectional studies provide important insights into associations, prospective designs improve the ability to establish temporal ordering of the relationship between structural stigma and health. In one example of this work, Hatzenbuehler and colleagues (2014) constructed a measure of structural stigma that captured the average level of anti-gay prejudice in a community. To do this, they took four questions on people's attitudes towards homosexuality that had been repeatedly assessed in the General Social Survey across 14 years and then aggregated these individual responses up to the community level, such that each of the 170 communities in the study had an average prejudice score. This information on prejudicial attitudes was prospectively linked to mortality data via the National Death Index.

Sexual minorities who lived in high structural stigma communities—operationalized as communities with high levels of anti-gay prejudice—had increased mortality risk compared to those living in low structural stigma communities, controlling for individual and community-level covariates. This effect translates into a life expectancy difference of 12 years on average (range: 4-20 years), which is similar to life expectancy differences between individuals with and without a high school education (Hatzenbuehler et al., 2014). Analysis of specific causes of death from *International Classification of Diseases-9* (ICD-9) codes revealed that suicide, homicide/violence, and cardiovascular diseases were elevated among sexual minorities in high structural stigma communities, suggesting potential mechanisms linking structural stigma to mortality risk.

Complementing these observational studies are quasi-experimental designs. Because it is not ethical to randomly assign individuals to conditions of structural stigma, researchers cannot conduct randomized experiments to study the health effects of structural stigma. However, it is possible to take advantage of naturally occurring changes in structural stigma (e.g., following a change in social policies targeting a specific stigmatized group) to conduct

quasi-experiments. In such studies, researchers examine whether health changes following an increase or decrease in structural stigma. Although quasi-experiments are not new, they have only recently been used to study the health consequences of structural stigma. This is due, in part, to the difficulty of conducting these studies, given that such designs require data from before and after changes in structural stigma.

Despite these challenges, a handful of studies have utilized this approach. During 2004, several states passed constitutional amendments banning same-sex marriage. These events occurred in between two waves of data collection in the NESARC (described above). Respondents were first interviewed in 2001 and then were re-interviewed in 2005, following the passage of the same-sex marriage bans. This provided a natural experiment that enabled researchers to examine changes in the prevalence of psychiatric disorders among LGB respondents who had been assessed before and after the bans were passed. LGB adults who lived in states that passed same-sex marriage bans experienced a 37% increase in mood disorders, a 42% increase in alcohol use disorders, and a 248% increase in generalized anxiety disorders between the two waves (Hatzenbuehler, McLaughlin, Keyes, & Hasin, 2010). In contrast, LGB respondents in states without these bans did not experience a significant increase in psychiatric disorders during the study period. Moreover, the mental health of heterosexuals in states that passed the bans was largely unchanged between the two waves.

Whereas implementing structural stigma through state laws exerts negative mental health consequences for LGB populations, abolishing structural forms of stigma may improve the health of this population. Evidence for this hypothesis comes from a study conducted in Massachusetts, which became the first state to legalize same-sex marriage in 2003. Researchers obtained data from previously-collected medical records from a community-based health clinic in Massachusetts to examine the effect of the law on health care use and costs among sexual minority men. There was a 15% reduction in mental and medical health care utilization and costs among these men in the 12 months following the legalization of same-sex marriage, compared to the 12 months before (Hatzenbuehler et al., 2012). In order to determine whether these reductions in health care use and costs were driven, in part, by improvements in health, the researchers examined the ICD-9 diagnostic codes that were charged by the providers following each visit. These results indicated substantial reductions in several stress-related disorders—including a 14% reduction in depression and an 18% reduction in hypertension—among sexual minority men in the 12 months after the legalization of same-sex marriage compared to the 12 months before, providing evidence for a stress pathway linking structural stigma and health.

A final methodological approach that has been utilized to study structural stigma and LGB health is laboratory designs. One primary advantage of such designs is that researchers have experimental control and can therefore examine how prior exposure to structural stigma differentially affects responses to the same stimulus in the lab. In these studies, individuals are recruited based on their exposure to structural stigma (high vs. low) and then are assigned to different conditions to examine how structural stigma influences behavioral, psychosocial, and physiological responses to stressful stimuli.

In one example of this work, researchers recruited 74 LGB young adults who were raised in 24 different states as adolescents. These states differed widely in terms of structural stigma, which was coded based on a composite measure that included, among other factors, state laws and attitudes (Hatzenbuehler & McLaughlin, 2014). All respondents were currently living in New York, a low structural stigma state. In order to examine how prior exposure to structural stigma during adolescence affected subsequent physiological stress responses during young adulthood, participants completed a validated laboratory stressor, the Trier Social Stress Test (TSST), and neuroendocrine measures were collected. LGB young adults who were raised in high structural stigma states as adolescents evidenced a blunted cortisol response following the TSST compared to LGB young adults raised in low structural stigma states (Hatzenbuehler & McLaughlin, 2014). This blunted cortisol response has been similarly documented in other groups that have experienced chronic stressors, including children exposed to childhood maltreatment (Gunnar, Frenn, Wewerka, & Van Ryzin, 2009). Thus, these results suggest that the stress of growing up in high structural stigma environments may exert biological effects that are similar to other chronic life stressors.

How do researchers establish causal inferences about structural stigma?

Researchers have used several different approaches to achieve the strongest causal inference possible regarding the health impact of structural stigma. One approach has been to examine whether structural stigma exerts health effects only among the stigmatized group, and not among the non-stigmatized comparison group. To the extent that structural stigma has specific effects on specific groups, confidence in a causal effect is enhanced, because such a finding is consistent with the theoretical predictions made by stigma theories (e.g., Link, 1987). In addition, when relationships between structural stigma and health are observed only among members of the stigmatized group, this increases the likelihood that this result is due to structural stigma itself rather than to factors that may be associated with it (e.g., better economic conditions). Studies have generally documented this kind of specificity; for instance, state-to-state variations in laws banning same-sex marriage did not negatively impact the mental health of heterosexuals (Hatzenbuehler et al., 2010).

A second approach has been to utilize natural or quasi-experiments to examine the health consequences of structural stigma. Such designs effectively minimize the threat to validity of self-selection into the exposure status (i.e., structural stigma). Quasi-experimental designs cannot rule out the possibility that some other factor that occurred contemporaneously with the change in structural stigma is driving the results. However, the plausibility of these alternative factors can be evaluated by examining whether they occurred during the same time period and, if so, whether they could have contributed to the results. One example of this approach comes from the study by Hatzenbuehler and colleagues (2012) reviewed above, which found that health care use and costs decreased among gay and bisexual men in Massachusetts in the 12 months after that state passed a same-sex marriage law (compared to the 12 months before). To determine whether other factors unrelated to the same-sex marriage law contributed to the results, the researchers examined data from the Centers for Medicare & Medicaid Services to determine trends in health care costs during the study period (2002-2004). These data revealed that health care costs in the general population of Massachusetts' residents increased during the study period. This pattern was in the opposite

direction of those observed in the study's sample of sexual minority men, suggesting that external factors within the Massachusetts healthcare environment were unlikely to have influenced the results.

A third approach for improving causal inferences comes through the direct assessment of plausible alternative explanations. One alternative explanation for the relationship between structural stigma and health is that people with better health move away from policy regimes and attitudinal contexts that disadvantage them, leaving unhealthy respondents behind. If this were to occur, differential selection by health status could contribute to the observed association between structural stigma and health. Studies have begun to address this possibility and have thus far not found strong evidence for this selection hypothesis. For instance, in the study reviewed above using data from the General Social Survey/National Death Index dataset, Hatzenbuehler and colleagues (2014) found modest evidence that sexual minorities who moved were more likely to migrate to low (versus high) structural stigma communities (r=0.13); however, geographic mobility was not associated with better self-rated health or with mortality (Hatzenbuehler & McLaughlin, 2014). Thus, healthier sexual minorities were not more likely to move to low structural stigma communities than unhealthy sexual minorities, indicating that differential selection by health status is not responsible for the results.

Finally, one potential methodological limitation that can affect internal validity (and therefore causal inferences) is expectancy effects, wherein researchers' biases in obtaining support for their hypotheses about the effects of structural stigma may influence their coding behaviors of the independent (i.e., structural stigma) or dependent (e.g., health) variables. Existing studies have largely minimized the threat of expectancy effects because of the methodological approaches that have been used to evaluate the health consequences of structural stigma. Specifically, researchers first obtain data on structural stigma, typically from external sources. Data on policies are either collected by outside groups that use legal/policy experts to independently code the policies, or are obtained from publicly available data sources whose accuracy can be objectively verified by comparisons with legislative records (e.g., Krieger et al., 2013; Pachankis et al., 2015). In studies that use data on aggregated social attitudes as the indicator of structural stigma, researchers usually obtain these data from publicly available data sources (e.g., General Social Survey) rather than collecting the data themselves (see Miller et al., 2011 for an exception), thereby reducing the likelihood of expectancy effects. Information on structural stigma is then linked to datasets in which the health outcomes were previously collected by other researchers who are, by definition, blind to study hypotheses (because the health data were not originally collected for the purposes of studying structural stigma). This approach further minimizes the threat of expectancy effects.

What research on structural stigma is needed to advance the field?

Despite the exciting recent developments in the study of structural stigma, the field is still in its relative infancy; accordingly, important questions remain. Table 1 summarizes several research priorities that are needed to advance the literature on structural stigma. These priorities are divided into the following domains: conceptual, measurement, methodological,

and future research questions. In this section, I discuss illustrative examples of these research priorities.

Regarding the conceptual domain, work is needed to further refine the current definition of structural stigma as new instantiations of this construct are revealed. The field also requires the development of new theories, and/or refinement of existing theories, to explicate how different levels of stigma (structural, interpersonal, individual) operate together. Such theories should anticipate which individual-level stigma factors are most strongly activated by structural stigma, and why certain interpersonal stigma processes (but not others) interact with structural stigma to harm psychosocial and health outcomes. Finally, there are conceptual overlaps with structural stigma and other related concepts, including institutional racism (e.g., Williams & Williams-Morris, 2000) and multiculturalism (e.g., Berry, 2013). Because these literatures have largely followed parallel tracks, research is needed to explore the relationship between a structural stigma framework and these related concepts to: (1) find points of overlap; (2) identify gaps that can be filled by a structural stigma framework; and (3) assess whether aspects of the structural stigma framework may be opposed to existing concepts, leading to competing hypotheses that can be tested. Answering these questions will indicate whether greater cross-fertilization than currently exists among these literatures is warranted.

In addition to conceptual developments, a number of measurement advancements will help to further elucidate the consequences of structural stigma (Table 1). For example, some existing measures of structural stigma have limitations that may underestimate its prevalence and impact. As mentioned above, measures of structural stigma that rely on aggregated responses of individuals' explicit attitudes about members of stigmatized groups (e.g., Evans-Lacko et al., 2012) may be subject to social desirability biases. Researchers have begun to develop new measures to address these limitations. Chae and colleagues (2015) used data on racially-charged search terms from Google to develop a measure of community-level racial prejudice and then linked this measure to a health dataset to predict mortality among blacks. One advantage of this measurement approach is that socially unacceptable attitudes are less likely to be censored on the Internet. Other approaches that have been developed to minimize social desirability biases include asking respondents to report on what others think about members of particular stigmatized groups, rather than on their own attitudes (Quinn & Chaudoir, 2009). Additionally, research is needed to create and evaluate measures of structural stigma related to stigmatized identities and statuses that have thus far not been the focus of work on structural stigma, such as abortion (e.g., laws restricting abortion access) and obesity (e.g., school districts requiring obesity report cards). This research will help to further test the generalizability and potential boundary characteristics of structural stigma.

The field would also benefit from new methodological approaches to examine structural stigma (Table 1), such as cross-cultural comparisons and migration patterns. For instance, Scandinavian countries (e.g., Sweden) have undergone marked reductions in structural stigma against gays and lesbians in the past 10-15 years. This provides new opportunities for testing the health consequences of structural stigma. If sexual orientation disparities in health are less pronounced among younger-born cohorts (who have been exposed to

relatively low levels of structural stigma) than among older-born cohorts, this would provide additional evidence for the health impact of structural stigma. Exploiting different migration patterns that naturally occur in longitudinal studies provides another way to further evaluate the effects of structural stigma. Studies could determine, for example, whether stigmatized individuals raised in high structural stigma environments who later move to low structural stigma environments report lower levels of stigma consciousness than those who remain in high stigma environments.

Finally, several research questions regarding the consequences of structural stigma await further testing (Table 1). For instance, existing research has examined structural stigma across several geographic levels—including nations (e.g., Evans-Lacko et al., 2012), states (e.g., Krieger et al., 2013), counties (e.g., Hatzenbuehler et al., 2014), and neighborhoods (e.g., Duncan & Hatzenbuehler, 2014)—but has not yet evaluated the consequences of structural stigma at multiple levels of analysis simultaneously. Consequently, it is currently unknown whether more proximal levels of structural stigma (e.g., neighborhood) exert stronger health effects than structural forms of stigma at more distal levels (e.g., state).

Additional questions for future research include: Do structural forms of stigma related to multiple axes of social stratification (e.g., ethnicity and sexual orientation) interact to engender poor psychosocial and health outcomes for individuals with intersectional identities? Which psychosocial factors moderate the association between structural stigma and adverse outcomes? What components might be added to existing psychological interventions to improve their efficacy among individuals in high structural stigma environments? Finally, psychologists have begun to propose specific mechanisms through which structural stigma “gets under the skin” to create adverse health outcomes (e.g., Richman & Lattanner, 2014), but few of these mechanisms have been empirically tested. This research is necessary to identify potential targets for the development of psychosocial interventions that reduce the negative health sequelae of structural stigma.

Conclusion: Why should psychologists study structural stigma?

I have argued that structural stigma deserves the attention of psychological scientists because it has significant implications for topics at the very core of psychological inquiry, including individual/interpersonal stigma processes, the efficacy of psychological interventions, and health inequalities. Heeding calls by psychologists to attend to structural issues that influence stigma (e.g., Fiske, 1998), psychological scientists have contributed to a growing body of evidence that situates individual- and interpersonal-level stigma processes (e.g., concealment, self-stigma, rejection sensitivity) within the social structures that generate and perpetuate them (e.g., Evans-Lacko et al., 2012; Pachankis et al., 2015; 2014). In so doing, research on structural stigma lends support for psychological theories of stigma that have hypothesized—but not empirically tested—structural-level sources for these processes (e.g., Major & O'Brien, 2005; Pachankis, 2007; Meyer, 2003).

Evidence for the health consequences of structural stigma is accumulating across observational (cross-sectional and prospective), quasi-experimental, and laboratory designs (e.g., Hatzenbuehler et al., 2009; 2010; 2014). The consistency of the relationships between

structural stigma and numerous adverse health outcomes, and the ability to triangulate evidence across several methodological approaches, highlights the robustness of these findings. Reducing the negative health consequences of structural stigma requires the development of structural interventions that eliminate structural forms of stigma as well as psychological interventions that disrupt the psychosocial mechanisms that link structural stigma to poor health outcomes. However, emerging research suggests a potential caveat for psychological interventions: structural stigma itself may play a role in undermining the efficacy of individual-level psychological interventions (Reid et al., 2014). This research on structural stigma as a moderator of intervention efficacy opens up new avenues for investigating why psychological interventions flourish in some social contexts but fail in others.

Psychologists have already conducted much of the initial theoretical and empirical work on structural stigma reviewed in this article. Now, their unique methodological and conceptual skill-sets are needed to produce new insights into this important, but thus far largely under-recognized, source of social disadvantage for stigmatized populations.

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Table 1

Future Research Directions on Structural Stigma.

Conceptual
Developing new theories, and/or refining existing theories, to explicate how different levels of stigma operate together.
Further refinement of the current definition of structural stigma as new instantiations of this construct are revealed.
Exploring the relationship between a structural stigma framework and other related concepts (e.g., institutional racism; Carmichael & Hamilton, 1967) to: (1) find points of overlap; (2) identify gaps that can be filled by a structural stigma framework; and (3) assess whether a structural stigma framework lends itself to theories about health inequalities that are opposed to the related concepts, leading to competing hypotheses that can be empirically tested.
Measurement
Developing novel measures to capture structural stigma, such as Google search terms.
Testing the reliability and validity of comprehensive measures of structural stigma that capture its multiple components (e.g., laws, institutional practices, social norms).
Developing and testing self-reported measures of structural stigma and examining correlations between these measures and objective indicators of structural stigma.
Creating measures of structural stigma for identities/statuses that have not been the focus of work to date (e.g., obesity, abortion).
Methodological
Creating new datasets that have adequate variation in structural stigma and that include measures of stigma at the interpersonal and individual levels.
Utilizing methods that are new to the stigma literature to explore interrelationships between stigma across levels, such as agent-based models.
Exploring additional lab-based paradigms to test structural stigma as a moderator of stigma processes and basic psychological processes.
Developing innovative ways of testing structural stigma, including cross-cultural comparisons.
Exploiting different migration patterns that naturally occur in longitudinal studies to further explore the effects of structural stigma on psychosocial and health outcomes.
Research Questions
Extending the structural stigma framework to stigmatized identities/statuses beyond mental illness and sexual orientation.
Assessing other outcomes that structural stigma might influence beyond those already studied, including academic achievement, self-regulation, and immune functioning.
Identifying mechanisms—including material (e.g., income, educational attainment), psychosocial (e.g., stress, emotion regulation), and biological (e.g., inflammation)—that explain how structural stigma operates to impair the health of stigmatized populations.
Examining factors that moderate the structural stigma-health association. For instance, research is needed to examine personal factors that exacerbate the negative consequences of structural stigma (e.g., low socioeconomic status), as well as community-level factors that buffer stigmatized individuals even in the context of exposure to structural stigma (e.g., community connectedness).
Developing modules that can be added to existing individual-level interventions to reduce the negative impact of structural stigma on intervention efficacy.
Examining whether structural stigma interacts with other social/structural determinants of health (e.g., income inequality) to produce negative psychosocial and health outcomes for members of stigmatized groups.
Examining the impact of multiple forms of structural stigma (e.g., related to ethnicity and sexual orientation) on stigma processes and health outcomes among stigmatized individuals with intersecting identities.
Conducting studies that include structural stigma across multiple levels (e.g., state, county, neighborhood) in order to: (1) examine joint and synergistic effects of structural stigma at different geographic levels; and (2) evaluate whether proximal levels of structural stigma exert stronger health effects than structural forms of stigma at more distal levels.
Assessing how exposure to structural stigma early in the life course affects developmental trajectories among members of stigmatized populations.
Testing dose-response relationships between length of exposure to structural stigma and adverse outcomes among stigmatized individuals.