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RACIAL DISPARITIES IN ACCESS TO MENTAL HEALTH CARE: A FIELD EXPERIMENTAL APPROACH

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RACIAL DISPARITIES IN ACCESS TO MENTAL HEALTH CARE:
A FIELD EXPERIMENTAL APPROACH

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A DISSERTATION

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ABSTRACT

This dissertation comprises the first field experimental studies of racial disparities in access to mental health care providers (MHPs). Three empirical papers investigate the extent to which MHPs constrain access to care for black, relative to white, individuals seeking therapy (“help-seekers”). They also measure how the observed racial disparities in appointment offers are moderated by non-racial attributes of the help-seeker, characteristics of the provider, and the marketplace in which decisions about access are being made. Together, the studies include more than 2,400 MHPs who practice in private outpatient settings. By employing a field experimental approach, this research revealed otherwise invisible provider-side responses to help-seekers.

In Paper 1, I present a phone-based experiment that examined how the race, social class, and gender of help-seekers affect access to psychotherapists who are solo practitioners and participate in a health insurance network. I found racial disparities among ostensibly middle class but not working class help-seekers, with blacks considerably less likely than whites to be offered an appointment. Furthermore, on average, middle class help-seekers had appointment offer rates almost three times higher than their working class counterparts.

To what extent are Paper 1’s findings generalizable to a varied population of MHPs in a competitive online market? In Paper 2, I present an email correspondence experiment that targeted a variety of mental health care providers (psychologists, social workers, and licensed counselors) nationwide who advertise their services in an online directory of MHPs. Racial disparities in access were observed among the less educated help-seekers, but not the more educated help-seekers. Applying the methods developed for Paper 2, Paper 3 explores the influence of racial concordance between MHPs and help-seekers on MHPs’ accessibility. This

experiment revealed that white MHPs preferred white help-seekers and that black MHPs did not discriminate on the basis of race.

As a body of work, this dissertation contributes to the literature on racial discrimination by health care providers. It also makes a methodological contribution to sociology. Through the supplementary materials, I show that field experiments in the mental health care sector can be executed in precise, ethical, and economical ways.

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For David.

&

For those who persist in their search for mental health care despite obstacles.

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INTRODUCTION

OVERVIEW

This dissertation investigates how the perceived race of prospective therapy clients affects access to psychotherapy services in the United States. Barriers to accessing mental health care do not equally affect social groups. The nature and causes of *racial* disparities, in particular, have received considerable attention. Researchers have examined this social phenomenon from many angles, mostly focusing on the micro-level attitudinal barriers to help-seeking or the macro-level structural obstacles to receiving care. Often overlooked in these studies is the question of whether mental health care providers (MHPs) contribute to racial disparities in access. This is an unfortunate oversight because MHPs in private practice have considerable discretion over whom they accept as clients. One motivation of this research is to instigate a move away from a focus on why black Americans “delay” or “neglect to” pursue mental health care and toward a focus on how the behaviors of MHPs may obstruct access to that care.

The dissertation presents three attempts to empirically contribute to our knowledge of the overarching issue: discriminatory behavior toward black and other socially disadvantaged Americans seeking mental health care. The three papers stem from a shared research question: Does a prospective client’s (“help-seeker”) race and other attributes affect the likelihood that s/he will be offered an appointment from an MHP who functions as a gatekeeper to therapy? This question is best answered with field experimentation—a method that combines the rigor of experimentation with the authenticity of natural observation. Using this method, I was able to observe the actual responses of real MHPs to simulated help-seekers they believe to be real. This

dissertation comprises the first field experimental studies of racial discrimination by MHPs at the entry point to therapy.

Paper 1 found that black help-seekers and working class help-seekers each have lower odds of a successful phone inquiry (i.e., one that leads to an appointment offer) than middle-class white help-seekers. Do the racial disparities observed in Paper 1 generalize to a different market with a different composition of MHPs? Paper 2 was designed to answer that question. It was conducted in a competitive online marketplace where a variety of MHP types nationwide were emailed by a black or white help-seeker. In this market, MHPs were more likely to respond to help-seekers with low levels of education when they were white rather than black. Can that disparity be mitigated if help-seekers contact black rather than white MHPs? Paper 3 asks whether racial discrimination is observed among both black and white MHPs; it finds that, on average, only white MHPs discriminate. Collectively, these studies contribute to the literature on (a) sources of racial and social class disparities in access to mental health care and (b) novel applications of field experimental methods to sociological problems.

The remainder of this introduction proceeds as follows. First, I clarify and justify the key terms used in this dissertation. Second, I outline the relevant features of the mental health care landscape. Third, I describe field experimental methods. I highlight ways that internet technologies enable the collection of data not possible for previous generations of social scientists. Fourth, I provide a synopsis of the three empirical chapters and the supplementary materials that follow. Last, I acknowledge the dissertation's ethical oversight and financial support.

TERMINOLOGY AND SCOPE

Mental Health Care Provider

In the broader literature, “MHP” sometimes stands for “mental health professional.” In this dissertation it stands for “mental health care provider” to emphasize the part of the subjects’ roles that involve (a) treatment, not diagnosis, and (b) a transactional relationship with patients/clients/help-seekers. I call the MHPs studied in Paper 1 “psychotherapists.” They have the same qualifications as the MHPs that PsychologyToday.com calls “psychologists” (a Ph.D. or Psy.D.). They are a subset of the range of MHPs studied in Papers 2 and 3, which includes two additional types of MHPs: social workers and licensed counselors. Additional information about MHP occupations can be found in Supplement 2. Note that none of the subjects in this dissertation are psychiatrists (i.e., have medical degrees).

Patient vs. Client

I use “patient” in Paper 1, where all of the MHPs are doctoral-level professionals. I opt for “client” in Papers 2 and 3, where the MHPs may be psychologists, social workers, or other licensed therapists. This is consistent with the terminology of their respective professional associations. American Psychological Association uses both “patient” and “client,” while the American Counseling Association uses “client” only (American Counseling Association 2014; American Psychological Association 2010).

Help-seeker

Most instances of the term “help-seeker” in this dissertation refer to individuals seeking outpatient therapy, as that is the population of interest to this investigation. However, when writing about relevant literature, theory, and implications, I use it more broadly to represent individuals, or classes of individuals, seeking access to any form of health care services.

Race

Race is arguably the most salient social cleavage in the United States. A voluminous sociological literature compares black and white Americans on almost any imaginable social outcome. This dissertation compares just those two racial groups, largely in order to avoid confounding race with language spoken.

Throughout the paper, “black” and “white” refer to *perceived* race. Help-seekers’ race is what we assume the MHPs perceive based on the name (and, in some cases, voice or other attributes) of the help-seeker. MHPs’ race is defined as perceived by research assistants viewing their online profile photos on [Therapists.PsychologyToday.com](https://www.therapistspsychologytoday.com).

Field Experiments vs. Audit Studies

Field experiments are a method of data collection that captures experimentally controlled real-world interactions in a natural setting. Social scientists use the term “audit study” to refer to a subset of field experiments designed to detect systematic discrimination against social groups. The traditional audit study design relies on matched pairs of individual testers that vary only by race (Fix and Struyk 1993). The use of racially paired help-seekers is one of the key design features of Paper 1 that distinguishes it from Papers 2 and 3. Therefore, to highlight that

difference and to avoid confusion, I use “audit study” to describe only Paper 1’s methods. I use the broader term, “field experiment,” to refer to the method for Paper 2, Paper 3, and the dissertation as a whole.

More specifically, the studies in this dissertation are “*natural* field experiments,” defined in Harrison and List’s (2004:1014) taxonomy as a field experiment “...where the environment is one where the subjects naturally undertake [tasks] and where the subjects do not know that they are in an experiment.” The subjects’ (in this case, MHPs) lack of awareness of their participation addresses two important threats to a study’s validity: social desirability bias and selective participation/attrition.

Disparities

This dissertation examines disparities in access to a set of U.S.-based mental health care providers who offer individual, outpatient therapy in private practice. Despite ample literature about “disparities” and “discrimination,” there is no consensus about the definition of those terms (McGuire and Miranda 2008). One frequently used definition is provided in the Institute of Medicine’s (IOM) “Unequal Treatment” report. It defines “disparities” as “racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention” (Institute of Medicine 2003:32). Notably, the IOM’s definition of disparities was written to address the issue of differences in the quality of care, not access, so it cannot be applied to this dissertation without modification. Following McGuire and Miranda (2008:393), this dissertation adopts a definition that is in the spirit of the IOM’s: to qualify as a disparity, the racial difference cannot be due to the “needs or preferences of the patient.” I use “discrimination” to refer to a subset of disparities that disadvantage

members of a racial group and “result from biases, prejudices, stereotyping, and uncertainty in clinical communication and decision-making” (Institute of Medicine 2003:32). The studies in this dissertation are not designed to discern between taste-based and statistical discrimination.

Accessibility

Implicit in the definition of disparities is an adjustment for need for care. Yet, I purposefully diverge from studies of disparities in access that justify their research questions in terms of disparities in unmet need. Denial of access and unmet need are both critically important, but independent, phenomena. While denial of access is one pathway through which disparities in unmet need could emerge, disparities in access are an important form of inequality in their own right.

Table 1. Defining criteria for establishing denial of access versus unmet need

Conditions	Outcomes	
	Denial of access	Unmet need
<i>Treatment was:</i>		
Needed	--	✓
Sought	✓	--
Offered	X	--
Utilized	--	X

Note: Check marks indicate conditions that must be present. X marks indicate conditions that must be absent. Dashes indicate unnecessary conditions.

All studies in this dissertation begin with a simulated help-seeking behavior (i.e., contacting an MHP) and end with a measure of accessibility (i.e., a positive response from an MHP). Access is operationalized as a positive response to the request for an appointment. In Paper 1, an MHP is considered accessible if s/he responds to the request with an appointment offer. In Papers 2 and 3, access is operationalized a bit more broadly, to include phone call offers

as a positive response. This is because the email experiments generated considerably more intermediate responses (i.e., those that aren't explicit appointment offers), which made categorization more challenging than in the phone-based audit. Researchers have taken varying approaches to classifying intermediate responses (Olah, Gaisano, and Hwang 2013; Shin et al. 2016).

MENTAL HEALTH CARE LANDSCAPE

Approximately 16 million American adults receive outpatient mental health care annually (Substance Abuse and Mental Health Services Administration 2013). That estimate includes 7.7 percent of whites, 4.3 percent of blacks, 8.3 percent of women, and 4.7 percent of men.

Outpatient mental health care can be found in three sectors: general medical, public mental health, private mental health. Psychologists, psychiatrists, and social workers—whether working in the public or private sector—are considered specialists (Pescosolido and Boyer 2010).

Specialty care is associated with considerably higher rates of adequate care than the general medical sector (Roy-Byrne et al. 2009; Young et al. 2001). Racial and socioeconomic differences in quality of care are often attributed, in part, to treatment by primary care physicians instead of mental health specialists (Atdjian and Vega 2005; Young et al. 2001).

Of the two sectors in which specialists can be found, the private sector has considerably higher quality. The public mental health care sector is insufficiently funded and lacks the necessary services to support those who need services (National Alliance on Mental Illness 2009). Therefore, the systematic exclusion from the private sector can have a very real impact on the mental health of vulnerable minorities and other socially disadvantaged groups.

During the second half of the twentieth century, the category of “mental health care provider” increased considerably. A term that once referred to psychiatrists (medical doctors with psychiatric training), now encompasses professionals including clinical social workers, psychologists (both Ph.D. and Psy.D.), and licensed counselors, among others (Frank and Glied 2008). According to Grohol (2011), citing the U.S. Department of Labor’s Bureau of Labor Statistics, more than 550,000 mental health care providers were currently practicing in the U.S. in 2011. The majority were employed in occupations examined in this dissertation: 152,000 clinical and counseling psychologists (“psychologists” or “psychotherapists”), 138,700 mental health and substance abuse social workers (“social workers”), and 113,300 mental health counselors (“licensed counselors”). Regardless of occupational type, MHPs have a common commitment to a provider-client relationship that is strictly transactional and asymmetrical (Laufenberg 2015). That relationship begins at the first attempt at contact from a prospective client, where this dissertation is situated.

Approximately 60 percent of American adults receiving outpatient mental health care do so from private practitioners—either in group or solo practices (Substance Abuse and Mental Health Services Administration 2014). Psychologists are the most likely of the three types to be solo private practitioners (i.e., self-employed); estimates of self-employment rates range from approximately one-third to one-half of psychologists (American Psychological Association 2009; Bureau of Labor Statistics 2015). When contacted by a help-seeker, MHPs in a solo private practice have ample opportunity to behave in ways consistent with their biases because (a) they retain exclusive discretion over the provision of their services and (b) their professional isolation reduces pressure to conform to socially desirable behaviors.

PURSUING FIELD EXPERIMENTS

Most of our understanding of the potential for racial discrimination by health care providers—both medical and mental—is based on survey data, implicit bias tests, or vignette-based experiments, rather than field experiments. Field experiments are a type of behavioral research well suited for measuring discrimination because they are able to capture actual decisions about access while minimizing external confounding effects. The “experiment” feature of a field experiment is readily definable, consisting of manipulation of a stimulus and random assignment of subjects to experimental conditions (Baldassarri and Abascal 2017). There is less consensus about the “field” part. Gerber and Green (2012:10–11) identify four dimensions of “fieldedness”: “whether the treatment used in the study resembles an intervention of interest in the world, whether the participants resemble the actors who ordinarily encounter these interventions, whether the context within which subjects receive the treatment resembles the context of interest, and whether the outcome measures resemble the actual outcomes of theoretical or practical interest.”

Each of the empirical chapters in this dissertation describes the efforts made to ensure high levels of authenticity across the critical dimensions identified by Gerber and Green (2012): context, subjects, treatment, and outcome measures. As with all field experiments, the presumed trigger of discrimination (race) is manipulable and the outcome (appointment offer) is readily measurable. Help-seekers (experimental treatments) were randomly assigned to MHPs (subjects) to counterbalance unobserved subject-level variables. By eliminating sources of spuriousness, field experiments can make empirically defensible causal claims. And by minimizing the

invasiveness of the treatments to the subjects, field experiments can proceed in an ethical and unobtrusive (i.e., undetectable) fashion.

Types of Field Experiments: In-person, Phone, and Correspondence

As the frequency and type of use of field experiments in the social sciences has evolved, reviews of the method's applications have proliferated, with three published within the past year alone (Baldassarri and Abascal 2017; Duflo and Banerjee 2017; Gaddis 2018b). When Fix and Struyk (1993) published one of the earliest and most influential volumes describing audit study techniques, the majority of field experiments to detect discrimination were in-person audits of the U.S. housing market. In the typical formulation of the housing audit that emerged in the 1960s, researchers select and train "testers" (auditors) to resemble each other in all characteristics other than race; they each then visit realtors to inquire about real estate availability. If, over a series of trials, the white tester is systematically favored over the black tester, discrimination is said to have occurred. In-person audits have come under fire by Heckman (1998) and others for issues arising from inadequate tester matching (i.e., unaccounted for differences) and experimenter-expectancy effects (Pager and Shepherd 2008)

Phone-based audit studies emerged as one way to reduce the costliness and threats to validity associated with in-person audit studies. Phone-based field experiments avoid the artificiality of lab experiments, but offer greater control over the stimuli than in-person studies can. One clever phone audit study of discrimination in housing markets exploited the fact that Americans can readily detect a speaker's race and social class over the phone to demonstrate that professionals perpetuate racial disparities in access even without in-person contact (Massey and Lundy 2001).

Yet, even most phone-based studies require extensive involvement of a highly trained research team. Correspondence studies—a type of field experiment in which the stimulus is communicated via written correspondence, either electronic or non-electronic—permit the researchers to exert even higher levels of control. No training of testers is required and the stimuli can be identical, save for the characteristic (i.e., race) of interest. The correspondence study method was first developed by Jowell and Prescott-Clarke (1970) to investigate racial discrimination in the British labor market (Jacquemet and Yannelis 2012). It was popularized in the United States by Bertrand and Mullainathan's (2004) study of employment discrimination, in which they mailed employers equivalent résumés that varied only the applicant's name (black or white). Bertrand and Mullainathan (2004) did for correspondence studies what Massey and Lundy (2001) had accomplished for phone studies: they demonstrated that names are readily recognizable signals of race and that the threats to validity associated with in-person field experiments can be avoided without jeopardizing realism.

The correspondence method soon expanded to other markets, primarily housing and some product markets. Thanks in large part to the cost advantages and fast pace associated with web-based communication, correspondence studies now greatly outnumber other forms of audit studies (Gaddis 2018a). Despite their wide-ranging advantages, correspondence field experiments are still primarily confined to the measurement of discrimination in labor and housing markets.

Field Experimental Innovations in the Study of Mental Health Care Providers

In the sociology of mental health, field experiments—of any form—are rare. Rosenhan's (1973) seminal study of fictitious patients in inpatient psychiatric wards marks an early attempt

to use a field experimental approach to understand the decision-making behaviors of MHPs, albeit in psychology, not sociology. Unlike most contemporary sociological field experimental research, Rosenhan's (1973) in-person field experiment was not designed to measure differential treatment between relatively more and less advantaged social groups. However, it made a crucial methodological contribution by introducing the practice of using fictitious patients to measure MHPs' behaviors free of the social desirability bias that could otherwise influence MHPs' decisions.

Growing interest in access issues in the health care sphere (especially appointment availability), led to phone-based audit studies of health care providers (e.g., Rhodes, Vieth, Kushner, Levy, and Asplin 2009). For investigations of access, phone-based audits are a more appropriate method than in-person audits because they reflect how most outpatient medical care appointments are made. In recent years, an increasing number of help-seekers initiate contact with mental health care providers via email. This presents an opportunity to take advantage of the logistical and scientific advantages of correspondence field experiments without compromising the realism of the communication between help-seeker and MHP.

Email is not the only internet technology that can facilitate the modernization of field experimental research. This dissertation innovates on prior field experimental methods by leveraging a combination of web-based technologies to maximize validity and efficiency. In the phone-based audit study, I used Craigslist.com to recruit voice actors, who emailed recorded auditions. I also used Google Voice (a free internet-based call management service) to create custom phone numbers with personalized answering machine messages, to place pre-recorded messages for MHPs, and to collect MHPs' returned voice messages. In all studies, I used Amazon's Mechanical Turk (an online micro labor market) to evaluate experimental stimuli,

especially to confirm that the race, class, and/or education of the help-seekers were being perceived as intended.

For the correspondence field experiments, the availability of VPN services that can rotate IP addresses enabled concealment the stimuli's origin. (This and other methods for evading detection are described in Supplement 8.) Furthermore, web-scraping technologies were leveraged to collect data from the online profiles of tens of thousands of potential subjects. This is a notable improvement upon traditional field experimental procedures because researchers typically lack detailed information on the study's subjects. For example, in labor market studies, the characteristics of the individuals who evaluate the fictitious job applications are unknown. PsychologyToday.com's website, however, provides a considerable amount of demographic and professional information about each MHP—information that can be considered both at the sampling phases and the analysis phases of the studies.

The inclusion of supplementary information from outside of the field experimental results is one of four major recent developments in audit study design, according to Gaddis (2018a). This dissertation also touches on two of the other developments identified by Gaddis (2018a): emphasis on uncovering the conditions and contextual boundaries of discrimination, and emphasis on methodological concerns surrounding audit study design. The fourth—efforts to discern taste-based from statistical or other types of discrimination—is beyond the scope of this dissertation.

THREE EMPIRICAL CHAPTERS

Each empirical chapter (paper) follows roughly the same outline. I first introduce relevant theoretical background, and then I describe why a natural field experiment is the most appropriate method to address the research question of interest. This is followed by a description of the specific experimental protocols employed, and presentation of descriptive statistics and inferential evidence of racial (and other) disparities in access. I conclude with a discussion of possible mechanisms, limitations, and implications.

In Paper 1—published in the *Journal of Health and Social Behavior* (2016)—I describe a phone-based audit study that examined how the race, social class, and gender of help-seekers affect access to MHPs. All MHPs in this study were psychotherapists in solo private practice who participated in the help-seekers’ insurance network. I found racial disparities among ostensibly middle class but not working class help-seekers, with blacks considerably less likely than whites to be offered an appointment. Furthermore, on average, middle class help-seekers had appointment offer rates almost three times higher than their working class counterparts. Across races and classes, women were slightly preferred over men for appointments in their preferred time range.

Evidently, professional ethical prohibitions and social norms were insufficient deterrents for the psychotherapists in Paper 1—all doctoral-level MHPs participating in an HMO network and practicing in New York City—from discriminating against help-seekers they deemed undesirable. To what extent are Paper 1’s dramatic findings generalizable to a varied population of MHPs in a competitive online market? In Papers 2 and 3, I present email correspondence experiments that targeted a variety of mental health care providers (psychologists, social

workers, licensed counselors) nationwide who pay to advertise their services via a popular online directory of MHP profiles.

Paper 2—a version of which is forthcoming in *Society and Mental Health*—is a between-subjects (i.e., non-paired) study divided into two parts. The parts were conducted independently but have identical sampling and administrative procedures. Results from the first part showed that accessibility to blacks and whites is equivalent when class was not cued. In contrast, when lower education was cued (Part 2), positive response rates to blacks were lower than whites. Less educated black help-seekers referred by a caseworker were least likely to receive a favorable response. In other words, help-seekers in Paper 2 had up to three devalued statuses: black, high social need, and low education. Black-white disparities were non-existent among help-seekers without any obvious devalued statuses, not statistically significant with only one devalued status (low education), and apparent among those with two devalued social statuses (low education and high social need). This is in contrast to Paper 1's findings that either blackness or working class status were sufficient to reduce a help-seeker's desirability relative to middle class whites.

Results from Papers 1 and 2 combined suggest that racial discrimination is influenced by one or more of the following: attributes of the help-seeker, attributes of the provider, communication medium, and market tightness. In the correspondence experiment conducted for Paper 3, I probed one attribute of MHPs with the potential to mitigate disparities in access: the MHP's race (black or white). Applying the methods developed for Paper 2, this study compared MHPs' responses to racially concordant and non-concordant help-seekers. This necessitated assigning a racial category to each MHPs based on the phenotype in their profile photos. Paper 3 revealed that white MHPs preferred white help-seekers, but black MHPs did not discriminate on the basis of race.

The online profile data available for Papers 2 and 3 offered a rare opportunity to add a layer of observational insight to the experimental findings. In both studies, some characteristics of MHPs predicted the likelihood of a positive response, but they did not explain the relationship (or lack thereof) between help-seeker race and provider accessibility.

Taken together, these three papers reveal that racial discrimination by MHPs is context-dependent, manifested under only some circumstances. Each deviation from an MHP's mental model of the ideal client reduces the likelihood of an appointment offer, and MHPs' standards are lower when ideal clients are scarce.

SUPPLEMENTARY MATERIALS

In the interest of replicability and promotion of field experimental methods, I close the dissertation with a series of supplementary materials that document many of the processes and procedures that go so often go unpublished. Supplement 1 is a collection of my reflections on practical considerations for applying the phone audit methodology to sociological questions (Paper 1). The remaining supplements relate to online field experiments (Papers 2 and 3). Supplement 2 offers a description (via PsychologyToday.com) of the occupational categories of MHPs represented in the online experiments. Supplement 3 lists the variables that were scraped from MHPs' profiles on PsychologyToday.com.

Supplements 4, 5, and 6 are data collection and processing guides for research assistants. Supplement 4 is a guide to data entry; it captures all variables associated with the administration of the experiments. Supplement 5 is a guide for coding (categorizing) responses from MHPs; it

includes a flow chart and examples. Supplement 6 lists the standard replies we sent MHPs who responded to the email inquiries.

Supplement 7 is a structured extended abstract of an additional online field experiment, which focused exclusively on MHPs who accept Medicaid. I present it as an example of one of many future experiments that could use data from PsychologyToday.com to shed light on policy-relevant behaviors.

Online field experiments often require that the investigators' actions are concealed not only from the subjects, but also from the web-based platform on which the experiment takes place. Supplement 8 describes the aspects of data collection that involved evading detection.

DISSERTATION OVERSIGHT AND SUPPORT

All studies within this dissertation received approval from Princeton University's Institutional Review Board (IRB). The informed consent requirement was waived by the IRB, as was the debriefing custom. The IRB determined that subjects were at greater risk of discomfort from their awareness of having been part of the study than from their real-life involvement in the study. MHPs regularly receive queries about appointment availability from prospective clients who then decide not to pursue services (Shin et al. 2016).

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PAPER I

“SORRY, I’M NOT ACCEPTING NEW PATIENTS”

AN AUDIT STUDY OF ACCESS TO MENTAL HEALTH CARE

ABSTRACT

Through a phone-based field experiment, I investigated the effect of mental help-seekers’ race, class, and gender on the accessibility of psychotherapists. Three hundred and twenty psychotherapists each received voicemail messages from one black middle class and one white middle class help-seeker, or from one black working class and one white working class help-seeker, requesting an appointment. The results revealed an otherwise invisible form of discrimination. Middle class help-seekers had appointment offer rates almost three times higher than their working class counterparts. Race differences emerged only among middle class help-seekers, with blacks considerably less likely than whites to be offered an appointment. Average appointment offer rates were equivalent across gender, but women were favored over men for appointment offers in their preferred time range.

“SORRY, I’M NOT ACCEPTING NEW PATIENTS”:

AN AUDIT STUDY OF ACCESS TO MENTAL HEALTH CARE

Despite health care providers’ avowed professional ideal towards egalitarianism, a large body of research has demonstrated that patients’ social characteristics influence the health care encounter. Laboratory experiments have persuasively shown that health care providers’ decisions about patients are shaped by race, social class, and gender biases. However, few studies have measured decisions about access, investigated mental health care providers, or applied a field experimental approach. To my knowledge, no previous work has incorporated all three elements. The present study attempts to remedy this gap in the literature by asking: Do psychotherapists offer equal accessibility to all help-seekers regardless of race, class and gender?

Studies of health care providers’ aversion to, or preferences for, certain help-seekers tend to focus on physicians, not psychotherapists, and on diagnosis and treatment, rather than access issues (Arber et al. 2006; Kikano, Schiaffino, and Zyzanski 1996; Lutfey et al. 2009; McKinlay, Potter, and Feldman 1996). As with studies of bias among physicians, most studies of biased mental health care decision-making examines diagnostic impressions instead of access (Blow et al. 2004; Lee and Temerlin 1970; Loring and Powell 1988; Martin 1993).

Yet, disparities in mental health care access loom large, with African Americans and lower/working class individuals facing sizable disadvantages to receipt of treatment, even after controlling insurance coverage (Fiscella et al. 2000; Padgett et al. 1994). Similar to physicians, mental health care providers likely have psychological biases that can contribute to limited access for these negatively stereotyped groups.

Studying the behavioral manifestations of clinician biases—with regard to access, diagnosis, or patient management—presents ethical, logistical, and empirical challenges. Consequently, most studies of clinical encounters are constrained by the lack of realism inherent in a laboratory setting. Audit studies—a type of experiment rarely applied to health care providers—are a valuable alternative because they permit the direct observation of decisions that are made in real-world social contexts. In laboratory experiments, recruited health care providers are presented with written descriptions or videos of patients they know to be hypothetical. Audit studies can complement the findings of these studies by targeting providers in their daily professional setting and exposing them to help-seekers whom they perceive as real.

The present study employs a two-wave, phone-based audit experiment to detect disparities in psychotherapists' accessibility to psychological help-seekers. It broadens the discussion of clinician bias by targeting a different class of health care providers and measuring a different outcome than most research on this topic.

The results reveal striking differences in psychotherapists' accessibility to help-seekers based on both race and social class. For example, when an identifiably black working class man with health insurance called 80 therapists in his insurance network to request a weekday evening appointment, only one call elicited an offer. In contrast, 20 percent of the calls made by a white middle class woman—with identical insurance coverage—elicited a comparable offer. The profound differences in accessibility revealed by this study are consistent with prior research and theory: providers' biases affect their behavior in ways that systematically disadvantage some groups of help-seekers.

BACKGROUND

Biased Decision-making among Health Care Providers

The past two decades have seen a spate of studies demonstrating that health care providers' non-clinical biases influence their perceptions of patients and their consequent decisions. Researchers have used experimental methods to measure the extent to which a wide variety of provider behaviors, e.g., diagnosis, certainty of diagnosis, treatment recommendations, and patient management, vary as a function of patient attributes (Arber et al. 2006; Green et al. 2007; Haider et al. 2011; Kikano et al. 1996; Lutfey et al. 2008, 2009, 2010, McKinlay et al. 1997, 1996; Stepanikova 2012). Among the most commonly studied attributes are race, class, and gender. Many studies also consider how provider characteristics (e.g., work setting, specialty, age, race, gender, and years of experience) relate to providers' decisions about patients. Consistent with this tradition, the present study will experimentally examine the influence of help-seeker race, class, and gender while statistically controlling for provider gender, years of experience, professional degree, and location.

There is ample evidence that racial discrimination during encounters with health care providers continues to persist in the United States (see review by Shavers et al. 2012). Despite health care providers' explicit endorsement of racial equity, they have a strong pro-white implicit (i.e., non-conscious) bias, similar to that observed in occupationally heterogeneous samples of Americans (Haider et al. 2011; Sabin et al. 2009). Indeed, it is not uncommon for well-educated whites to hold explicitly egalitarian beliefs, while harboring non-conscious stereotypes about outgroups (Dovidio et al. 2008). It follows that salient outgroup attributes, such as race and

social class, can trigger providers' stereotypes. These stereotypes and other sources of bias, in turn, influence their decisions about whether to extend offers of care.

van Ryn and Burke (2000) found that physicians ascribe negative characteristics to blacks and lower-class patients. Physicians expressed less affiliative feelings toward black patients and associated lower-class patients with negative personality traits (irrationality, low self-control). Both were perceived as less intelligent than their white and upper-class counterparts, and at higher risk for noncompliance with treatment. In a similar vein, Green et al. (2007) found that blacks are implicitly perceived by physicians as less cooperative—both in a medical context and in general. Mental health care providers' impressions of help-seekers are informed by similar racial stereotypes. For example, Abreu (1999) demonstrated that priming therapists with African American stereotypes (vs. no prime) led them to rate a hypothetical patient as more hostile.

The most compelling studies causally link providers' implicit biases to tangible outcomes via a wide range of experimental methods. In one of the earliest such experiments, McKinlay et al. (1996) presented physicians with a video vignette of hypothetical patients that varied by sex, race, age, health insurance coverage, and socioeconomic level. Using this method, researchers were able to identify non-clinical sources of variation in subjects' assessments of diagnosis, treatment, and prognosis. In a more recent study, Stepanikova (2012) used subliminal priming to activate implicit racial biases, which enabled her to determine that patient race and physician stress interact to influence clinical decisions. Notably, although patient race has been more frequently studied than social class, van Ryn and Fu (2003) assert that class is likely to be as strong a determinant of health care provider behaviors. The evidence is clear: stereotypes (race-based or otherwise) shape providers' decisions about care. The present study builds upon this

body of evidence along three dimensions: type of provider (therapists), outcome (access to care), and method (audit study).

Psychotherapists

Health care providers with high levels of professional autonomy are powerful gatekeepers to care. Their level of discretion to restrict access partly depends on the institutional setting in which they operate (Chiarello 2013). While less than twenty percent of physicians are in solo practice, approximately half of mental health care providers are (American Psychological Association 2009; Kane and Emmons 2013). Psychotherapists—overrepresented in solo practice among mental health care providers—have ample opportunity to make decisions consistent with their biases because they retain exclusive discretion over the provision of their services.

Research suggests that psychotherapists (hereafter also known as “therapists”) favor help-seekers with the “YAVIS” attributes: young, attractive, verbal, intelligent, and successful (Tryon 1986). Consistent with the YAVIS hypothesis, Teasdale and Hill (2006) found that therapists prefer “psychologically minded” clients and those who share similar values and attitudes. These effects were independent of the demographic characteristics (including race) of the help-seekers, but the results were survey-based, so social desirability pressures may have influenced the results. In another study, black patients were rated by psychiatrists as “less psychologically minded” as well as “less articulate, competent, [and] introspective...” than otherwise equivalent white patients (Geller 1988:124). It is possible then, that stereotypes linked to blackness are rationalized through, partially mediated by, or interact with, stereotypes associated with a lack of “psychological mindedness,” thereby reproducing discrimination against African Americans in the mental health care sphere.

The influence of help-seeker social class on the perceptions and behavior of psychotherapists was studied extensively in the 1960s and 1970s. The results indicated that therapists' initial impressions of low-class help-seekers are tainted with a negative bias, informed by stereotypes of low-class help-seekers as hostile and untreatable (see review by Lorion 1974). The effect of social class has also been highlighted in a recent vignette-based experiment, which found that therapists-in-training perceived hypothetical working class and poor help-seekers as more unpleasant to work with (Smith et al. 2011). Biases such as these could operate in subtle ways—conscious or non-conscious—to influence therapists' decisions regarding if and how to respond to help-seekers' requests for care.

Access

Studies consistently show that African Americans have higher rates of unmet need for mental health care than whites; similarly, poor and near-poor Americans have lower rates of mental health service usage (Broman 2012; Snowden and Yamada 2005; Wang, Lane, et al. 2005). Blacks are no less likely (and sometimes more likely) to express a willingness to seek mental health care than whites are (Schnittker, Pescosolido, and Croghan 2005; Shim et al. 2009). Moreover, some studies have found racial gaps and class gaps in receipt of mental health care even among the insured (Fiscella et al. 2000; Padgett et al. 1994).¹ These findings point toward the existence of provider-generated obstacles to access.

Yet, research on stereotypes' influence on access is rare. The majority of rigorous research on disparate treatment by physicians has focused on discriminatory decisions made during or following a clinical encounter, not prior to it (Fennell 2005). Similarly, investigations of provider bias in the mental health care sphere typically center on clinical impressions (Blow et

al. 2004; Loring and Powell 1988; Young and Powell 1985). However, questions of bias in diagnosis and patient management are secondary to questions of access because the former presuppose a clinical encounter that only a subset of disadvantaged help-seekers will obtain if there exists systematic bias in access. I posit that racial and class bias influence decision-making at the *pre-encounter* stage—namely, at the first request for care. The scant research on this topic supports differences by help-seeker race and class, even in the absence of financial incentives for discrimination (Olah et al. 2013; Wang, Berglund, et al. 2005). Like medical care providers, therapists’ decisions regarding whether and how to respond to help-seekers’ initial requests for care likely depend on the perceptions of the social categories ascribed to them.

Audit Studies

One critique of early work on health care providers’ perceptions of patients is that it was measured by self-reports, which are confounded by social desirability responding and can capture only conscious biases. As attention turned from conscious to non-conscious bias, researchers increasingly employed Implicit Association Tests (Haider et al. 2011; Krieger et al. 2010; Sabin et al. 2009; Sabin, Rivara, and Greenwald 2008) and subliminal priming (Stepanikova 2012). Clinicians’ underlying biases have been linked to behavioral outcomes through the use of ratings of doctor-patient interactions (Penner et al. 2010), or through written vignettes (e.g., Green et al. 2007; Haider et al. 2011; Kikano et al. 1996), or videotaped vignettes (Arber et al. 2006; Lutfey et al. 2009, 2010, McKinlay et al. 1997, 1996) depicting hypothetical patients.

Although vignette-based experiments have provided strong evidence of the influence of patients’ race and class on providers’ behaviors, they are necessarily artificial and simplified

representations of complex decision-making contexts. They do not enable conclusions about the extent to which results would generalize to a large, randomly selected sample of subjects in real-world settings. A real-world setting is particularly important for the study of psychotherapists, whose everyday decisions about access are unmonitored by colleagues or staff. A non-convenience sample is valuable because, as noted by Dovidio et al. (2008), health care providers may be reluctant to voluntarily participate in research on the topic of racial bias; such studies have the potential for legal and personal repercussions, should bias be uncovered. Low participation rates among health care providers in laboratory studies are common (e.g., Stepanikova 2012). Audit studies do not require the consent of subjects; participation rates therefore are, by definition, 100 percent.

Audit studies, a type of field experiment, enable researchers to systematically test for otherwise unobservable discrimination in access. In audit studies, subjects (psychotherapists) are unknowingly exposed to auditors (help-seekers) who are equivalent on all characteristics save for those manipulated by the research (race, class, and gender). In audit studies of racial discrimination, for example, if the racial minority auditors receive lower rates of access to opportunities than the white auditors, then discrimination is said to have occurred (Pager and Shepherd 2008).

Audit studies—which can be written, in-person, or telephone-based—have supplied ample evidence of race and class discrimination in labor and housing markets, among others (Pager 2007; Pager and Shepherd 2008; Quillian 2006; Ross and Turner 2005). Massey and Lundy (2001) were among the first to employ a telephone-based audit study; they found large differences by race and class in access to rental agents and housing (Fischer and Massey 2004; Purnell, Idsardi, and Baugh 1999). Their study has several important implications for the present

research. First, it demonstrated that Americans can readily recognize black speakers over the phone and can identify them as of middle or lower class origins (Doss and Gross 1994; Feagin 1994; Purnell et al. 1999). Second, it experimentally confirmed that black and lower class individuals continue to experience subtle forms of discrimination by professionals, even without in-person contact. And third, most of the discrimination they observed occurred through blocking access, rather than other means such as charging higher prices.

Recently, phone-based audit studies have been used to detect discrimination among gatekeepers in the health care sector as well, with a focus on socioeconomic status (Bisgaier and Rhodes 2011; Saloner et al. 2015). For example, one recent audit found that office staff are less likely to offer a primary care appointment to lower class patients than middle class ones, even under Canada's universal health care system (i.e., insurance coverage held constant) (Olah et al. 2013). Mental health care providers may similarly discriminate by class independent of insurance status. Based on the evidence reviewed from both field and laboratory experiments, I predict lower rates of access to African American and working class help-seekers as compared to white and middle class help-seekers.

DATA AND METHODS

Sample

The subjects of this experiment are psychotherapists in New York City selected through systematic sampling from the directory of a single large health insurance provider's HMO plan. New York City was chosen because it is a racially and socioeconomically diverse urban area with a high concentration of mental health practitioners.² The sample is restricted to licensed

psychotherapists who have a solo practice and a Ph.D. or Psy.D. degree (i.e., it does not include psychiatrists, who have medical degrees). Isolating solo practitioners permits direct identification of potential biases of and discrimination by providers, unmediated by office staff. In this way the study maintains comparability to laboratory experiments on health care providers.

Information about the psychotherapists' race is not available. However, it is unlikely that there was a sufficiently large number of racial minority psychotherapists in the sample to influence the results. Blacks constitute only three percent of licensed psychologists nationwide (Michalski, Mulvey, and Kohout 2010). Statistics specific to New York City are unavailable, and it is possible that the population of psychologists is more racially diverse in this metropolitan area. If so, the inclusion of black therapists would merely mute observed discriminatory effects.

Experimental Protocol

Voice-over artists recorded scripted messages using racially distinctive names and adopting specified race- and class-based speech patterns. I drew from the large pool of survey-takers on Amazon's Mechanical Turk (an online crowdsourcing marketplace) to select final recordings for the experiment. Both of the white female help-seekers were voiced by one actress, as were both of the black female help-seekers. Similarly, one male actor voiced both white conditions and another voiced both black conditions. This controlled unobserved variation that could have introduced error to estimates of differences between classes.

Survey-takers on Mechanical Turk listened to the recordings of the voice messages and responded to a series of questions about them. These questions facilitated the selection of voices with the highest race-class agreement and authenticity. They also confirmed that audio quality was high across all recordings. These recordings served as the experimental manipulation.

On the recordings, the help-seekers each mention symptoms of depression or anxiety, name the same health insurance plan, request an appointment, and indicate a preference for a weekday evening.³ The help-seeker requests that the therapist leave a voicemail indicating available appointment slots. The phone numbers provided to the therapists corresponded to unique voicemail boxes for each fictitious help-seeker. Two middle class scripts and two working class scripts were employed. The four scripts were designed to be substantively equivalent, but were dissimilar on minor details so as not to arouse suspicion that could compromise the psychotherapists' blindness to the experiment. Script presentation order was randomized and counterbalanced across study waves. (See Appendix A for call scripts.)

Three help-seeker characteristics were systematically manipulated: social class (middle or working), gender (female or male), and race (black or white). I employed a partial within-subjects design, with each psychotherapist randomly exposed to two of eight conditions: help-seekers (callers) of the same class and gender but a different race (Figure 1).

A sample of therapists from Empire Blue Cross Blue Shield's in-network directory was randomly divided into four groups. During Wave 1, the groups received messages from one of the following help-seekers: middle class female; middle class male; working class female; working class male. Race was alternated within each group. Therapists were called until 80 messages per condition were placed.

During Wave 2, one month later, each of the therapists received a similar message from a different caller of the same social class and gender, but a different race.⁴ For example, if a therapist was exposed to the white middle class male condition in November, he was exposed to the black middle class male condition in December. Therefore, a total of 640 calls were placed (two per each of the 320 subjects).

Research assistants placed calls at night to minimize the number of therapists who answered their phones. Potential subjects with office staff, or those in group practices, were systematically screened out of the sample. Messages were left for, and received from, therapists only. Google Voice (an internet-based call management service) was used to place calls (i.e., play the recordings for answering machines) and to collect returned voicemail messages.

Variables

Independent variables. This study manipulated the race, social class, and gender of the help-seeker. Race (black or white) was communicated through racially distinctive names and linguistic styles. Social class (middle or working class) was conveyed primarily by vocabulary and grammar. The fictitious black working class help-seekers spoke in Black English Vernacular, which is a linguistic pattern consisting of black-inflected pronunciation as well as nonstandard grammar and diction.⁵ It communicates low socioeconomic status (Rahman 2008). Black Accented English, used by the middle class black callers, is differentiated from White Standard English by black-inflected pronunciation only (Rahman 2008). The fictitious working class white help-seeking callers used low-level vocabulary and grammar that does not comply with the rules of Standard English. They spoke with a heavy New York City accent.

Covariates. I considered four characteristics of the psychotherapists: type of doctoral degree (Psy.D. or Ph.D.), office location, gender, and number of years in practice. Type of degree and office location are publicly available online through Empire Blue Cross Blue Shield's records. Seventeen percent of therapists in the sample held a Psy.D., which is oriented to applied clinical practice as compared to the more research-oriented Ph.D. Office location was measured by two variables: New York City borough and distance in miles from midtown Manhattan. In the

interest of parsimony, regression models controlled for location in the form of dichotomized borough: Manhattan (78 percent) was coded '1' and outer boroughs coded '0.' For subjects with gender-ambiguous names, gender was determined based on the therapist's voice on the answering machine message. Fifty-six percent of the sample was female. Number of years in practice (mean=18 years) was derived from the therapist's licensure year, which is publicly available through the New York State's Office of Professions. This may be interpreted as a proxy for age, clinical experience, or length of exposure to the New York City pool of help-seekers. Years were aggregated into three categories: fewer than 10, 10-29, and 30 or more.

Accessibility. The main dependent variable was therapist accessibility. Accessibility refers to the extent to which, after responding to the help-seeker, the psychotherapist enables access to his or her services. It was operationalized through an appointment offer rate. Each of the 287 voice messages received from a therapist was assigned one of five mutually exclusive codes: (1) Messages that clearly stated that there are no appointments available. For example: "I am not accepting any new patients." Twenty-nine percent of messages received fell into this category. (2) A similar response, which characterized six percent of the total messages received, indicated that no appointments were available during the requested time frame but did not address the possibility of appointments during the day or on weekends (e.g., "Sorry I don't have any availability during the time that you want."). (3) A third type of messages did not address the request for appointments at all, such as "Please call me back." This category, which comprised 31 percent of all responses, poses a challenge for assessing therapists' intent with regard to the eventual offer of appointments. It is possible that these messages are left by therapists reserving judgment about appointment offers before conversing with the help-seeker. (4) A fourth category, comprising 14 percent of the sample, included all messages that referenced some

availability, but either outright denied appointments during the preferred period or did not address that possibility (e.g., “I have some openings on Tuesday afternoon.”). (5) In the last category are responses that contained an implied or an unambiguous offer of an appointment during one or more weekday evenings (e.g., “I can see you Monday or Wednesday at 6 p.m.”). Twenty percent of messages met this criterion.⁶

For statistical analyses I considered two variations of accessibility. The first variable represents *any* appointment availability. It is a dichotomous variable where messages of type four or five described above are coded ‘1.’ Messages of type one, two, or three, as well as calls that did not elicit a response (non-callbacks), are coded ‘0.’ The second variable (“preferred appointments”) is a dichotomous indicator of availability during the time frame requested by the help-seeker (weekday evenings). Only messages of type five were coded ‘1’ for this variable, which represents very favorable responses. This second variable sets a higher threshold than the first; that is, any response coded ‘1’ for the second was also coded ‘1’ for the first. The effects of race, class, and gender on each outcome are presented in the section that follows.

Responsiveness. Responsiveness is a secondary dependent variable, intended to identify one of the steps contributing to the rates of appointment offers. Responsiveness is measured by callback rates. Responses of any type (i.e., all categories 1 – 5 as described above) are compared to the failure to respond at all. A callback is a necessary but not sufficient condition for an appointment offer. A message for a therapist was said to have elicited a callback if the therapist leaves a voicemail for the help-seeker.⁷

RESULTS

Descriptive Statistics

Across all conditions and waves, a total of 287 return messages were received from therapists, representing 44 percent of calls placed ($n=640$) by help-seekers.⁸ Fifteen percent of the 640 calls placed elicited an appointment offer ($n=97$). This translates to 34 percent of return messages ($n=287$) received by help-seekers.

Figure 2a illustrates descriptive results pertaining to therapist accessibility, by class and race. It shows that white middle class help-seekers have a sizable advantage over the other groups, with 28 percent ($n=45/160$) of their calls to therapists resulting in an appointment offer. In contrast, only 17 percent ($n=27/160$) of the calls placed by black middle class help-seekers did. This is striking in light of the partial within-subjects design of this study; these pairs of matched black and white help-seekers called the same individual therapists. The racial disparities were more pronounced for middle class men than middle class women. All middle class pairs far surpassed the working class callers who, regardless of race, had a success rate of only eight percent (white $n=13/160$; black $n=12/160$). Race appears to influence access, but only for middle class help-seekers.

--- Figure 2 about here ---

Figure 3 shows that the patterns are similar for women and men. Figure 4 visually displays this information in a different way. The point estimates on this graph represent the odds

of each character being offered any appointment relative to the odds of the middle class white female help-seeker.

--- Figures 3 and 4 about here ---

Figure 2b displays results for very favorable (i.e., preferred appointment time frame) responses, which constitute nine percent (n=57) of the 640 calls placed. Of all the messages that offered any appointment (n=97), 59 percent provided appointment availability within the preferred time frame. The patterns across race and class are remarkably similar to those seen in Figure 2a. Among middle class callers, whites were strongly favored over blacks; this disparity is even larger than emerged in Figure 2a. Therapists expressed a clear preference for middle class help-seekers over working class ones. Only *one* preferred appointment was offered to the working class black man; this is out of a total of 80 therapists to whom he reached out. Figure 5 displays the results disaggregated by gender; here, the female help-seekers received more offers than the men under all race and class conditions.

--- Figure 5 about here ---

Logistic Regression

Each of the four models presented in Table 1 are comprised entirely of dummy variables. Findings are reported as odds ratios, which were obtained by exponentiating the regression coefficients. The white middle class male help-seeker serves as the referent category, with an odds ratio of 1.0. The observations in the dataset are not independent, so the standard errors are

corrected for clustering on therapist ID.⁹ The inclusion of variables for script and study wave do not alter the results of these models and are therefore omitted from the models in the interest of parsimony.

Models 1a (any appointment) and 1b (preferred appointment) explored differences in accessibility across experimental conditions; they were conditional on race, class, and gender. These models confirm the class and race effects that were evident in Figures 2 and 3. Blacks, on average, have odds of receiving an appointment offer that are approximately 40 percent lower than whites ($p < .05$); working class callers have odds almost 70 lower than middle class callers ($p < .001$). Models stratified by gender, not displayed in this table, confirm that those racial differences exist only among the middle class help-seekers.

In Model 2b we see help-seeker gender emerge as significant, with women favored over men at a rate of two to one ($p < .05$). Race and class continue to be significant, with magnitudes similar to Model 2a. The disparity between white and black is slightly larger (odds ratio=0.54, $p < .05$) and between middle and lower class is slightly smaller (odds ratio=0.35, $p < .01$). It is evident that the best appointments (weekday evenings) are reserved for white middle class women.

To examine the race-by-class interactions evident in Figures 2 and 3, I ran an additional series of models (not displayed here), on both outcome measures, that included three race-class groups and alternated the omitted category. As expected, there are significant interactions between race and class, with differences emerging between all groups except the black and white working class callers. After adjusting for clustered standard errors and gender, both black and white working class help-seekers had approximately one-fifth the odds of being offered an appointment at any day or time, relative to the white middle class help-seekers ($p < .001$). For

weekday evenings the working class odds were each approximately one-quarter of the white middle class ($p < .001$).

I explored the potential effects of therapist traits: gender, type of doctoral degree, location, and years in practice. Therapist characteristics did not influence appointment offers, with one exception: help-seekers were considerably more likely to receive an appointment offer from therapists who practice in Manhattan rather than the outer boroughs of New York City. This is the case for any appointment (odds ratio=2.77, $p < .01$) as well as a preferred appointment (odds ratio=3.69, $p < .05$). However, office location does not mediate relationships between the outcomes of interest and race or class, with coefficients and significance levels that change very little from Models 2a and 2b.¹⁰

--- Table 1 about here ---

Responsiveness (Callbacks)

In this study, receipt of an appointment offer is the ultimate outcome. I conducted supplementary analyses to provide additional perspective on the non-callback cases. In the accessibility measures, non-callbacks were considered equivalent to categories 1 – 3 (i.e., non-accessibility). In the responsiveness measure, responses of any type are compared to the failure to respond at all. This contrast enables me to determine if the discrimination could be traced to a failure to call back help-seekers.

All else equal, blacks were less likely to receive a callback than whites (odds ratio=0.76, $p < .05$) and working class help-seekers were less likely to receive a callback than middle class ones (odds ratio=0.65, $p < .05$). (There were no differences by gender.) The differences in

callback rates were more muted than the effects presented in the accessibility analyses, suggesting that the discriminatory effect is not driven entirely by a lack of response. The percentages of help-seeker calls that elicited a therapist callback are displayed in Figure 6.

--- Figure 6 about here ---

DISCUSSION

Summary

The results presented here provide strong prima facie evidence of racial and class discrimination by psychotherapists. This field experiment largely confirms the hypotheses that help-seekers who are black or working class are at a disadvantage with regard to psychotherapists' accessibility.

White middle class help-seekers were significantly more likely to be offered an appointment than black middle class, black working class, or white working class help-seekers. Black middle class help-seekers also have a considerable advantage over black working class and white working class help-seekers. Therapists were more accommodating of female help-seekers' request for a weekday evening appointment than they were for men's requests. The most remarkable disparities in accessibility exist between the white middle class and the working class help-seekers. Therapists' aversion to working class help-seekers overall seems to be colorblind; that is, their appointment offer rates are indistinguishable. However, it may be that that differences were concealed because accessibility rates approached the floor of the possible range (i.e., neared 0 percent).

Accessibility rates were virtually indistinguishable between black and white working class callers; yet, for responsiveness rates it is the middle class rates that did not vary by race. Broadly, therapists in the middle class experimental condition who decided to call back anyone at all were more likely to give both black and white help-seekers the courtesy of a callback than they were to go the extra step of offering appointments to both help-seekers. It is possible that therapists were undecided when they called back black help-seekers, intending to conduct additional screening (e.g., to determine articulateness) that would inform their decision. Working class help-seekers were less likely to be extended the courtesy of a callback.

Callbacks are valuable even when accompanied by rejection because they can facilitate the help-seekers' search by offering reassurance that they should in fact seek treatment or offering useful information such as a referral to another therapist. Moreover, regardless of the content of the message, the receipt of a callback could reduce distrust of mental health care providers or disillusionment with the mental health care system more broadly. And, as noted by Rhodes et al. (2009) low callback rates could have particularly dire effects for depressed help-seekers, for whom rejection could exacerbate depressive symptoms.

Overall, the results comport with extant studies that demonstrate the persistence of bias and discrimination by health care providers, despite the assumption that those who select such professions have a strong commitment to equity. The results are also consistent with audit studies of mental health care providers that find low overall callback rates relative to physicians (Bridler et al. 2013; Rhodes, Vieth, Kushner, Levy, and Asplin 2009).

Soon after the publication of the present study, another phone-based audit study of racial discrimination by therapists was published (Shin et al. 2016). This study compared the appointment offer rates to black and white middle class women, using only name (not speech

patterns) as the race cue. Callback rates did not significantly differ by race, but offers of appointment or phone consultation did.

Mechanisms

The audit study method enables precise estimates of discrimination with high internal validity. The method is less well-suited for determining the types of reasoning that drive discrimination. I will explore two classes of possible mechanisms that may contribute to the observed discriminatory effects: (1) implicit (non-conscious) and (2) deliberate (conscious).

This study supports earlier findings that the implicit (non-conscious) outgroup biases of clinicians are one mechanism through which disparities emerge. A variety of stereotypes about blacks' low intelligence, high hostility, and reluctance to comply with treatment suggestions could lead to aversion and avoidance (Abreu 1999; Dovidio et al. 2008; van Ryn and Burke 2000). The private circumstances under which psychotherapists make their decisions about access may be particularly conducive to the emergence of non-conscious biases that lead to their discriminatory accessibility. Given the low overall callback rate—even middle class whites were called back only half of the time—one can assume that there are not strong professional norms dictating callbacks. Therefore, the effect of implicit bias is not mitigated by normative pressures to overcome discomfort in order to maintain an egalitarian self-image.

Similarly, deeply-rooted stereotypes associated with the working class could lead to negative reactions to their requests for care. For example, although symptoms were held constant in this study, it is possible that therapists imputed different meanings to symptoms based on class stereotypes. For instance, being “unable to get going in the morning” may convey laziness if spoken by a working class help-seeker, but not a middle class help-seeker.

A related interpretation of the results is implicit ingroup favoritism. Perhaps the disparities in accessibility are driven not by negative bias toward blacks and working-class individuals, but by a strong non-conscious preference for ingroup members. One formulation of ingroup favoritism is homophily, whereby people tend to form new ties with people like themselves (Kossinets and Watts 2009). Homophily may contribute to psychotherapists' greater accessibility toward patients like themselves: predominantly white and middle class. Therapists in this study were not more likely to express preference for help-seekers of their own gender, but it is possible that strong race and class homophily contributed to the discrimination.

Like most research, the present study cannot distinguish between outgroup bias and ingroup favoritism. Doing so would require a neutral-point of response (Greenwald and Pettigrew 2014). It would also involve extending the experiment to include help-seekers of racial-ethnic groups that are culturally different from American whites, but that do not invoke the same prejudice or negative stereotypes.

Second, conscious (deliberate) reasoning may contribute to the discriminatory outcomes. Financial considerations are undoubtedly part of psychotherapists' conscious decision-making about accessibility, particularly because they do not have office staff to make those judgments. In this study, measures were taken to minimize potential financial incentives that promote conscious bias against lower/working class help-seekers, thereby isolating implicit biases. Specifically, all therapists selected were in-network providers for the same private insurance plan that covered all help-seekers. Nonetheless, it is possible that mental health care providers view working class patients as a financial risk—relative to those with the same insurance but higher income—because they cannot be relied upon to keep appointments or pay insurance co-payments at the time of treatment. We cannot know if these stereotypes influenced therapists' decisions.

But it is very likely that if insurance coverage had not been held constant in this study, conscious economic inferences based on racial and class stereotypes would have significantly augmented discrimination even beyond that which was observed.

In addition, therapists may explicitly doubt their own cultural competence. That is, the observed discrimination could be a consequence of misguided awareness of the need to consider cultural differences during treatment. Consistent with this explanation, Teasdale and Hill (2006) note that therapists-in-training may be concerned about their ability to help patients with different backgrounds from themselves. Perhaps the therapists in the present study were concerned that they would be ill-equipped to understand the experiences of black or working class help-seekers. If so, on the therapists' voice messages for help-seekers we might expect to hear them express doubts about being a good match; this was not the case.

The explanations presented here are not mutually exclusive. It is possible that combinations of factors influence therapists' decisions about accessibility. It is also worth noting that the race-based and class-based disparities in this study may be driven by different mechanisms. The coefficients in bivariate regressions on race change very little when class is added to the models. Similarly, the coefficients of simple regressions on class are barely moved by the addition of race. This lack of correlation, combined with the finding that the black-white difference exists only among middle class callers, suggest that different mechanisms are at play.

Limitations

One shortcoming of this study is its potentially limited geographic generalizability. Patient selection processes in New York City may differ from locations with different racial or socioeconomic compositions. It may also differ from locations with different levels of provider

supply and help-seeker demand for therapy. Other regionally-specific variables could also be of import, such as the frequency with which black and working class individuals seek care.

In addition, the sample of subjects is limited to those with a doctoral degree, so as to more efficiently target solo practitioners. Future research in this area should investigate whether the patterns of accessibility observed for Ph.D. and Psy.D. therapists can be generalized to populations of therapists with different counseling degrees (e.g., clinical social work) and in different clinical settings.

Furthermore, it is challenging to interpret the intentions of therapists who do not address the help-seeker's request for an appointment in their return message. They may be reserving judgment about the desirability of caller as a patient until they have an opportunity to speak with him or her directly. "Phone tag" is not uncommon in scheduling appointments with psychotherapists, particularly in the absence of office staff. A therapist's discretion over how long this phone tag continues provides an opportunity to indirectly express favoritism for some prospective patients over others. Moreover, the conversation represents another point in the selection process when disparities in accessibility could expand. Alternatively, disparities in this subset might be smaller because the decision not to specify an appointment time may be an indication of a desire to accommodate the help-seeker's schedule to the extent possible.

Regardless of the intent, this process delays the help-seeker's entrance into treatment.

Last, the inability to conduct a true manipulation check is a notable limitation of all audit studies. The use of four scripts introduces variation into the manipulation, which reduces the strength of experimental control, relative to laboratory experiments. Pre-testing the recordings of the messages through Mechanical Turk was an important step toward ensuring that the intended race and class were identifiable across all scripts, but it is an imperfect solution. In this study,

manipulation check results varied across trials, with race identification consistently above 85 percent; class identification rates were lower and less reliable. Respondents were least confident about the social class of the black middle class woman, with correct class identification ranging from 64 to 75 percent. It may be that perception of the middle class voices was driven more strongly by race cues (primarily name and pronunciation) than class cues (primarily vocabulary and grammar). The conflation of perceived race and class presents an obstacle to most sociological research. In this study it is evidenced by the lower rates of class agreement for black middle class voices and the white working class voices. That is, uncertainty arose where there was discordance between the expectation that blacks are working (or lower) class and whites are middle (or upper) class.

Although this is an important issue, it did not have a substantial effect on the findings presented here. The large main effect of social class, in particular, demonstrates the robustness of the results. Indeed, among working class callers, the study showed equal rates of appointment offers between white and black callers; if perceived race were causing class misidentification by therapists, then we would instead expect to see lower appointment offers for black working class callers. If anything, the true race differences within the middle class may be slightly smaller than observed, and the class differences among blacks may be slightly larger than observed. Ultimately, the sizeable and statistically significant effects support the conclusion that there is a true disadvantage to black middle class help-seekers and all working class help-seekers, relative to middle class whites.

CONCLUSION

This study employed a field experimental method to answer a previously unaddressed question: whether psychotherapists—highly educated professionals in an under-scrutinized helping profession—engage in race-, class-, or gender-based discrimination. The investigation provided a window into an otherwise private exchange between psychological help-seekers and providers during the initial request for care. The results exposed a subtle avenue through which providers discriminate against a vulnerable population (i.e., those in need of mental health care) who already suffer from the disadvantages of being black and working class in American society.

The behavior of providers in a professional setting where discrimination is invisible is an important component in the reproduction of inequality in health care. Individuals who experience discrimination during their help-seeking process may view reaching out to psychotherapists as a fruitless activity or develop negative attitudes toward a class of professionals already regarded with skepticism. For those who do persist in their search for care, every instance of blocked access means additional time and effort spent placing numerous phone calls to identify a psychotherapist willing to respond and accommodate their schedules. This is time and effort that those suffering from mental illness—especially those of low socioeconomic status—don't have to spare.

NOTES

1. Some scholars suggest that the relationship between socioeconomic status and unmet need for care is less clear after controlling for race (see Roy-Byrne et al. 2009).
2. More than 5,000 psychologists lived in New York City at the time they were licensed.
3. Depression and anxiety were selected because they are the most common mental disorders and the most investigated (Roy-Byrne et al. 2009). Due to the frequency of requests for help with such disorders, they were very unlikely to alarm the therapists in this study. The weekday evening time slot was specified because (a) it is in high demand and (b) it reinforces that all callers are employed.
4. Consistent with Bisgaier and Rhodes (2011), calls were separated by one month. They were placed in early November and early December 2013.
5. The voice used for the black working class condition focuses on the segmental pronunciation features associated with African American Vernacular (e.g., deletion of the postvocalic [r]), rather than the grammatical features in order to ensure that the grammatical variation would not produce any confusion for the therapists about the content of the message.
6. For quality assurance, each message was coded by two research assistants and discrepancies were adjudicated by the primary investigator.
7. The vast majority of callbacks were received within 48 hours.
8. This number of return messages excludes multiple callbacks to the same help-seeker by the same therapist.
9. This accounts for the fact that each therapist was exposed to two race conditions.
10. Sample size limitations prevent the examination of interaction effects involving therapist characteristics.

TABLES AND FIGURES

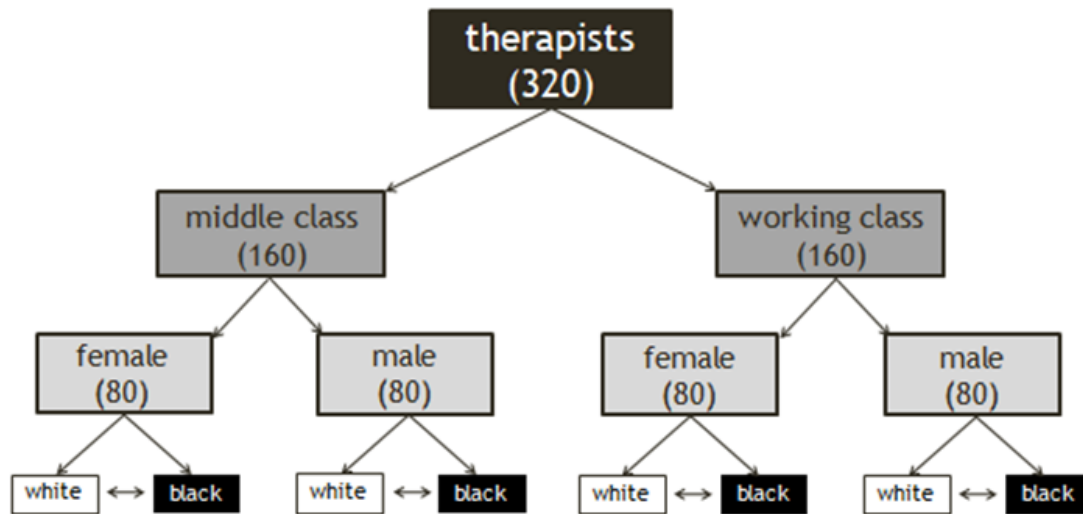
Table 1. Odds ratios for (a) receiving any appointment offer and (b) receiving an appointment within the preferred time frame

	Model 1 (n=640)		Model 2 (n=640)	
	1a: Any Appt	1b: Preferred Appt	2a: Any Appt	2b: Preferred Appt
<i>Help-seeker</i>				
Black	0.61* (0.12)	0.54* (0.13)	0.61* (0.12)	0.54* (0.13)
Working class	0.29*** (0.08)	0.35** (0.13)	0.31*** (0.09)	0.38** (0.14)
Female	1.40 (0.37)	2.00* (0.66)	1.43 (0.38)	2.00* (0.67)
<i>Therapist</i>				
30+ yrs experience			0.85 (0.26)	0.86 (0.33)
Psy.D. degree			0.80 (0.32)	1.13 (0.48)
Female			0.62 (0.17)	0.60 (0.20)
Manhattan			2.77** (1.00)	3.69* (2.00)
<i>Constant</i>	0.31***	0.13***	0.18***	0.13***

* p<.05, ** p<.01, ***p<.001 (two-tailed tests)

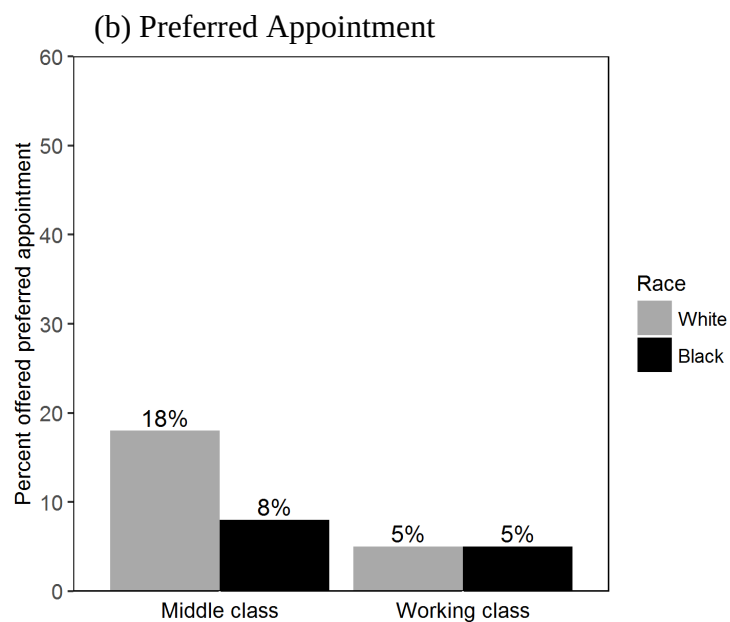
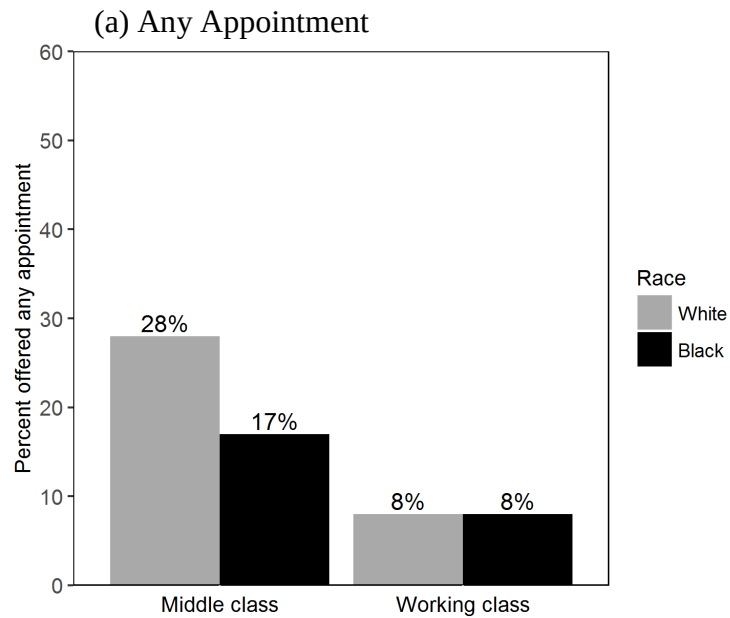
Note: Exponentiated coefficients are adjusted for clustering on therapist ID. Standard errors are in parentheses.

Figure 1. Randomized Experimental Design (n=640 calls)



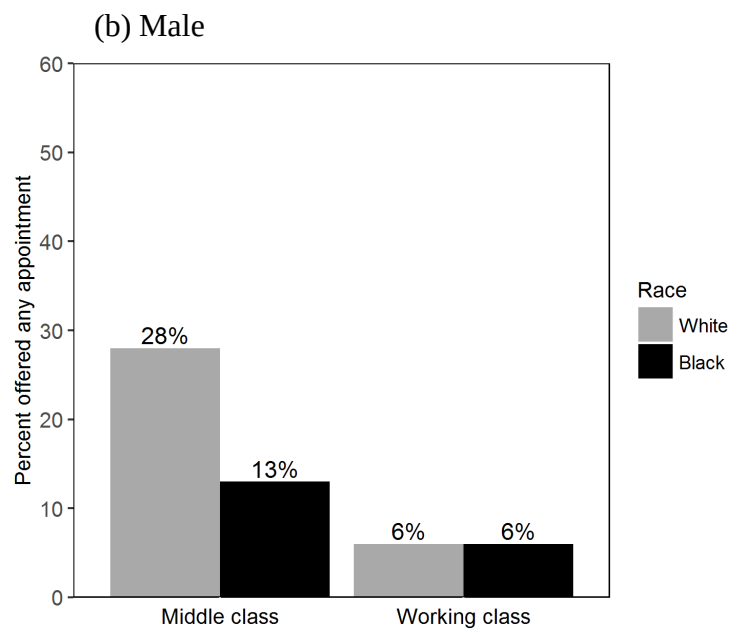
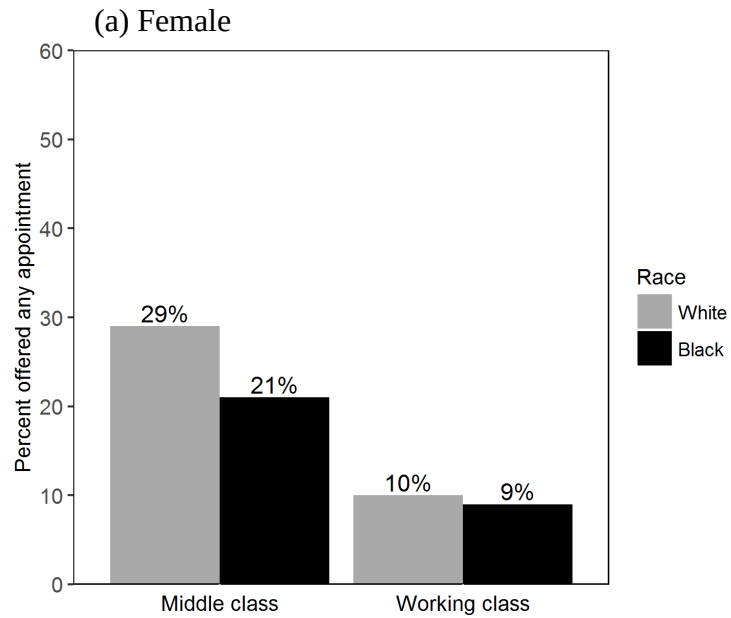
Note: Three hundred and twenty therapists were assigned to one of four groups, representing each help-seeker class-gender combination. Each therapist was exposed to one black help-seeker and one white help-seeker. The bottom row displays this within-subjects component of the study.

Figure 2. Percentages of help-seeker calls (n=160 per group) that elicited (a) at least one appointment and (b) at least one weekday evening (preferred) appointment



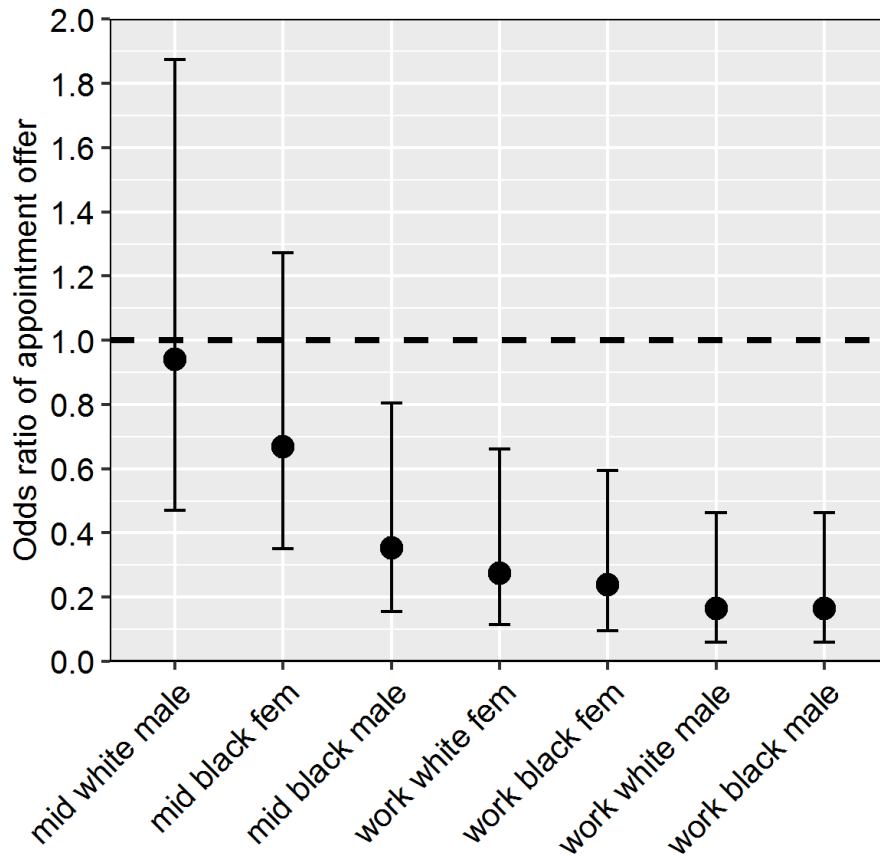
Note: Race, class, and race-by-class interaction effects are statistically significant for both outcomes. The denominators are 160 because genders are not distinguished here.

Figure 3. Percentages of help-seeker calls (n=80 per group) that elicited at least one appointment



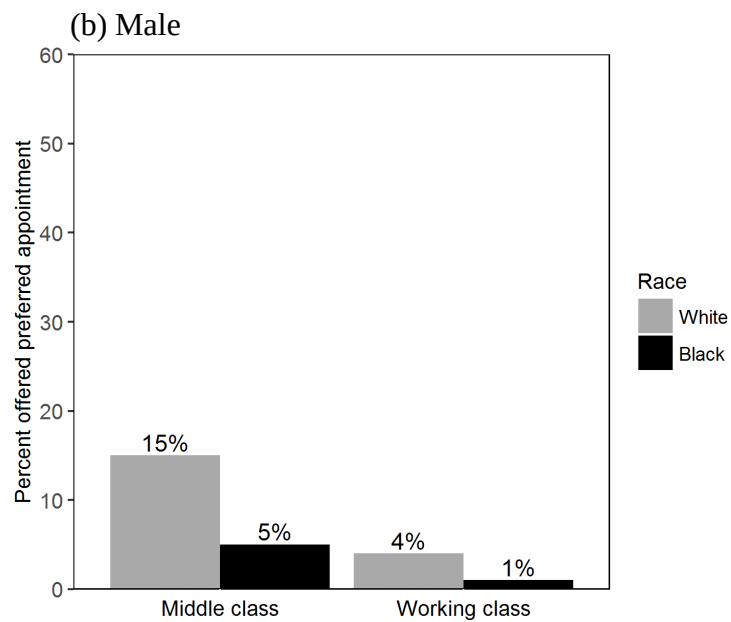
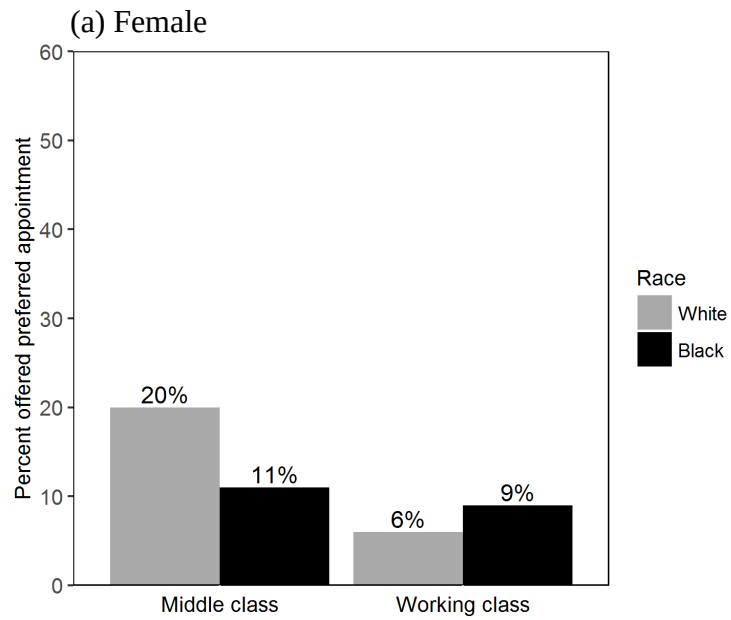
Note: Race, class, and race-by-class interaction effects are statistically significant. Gender differences are not.

Figure 4. Odds of receiving any appointment, relative to middle class white female (n=640)



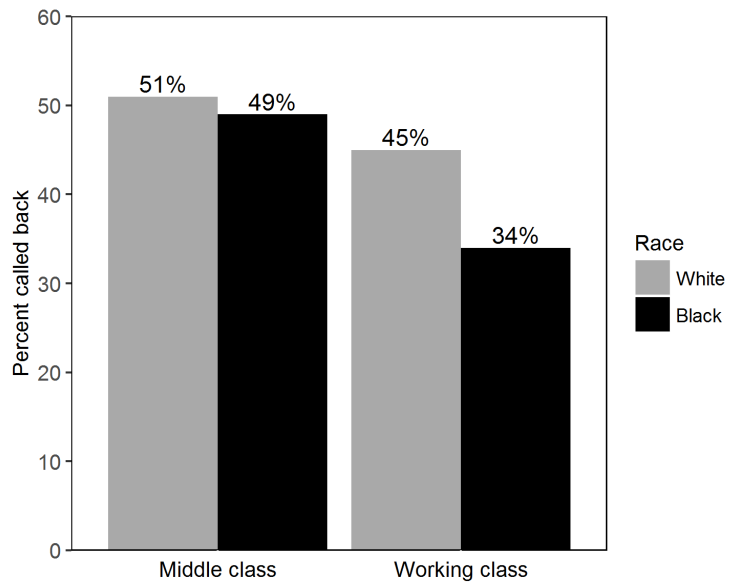
Note: The referent group is the middle class white female, with an odds ratio of 1.0 (horizontal line). 95% confidence interval bands are displayed.

Figure 5. Percentages of help-seeker calls (n=80 per group) that elicited at least one weekday evening (preferred) appointment



Note: Race, class, gender, and race-by-class interaction effects are statistically significant.

Figure 6. Responsiveness: Percentages of help-seeker calls (n=160 per group) that elicited a therapist callback



Note: Race and class effects are statistically significant. The denominators are 160 because genders are not distinguished here.

APPENDIX A. CALL SCRIPTS

Middle Class Script A

Hello, my name is [Amy Roberts / Latoya Johnson / William Anderson / Jamal Carter]. I'd like to schedule an appointment if you're taking on new clients and I have Empire insurance – the HMO type – which I believe you accept. Uh, I'd like to see someone, well, because I can't fall asleep and I don't want to see friends...umm I just feel like I'm not enjoying life in general. Anyway, I'd prefer Monday through Friday in the evening. Please call me at [123-456-7890] and if I can't pick up when you call, I'd appreciate if you'd leave a message telling me what you have available. Thank you.

Middle Class Script B

Hi, my name is [Amy Roberts / Latoya Johnson / William Anderson / Jamal Carter] and my number is [123-456-7890]. I'm looking for a therapist who has appointments available, I'd say about 5 to 8 on weekdays. Could you please leave me a message on my cell letting me know if you have any openings and when? I'm becoming concerned because I can't get going in the morning and it takes a lot of effort to deal with people at work. And I suppose I just have no motivation. My health insurance is Empire HMO and once again, my name is [Amy Roberts / Latoya Johnson / William Anderson / Jamal Carter] and you can reach me at [123-456-7890]. Thanks. Bye.

Working Class White Script A

Hi Doctor. This is [Ashley Baker / Bobby Carpenter]. I don't know, I've just been feeling down and was kind of like annoyed at work all the time. And it's no good now that I can't even sleep good. Uh...I wanna schedule appointment some weekday in the early night to talk. Umm...I got the HMO Empire insurance and on the website I seen your name. So, let me know, uh, like, let me know what you got open. [123-456-7890]. [Ashley Baker / Bobby Carpenter]. Thanks. Bye.

Working Class African American Vernacular Variation of Script A

Hi Docta. This is [Jasmine Williams / Darnell Thomas]. Uh, I wanna schedule an appointment some weekday in the evening to talk, cuz I just be feeling down and annoyed at work all the time. Now I can't even sleep right and that ain't no good. Uh, I got this HMO Empire insurance and I seent your name on the website. So call me back and let me know, uh, what you got open. A'ight? My numba [123-456-7890]. [Jasmine Williams / Darnell Thomas]. Thanks. Bye.

Working Class White Script B

Yeah, hey, my name is [Ashley Baker / Bobby Carpenter]. [123-456-7890] is my number. I wanna meeting, if you got any opening around 5 to 8ish on a Monday through Friday. Please let me know the time choices if there is any for Empire, the HMO Empire. Umm...I just don't want to like, hang out with people anymore and I'm disencouraged. Yeah, and I'm like tired all the time. So I just think I should like see somebody. You know what I mean? Thanks. Yeah, and it's [Ashley/Jasmine/Bobby/Darnell], [123-456-7890]. Bye.

Working Class African American Vernacular Variation of Script B

Hey, my name is [Jasmine Williams / Darnell Thomas]. 347-560-3897 is my numba. I wanna meetin if you got any open in around 5 to 8 on a Monday through Friday. Umm, please let me know da time choices if there is any for Empire HMO. I don wanna hang wit people no more and I'm disencouraged. An I'm tired all da time. So I should see somebody, right? Thanks. I'm [Jasmine Williams / Darnell Thomas] at [123-456-7890]. Bye.

Note: Some actors took small liberties with phrasing. For example, the actor who voiced Bobby replaced “Hi Doctor” with “Hiya Doc.”

APPENDIX B. PILOT STUDY

In the fall of 2012, I conducted a feasibility pilot study for the research presented in this paper. The procedures and results were very similar overall, but differed in several respects. In 2012, the study focused exclusively on women, with a total sample size of 150 psychotherapists. The study conducted in 2013 scaled the sample up to 320 psychotherapists and included a gender variable, thereby doubling the number of experimental conditions from four to eight. A total of 300 calls were placed in 2012 and 640 in 2013.

There were a few minor procedural differences between the studies. First, the sample was drawn from a different insurance company, though both specified HMO plans. The insurance provider directory used in the present study did not include “years in practice” in their provider profiles, so estimates were drawn from the New York Licensing Board. Second, the scripts were altered in 2013 so that they each mentioned three specific symptoms of depression or anxiety, as compared to previous vague references to depression or sadness. Third, the pilot study employed Skype as a calling service; in this study we relied on Google Voice, a free alternative call management service. Last, in 2013 the calls were placed in November and December; in 2012 they were placed in September and October.

Results in 2013 were consistent with expectations based on the pilot study results. The pilot study did not include male help seekers; yet, it produced results for women that comport well with those reported in the current paper. Moreover, because the race- and class-based patterns observed were similar across gender, the results of the two studies are well aligned even with the inclusion of the full sample.

The “any appointment” offer rate was slightly lower in 2013 (15 percent) than 2012 (18 percent). The coefficients for appointment accessibility were also very similar: the unadjusted

odds ratio for any appointments, for example, for blacks were 0.68 in 2012 as compared to the 2013 odds ratios of 0.72 (analyzing females only) and 0.61 (controlling for gender) in 2013. Similarly, the working class odds ratio was 0.25 in 2012 as compared to the 2013 odds ratios of 0.31 (analyzing females only) and 0.29 (controlling for gender). All were statistically significant, except for race in 2012, likely due to insufficient statistical power.

In both studies, the therapist callback rate was lower than one might expect from individuals in caregiving professions (44 percent in the present study; 48 percent in 2012). Race and class effects in callback rates were observable in both. In 2012, blacks on average received slightly higher callback rates ($p < .001$). It is possible that the 2012 scripts elicited compassion or a sense of personal responsibility that overcame racial aversion.

With regard to the influence of therapist characteristics: In 2013, office location (borough) was a significant predictor of appointment offers, but that was not significant in the pilot study. In neither study was it a significant predictor of callback rates. The bottom line across measures and studies is the same: middle-class white help seekers have a considerable advantage over all other groups.

PAPER II

“JUST THE TYPE WITH WHOM I LIKE TO WORK”

TWO CORRESPONDENCE FIELD EXPERIMENTS IN AN ONLINE MENTAL HEALTH CARE MARKET

ABSTRACT

Two field experiments investigated discrimination in an online mental health care market. The subjects were 908 mental health care providers (MHPs) who advertise for clients on a website through which help-seekers email providers. Both studies measured MHPs' receptiveness to an ostensibly black or white help-seeker requesting an appointment. In the first study, no racial or gender disparities were observed. However, help-seekers in the second study, who signaled lower education than those in the first, were confronted with significantly lower accessibility overall. Moreover, black help-seekers with low education and high social need (signaled by the mention of a caseworker) received significantly fewer positive responses than any other group. Although the two studies are not directly comparable, their results suggest a hierarchy of accessibility: MHPs prefer more educated help-seekers over less educated ones, and, among those less educated, least prefer black help-seekers with a caseworker. These disparities persist after controlling for MHPs' sociodemographic and financial characteristics.

“JUST THE TYPE WITH WHOM I LIKE TO WORK”

TWO CORRESPONDENCE FIELD EXPERIMENTS IN AN ONLINE MENTAL HEALTH CARE MARKET

Many studies demonstrate that during clinical encounters, physicians discriminate against black Americans and members of other socially disadvantaged groups (see reviews by van Ryn and Fu 2003; Shavers et al. 2012). However, until very recently, researchers have overlooked discrimination in access to *mental* health care providers (MHPs). MHPs are far more likely than medical providers to work as solo practitioners (American Psychological Association 2009; Kane and Emmons 2013); this affords them the luxury of full discretion to choose their clients. MHPs who are solo practitioners operate within a profession that prohibits discrimination and prides itself on egalitarianism, but their client selection practices go unchecked.

Do MHPs behave in an egalitarian way, as social norms and professional codes of ethics dictate (American Counseling Association 2014; American Psychological Association 2010)? Two recent field experiments suggest that they do not (Kugelmass 2016; Shin et al. 2016). Both uncovered sizable differences in accessibility to individuals seeking therapy (“help-seekers”) who are black relative to those who are white. We do not know whether those racial disparities generalize to MHPs in a variety of occupations, in various geographic regions, and who compete for clients in an online marketplace.

The present research investigates a wide-ranging sample of MHPs who post professional profiles on PsychologyToday.com, a marketplace that connects providers and help-seekers. Psychology Today (2016), which claims to be “the most in-depth and wide ranging online directory of mental health professionals,” is an important setting in the private mental health care market. Online directories can reduce the time and effort associated with the first step to

accessing therapy: searching for an MHP. Ultimately, though, receipt of care remains dependent on the reaction of individual MHPs to requests for appointments. Psychology Today's role in expanding and possibly constraining access to care for different groups is apparent in one of Psychology Today's featured comments from a satisfied MHP: "I already have three new clients and *they're just the type with whom I like to work!*" [emphasis added].

I conducted two cross-sectional, randomized correspondence field experiments. In each, the central question is: Are mental health care providers more likely to respond positively to white help-seekers than to black help-seekers upon receiving an email request for an appointment? Both studies varied the race of the help-seekers, as signaled by name. Study 1 provided a baseline estimate of racial and gender differences in access to MHPs on Psychology Today's competitive online marketplace. Study 2 presented MHPs with help-seekers characterized by two black American stereotypes: low education (signaled by poor writing mechanics) and high social need (signaled by the mention of a caseworker). All of Study 2's help-seekers were ostensibly less educated than those in Study 1; half mentioned a caseworker and half did not. (See Figures 1a and 1b.)

Subjects typically participate in field experiments unwittingly. As a result, social scientists seldom have access to detailed self-reported information about the professionals they hypothesize discriminate, because collecting this information risks experiment discovery. The present research is unusual in its unobtrusive collection of individual-level data about its subjects prior to the execution of the experiment. As in Edelman et al.'s (2017) field experiment of racial discrimination by Airbnb hosts, variables of interest were harvested from individuals' online profiles. I leveraged those data by asking: What sociodemographic characteristics of MHPs (geographic region, gender, race, and occupation) and their financial flexibility (sliding fee scale,

free consultation, and health insurance network) are associated with their accessibility to help-seekers?

BACKGROUND AND LITERATURE REVIEW

In Search of a Therapist

Outpatient care is the most common type of mental health treatment in the U.S. (Lê Cook et al. 2010). The Substance Abuse and Mental Health Services Administration reports that almost seven percent of American adults (16 million people) received mental health care in the outpatient sector, including four percent of blacks and eight percent of whites (Han et al. 2015; Substance Abuse and Mental Health Services Administration 2013). Of those receiving outpatient care, almost 60 percent received care from “a private therapist, psychologist, psychiatrist, social worker, or counselor that was not part of a clinic” (Substance Abuse and Mental Health Services Administration 2014).

Yet, unmet need for high quality outpatient care is widespread, with almost 12 million American adults reporting a perceived need for counseling or other treatment (Han et al. 2015). When survey respondents are asked to identify reasons for unmet need, the response options include structural barriers (e.g., cost) and attitudinal barriers (e.g., concerns about how others will perceive them) (Walker et al. 2015), but not options about providers’ behaviors at the point of access. Consequently, we do not know whether those individuals perceive their efforts to be stymied by providers, or whether such expectations have sociodemographic correlates. However, there is evidence that utilization varies along social group cleavages. Of the three percent of

Americans who receive outpatient therapy annually, recipients are more likely to be white, female, and more educated (Olfson and Marcus 2010).

Online directories are one avenue through which help-seekers find MHPs.¹ The increasing number of MHPs who have begun promoting their private practices on the internet has generated a new help-seeking model, wherein “clients shop for therapy much as they would for any online product: by comparing, contrasting, and learning as they go” (Grodzki 2013). In fact, the rate at which internet users search for therapists online has been consistently higher than the relative frequency of searches for service providers who have important characteristics in common with mental health care professionals. One relevant comparison point for MHPs is dermatologists—like MHPs, they are health care specialists. Another revealing comparison is with babysitters—like MHPs, they are service providers with whom clients have an ongoing intimate relationship. See Appendix A.

Perhaps the most popular online option for locating MHPs is Psychology Today’s searchable therapist directory (www.therapists.psychologytoday.com). It boasts approximately 100,000 active profiles (Psychology Today 2015). This membership far dwarfs the other online therapist search tools in this market, including GoodTherapy.com, APA’s Psychologist Locator, NetworkTherapy.com, and HelpPRO Therapist Finder. See Appendix A for a graph showing the upward trend in Google searches for “therapist psychology today” from 2004 to the present.

MHPs pay a fixed monthly fee of \$30 per month to post a professional profile on PsychologyToday.com. Most profile fields are optional, but the typical profile includes at least the MHP’s address, photo, year graduated, clinical specialties (e.g., depression), client specialties (e.g., elderly), and accepted health insurance plans, among others. See Appendix B for an example profile.

The website is user-friendly for both MHPs and help-seekers. Help-seekers needn't log into the website to search it and they can filter search results on many criteria (e.g., insurance, language, treatment orientation). Help-seekers can call or email MHPs; the vast majority of profiles include both contact options. According to Psychology Today's (2015) promotional materials, MHPs on PsychologyToday.com receive more than 540,000 emails from help-seekers monthly.² Clicking the "email me" button on an MHP's profile directs help-seekers to an email form where they are prompted to enter their name, email address, phone number (optional), email subject, and message. A sidebar reads:

Don't be shy. Our therapists are here to help you and are pleased to hear from you. Feel free to ask for what you want... an appointment, a consultation or simply a response to a question. Keep it short, 200 words or less, this is just an initial contact. Remember to double check your return email address or your phone number if you prefer to be called.

Uncovering Discrimination through Correspondence Field Experiments

The strong online presence of Psychology Today's therapist directory makes it a fitting setting for the first email-based field experiment in the sociology of mental health. A field experiment retains the components of laboratory experiments that permit causal inference—namely, random assignment to manipulated conditions—while preserving the authenticity of the context in which the phenomenon of interest takes place (Baldassarri and Abascal 2017). In addition, field experiments are ideal for measuring discrimination because they are able to capture real decisions about access, unaffected by social desirability bias. In correspondence-type field experiments such as this one, subjects are presented with written stimuli (often in the form of job or housing application), without the knowledge that researchers are observing their responses to those stimuli (Gaddis 2018a).

In recent years, the ubiquity of online correspondence has resulted in the proliferation of web-based field experiments to test for racial discrimination in various markets, including labor (e.g., Gaddis 2015; Nunley et al. 2015), housing (e.g., Carpusor and Loges 2006; Hanson and Hawley 2011; Hogan and Berry 2011), and products (e.g., Besbris et al. 2015; Doleac and Stein 2013). See Gaddis (2018a) and Baldassari and Abascal (2017) for recent reviews of sociological applications of field experiments.

The overwhelming majority of correspondence studies across markets find evidence of racial discrimination (Rich 2014). Much like other popular online settings for correspondence studies—eBay (e.g., Nunley et al. 2015), Craigslist (e.g., Gaddis and Ghoshal 2015), and Airbnb (Edelman et al. 2017)—PsychologyToday.com is a large, dynamic marketplace that connects sellers and clients. Building on this research, my analyses ask: To whom will MHPs sell their services?

Stereotyping Black Help-seekers

Although online marketplaces that are free for consumers (i.e., help-seekers) nominally facilitate access indiscriminately, there is reason to suspect that providers are less accessible to blacks than whites. Researchers have routinely found evidence of anti-black implicit bias among MHPs (Abreu 1999; Boysen 2009; Boysen and Vogel 2008; Castillo et al. 2007; Katz and Hoyt 2014). Furthermore, scholarship over the past several decades suggests that MHPs prefer help-seekers who are verbal, intelligent, and successful (Schofield 1964; Tryon 1986), as well as communicative, motivated, and competent (Link and Milcarek 1980). Howard and Orlinsky (1972:623) contrast the desirable college educated and culturally sophisticated client with the less desirable type—“working class or lower class status...who for the most part have finished

not more and often less than a high school education.” Consequently, one might hypothesize that stereotypes about black help-seekers’ lack of education, and the related attributes that it proxies (e.g., communication skills, social class, intelligence), would reduce the appeal of black help-seekers as potential clients.

Another set of stereotypes that could deter MHPs from accepting black help-seekers are those related to the perceived nature and prevalence of blacks Americans’ social problems, the view that those social problems are of their own making, the assumption that they continue to experience these problems as a consequence of their own lack of effort, and that their receipt of publicly financed social services is undeserved (Gilens 1999). Black Americans are stereotyped as more likely than similar whites to be under correctional supervision, abuse substances, or receive welfare benefits (Massey 2007). The caseworkers tasked with serving and controlling individuals in those stigmatized categories have been referred to as “agents of social intervention” (Ensign 1990:1). Unlike other intervening agents in the help-seeking process (e.g., family and friends), caseworkers act in an official capacity, representing a wide range of surveilling institutions (e.g., child protective service agencies), as gatekeepers to the social safety net. The use of the term “caseworker” in this study is modeled after Olah et al.’s (2013) use of “welfare worker” in their study of discrimination by Canadian medical professionals.³

There are multiple pathways through which mention of a caseworker could reduce accessibility, even for white help-seekers. For one, it communicates a level of social need that exceeds that of the typical help-seeker in the desirable “worried well” category. Alternatively, it could imply the existence of stigmatized circumstances (e.g., parole) or administratively burdensome situations (e.g., custody disputes) that MHPs might seek to avoid even if mental health need is mild. It could also imply institutional coercion into therapy, which signals a lack

of commitment to the therapeutic process. (The phrase “I think its [sic] a good idea” was included to mitigate that potential signal.)

Because the stereotypes associated with blackness are incongruent with the characteristics of a desirable client, the discretion of MHPs to select their clients may perpetuate racial discrimination in the mental health care sphere. Study 2 amplifies the disadvantage of being black by making salient two stereotypes that could deter MHPs from accepting clients: low education and high social need. Race, education, and social need could influence accessibility multiplicatively, additively, or not at all.⁴

Field Experiments that Elucidate Market Considerations

Some field experimental research in economics points to market conditions under which discrimination might not occur. Becker (1957) theorized that market competition reduces the rate of discrimination by increasing the cost of discriminating. This theory is in line with recent studies showing a relationship between labor market tightness and discrimination. Baert et al. (2013, 2015) demonstrate that ethnic discrimination is less likely to occur when employers have difficulty filling a vacancy. Like employers, MHPs advertise an opening that they are seeking to fill and they incur costs if it remains vacant.

The online mental health care market also bears resemblance to online product and service markets; some studies of those markets have also found that discrimination is conditional on market competition. For example, an experiment conducted on e-commerce platform eBay found that race-based price differences arise only in low competition situations (Nunley, Owens, and Howard 2011). These findings are consistent with other experiments in product markets

showing that discrimination against minorities is worse when there are few sellers (e.g., Caminade et al. 2014; Doleac and Stein 2013).

In addition, low search costs for buyers might reduce discrimination by sellers. In one of several innovative field experiments, Gneezy et al. (2012) investigated discrimination against disabled individuals in the car repair service market. The level of discrimination exhibited by car mechanics was influenced by the mechanics' beliefs about the relative search costs for a disabled versus non-disabled person to locate a mechanic. When the testers specified that they were collecting price quotes from multiple mechanics, there were no disparities in outcomes.

The internet facilitates information search and thereby has the potential to reduce racial discrimination in some markets, argue Morton et al. (2003), who analyzed observational data of automobile transaction prices. They found that, unlike in offline markets, black American buyers using an online service did not suffer from discriminatory treatment. Morton et al. (2003) attribute this to the internet's role in reducing search costs for the consumer and reducing cues about the consumer that salespeople could use as signals of willingness to pay.

The potential influence of search costs on discrimination is notable because MHPs on PsychologyToday.com know that there is a negligible cost to conducting a targeted search. Help-seekers apply user-friendly search filters to home in on MHPs who meet their needs and preferences: insurance network, languages spoken, clinical specialty, and so forth. Once help-seekers identify a desirable MHP, they simply click the "email" button, type a short message, and move on to the next MHP that meets their criteria. If the typical MHP knows that s/he is one of many options, s/he may respond positively to even moderately desirable help-seekers, in order to avoid being forced to accept distinctly undesirable help-seekers or forfeit revenue.⁵

Taking a different perspective, Edelman et al. (2017) infer from their field experimental finding of racial discrimination on Airbnb that while housing discrimination has declined in offline markets, it endures in online marketplaces. They attribute this to increased regulation of offline, but not online, settings. Unlike housing rental agents, however, MHPs are not subject to offline regulation. Therefore, if MHPs in solo private practice were to experience the chilling effect of surveillance at all, it would be in an online marketplace such as PsychologyToday.com, where the initial correspondence is transmitted by the host website.

The economic theory and empirical work just described suggest that in many types of markets, for discrimination to occur, professionals must be willing to forfeit revenue to avoid interacting with undesirable potential clients. By targeting MHPs who pay to advertise their services, I am capturing a population that perceives a tight market—that is, a market in which they need to compete for the clients they consider desirable. Will the tight, online market be an equalizing force?

The Present Research

Three prior field experiments of racial discrimination by health care providers inspire the present research. In the first audit of MHPs, in-network psychologists were called once by a black help-seeker and once by a white help-seeker who was middle class or working class and male or female (Kugelmass 2016). Class was cued primarily through education (vocabulary and grammar), as well as accent and name. The results made apparent profound differences in appointment offer rates by help-seeker race and social class, even though insurance status was the same for all help-seekers. In a similar phone-based field experiment, Shin et al. (2016) varied only race and also found evidence of discrimination by therapists. In contrast, Sharma et al.

(2015) found that physicians favored white prospective patients over black ones only when the patients were Medicaid recipients, not self-pay or privately insured.

The two studies in this paper contribute to the body of literature on access disparities by investigating the decisions of a wide range of MHPs in an online market. Study 1 asks whether there are racial differences in access toward the typical user of private individual therapy (well-educated and implicitly middle class). Study 2 probes the extent to which rates of access decrease when MHPs are presented with less educated help-seekers with high levels of social need—two factors that are (a) undesirable in clients, regardless of race and (b) consistent with negative stereotypes of black Americans.

There are many attributes of MHPs that could influence if and how they respond. A second aim of this research, therefore, is to analyze how MHPs' sociodemographic characteristics and financial flexibility are related to accessibility toward prospective clients. These are the central inquiries:

1. Study 1 (more educated help-seekers):
 - a. Does the accessibility of mental health care providers depend on help-seekers' (i) race or (ii) gender?
 - b. Does the magnitude of the racial disparity, if it exists, depend on whether the help-seeker is female or male?
2. Study 2 (less educated help-seekers):
 - a. Does the accessibility of mental health care providers depend on help-seekers' (i) race or (ii) social need?

- b. Does the magnitude of the racial disparity, if it exists, depend on whether the help-seeker mentions a caseworker or an unspecified agent as recommending therapy (i.e., level of social need)?
- 3. What sociodemographic and financial characteristics of mental health care providers
 - a. predict access for the populations of help-seekers represented in Study 1 and 2?
 - b. moderate the relationship between their accessibility and help-seekers' race?

For ease of exposition, I refer to the alternative intervening agents in Study 2 as “caseworker” and “unspecified.” The latter is a placebo condition for social need. It does not identify who prompted the help-seeker’s decision to pursue therapy; it simply mentions “someone.” Additionally, I refer to all help-seekers in Study 1 as “more educated,” relative to the “less educated” help-seekers of Study 2.

METHODS

Sample

The sample of mental health care providers (MHPs) was selected from Psychology Today’s online therapist directory. The sampling frame was constructed using a web-scraping program customized to covertly extract all data for all MHPs with profiles on PsychologyToday.com. The frame included only MHPs whom Psychology Today verified were licensed in the United States (n=78,310). I also restricted the sample to psychologists (PhD, PsyD, or psychologist), social workers (MSW, LCSW, or clinical social worker/therapist) and licensed counselors (LPC or LMHC) (n=55, 912).^{6,7} Study 1’s MHP sample was stratified by

occupation to ensure that equal numbers of psychologists, social workers, and licensed professional counselors were randomly assigned to each experimental condition.

For both studies, I disqualified MHPs who treat only children (n=1,064), did not include an option to email them (n=3,193), last modified their profiles before 2014 (n=326), or did not include a profile photo (n=3,441). Last, in order to isolate MHPs who are responsible for selecting their own clientele, I excluded MHPs who displayed the button labeled “email us” instead of “email me” (n=5,596). These restrictions ultimately resulted in a pool of approximately forty thousand MHPs from which the study samples were randomly drawn. MHPs whose profiles indicated that they were not accepting new clients were skipped upon profile inspection during the distribution of emails. No MHPs received more than one email and none were subjects in both studies.

Study Design

Each study had a 2-by-2 between-subjects (non-paired) design. MHPs were presented with emails from a black or white help-seeker, not both, in order to avoid arousing suspicion.⁸ In Study 1, the two factors were help-seeker race (black or white) and gender (male or female). In Study 2, the factors were help-seeker race (black or white) and intervening agent (caseworker or an unspecified external actor). For each study, MHPs were randomly selected from the eligible sample, and then randomly exposed to one of four possible treatments, as shown in Figures 1a and 1b.

--- Figures 1a and 1b about here ---

Experimental Stimuli (Email Scripts)

Messages were designed to be as short as possible, which meant omitting any unnecessary contextualizing information (e.g., symptoms or backstory). This decreased the odds that the emails would arouse suspicion or would elicit a response customized to the help-seeker's specific circumstances. In Study 1, each MHP received an email from either a black or a white help-seeker, who was either female or male.

Study 1 script:

Your Name: Jill Miller

Your Email: jill.miller795@gmail.com

Your Phone:

Subject: appointment

Message:

Dr. Nadkarmi,

Do you have any appointments open? Please let me know. Thank you.

Jill Miller

Study 2's subjects received an email from either a black or white man, who either mentioned that a caseworker or an unspecified external actor ("some-one") had prompted his search for a therapist. All of Study 2's help-seekers were ostensibly less educated than those in Study 1, as signaled through poor writing mechanics (spelling, punctuation, etc.). Half of Study 2's help-seekers mentioned that "my caseworker" thinks he should see a therapist. The other half mentioned that "some-one" (i.e., an unspecified agent) suggested it.

Study 2 script:

Your Name: Keyshawn Washington
Your Email: keyshawnwashington470@gmail.com
Your Phone:
Subject: appointment

Message:

Dr barken

[*My caseworker /Some-one*] thinks I should see a therapist I think its a good idea, do you have appointments ? thanks

Keyshawn Washington

The help-seekers' names were selected to signal race, gender and, to a lesser extent, education. In order to maximize the salience of the help-seeker's name, MHPs were exposed to it in three places: the reply-to email address, the sender name field of the email form, and the help-seeker's signature in the email message. Following Guilietti et al. (2015), within each study I used two pairs of first and last names to represent each racial category (e.g., Jill Miller and Sarah Long for white females). See Appendix C for more information about the names selected.

In order to maximize the likelihood that help-seekers would be perceived as intended, the names of the help-seekers and the email scripts were evaluated by survey-takers on Amazon's Mechanical Turk crowdsourcing platform. The intended race of the help-seeker was readily recognized; correct race identification ranged from 85 to 96 percent. In addition, although none of the messages directly indicated educational attainment, findings from surveys suggest that the intended level of education was being telegraphed nonetheless. More than 90 percent of survey-takers presented with Study 1's script responded that the help-seeker had received at least some college education, whereas only 40 percent of survey-takers presented with the "some-one"

script, and 30 percent of those presented with the “caseworker” script, thought the help-seeker had at least some college education.

Outcome of Interest

The main dependent variable is accessibility, operationalized as a positive response to the request for an appointment. Each reply to an inquiry was assigned one of five mutually-exclusive categories.

- 1) Explicitly affirmed appointment availability (e.g., “Yes, I have appointments”)
- 2) Requested/offered to speak on phone (e.g., “What is a good time to discuss on the phone?”)
- 3) Requested additional information without reference to appointment or call (e.g., “What is your insurance?”), presumably to screen potential clients before offering an appointment
- 4) Offered waitlist or referral (e.g., “I’m not taking new clients this month, but I can put you on a waitlist.”)
- 5) Rejected the help-seeker without offering waitlist or referral (e.g., “I’m not taking new clients.”)

For analyses, the codes were collapsed into a binary variable: category 1 and 2 (=1) versus all other categories (=0). Categories 1 and 2 open the door to further interaction and promote the potential for an appointment. Categories 3, 4, and 5 impede timely access to an appointment. Any inquiry that did not receive a reply within one week (non-response) was coded ‘0’ in the binary formulation of the dependent variable. See Table 1 for the distribution of responses across categories.

--- Table 1 about here ---

Mental Health Care Provider Attributes

Sociodemographic. Gender, state, and occupation were available in the web-scraped profile data. Seventy-one percent of MHPs with profiles on Psychology Today are female. I collapsed states into the four Census regions.⁹ This paper focuses on three categories of occupations: psychologists (PhD or PsyD), social workers (MSW, LCSW, or clinical social work/therapist) and licensed counselors (LPC or LMHC). Approximately one-quarter of MHPs on Psychology Today fit into each of those three occupational categories, with another quarter composed of assorted other excluded occupations (e.g., pastoral counselors, art therapists). MHP race is not included in profile data; it was inferred from profile photos. Research assistants coded phenotype, then codes were collapsed into three categories: white (88 percent), black (5 percent), or other race (7 percent).

Financial flexibility. Financial variables shed light on how the MHPs are experiencing market competition and what types of clients they consider acceptable. I include three dichotomous financial variables. First is whether or not the MHP checked a box indicating that s/he offers a sliding scale fee. Second is whether or not the MHP checked a box indicating that s/he offers a free consultation. Third is whether or not the MHP accepts at least one insurance plan. Each of these three indicators of financial flexibility is present for 60 – 65 percent of PsychologyToday.com's MHPs.

RESULTS

Analytic Approach

Except where otherwise indicated, the outcome variable is a positive response to the request for an appointment. This variable was composed by collapsing the five possible response categories into two, as previously described. Robustness checks that consider different formulations of the dependent variable, comprised of various combinations of the categories, produce results patterned similarly to those presented in this paper.

Figures 2 and 3 present the unadjusted positive response rates with the associated confidence intervals. I conducted Bonferroni-adjusted pairwise comparisons between each of the experimental conditions within each study to determine which help-seekers significantly differ. The models presented in Tables 2 and 3 were estimated using logistic regression. Results are reported as odds ratios, which were obtained by exponentiating the logit coefficients. For each study, the regressions were conducted in stepwise fashion to mirror the three sets of explanatory variables—help-seeker characteristics, MHP sociodemographic attributes, and MHP financial flexibility.¹⁰

Study 1

The comparison of positive responses across race and gender appear in Figure 2. Seventy-two percent of all MHPs who were contacted either replied that they had available appointments or they proposed a phone call. Rates are indistinguishable for black and white, female and male experimental conditions. The results presented in Figure 2 are supported within

the logistic regression framework (Model 1 in Table 2). No significant effects were found for help-seeker race or gender, nor was there an interaction between the two.

--- Figure 2 about here ---

Model 2 introduces a series of sociodemographic attributes of mental health care providers. The gender and race of the MHP were not significant predictors of accessibility, but geographic region and occupation were. MHPs in the south were, *ceteris paribus*, less likely to respond positively than MHPs in the northeast ($OR=0.48$, $p<.05$). In addition, when help-seekers contacted a licensed counselor, they had odds of a positive response that were more than twice what they would have received from a psychologist ($OR=2.32$, $p<.001$).

Model 3 adds another set of explanatory variables: sliding scale fee, free consultation, and health insurance. MHPs who accept insurance were considerably less likely to respond positively than those who do not ($OR=0.57$, $p<.01$). The other two financial variables were not associated with accessibility. The coefficients for each help-seeker remained essentially unchanged across all three models, indicating that the MHP sociodemographic attributes and finances were not concealing underlying race or class-based disparities.

--- Table 2 about here ---

Study 2

Figure 3 makes apparent sizeable differences by race and intervening agent. Among white men who mentioned that “some-one” (i.e., not a caseworker) suggested he see a therapist,

65 percent received a positive response, while 55 percent of otherwise identical black men did. Men who mentioned a caseworker fared worse on average and racial differences were more pronounced: almost 61 percent of whites received a positive response, but only 36 percent of blacks did. After applying a Bonferroni adjustment to the confidence intervals, I find significant pairwise differences between blacks with a caseworker and the three other groups: whites without a caseworker ($p < .01$), whites with a caseworker ($p < .05$), and blacks without a caseworker ($p < .10$).

--- Figure 3 about here ---

Odds ratios from a logistic regression not shown here, in which race and intervening agent were the only covariates, revealed that blacks had odds of receiving a response that were less half that of whites ($OR = 0.49$, $p < .01$). Furthermore, an email from a help-seeker who mentioned a caseworker had odds of eliciting a positive response that were 40 percent lower than an email from a help-seeker who did not mention one ($OR = 0.60$, $p < .05$).

Table 3 emphasizes the dramatic and persistent preference exhibited for white men with an unspecified agent relative to black men with a caseworker. Even after the introduction of MHP sociodemographic (Model 2) and financial (Model 3) characteristics, the odds of the latter receiving a positive response was less than a third of the odds of the former ($p < .001$). The odds for white men with a caseworker and white men with an unspecified agent fell in between the two and also remained constant across models.

Although the disparities in Study 2 were not moderated by MHP attributes, two attributes predicted accessibility on average. First, MHPs in the western United States were less likely to

offer appointments than those in the northeast (OR=0.44, $p<.05$). Second, the willingness to offer a sliding scale fee was associated with greater odds of an appointment offer (OR=1.85, $p<.05$).

--- Table 3 about here ---

DISCUSSION

Differences in Access

Do mental health care providers discriminate against black help-seekers? It depends. MHPs exhibited equal accessibility toward black and white help-seekers in the experimental conditions that did not signal low education. These results are consistent with economic theory that associates market competition with reduced racial discrimination. Viewed in this light, the MHPs in this study are not necessarily revealing that black and white prospective clients are equally valued, but that rejecting black clients is not worth lost revenue potential. It appears that, in a market that MHPs perceive to be competitive, blackness alone is not sufficient to disqualify a help-seeker.

However, when presented with ostensibly less educated help-seekers, emails with distinctively black names were less likely than those with white names to elicit a positive response. Moreover, mentioning a caseworker was associated with lower accessibility for both black and white men. Further research is needed to determine whether the same patterns would be observed for female help-seekers. Some research suggests that MHPs prefer female patients (e.g., Howard and Orlinsky 1972) and that black female prospective clients in particular are

preferred over otherwise equivalent black males (Kugelmass 2016). Gender differences were examined in Study 1, but not Study 2, where different stereotypes apply.

The caseworker stimulus and race stimulus appear to operate independently, but cumulatively. It may be that men who are black, have low education, and have high social need suffer from three strikes that disqualify them from being suitable clients. Indeed, those three characteristics are incongruent with the model of an ideal client, placing these men at the bottom of the hierarchy of access.

Together, these studies suggest that, on average, more educated help-seekers are favored over less educated help-seekers (72 versus 61 percent positive response). Nevertheless, I caution that these analyses cannot offer a precise estimate of the difference between putatively “more educated” help-seekers of Study 1 and the “less educated” help-seekers of Study 2 because the studies were designed and conducted independently. One potentially influential difference between Study 1’s and Study 2’s stimuli is the shadow of an intervening agent in Study 2. The existence of that agent, regardless of whether s/he signals high social need, could be interpreted as a marker of diminished internal motivation. This marker might give MHPs pause because unmotivated clients are less desirable to them (see e.g., Levinson 1969). Even independent of the needs or motivations of the help-seeker, there are two key reasons that MHPs would be averse to the intervention of an agent who may reasonably be assumed to work for a public institution that financially supports the provision of social services to those in need. First, a publicly financed service signals a low-income client, which poses a financial risk. Second, MHPs in private practice might be disinclined to collaborate with any agent of the state with enforcement authority. These possibilities are worthy of attention in future work.

Relevant Characteristics of MHPs

The logistic regressions that leveraged profile data from PsychologyToday.com did not identify characteristics of MHPs that predicted the racial disparities detected in Study 2, or the lack of disparities in Study 1. However, the results do highlight how differences among MHPs can contribute to variation in accessibility rates, independent of help-seeker race.

In particular, the sizable effects of MHPs' financial flexibility are consistent with a market-based explanation for variation in accessibility. Study 1's help-seekers were less likely to receive a positive response from MHPs who accept insurance than from those who require out-of-pocket payment. MHPs on insurance panels are likely more attractive to help-seekers, and therefore likely receive more inquiries; this demand may afford MHPs the opportunity to be more selective.¹¹

In Study 2, accessibility was predicted by the availability of a sliding scale fee—which indicates openness to working with low socioeconomic status clients on an ongoing basis. These findings suggest that a lack of financial flexibility by MHPs may contribute to difficulties that such help-seekers have accessing care—even when they contact MHPs who are actively searching for clients.

Responsiveness

Overall, the MHPs in these correspondence studies were quite responsive to help-seekers' inquiries compared to phone-based studies of mental health professionals (Dembosky 2016; Kugelmass 2016; Rhodes, Vieth, Kushner, Levy, and Asplin 2009; Shin et al. 2016). The average reply rate was 85 percent for Study 1 and 74 percent for Study 2. MHPs replied with impressive speed: 93 percent of Study 1 MHPs who replied at all did so within 24 hours, as did

89 percent of those in Study 2. This provides evidence that the vast majority of MHPs with profiles are active on the website. Furthermore, it suggests that these MHPs perceive themselves to be in a competitive market and that transaction costs online are low.

Nonetheless, there was considerable variation across help-seekers. Less than two-thirds of MHPs replied when they received an email from a black man with a caseworker. Low reply rates could erode trust in the mental health care professions, which are already suspiciously viewed by many. Furthermore, as Rhodes et al. (2009) notes, a lack of response could have particularly dire effects for therapy-seekers, for whom the experience of rejection could exacerbate symptoms of depression.

Limitations

Although this field experiment has stronger external validity than most laboratory studies, external validity always has limits. First, these studies tested for the presence of discrimination exercised by private outpatient care MHPs in an online marketplace; they might not be generalizable beyond that setting.

Second, even within the confines of that marketplace, it cannot estimate the true rate of discrete acts of discrimination because the measurements presume a help-seeker who randomly selects MHPs. As Becker (1957) and Heckman (1998) emphasize, there is an important distinction between labor market-level discrimination and the discrimination observed with a group of randomly selected employers. Analogously, rates of mental health market-level discrimination depend, in part, on how effectively help-seekers can predict which MHPs will be most receptive to them and the extent to which they adjust their search behaviors

accordingly. Thus, the present research cannot determine the extent to which non-random help-seeking behaviors would reduce the magnitude of direct discrimination.

Importantly, though, neither can this experiment determine the full extent to which those behaviors would increase the magnitude of indirect discrimination. That is, if help-seekers can identify MHPs who are most likely to accept them, they may be discouraged from even initiating contact with MHPs from whom they anticipate rejection. That could delay access to care or deter it entirely.

Conclusion

Limitations notwithstanding, this research contributes to our understanding of the conditions under which racial discrimination does and does not occur in an online marketplace for private mental health care. Although scholars have long noted the possibility of discrimination by MHPs at the point of entry to services, until very recently empirical work on the topic has been scant. By employing a correspondence field experiment, I tested for the presence of racial discrimination that goes undetected by professional associations, patients, and perhaps even providers themselves. The studies revealed that accessibility outcomes are worst for the help-seekers who are already the most vulnerable. By shedding light on these disparities, this research has the potential to help mental health care providers, educators, and consumer advocates as they strive to increase access to care for all.

NOTES

1. Data documenting the frequency with which online directories are used are not available.
2. When MHPs do not want to be contacted by help-seekers, they can temporarily hide their profile or select a standardized note at the top of the profile that reads, “[Name] is not currently accepting new clients.”
3. Olah et al.’s (2013) field experiment demonstrated that help-seekers who were of low socioeconomic status were less likely to receive an appointment, even in the absence of financial incentives to reject them.
4. Because Study 1 and 2 were conducted separately, this paper cannot directly test for interactions between race and education level.
5. See Schaefer (2012) for an exploration of homophily generated through nonreciprocity.
6. This excluded marriage counselors, pastors, and others who did not earn at least one of the degrees listed above. Psychiatrists were excluded due to small sample size. For Study 1, I further excluded any therapists with degrees in multiple categories (n=2,719).
7. The disqualified case counts that follow are out of that sample of 55,912. They are the number represented in each category, not the number filtered at each stage.
8. See Vuolo et al. (2018) for a discussion of the risk of detection in field experiments.
9. The reference group is the northeast region, which has the highest rates of psychotherapy utilization (Chen and Rizzo 2010).
10. I analyzed results including and excluding the five percent of replies (n=35/739) that were signed by an individual other than the MHP contacted (e.g., an administrative assistant). Because the results were very similar, all observations are included in the analyses presented here.
11. The bureaucratic challenges of seeking reimbursement from insurers—either for themselves or for clients—produce a strong preference for self-pay clients.

TABLES AND FIGURES

Table 1. Response categories for Study 1 and Study 2

	Study 1 % (n=596)	Study 2 % (n=312)
Appointment offer	64.9	47.4
Call offer	6.9	7.1
Screening question	5.0	5.8
Waitlist or referral	5.7	5.1
Rejection	2.9	8.3
No response	14.6	26.3
Total	100.0	100.0

Table 2. Study 1 logistic regression predicting a positive response from a mental health care provider (MHP) (n=596)

	Model 1		Model 2		Model 3	
	<i>OR</i>	<i>b(SE)</i>	<i>OR</i>	<i>b(SE)</i>	<i>OR</i>	<i>b(SE)</i>
<i>Help-seeker race*gender</i>						
black male	0.89	-0.12 (0.26)	0.89	-0.11 (0.27)	0.88	-0.13 (0.27)
white female	0.99	-0.01 (0.26)	1.01	0.01 (0.26)	1.03	0.03 (0.27)
black female	1.01	0.01 (0.26)	1.02	0.02 (0.26)	0.99	-0.01 (0.27)
<i>MHP sociodemographics</i>						
race (ref. white)						
black			0.99	-0.01 (0.46)	1.07	0.07 (0.47)
other non-white			1.16	0.15 (0.56)	1.28	0.25 (0.56)
female			0.76	-0.27 (0.21)	0.78	-0.25 (0.21)
occupation (ref. PhD/PsyD)						
social worker			1.41	0.34 (0.22)	1.43	0.36 (0.23)
licensed counselor			2.32***	0.84 (0.24)	2.38***	0.87 (0.25)
region (ref. northeast)						
midwest			0.91	-0.09 (0.31)	0.96	-0.04 (0.31)
south			0.57*	-0.56 (0.26)	0.56*	-0.57 (0.27)
west			0.74	-0.31 (0.27)	0.66	-0.42 (0.28)
<i>MHP financial flexibility</i>						
sliding scale fee					1.26	0.23 (0.20)
free consultation					1.37	0.32 (0.21)
accepts any insurance					0.57**	-0.57 (0.21)
<i>Constant</i>		0.97*** (0.19)		1.06 (0.55)		1.02 (0.60)

* p<.05, ** p<.01, ***p<.001 (two-tailed tests)

Note: *OR* is the exponentiated logit coefficient. *b(SE)* is the logit coefficient and its standard error. The help-seeker reference group is white male. Asterisks indicating significance level were attached to the *OR* except for the constant, which has no *OR*.

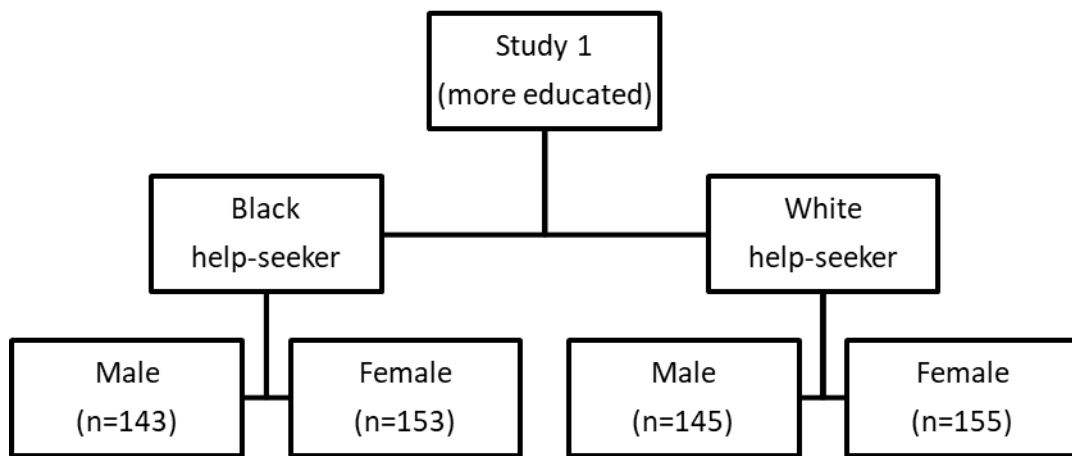
Table 3. Study 2 logistic regression predicting a positive response from a mental health care provider (MHP) (n=312)

	Model 1		Model 2		Model 3	
	<i>OR</i>	<i>b(SE)</i>	<i>OR</i>	<i>b(SE)</i>	<i>OR</i>	<i>b(SE)</i>
<i>Help-seeker race*agent</i>						
black w/ unspecified	0.67	-0.40 (0.33)	0.61	-0.50 (0.35)	0.62	-0.48 (0.36)
white w/ caseworker	0.82	-0.20 (0.33)	0.75	-0.28 (0.35)	0.83	-0.18 (0.36)
black w/ caseworker	0.30***	-1.22 (0.34)	0.28***	-1.26 (0.35)	0.29***	-1.25 (0.36)
<i>MHP sociodemographics</i>						
race (ref. white)						
black			1.19	0.17 (0.59)	1.09	0.08 (0.60)
other non-white			2.64	0.97 (0.74)	2.31	0.84 (0.74)
female			0.65	-0.42 (0.28)	0.66	-0.41 (0.28)
occupation (ref. PhD/PsyD)						
social worker			1.21	0.19 (0.30)	1.14	0.13 (0.30)
licensed counselor			1.56	0.45 (0.32)	1.44	0.37 (0.32)
region (ref. northeast)						
midwest			1.16	0.15 (0.40)	1.28	0.25 (0.41)
south			1.31	0.27 (0.35)	1.46	0.38 (0.36)
west			0.48*	-0.73 (0.35)	0.44*	-0.83 (0.37)
<i>MHP financial flexibility</i>						
sliding scale fee					1.85*	0.62 (0.27)
free consultation					1.55	0.44 (0.27)
accepts any insurance					1.03	0.03 (0.27)
<i>Constant</i>		0.64** (0.24)		0.67 (0.70)		0.05 (0.76)

* p<.05, ** p<.01, ***p<.001 (two-tailed tests)

Note: *OR* (odds ratio) is the exponentiated logit coefficient. *b(SE)* is the logit coefficient and its standard error. The help-seeker reference group is a less educated white male who mentions “some-one” but not a “caseworker” (i.e., agent is unspecified). Asterisks indicating significance level are attached to the *OR* except for the constant, which has no *OR*.

Figure 1a. Study 1 experimental conditions



Note: In Study 1, the sample of MHPs was stratified across three occupations: psychologists (n=198), social workers (n=200), and licensed counselors (n=198). Half of MHPs within each occupation received emails from black help-seekers and the other half from white help-seekers.

Figure 1b. Study 2 experimental conditions

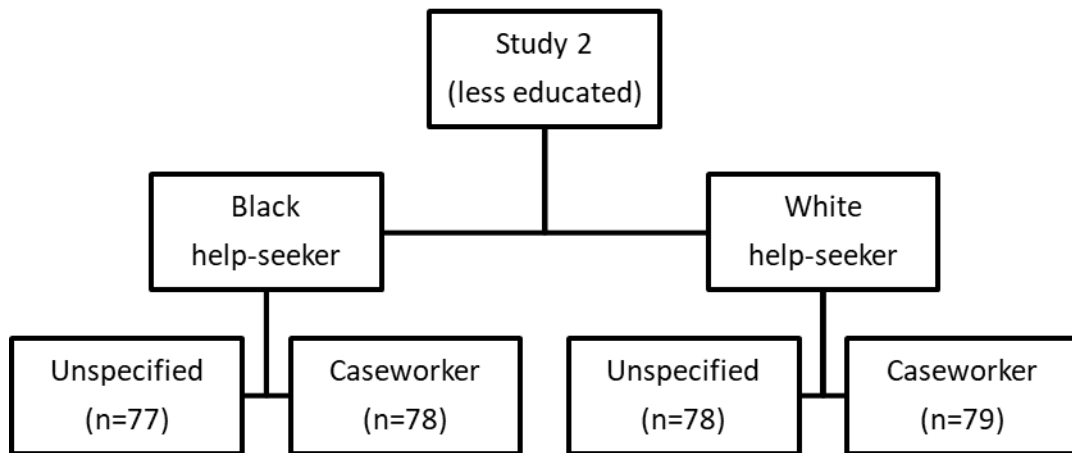
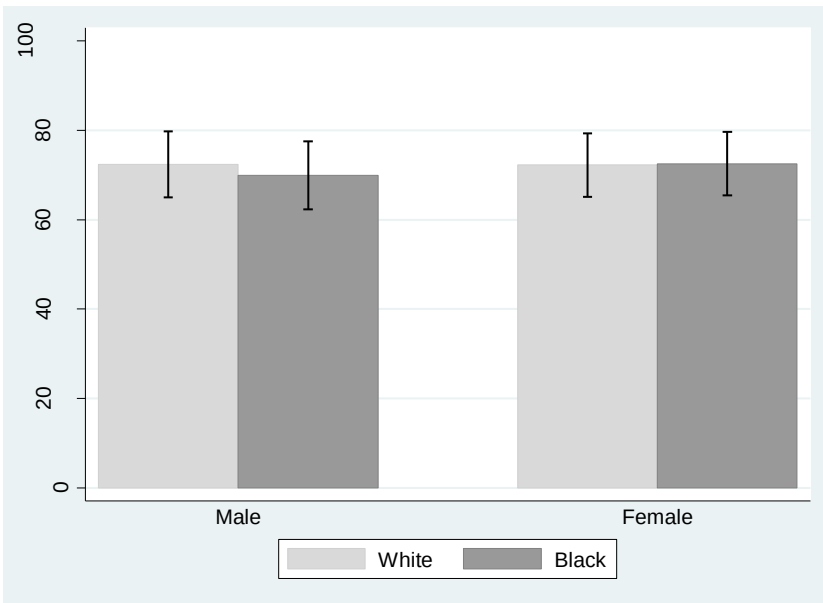
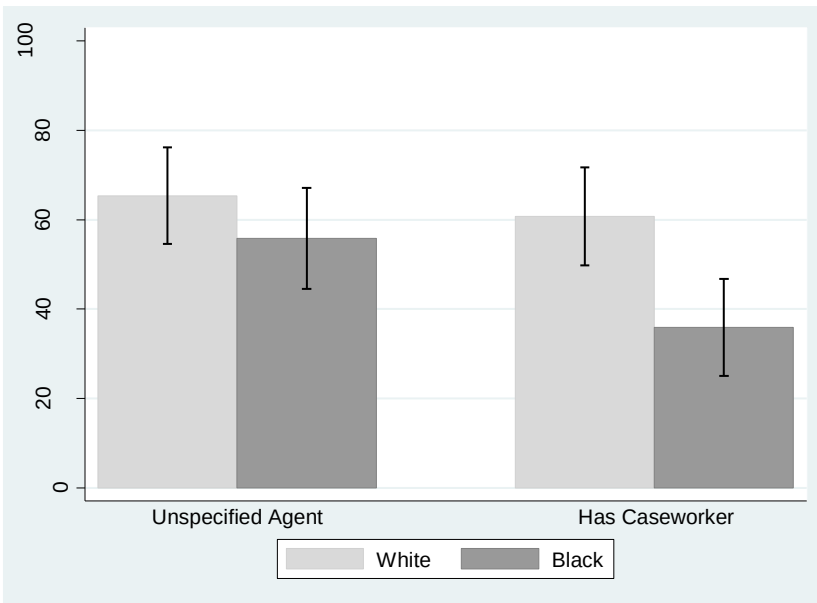


Figure 2. Study 1: Percentage of email inquiries from educated help-seekers that elicited a positive response from MHPs (n=596)



Note: Unadjusted 95% confidence intervals are displayed. Bivariate logistic regressions show no differences by help-seeker race or gender.

Figure 3. Study 2: Percentage of email inquiries from less educated help-seekers that elicited a positive response from MHPs (n=312)

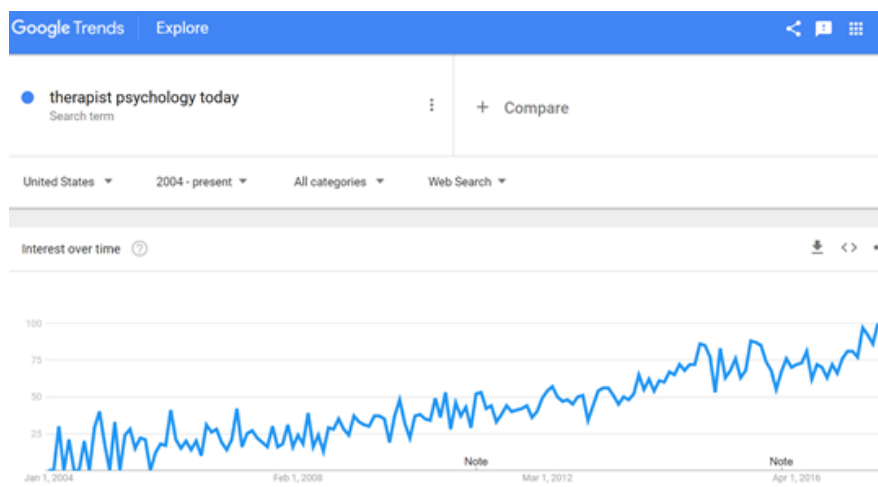


Note: Unadjusted 95% confidence intervals are displayed. Bivariate logistic regressions show main effects of race ($p < .01$) and intervening agent ($p < .05$). Pairwise comparisons show black men with a caseworker received significantly fewer positive responses than all other groups.

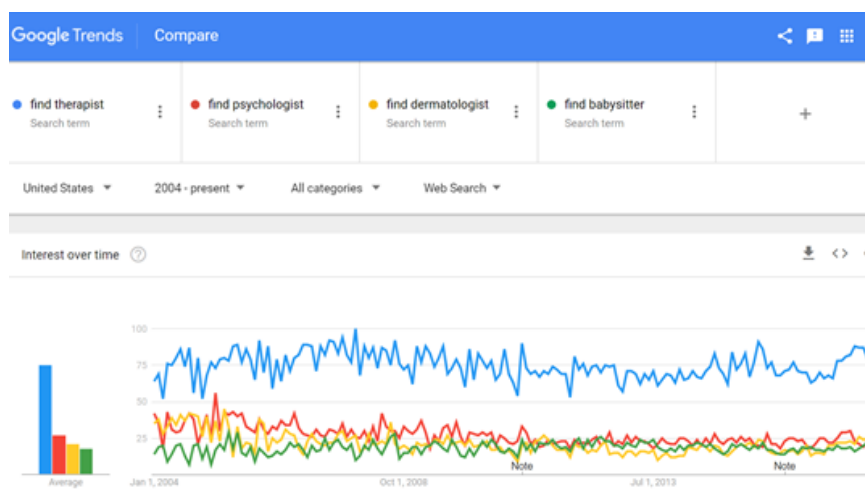
APPENDIX A. TRENDS IN GOOGLE SEARCHES, 2004 – 2017

“Google Trends” is a free online tool that reports an index of search activity, with a maximum value set to 100. Data are available starting in 2004. For additional information about Google Trends, see Stephens-Davidowitz and Varian (2015).

(a) Searches for ‘therapist psychology today’ increase over time



(b) Comparing search trends: mental health professionals (“therapist,” “psychologist”), a medical specialist (“dermatologist”), and a personal service provider (“babysitter”)



APPENDIX B. EXAMPLE MHP PROFILE FROM PSYCHOLOGYTODAY.COM'S DIRECTORY

[Email Me](#)
[Send to Friend](#)
[Website](#)

Moni [redacted]
Psychologist PhD

About Network

Verified by Psychology Today

I am a licensed clinical psychologist located in Center City Philadelphia with over 10 years of experience working with clients with a variety of concerns. People often seek my services for help with managing depression and anxiety. I also work with people to help them find healthier ways to cope with stress and grief. I enjoy seeing individuals grow, change, meet goals, and find new ways to cope with the challenges in their lives. My role is not to tell you what to do, but to work collaboratively with you to find a healthier path for your life.

I am certified as a "Skilled Cognitive Therapist in Community Mental Health Settings" by the Beck Initiative Training Program. Cognitive Therapy is an empirically supported approach for the treatment of depression, anxiety and other concerns. I look forward to working with you to tailor this approach to meet your needs.

Call or [Email Me](#) [redacted] mpbell for a **free phone** consultation now [redacted] 7-4048

Qualifications
Years in Practice: 10+ Years
School: Drexel University
Year Graduated: 2002
License No. and [redacted] 15555 Pennsylvania

Finances
Avg Cost (per session): \$140 - \$170
Sliding Scale: Yes
Accepts Insurance: Yes
Accepted Payment Methods: Cash, Mastercard, Visa

Accepted Insurance Plans

- Aetna
- BlueCross and BlueShield
- MHN
- Penn Behavioral Health
- TRICARE
- Out of Network

Verify your health insurance coverage when you [arrange your first visit](#).

Location

1518 Walnut Street
Philadelphia Pennsylvania 19102
[redacted] -4048

[Email Me](#) [Show Map](#) [Nearby Areas](#)

Specialties

- Depression
- Anxiety
- Mood Disorders

Issues

- Caregiver Support
- Coping Skills
- Relationship Issues
- Self Esteem

Client Focus
Ethnicity: African-American, Other Racial or Ethnic Background

Age

- Adults
- Elders (65+)

Categories

- Bisexual Clients
- Gay Clients
- Heterosexual Clients
- Lesbian Clients

Treatment Approach
Treatment Orientation

- Cognitive Behavioral (CBT)

Modality

- Individuals

Note: I modified this profile by outlining relevant fields and by concealing contact information.

APPENDIX C. SELECTION OF NAMES FOR HELP-SEEKERS

Table C1. Help-seeker names with race recognition rates from Mechanical Turk (n=233 each)

STUDY 1	Black	White
Male	Jermaine Washington (94%)	Brad Long (92%)
	Kareem Jefferson (91%)	Greg Miller (96%)
Female	Aisha Washington (93%)	Sarah Long (85%)
	Keisha Jefferson (95%)	Jill Miller (93%)

STUDY 2	Black	White
Male	Tyrone Booker (93%)	Ronny Meyer (86%)
	Keyshawn Washington (96%)	Dustin Larsen (95%)

Help-seekers search PsychologyToday.com’s directory anonymously and MHPs know only what help-seekers choose to reveal in their correspondence. The “email me” button on an MHP’s profile directs help-seekers to a form where they are prompted to enter their name, email address, phone number (optional), email subject, and message. Race was subtly emphasized by presenting the name in three places (name field, message signature, and email address) while limiting extraneous message content. Each email address contained a name and a three-digit number, with four variations in period placement. For example: gregmiller963@gmail.com, greg.miller963@gmail.com, gregmiller.963@gmail.com, and greg.miller.963@gmail.com. Alternating period placement every ten emails circumvented PsychologyToday.com’s spam-blockers, while ensuring that all reply emails were directed to a single gmail account for each help-seeker. The numbers in the email addresses were randomly generated.

For Study 1, first and last names were adopted from an experiment by Abascal (2015), who used readily identifiable racially distinctive middle class names. For Study 2, names were selected from among those evaluated by Gaddis (2017); their selection was informed by a combination of New York birth records documenting mother's race and mother's education. Booker and Washington were among the most commonly occurring black names in the 2000 Census. Meyer and Larsen were among the most commonly occurring white names, and among the lowest occurring black names (i.e., high distinctiveness). For all four help-seekers in Study 2, the frequency of mothers with "at least some education" was among the lowest, at 20 – 30 percent. I used two first names very strongly associated with mother's race (94 percent for both Keyshawn and Dustin) with two that were somewhat less strong (77 percent for both Tyrone and Ronny), but still among the highest. See the online supplement in Gaddis (2017) for more information.

PAPER III

IS THE FEELING MUTUAL?

RACIAL CONCORDANCE AND THERAPIST ACCESSIBILITY

ABSTRACT

This study contributes to the burgeoning body of experimental research that probes the circumstances under which mental health care providers (MHPs) exhibit discriminatory behavior toward prospective clients based on the perceived race of those clients. Specifically, this correspondence field experiment investigates the extent to which an MHP's race is linked to the likelihood that s/he will offer an appointment to a black or white man. More than 1,500 black or white MHPs in private practice received emails from either a racially concordant or racially non-concordant prospective client seeking an appointment. Results indicate that white MHPs favored white help-seekers over black help-seekers; this difference was especially stark when contacted by help-seekers who were ostensibly referred by a caseworker. Their preference for white help-seekers was robust across MHPs' sociodemographic and financial characteristics. Black MHPs responded positively to white and black help-seekers at similar rates, suggesting that black MHPs' decisions are, on average, neither strongly influenced by racial bias against black help-seekers nor by homophilous racial preferences. Alternative interpretations of these results are explored.

IS THE FEELING MUTUAL?

RACIAL CONCORDANCE AND THERAPIST ACCESSIBILITY

Despite broad evidence that racial disparities in access to private mental health care are widespread, only recently has empirical attention been directed at the extent to which mental health care providers (MHPs) contribute to those disparities. MHPs vary on many attributes that may be critical to understanding their level of accessibility to different help-seekers. MHPs' race/ethnicity is among the most intriguing, and has been empirically underexplored. This paper examines the possibility that selecting a same-race MHP can change the odds of access for therapy-seekers searching online.

Almost 30 years before McPherson, Lovin, and Cook (2001) published their influential work, "Birds of a Feather: Homophily in Social Networks," sociologists Marx and Spray (1972) published "Psychotherapeutic Birds of a Feather," which highlighted the role of homophily in the association between psychotherapists and their private practice clients. For the purpose of the present paper, I adopt the definition of homophily that informs Marx and Spray's work: the tendency for "professional psychotherapists and potential patients [to] mutually select each other so that patients and their therapists have similar characteristics" (Kandel 1966; 1972:413). In so doing, I am directing my attention to "choice homophily" (i.e., individual preferences based dyadic similarity) rather than to homophily induced by structural constraints on opportunity (McPherson and Smith-Lovin 1987).

This theoretical perspective is aligned with my empirical approach: random assignment of each black or white MHP to a racially concordant help-seeker or an otherwise equivalent racially non-concordant help-seeker. I approximate a scenario in which the demographic

opportunity structure is, on average, held constant within the confines of the experiment. That is, half of the MHPs in this study—both black and white—have the opportunity to form a cross-racial therapeutic dyad.

Email inquiries were sent to 1,501 black or white MHPs in the United States who were advertising their services in an online therapist directory. The sender's name is varied so that the emails appear to be from either a black or a white man seeking an appointment. . Throughout the paper, "black" and "white" refer to *perceived* race. For help-seekers, race is what we assume the MHPs perceive based on the name of the help-seeker. MHPs' race is defined as perceived by research assistants viewing their online profile photos on Therapists.PsychologyToday.com. Consistent with national estimates, approximately five percent of MHPs with profile photos on PsychologyToday.com were identified as black and approximately 87 percent were identified as white.

Therapists.psychologytoday.com, a leading national therapist-search directory,¹ is also a rich data source that plays a critical role in this field experiment's sample generation, execution, and data analysis. MHP profiles feature photos from which MHPs' racial background can be inferred, as well as location, specialty, and financial flexibility information that were tested as predictors of access. Finally, the site also provides an email portal, by means of which messages from simulated help-seekers could be sent to MHPs.

To my knowledge, this is the first field experiment to investigate how the likelihood of a positive response from an MHP differs by the race of both the help-seeker and the MHP. Responses from MHPs were categorized as either promoting access to therapy (positive) or impeding access (negative). Black MHPs, on average, responded similarly to black and white help-seekers. In contrast, white MHPs were more likely to respond positively to white than black

help-seekers, particularly among those help-seekers with caseworkers. The study is not designed to adjudicate between two alternative explanations for white MHPs' preference: choice homophily and persistent bias against black Americans.

BACKGROUND

Overview

Racial identity has been strongly implicated in a wide range of homophilous relations, both social and professional. The nature of cross-racial therapeutic dyads has long been of interest—especially the relationship between the white therapist and black client (e.g., Jones 1977). However, research on MHPs' decisions about *access* as a function of therapist-client racial concordance is scarce. Therefore, the present study may be best situated at the intersection of the literature on MHPs' client preferences and the role of racial concordance in therapeutic outcomes. If MHPs prefer prospective clients with whom they anticipate establishing an effective therapeutic alliance,² then their decisions about access may be directly related to their own racial background, their racial biases, and their beliefs about the importance of racial concordance for developing a therapeutic alliance.

Marx and Spray argue that “social class homophily and/or religious homophily may mask a general ‘emotional homophily’ which is the underlying basis of long-term psychotherapeutic relationships” (1972:425). The same argument could be made for race. Like class and religion, racial identity reflects features of the social worlds that people occupy and the relationships that they navigate. It is possible that MHPs make decisions about access that are driven by emotional homophily, in an attempt to maximize the likelihood of selecting clients with whom they will

develop a rewarding relationship. If so, we would expect to see that white MHPs are more likely to respond positively to white help-seekers and that black MHPs are more likely to respond positively to black help-seekers.

Figure 1 demonstrates junctures in the process of accessing and receiving care where the role of racial concordance has been studied. Racial concordance has been investigated as a potential influence on help-seekers' preferences for MHPs, on MHPs' preferences for help-seekers, and on therapeutic outcomes (e.g., symptom reduction, retention, client satisfaction). Note that this diagram represents a process, not a causal model. Horizontal arrows indicate sequence; vertical arrows indicate influence.

The part of the diagram bounded by the dashed lines represents the part of the phenomenon that is addressed in this experiment. The experiment begins with a simulated help-seeking behavior (i.e., contacting an MHP) and ends with a measure of access (i.e., a positive response from an MHP). The boxes in gray are three of many factors that inform the “black box” of MHPs' individual preferences: the race of the help-seeker, the racial concordance between help-seeker and MHP, and the social marginalization of the help-seeker operationalized by the mention of a caseworker.

--- Figure 1 about here ---

Racial Concordance and Therapeutic Outcomes

Meta-analyses and reviews have concluded that, all else equal, racial and ethnic minorities have a moderate preference for same-race MHPs (Cabral and Smith 2011; Shin et al. 2005; Smith and Trimble 2016). However, there are two caveats to consider. First, when taken

together, the studies revealed considerable heterogeneity across racial/ethnic groups. In fact, one meta-analysis found the same-race preference to be particularly strong for black Americans (Cabral and Smith 2011). In addition, most of the studies reviewed were conducted more than twenty years ago, masking influence of cohort changes in racial attitudes over time (Presnell, Harris, and Scogin 2012).

Based on the homophily principle, many assert that same-race therapist-client dyads would have a stronger therapeutic alliance than cross-race dyads (Smith and Trimble 2016). According to Shin et al. (2005), some argue that MHPs in same-race dyads acquire more credibility with their clients during the early sessions on the basis of their racial similarities, and that matching clients with same-race MHPs reduces misunderstanding, miscommunication, discomfort, and cultural biases that interfere with treatment.

Despite its intuitive appeal, the majority of evidence does not support the notion that racial concordance is advantageous for therapeutic outcomes (Cabral and Smith 2011; Maramba and Nagayama Hall 2002; Presnell et al. 2012; Shin et al. 2005). Using a random effects meta-analysis model, Shin et al. (2005) analyzed ten independent studies of black and white clients and therapists. The analysis showed no differences in the three therapeutic outcomes examined—overall functioning, number of sessions attended, and service retention—between race-concordant and non-concordant dyads. A more recent meta-analysis (Cabral and Smith 2011) confirmed that, on average, racial/ethnic matches do not improve therapeutic outcomes, with one pertinent exception: a small, though statistically significant, benefit for black Americans.

Regardless of whether or not racial concordance improves therapeutic outcomes, MHPs' belief in the therapeutic benefit of racial concordance may cause them to respond more positively to same-race help-seekers. Moreover, given the scarcity of black MHPs relative to black help-

seekers, black help-seekers' rates of therapy utilization could suffer as a result of beliefs that either (a) racial concordance improves outcomes, or (b) white MHPs will not respond favorably to their requests for care.

*MHPs' Racial Preferences*³

Because the literature on racial concordance does not directly examine the issue of access, it is instructive to turn to the literature on MHPs' racial preferences. Research suggests that the stereotypes associated with blackness are incongruent with the characteristics that MHPs value in a client. Qualitative and quantitative studies have revealed that MHPs prefer clients who are intelligent, verbally communicative, college educated, culturally sophisticated, introspective, motivated, and competent (Howard and Orlinsky 1972; Link and Milcarek 1980; Schofield 1964; Tryon 1986). A variety of stereotypes about blacks' low intelligence, lack of verbal clarity, untrusting nature, high hostility, lack of educational and employment potential, or reluctance to comply with treatment recommendations could lead to avoidance of these help-seekers (Abreu 1999; Dovidio et al. 2008; Jones 1977; Rosenthal and Berven 1999; van Ryn and Burke 2000). A meta-analysis by Boysen (2009) concluded that while explicit (conscious, self-reported) bias among MHPs is rare, implicit (automatic, non-conscious) bias is common. Using priming methods (Abreu 1999) or the Implicit Association Test (Castillo et al. 2007; Katz and Hoyt 2014), and practicing MHPs (Abreu 1999; Katz and Hoyt 2014) or counseling graduate students (Boysen and Vogel 2008; Castillo et al. 2007) or, scholars have found evidence of anti-black implicit bias. Through laboratory experiments, Katz and Hoyt (2014) discovered that therapists' implicit racial biases inform their expectations about therapeutic alliance (measured as "bond"),

a key predictor of therapeutic outcomes. Those expectations could be one pathway through which bias reduces access for black help-seekers.

Another set of beliefs that could deter MHPs from accepting black help-seekers is related to the perceived nature and prevalence of blacks Americans' social problems, the view that those social problems are of their own making, the assumption that they continue to experience these problems as a consequence of their own lack of effort, and that their receipt of publicly financed social services is undeserved (Gilens 1999). Goodman et al. (2013) discuss the vulnerability of people of color receiving public assistance to stigmatizing attitudes that marginalize recipients.

Publicly-funded institutions that serve and control socially, socioeconomically, or otherwise socially marginalized individuals tend to employ caseworkers. Ensign refers to caseworkers as “agents of social intervention” (1990:1). Unlike other intervening agents in the help-seeking process (e.g., family, friends, colleagues), they act in an official capacity, representing a wide range of surveilling institutions (e.g., child protective service agencies), as gatekeepers to the social safety net. Situations in which a help-seeker would have a caseworker converge with stereotypes about black Americans in ways that may amplify signals of social marginalization. For example, black Americans with caseworkers may be perceived to be more likely than similar whites to be under correctional supervision, to abuse substances, or to receive welfare benefits. In the present experiment, half of the MHPs receive an email from a help-seeker who mentions that therapy was suggested by a caseworker (i.e., socially marginalized).

Clearly, racial stereotypes influence MHPs' attitudes toward help-seekers. Two initiatives have been proposed to counteract the racial bias that likely impedes access for black Americans: increasing the number of non-white MHPs and improving the multicultural competence of all MHPs (American Psychological Association 2003; Maramba and Nagayama Hall 2002;

McGuire and Miranda 2008; Shin et al. 2005). Yet, some research suggests that the promise of these solutions is overstated. For example, Katz and Hoyt (2014), measuring MHPs' reactions to hypothetical black clients, found that the race of MHPs was not predictive of their biases and expectancies. Furthermore, implicit bias is prevalent even among MHPs who have completed multicultural competency training and rate themselves as culturally competent (Boysen and Vogel 2008; Castillo et al. 2007). In the present work, I examine the responses of black MHPs, as well as MHPs (black and white) with a black client focus, to determine how well they predict disparities in access.

Experimental Investigations of Racial/Ethnic Disparities in Access

As previously noted, the present study draws theoretical insight from two related literatures, each with its own preferred empirical methods. Research on the effects of racial concordance on therapeutic outcomes tends to be observational or self-reported (for exceptions, see McLaughlin and Balch 1980; Palma Orellana 2016). Research about MHPs' racial biases is more often vignette-based or involves a combination of surveys and implicit association tests.

Field experiments have two important advantages over observational methods and vignette-based experiments. First, because subjects are typically unaware that they are participating in an experiment, the internal validity of a field experiment is not compromised by the social desirability bias that plagues observational and survey-based studies of racial preference. Second, field experiments do not suffer from two challenges associated with low participation rates: self-selection bias and subjects that differ from the population of interest. This is an important advantage, as participation rates for health professionals are notoriously weak, with some vignette-based experiments yielding participation rates as low as two percent

(e.g., Stepanikova 2012). To counter this, some researchers rely on samples of MHPs-in-training or organizationally-based practitioners, both of which have considerable drawbacks as proxies for private practitioners (Katz and Hoyt 2014; Marx and Spray, S. Lee 1972; McLaughlin and Balch 1980).

Field experiments were employed in two recently published studies of racial disparities in access to MHPs (Kugelmass 2016; Shin et al. 2016). Both found that MHPs were more likely to offer appointments to white than black help-seekers. Neither of those field experiments addressed racial concordance, however. To my knowledge, field experiments have investigated the role of racial concordance in access to employment (Jacquemet and Yannelis 2012) and housing (Edelman et al. 2017), but not psychotherapy. I suspect that this omission is largely due to the paucity of black MHPs in gatekeeping roles.

RESEARCH OBJECTIVES

For this field experiment, I selected a data source with a sufficient number of black MHPs to compare the responses of black and white MHPs to black and white help-seekers. It replicates experimental stimuli and procedures developed by Kugelmass (Under review), as described in the Data and Methods section. The present analyses also use some of the data collected for that study in order to increase the statistical power of the regression models.⁴ Kugelmass (Under review) did not find evidence of racial disparities in access to therapists when lower education was not cued, but did find racial disparities among less educated help-seekers. In particular, whites without a caseworker were strongly preferred over blacks with a caseworker. This study was designed to investigate whether MHP race moderates those disparities: on the one

hand, between black and white help-seekers with limited education; and on the other, between help-seekers who mention a caseworker and those who mention an unspecified intervening agent. In this paper, I highlight (a) the race of the help-seeker, (b) the race of the MHP and (c) racial concordance between the two. In this experiment, as in the real world, MHPs received emails from prospective clients—black or white—wanting to initiate a relationship. This research is guided by the question: Is the feeling mutual?

The primary research question is: To what extent does the disparity in access between black and white help-seekers depend on the race of the MHP?

The secondary research questions are: To what extent does the disparity in access between black and white help-seekers differ by:

- 1) the implicit level of social marginalization as indicated by the agent of intervention?
- 2) the MHP's non-racial sociodemographic characteristics and financial flexibility?

Figure 2 presents one potential path through which MHPs' access decisions are made. The two variables manipulated in the emails appear on the leftmost side of the chart: the help-seeker's name and whether the help-seeker mentions a caseworker or "someone" (i.e., an unspecified agent). The help-seeker's name signals race, which determines whether the MHP perceives the potential relationship as a concordant one. Desired concordance would represent homophily, which would predict a positive response. The help-seeker's race also prompts stereotypes relevant for client desirability (e.g., verbal skills). Negative race-stereotyped relevant traits would reduce the likelihood of an appointment offer. The mention of a caseworker (relative to "someone") signals social marginalization. Social marginalization can moderate the relationship between a help-seeker's race and the traits deemed relevant; it also primes

undesirable client traits. All variables in a “black box” represent what MHPs perceive, and thus were not directly measured.

--- Figure 2 about here ---

DATA AND METHODS

In this section, I describe the sample and the types of data analyzed in this study. There were two types of data: (1) the content of MHPs’ profiles web-scraped from PsychologyToday.com (profile data) and (2) the content of MHPs’ replies to email inquiries from help-seekers (experimental data).

Sample

I drew the sample from PsychologyToday.com’s therapist directory. This directory provides a platform for MHPs to post professional profiles—for a monthly fee—that present information about themselves and the types of clients they treat. (See Kugelmass (Under review) for additional information about Psychology Today’s therapist search platform.)⁵ The final sampling frame included only MHPs who were black or white—approximately 92 percent of photos in which a face was clearly visible.

The sample included only MHPs whom Psychology Today verified were licensed in the United States (n=61, 522).⁶ I eliminated any MHPs who were not psychologists (PhD, PsyD, or psychologist), social workers (MSW, LCSW, or clinical social work/therapist), or licensed counselors (LPC or LMCH) (n=16,468).⁷ I disqualified MHPs who treat only children (n=973),

did not include an option to email them (n=3,193), or had not updated their profiles since before 2014 (n=278). In the interest of isolating MHPs who are responsible for selecting their own clientele, I excluded any MHPs who chose a button labeled “email us” instead of “email me” (n=5,435).⁸

Of those eligible, a random sample of 882 white MHPs and 619 black MHPs were emailed by simulated help-seekers inquiring about an appointment. Data were collected at three time periods: early fall 2015, late fall 2015, and early spring 2016. For the second and third time periods, the sample was blocked on two characteristics: the MHP’s race and the MHP’s racial/ethnic client focus (both variables discussed in detail below). Practitioners on PsychologyToday.com are overwhelmingly white and they rarely have a racial/ethnic client focus. Across the three occupational categories from which the sample was drawn, only five percent of MHPs were black and fewer than four percent of MHPs had a black client focus. Therefore, oversampling was necessary to achieve sample sizes large enough to address the research questions. In the first time period, a simple random sample was drawn; consequently, the group of MHPs emailed during that period was overwhelmingly white. This resulted in a racial imbalance in the final analytic sample (882 white vs. 619 black subjects).

Profile Data

Unlike most correspondence field experiments, the structure of the present study made it possible to collect information about subjects. When MHPs register to be included in Psychology Today’s online directory, they answer questions to create a profile. Most questions are optional, but the typical profile includes the MHP’s photo, geographic location, year graduated, clinical specialties (e.g., anxiety), client focuses (e.g., Christian), and accepted health insurance plans,

among others. Profile data for all MHPs in the therapist directory was extracted using a custom web-scraping program.

Sociodemographic attributes. Gender, state, and occupation were available in all profiles. Seventy-one percent of MHPs on PsychologyToday.com are female (=1; male=0). I collapsed states into the four Census regions. Twenty-one percent of MHPs reside in the Northeast (=1), 16 percent in the Midwest (=2), 29 percent in the South (=3), and 34 percent in the West (=4). This paper focuses on three categories of occupations: psychologists (PhD or PsyD), social workers (MSW, LCSW, or clinical social work/therapist) and licensed counselors (LPC or LMCH). MHPs with multiple degrees were coded according to their highest degree earned: psychologists (=1), then social workers (=2), then licensed counselors (=3). Approximately one quarter of MHPs on Psychology Today were excluded because they were not a fit for any of those three categories (e.g., marriage counselors, pastoral counselors, art therapists).

MHP race. Race is not self-reported by MHPs, so it could not be gathered by web-scraping text. Instead, it was inferred from profile photos. Ninety-four percent of MHPs on PsychologyToday.com post at least one profile photo. Research assistants coded MHPs as one of the following: black/African American, white/European American, Hispanic/Latino, Asian or Pacific Islander, image without a face (e.g., a landscape), or other/uncertain.⁹ Only MHPs classified as white (=0) or black (=1) were included in the pool from which the sample was drawn.

Racial/ethnic client focus. PsychologyToday.com profiles contain an optional section where MHPs can select “client foci” in several categories, including age, sexuality, religion, and race/ethnicity. The question of interest to this research is, “Do you offer any special insights for clients of the following ethnicity?” MHPs can select a maximum of two among the following:

African-American, Hispanic or Latino, Pacific Islander, Asian, Native American, Other Racial or Ethnic Background. MHPs who selected “African-American” were coded ‘1’ and all other MHPs were coded ‘0’. I oversampled white MHPs with a black client focus, which I use as a proxy for professed multicultural competence. Of all MHPs in the therapist directory for whom race had been identified, approximately three percent of whites and 44 percent of blacks have a black client focus. Of those with a black client focus, 40 percent are black and 51 percent are white.

Financial flexibility. Financial variables shed light on how the MHPs are experiencing market competition and what types of clients they consider acceptable. I include three dichotomous financial variables. First is whether or not the MHP checked a box indicating that s/he offers a sliding scale fee. Second is whether or not the MHP checked a box indicating that s/he offers a free consultation. Third is whether or not the MHP accepts at least one insurance plan; MHPs have the option of choosing from a list of dozens or entering their own. Each of these three indicators of financial flexibility is present for 60 – 65 percent of MHPs on PsychologyToday.com.

Experimental Data

Each MHP was emailed by one male help-seeker with a black-sounding name or one with a white-sounding name.¹⁰ There were 747 racially concordant dyads and 754 non-concordant dyads, for a total of 1,501 cases. Each MHP was contacted only once. Data collection was spread over three time periods—early fall 2015, late fall 2015, and early spring 2016—to reduce the potential influence seasonal variation. This is an example of the experimental stimulus:

Your Name: Keyshawn Washington
Your Email: keyshawnwashington470@gmail.com
Your Phone:
Subject: appoinment

Message:

Dr barken

[My caseworker /Some-one] thinks I should see a therapist I think its a good idea, do you have appointments ? thanks

Keyshawn Washington

Help-seeker race. Help-seeker race (black=1, white=0) was cued by racially distinctive male names. Names were selected from New York State birth records, informed by a combination of mother's race and mother's education. Survey data collected on Amazon's Mechanical Turk strongly suggest that the intended race was being cued; all names were correctly identified by at least 85 percent of survey-takers.

Intervening agent. Half of the inquiries included a signal of social marginalization: a caseworker as intervening agent. MHPs were randomly assigned to an email that mentioned either a "caseworker" (=1) or the placebo "some-one" (=0) thinks the help-seeker should see a therapist. I refer to the latter as an unspecified intervening agent. Because having a caseworker is associated with individuals on the lower end of the socioeconomic spectrum, both email scripts contain the same spelling and punctuation errors. Only 40 percent of survey-takers who saw the "someone" script, and 30 percent of those who saw the "caseworker" script, thought the help-seeker had at least some years of college education.

Accessibility. The main dependent variable is MHP accessibility, which was operationalized as a positive response to the request for an appointment. Like Shin et al. (2016), I measure the content of the call, not the occurrence of a callback, because when people seeking

therapy place a call, the outcome most relevant for them is the invitation to discuss an appointment. Each MHP response was assigned one of five mutually-exclusive categories.

- 1) Explicitly affirmed appointment availability (e.g., “Yes, I have appointments”)
- 2) Requested/offered to speak on phone (e.g., “What is a good time to discuss on the phone?”)
- 3) Requested additional information without reference to appointment or call (e.g., “What is your insurance?”)
- 4) Offered waitlist or referral (e.g., “I’m not taking new clients this month, but I can put you on a waitlist.”)
- 5) Rejected the help-seeker without offering waitlist or referral (e.g., “I’m not taking new clients.”)

For analyses, the codes were collapsed into a binary variable: category 1 and 2 (=1) versus all other categories and non-response (=0). Categories 1 and 2 open the door to further interaction and promote the potential for an appointment. Categories 3, 4, and 5 impede timely access to an appointment.

RESULTS

Does racial concordance between a therapist and help-seeker predict the therapist’s accessibility? Chi-square analyses reveal that help-seekers who contacted MHPs of the same race were significantly more likely to receive a response promoting an appointment ($p < .05$).

Does this matching phenomenon affect white and black help-seekers equally? Figures 3a (black MHPs) and 3b (white MHPs) show that it does not. These bar charts display the raw percentages of MHPs who responded positively to requests for appointments. Pairwise

comparisons of marginal linear predictions with Bonferroni corrections indicate that white MHPs' responses were more likely to be positive to race-concordant help-seekers (white) than to non-concordant (black) ones ($p < .05$).¹¹ Notably, this racial disparity is apparent even without accounting for white MHPs with a black client focus. In other words, due to oversampling, more than one-third of the white MHPs represented in this bar chart indicate on their profiles that they have a "black client focus," yet their influence is not strong enough to compensate for the aversion to black clients exhibited by white MHPs without a black client focus. Black MHPs were no more likely to respond positively to black help-seekers than to white ones.

--- Figure 3 about here ---

Table 1 compares the key sociodemographic and financial characteristics of the white ($n=882$) and black ($n=619$) MHPs in the analytic sample. They differ on the majority of characteristics. In particular, black MHPs were considerably more likely to be female ($p < .001$), be licensed counselors (vs. psychologists) ($p < .001$), to reside in the South ($p < .001$), to offer a free phone consultation ($p < .05$), and to accept some form of insurance ($p < .05$). Therefore, it is useful to explore the association between MHP and help-seeker race within a regression framework.¹²

--- Table 1 about here ---

The models presented in Table 2 were estimated using multiple logistic regression. Each variable has a specified reference group with an odds ratio of 1. Estimates of the coefficients for

the other categories within each variable were calculated relative to the referent category. The 95 percent confidence intervals provide a measure of uncertainty around each estimate. Both regression models estimate effects for black and white MHPs separately.

Model 1 analyzes the unadjusted interaction between a help-seeker's race (black or white) and agent of influence (caseworker or unspecified). Based on this model, we cannot reject the null hypothesis that black MHPs respond equivalently to white and black help-seekers. In fact, none of the four experimental conditions had odds that significantly differed from each other. In stark contrast, white MHPs had odds of positively responding to a black man who mention a caseworker that were half that of white men who mention an unspecified agent ($OR=0.52$, $p<.001$). There were no significant differences among the other Bonferroni-adjusted comparisons.

Model 2 is designed to answer the last research question: Do racial disparities depend on MHPs' non-racial sociodemographic characteristics and financial flexibility? The model includes quantifiable attributes of MHPs that seem important in light of previous work and that are available for all MHPs in the sample: gender, black client focus, occupation, region, sliding fee scale, free consultation, and insurance status. For both black and white MHPs, the odds of responding positively to each type of help-seeker persist from Model 1 to Model 2 at almost identical magnitudes. That is, the discrimination observed among white MHPs, and lack of discrimination observed among black MHPs, is robust across MHP attributes—both sociodemographic and financial.

Although none of the attributes in the model affect the racial gap, several have significant main effects on access. All else equal, black MHPs who are social workers or licensed counselors were considerably more likely than black psychologists to accept help-seekers,

regardless of racial concordance (OR=1.84 and OR=1.85 respectively, both $p<.01$). Occupation was not related to white MHPs' average accessibility, but gender (female OR=0.69, $p<.05$), region (Midwest OR=1.61, South OR=1.53, both $p<.05$), and willingness to accept insurance (OR=0.66, $p<.01$) were significant predictors.

Black client focus was the one attribute that predicted access among both white and black MHPs, across black and white help-seekers. Overall, white MHPs with a black client focus were considerably more likely to be accessible, relative to white MHPs without a black client focus (OR=1.45, $p<.05$). Black MHPs with a black client focus were less likely to express availability than those without one (OR=0.71, $p<.05$).

--- Table 2 about here ---

Figure 4 highlights variation in MHPs' responses to help-seekers with different agents of intervention (i.e., level of social need/marginalization). It displays odds ratios for the effect of being presented with a black relative to white help-seeker from six sub-samples from Table 2, Model 2. From left to right, they reflect positive responses from: white MHPs contacted by any help-seeker, white MHPs contacted by a help-seeker mentioning a caseworker, white MHPs contacted by a help-seeker mentioning an unspecified agent, black MHPs contacted by any help-seeker, black MHPs contacted by a help-seeker mentioning a caseworker, black MHPs contacted by a help-seeker mentioning an unspecified agent. In all six, the variables from Model 2 are fixed in order to highlight the divergent marginal effects of social marginalization (i.e., caseworker as agent of intervention) on responses from black and white MHPs. Although the confidence intervals are, as expected, smaller for the full samples (within each race), uncertainty in the

estimates of black-white access differences tend to be larger for black MHPs, even independent of sample size.

--- Figure 4 about here ---

Sensitivity Analyses

Four sets of sensitivity analyses were performed. In the first, I verified that the results are robust to different formulations of the outcome measure. Relatively more restrictive (explicit appointment offer only) and liberal (categories 1, 2, and 3) definitions of what constitutes a positive response produce substantively similar patterns.

Second, I ran two intermediate logistic regression models: one with only the sociodemographic variables and one with only the financial flexibility indicators. Both yielded coefficients nearly identical to those presented in Table 2, Model 2.

Third, I conducted analyses excluding the cases collected in early fall, the first experimental time period (n=285 excluded). The coefficients are very similar but, due to the reduction in sample size, the level of statistical significance no longer meets the conventional $p < .05$ standard for two variables: the black help-seeker with a caseworker ($p = .054$ in Model 1, $p = .053$ in Model 2) and MHP gender ($p = .093$).

Fourth, I considered two additional MHP attributes: (a) the number of years that the MHP has been practicing and (b) session cost. Because these fields are not mandatory, including those variables in regression models that use case-wise deletion reduces the statistical power to find effects of key variables. Moreover, in sensitivity analyses neither was statistically significant, so they were excluded from the final models presented.

DISCUSSION

Summary of Findings

Prior to this study, access to MHPs had not been explored in a real-world setting with regard to racial concordance. This field experiment evaluated whether the race of MHPs moderates differences in the rates of positive responses to black and white help-seekers requesting an initial therapy appointment. Consistent with prior field experimental research conducted through PsychologyToday.com's therapist directory (Kugelmass Under review), I find that white MHPs favor white help-seekers over otherwise identical black help-seekers. Also consistent with Kugelmass (Under review), I find that their preference is primarily driven by fewer positive responses help-seekers who were ostensibly referred by caseworkers. Black MHPs did not discriminate on the basis of either criterion.

Given the social marginalization signaled by the mention of a caseworker, it is unsurprising that white MHPs are especially averse to black help-seekers with caseworkers. However, suggestive evidence ($p > 0.05$) that the effect of the "caseworker" script operates in the opposite direction for black MHPs, introduces the possibility that the effect of help-seeker blackness and social marginalization might not be an additive one. Rather, the activation of the racial stereotypes that make a client undesirable may be contingent on inferences made based on racially relevant details about the individual (e.g., receipt of public assistance), not simply racial identification alone.

Does racial concordance matter for access to therapy? In short, yes. The email responses associated with racially concordant dyads were more likely to be positive. Nevertheless, for white MHPs, it is particularly challenging to disentangle the role of racial choice homophily

from anti-black bias. Moreover, this study does not provide a means of isolating the effect of preference from structural constraints (i.e., the demographic variation in that setting) for either MHP racial group. This is in large part because the demographic opportunity framework for MHPs in this online market is unknown. Framing the question more narrowly: Given the opportunity for the expression of homophilous preferences, when presented with a race-concordant help-seeker, will MHPs take that opportunity? This study presents evidence that white MHPs do. If black MHPs do, then the pattern of preference is too small to be detectable in this high-variance sample.

Why Don't Black MHPs Discriminate?

Why don't black MHPs show racial preferences like white MHPs do? One interpretation is that black MHPs are indifferent to the race of the help-seeker.¹² That is, they are neither influenced by homophilous racial preference nor by anti-black bias. However, three alternative explanations warrant consideration.

First, it is possible that the average lack of effect is a consequence of strong preferences in one direction (pro-black) by approximately half of the MHPs and in the other direction (pro-white) by the other half. Second, it is possible that racial concordance does motivate homophilous preferences among black MHPs, but that it is outweighed by the influence of undesired non-concordant characteristics such as low education level.

Third, it may be that MHPs aim to establish a certain ratio of black to white clients; thus, whether they accept or reject any giving help-seeker depends on the availability of help-seekers in their demographic pool. All MHPs in my sample are advertising for clients. This implies that they either (a) have fewer than their desired number of clients or (b) are attempting to change the

composition of their portfolio of clients. The latter could involve either diversifying or homogenizing their portfolio. If so, in either case, the appearance of indifference observed in this study would paradoxically be a consequence of greater demographic opportunity to enact racial choice homophily. If we take as given that (a) there are proportionally more black help-seekers than black MHPs and (b) black help-seekers prefer black MHPs, then we must consider the possibility that a large fraction of black MHPs would choose white help-seekers when given the opportunity in this experiment, in order to approach their desired ratio of black to white clients.

Do Provider-level Attributes Matter?

The race of the MHP was the primary focus of the analyses, but this experiment was unusual for its inclusion of other provider-level attributes. None of the sociodemographic and financial characteristics investigated predicted the black-white access gap exhibited by white MHPs. As I included only items that were easily quantifiable and forced response, it is likely that the models suffer from non-trivial omitted variable bias. One characteristic that predicted access for both black and white help-seekers is MHPs' black client focus. To the extent that MHPs' black client focus is a proxy for combined racial preference and multicultural competence, holding it constant in the models provides some empirical traction on the issue of racial concordance's unique contribution to access.

Moreover, the sizeable and statistically significant coefficients for racial/ethnic client focus offer an important insight. The effect for white MHPs on accessibility toward black help-seekers operates in the expected direction, with white MHPs with a black client focus more likely to offer appointments than white MHPs without a black client focus. Counterintuitively, though, black MHPs with a black client focus are less likely than their counterparts without a

black client focus to offer appointments to black help-seekers. This suggests that a racial/ethnic client focus holds different meaning for black and white MHPs and/or that it is used strategically as a signal to prospective clients. In addition to interviews, text analysis of the narrative “About me” portion of MHP profiles may be useful in the effort to decipher the relationship between proclaimed ethnic client focus and real-world preferences.

Implications

What will improve black help-seekers’ odds of receiving care? On its face, the results of this experiment suggest that contacting a same-race MHP would mitigate the disadvantage faced by black Americans seeking outpatient therapy from private practitioners. However, if black MHPs have a lower overall appointment offer rate, as they do in this study, then there is a troubling ceiling to the real-world improvement that could be actualized by adding black MHPs to the professional pipeline. Put another way, when black help-seekers contacted white MHPs, they were significantly less likely to receive positive responses than otherwise equivalent white help-seekers—a handicap that they did not suffer when they contacted black MHPs. And yet, the predicted probability that black help-seekers will receive a positive response from black MHPs is not significantly higher than from white MHPs. Clinical advocates will need to determine whether their primary objective is to increase access for blacks or to reduce inequities in access.

As expected, MHPs with a black client focus were considerably more likely than their counterparts without a black client focus to accept black help-seekers. Yet, because fewer than four percent of MHPs (on PsychologyToday.com) claim to have a black focus, a disturbingly low number of help-seekers would be able to obtain an appointment with one. It will be the task

of future experiments to determine whether cultural competence training increases the receptiveness of MHPs to black help-seekers; this study could only establish a correlation.

Limitations and Conclusions

It is worth noting several constraints on this experiment's scope. First, I focused on a single racial/ethnic contrast, that between white and black Americans. Doing so enabled me to avoid confounding racial/ethnic matching with language matching. However, the role of ethnic/racial concordance for other disadvantaged minority groups is worthy of future study. Second, I present MHPs with only male help-seekers, with implicitly low education levels. In so doing, I ignore intersectionalities between race, education, and gender that mitigate or exacerbate race-based homophilous preferences or anti-black sentiment. In an analogous limitation on the provider side, I do not have the statistical power to investigate many potentially relevant interactions between provider attributes. Finally, in this study, as in field experiments in access to employment, the experiment covers only the first step in the process of accessing an available mental health appointment vacancy. We do not know if the help-seeker would have ultimately received an appointment, but we do know who was denied the opportunity to progress to the next stage. Much as we do not know what the ultimate outcome of the request for care might have been, we also don't know what factors precipitate real help-seekers to select a particular MHP. Future research should address how help-seeker preferences interact with MHP preferences to determine the probability of appointment offers.

In conclusion, this study suffers from two key limitations similar to those that challenge much of the research on racial bias and racial concordance that motivated it: it does not distinguish between anti-black and pro-white attitudes toward help-seekers,¹³ nor does it parse

the effects of homophilous preferences from other sources of white preference. Nonetheless, it makes an important contribution to research on racial concordance, which tends to focus on outcomes that follow therapeutic encounters (e.g., client retention, symptom improvement) not ones that precede therapeutic encounters. Consistent with the focus on post-therapy rather than pre-therapy outcome measures, extant research has typically handled MHPs as passive recipients of client preferences and neglected MHPs' role in the matching process. This study is unusual in that it directly confronts the influence that MHPs' homophilous preferences and/or anti-black biases have on the likelihood that help-seekers are offered treatment. In this way, the study is perhaps better characterized as occupying space in the gap between the literatures on (a) the effect of racial concordance on therapeutic outcomes and (b) MHP bias, rather than being situated at the intersection of the two. The results of this experiment suggest the need for additional theoretical and empirical work in that space.

NOTES

1. Approximately 100,000 MHPs (American and Canadian, including treatment facilities and therapy groups) have active profiles (Psychology Today 2015). This membership far exceeds that of the many other online therapist search tools in this market.
2. In the counseling literature, “therapeutic alliance” refers to the working relationship between therapist and client.
3. Some of this section on MHPs’ racial preferences is also found in the second paper of this dissertation (i.e., Kugelmass Under review).
4. Those data are identified in the models as “early fall” (n=285).
5. That information can be found in the Methods section of the second paper in this dissertation.
6. The disqualified case counts that follow are out of the sample of 61,522 providers “verified” by Psychology Today.
7. This excluded marriage counselors, pastors, psychiatrists, and others who did not earn at least one of the degrees listed above.
8. MHPs whose profiles indicated that they were not accepting new clients were skipped upon profile inspection during the distribution of emails.
9. Four undergraduate students coded the photos. I double-coded approximately ten percent of photos. Any photos flagged as unclear were dropped from the sampling frame. Prior to sending an email, each photo was inspected by the sender (a different undergraduate research assistant), to confirm the MHP was identifiably black or white.
10. Due to practical constraints, I did not vary gender. I chose to present male help-seekers in order to introduce the possibility of invoking black male stereotypes (Palma Orellana 2016).
11. Bonferroni corrections adjust p-values in a conservative direction to account for simultaneous statistical comparisons.
12. It is also possible that the MHPs are ambivalent rather than indifferent, but that is a matter of psychological mechanisms beyond the scope of this discussion.
13. This could be addressed through the inclusion of multiple MHP racial groups and help-seeker racial groups. See Jacquemet and Yannelis (2012).

TABLES AND FIGURES

Table 1. Percentage of black and white MHPs in the study sample with these characteristics

	% of Black MHPs (n=619)	% of White MHPs (n=882)
female***	78	69
black client focus***	50	35
psychologist***	27	36
social worker	31	33
licensed counselor***	43	31
northeast*	18	23
midwest*	13	18
south***	59	36
west***	11	24
sliding fee scale	70	67
free consultation*	70	65
accepts insurance*	75	68

*p<.05, **p<.01, ***p<.001 (two-tailed tests)

Notes:

1. Black MHPs were oversampled.
2. White MHPs with a black client focus were oversampled.
3. Differences were estimated using Stata's `prtest` command.

Table 2. Odds ratios for positive responses to help-seekers (n=1501)

	Model 1		Model 2	
	Black MHP	White MHP	Black MHP	White MHP
<i>Help-seeker race*referral agent</i>				
black w/ unspecified agent	1.05 (0.67, 1.66)	0.74 (0.50, 1.08)	1.09 (0.68, 1.73)	0.69 (0.46, 1.02)
white w/ caseworker	0.74 (0.47, 1.15)	0.78 (0.53, 1.14)	0.72 (0.46, 1.15)	0.79 (0.54, 1.17)
black w/ caseworker	0.85 (0.54, 1.33)	0.52*** (0.36, 0.76)	0.87 (0.55, 1.37)	0.50*** (0.34, 0.73)
<i>MHP sociodemographics</i>				
female			0.87 (0.58, 1.31)	0.69* (0.51, 0.94)
black client focus			0.71* (0.51, 0.99)	1.45* (1.05, 2.01)
occupation (ref. PhD/PsyD)				
social worker			1.84** (1.18, 2.87)	0.86 (0.61, 1.21)
licensed counselor			1.85** (1.22, 2.80)	1.25 (0.88, 1.77)
region (ref. northeast)				
midwest			0.71 (0.39, 1.30)	1.61* (1.03, 2.50)
south			0.82 (0.51, 1.32)	1.53* (1.04, 2.04)
west			1.28 (0.67, 2.43)	0.92 (0.61, 1.38)
<i>MHP financial flexibility</i>				
sliding scale fee			0.85 (0.59, 1.24)	1.24 (0.92, 1.67)
free consultation			1.07 (0.75, 1.54)	1.08 (0.81, 1.45)
accepts any insurance			0.76 (0.52, 1.12)	0.66** (0.49, 0.90)
<i>Experiment time period (ref. spring)</i>				
early fall			n/a	1.05 (0.72, 1.52)
late fall			1.49* (1.06, 2.09)	0.84 (0.60, 1.18)
N	619	882	619	882

*p<.05, **p<.01, ***p<.001 (two-tailed tests)

Notes:

1. Logit coefficients are exponentiated to produce odds ratios. 95% confidence intervals are in parentheses.
2. The help-seeker reference group is a white male who mentions “some-one” [sic] rather than a “caseworker” (i.e., agent of influence is unspecified).
3. Coefficients for black MHPs in the early fall are not applicable due to small sample size (n=14).

Figure 1. The role of therapist-client racial concordance on the path from help-seeker preferences to therapeutic outcomes

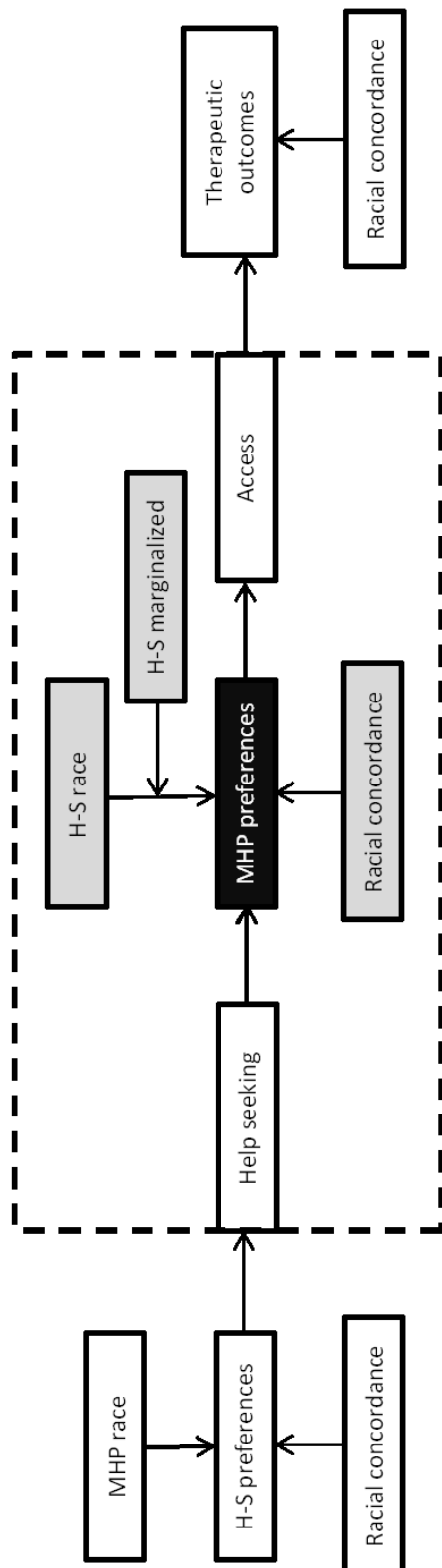


Figure 2. A potential pathway between variation in requests for therapy and MHPs' responses to those requests

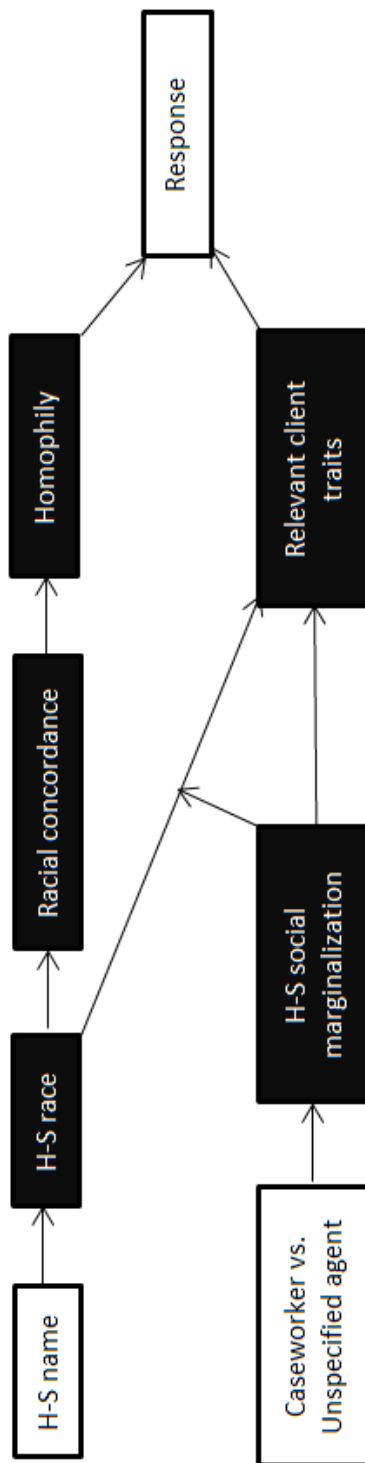
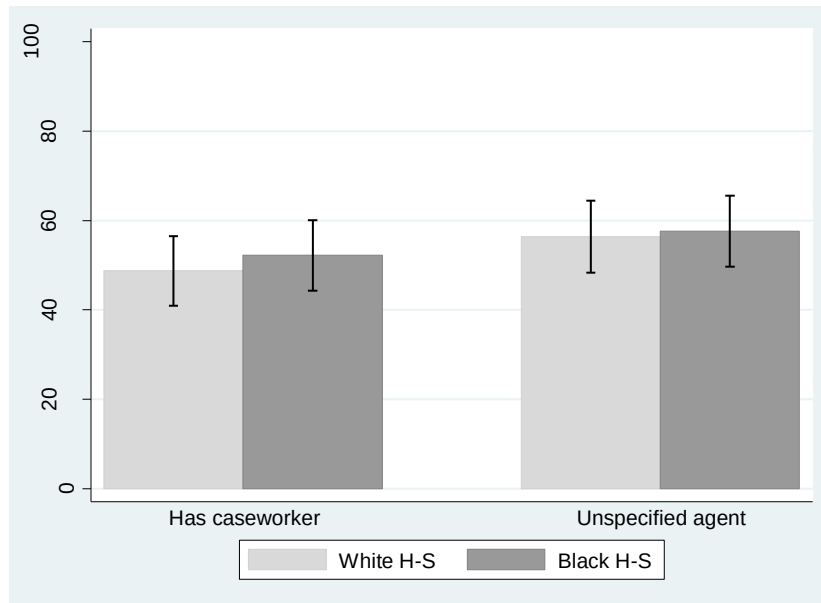
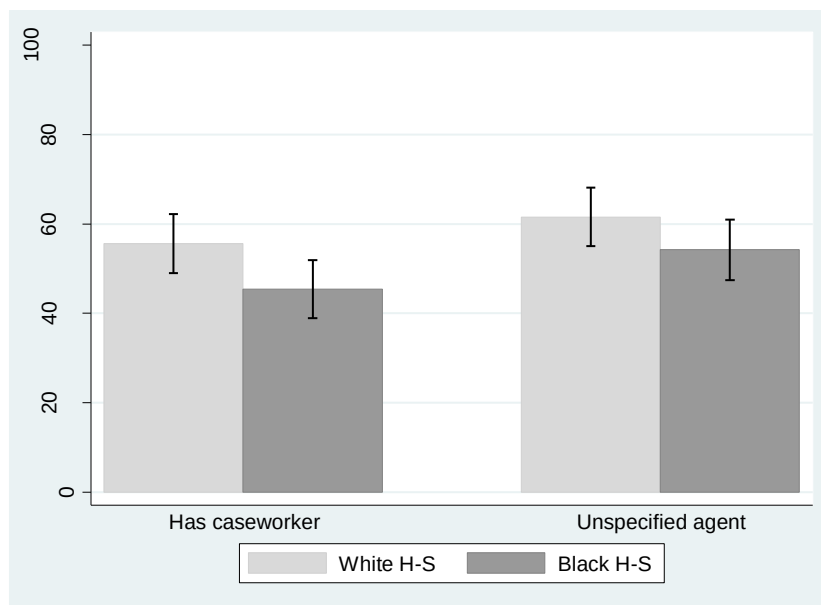


Figure 3. White mental health care providers (MHPs), but not black MHPs, are more likely to respond positively to white help-seekers than to black help-seekers (n=1501)

(a) Black MHPs



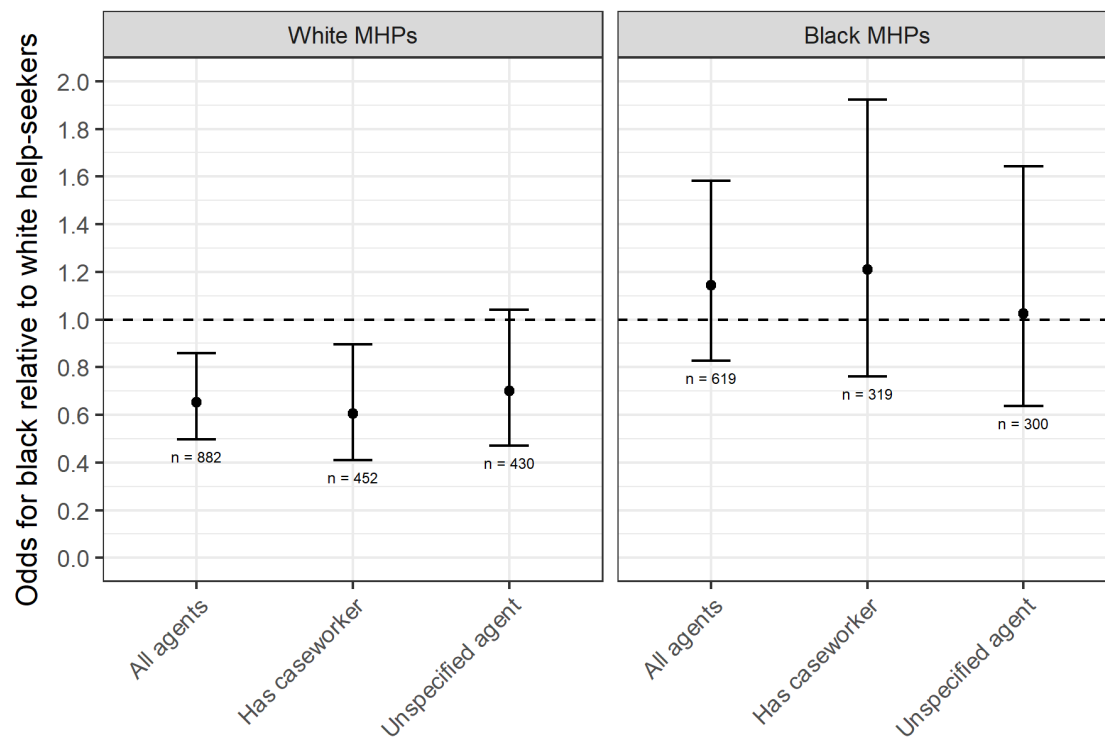
(b) White MHPs



Notes:

1. Figures display raw percentages of mental health care providers (MHPs) who responded positively to white or black help-seekers.
2. Whiskers display 95% confidence intervals.

Figure 4. The racial gap in access to white mental health care providers (MHPs) is driven largely by aversion to black help-seekers with a caseworker



Notes:

1. Figure displays odds ratios for the effect of black relative to white help-seekers from six sub-samples.
2. Whiskers display 95% confidence intervals.
3. All models contain the same set of control variables: MHP gender, occupation, region, black client focus, sliding fee scale, free consultation, accepts insurance, experimental time period.

CONCLUSION

Raymond Lorion concluded his 1974 review of therapists' attitudes toward marginalized help-seekers by stating, "Therapist-centered problems in working with the poor,..., nonwhites, [and] the uneducated...do not justify decisions not to treat" (1974:351–52). Until now, we have not seen rigorous evidence of the extent to which social characteristics such as social class, race, and education influence MHPs' decisions about whether or not to treat individuals seeking therapy. Disparities in access to therapy exemplify the deeply entrenched inequalities in American society. Mental health care policies, preferences, and practices are inextricably tied to Americans' positions within social structures—positions that may be reproduced through the behavior of MHPs.

Field experiments have been used to measure racial discrimination in labor markets for half a century, but only recently have they been applied to health care markets. In this dissertation, I presented three empirical works that contribute to the literature on racial discrimination in mental health care. By employing a field experimental approach, I was able to investigate otherwise invisible provider-side responses to help-seekers at the point of entry to care. Collectively, the studies targeted licensed psychologists, licensed counselors, and social workers, measuring their accessibility toward different help-seekers: white and black, female and male, middle class and working class, more and less educated.

Paper 1 revealed an accessibility rate that poses an insurmountable barrier to high-quality treatment for working class Americans and a non-trivial challenge for middle class black Americans. Papers 2 and 3 suggested that therapist overall accessibility and egalitarianism are higher in a competitive market. And yet, the fact that racial disparities persisted under some

conditions provides evidence that even in a competitive market, access for low status black Americans may be stymied by white providers.

In some sense, the social categories considered in this study—race, gender, class, education, and social need—are interchangeable manifestations of the process whereby a disowned “other” is created (Altman 2010). It may be that MHPs, through a process of social exclusion from psychotherapy, are reinforcing the “otherness” of low status black men. Even when viewed in a generous light, the results raise a concern that MHPs are failing to include black and low-status individuals in the universe of potential beneficiaries of traditional talk therapy. Although none of the studies can estimate the overall effect that MHPs’ discrimination has on the widely documented gaps in access to care, they do shed light on the circumstances under which discrimination is likely to be a contributing factor.

Paper 3 highlighted the role that MHPs’ racial identities and specialties play in their decisions to accommodate help-seekers. In that study, racial concordance between an MHP and a help-seeker improved access outcomes for whites but not blacks. Race is one of many attributes available on PsychologyToday.com profiles on which a therapist-client match could predict the likelihood of a positive response from an MHP. Further work is necessary to determine the relative salience of racial and non-racial attributes perceived by MHPs who are contacted by concordant help-seekers.

Knowing whether identity concordance (matching personal characteristics) or clinical concordance (matching specialties with disorders) more strongly influences MHPs preferences for help-seekers could facilitate the development of techniques to reduce discrimination by MHPs. Future experimental research could manipulate attributes of help-seekers that match MHPs on personal identity, clinical specialty, both, or neither. For example, a help-seeker who

describes symptoms of anxiety to an MHP who lists a specialty in treatment of anxiety would be considered a match on the clinical specialty factor; whether there is also an identity match would remain unknown. Some clinical specialties, such as substance abuse, communicate markers of social stigmatization or racialization, which might mitigate the influence of a match (clinical or identity-based) on accessibility. Other client foci, such as homosexuality and religious affiliation, could predict potential identity (not clinical) matches between help-seeker and MHP. This and other research questions should be informed by non-experimental data as well, especially interviews with MHPs, incorporation of geo-coded data in inferential models, and text analysis of the narrative portions of MHPs' profiles.

This dissertation is not intended to be an indictment of the private mental health care sector. Nevertheless, one might imagine government agencies, managed care organizations, or professional associations routinely conducting audit studies to test for discrimination, much like has been done in real estate markets for decades. I contend that the moral imperative to uncover discrimination in mental health markets is at least as strong as it is for real estate markets; the inability to schedule an appointment with an MHP can become a stressor unto itself that magnifies the pre-existing mental health issues that are causing individuals to seek care in the first place. I echo Shin et al.'s (2016) statement that "even a suspicion of systemic racial bias operating in the fields of counseling and psychology should spark immediate action."

Whatever shape those actions take, they should come from an understanding of the magnitude of the problem, the underlying processes that reinforce it, and the circumstances under which it occurs. Findings from this dissertation have the potential to help mental health care providers, consumer advocates, and policymakers, as they strive to increase equitable access

to care. It is my hope that the studies presented in this dissertation will catalyze and inform future field experimental work in the sociology of mental health.

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SUPPLEMENTARY MATERIALS

SUPPLEMENT 1. METHODOLOGICAL REFLECTIONS FROM THE FIELD

In recent years, emphasis has shifted from phone-based audit studies to web-based audit studies. The prevalence of online marketplaces and the ubiquity of email communication has enabled a rapid increase in the use of online audit studies, which can be conducted inexpensively and quickly. Yet, phone audits continue to occupy an important space among field experiments. This supplement focuses on considerations for phone-based audit studies; however, many of the reflections apply to correspondence audit studies as well. Moreover, phone communication is often a component of correspondence audits; for example, many labor market audits establish phone numbers and answering machine messages for the auditors.

In this supplement, I reflect on the methodological aspects of my experience conducting the research for this dissertation, which includes both a phone audit and online correspondence field experiments. I hope that the lessons I learned will help other researchers pursue audit studies.

1. Consider whether phone is the best medium for the study (versus in-person or written correspondence).

a) Phone contact is well-suited to some target populations, such as health care providers, because it is a more authentic representation of how services are requested in their market. That is, it is a more natural representation of the interaction of interest.

b) Auditory stimuli allow for the manipulation of voice, which is an important indicator of race. It is also a powerful indicator of social class, which is often difficult to capture in writing without introducing other confounds.

c) Auditory stimuli contain linguistic cues that can trigger unconscious stereotypes in ways that written stimuli do not.

d) Phone-based stimuli can be useful when you want to take online audits to the next step of the interaction of interest—e.g., to set up a meeting to deliver the Craigslist purchase—to test whether the “auditor” (a.k.a. “tester,” “mystery caller,” or, in medical audits, “simulated patient”) got through the initial screening.

e) After you decide to conduct a phone audit, the next decision is whether to have a live interaction with the subject, have a caller leave a live message in a voice mailbox, or leave a recorded message. Recorded messages are the most standardized, but the least flexible.

2. Explore several options for recruiting auditors (testers).

a) Craigslist has been used to find subjects (e.g., people renting apartments), but it is also a good way to find auditors. The out-of-work-actor business provides ample supply of voice actors—many with access to professional-quality recording equipment—who can submit “auditions” reading the stimuli scripts.

b) There are other online freelancing job boards (e.g., Fiverr, Upwork) that may be even cheaper, but my impression is that they have a smaller supply of actors.

c) Don’t pay for auditions from freelancers, but do hire more actors than you will need, so that you can evaluate recordings simultaneously. Sign a contract with the actors for a certain number of “takes” and an expectation for turnaround time.

d) Don't try to find local RAs, student actors, etc., as it is expensive and time-consuming to do so. But if you cast a nationwide net, be sure that the actor has the intended regional accent.

e) Insist on uniformly high quality recordings.

f) Use the same actor for multiple experimental conditions, when possible, to avoid unnecessary confounds.

g) Sharma et al. (2015) cleverly bypassed issues associated with ensuring that accents are consistent with the intended age, gender, and other demographic characteristics. Research assistants "called on behalf of purported uncles or aunts to permit them to represent patients whose demographic characteristics differed from those indicated by RAs' voices."

h) See Holland and Ousey (2011) for a discussion of a rarely applied alternative: recruiting auditors (in this case, simulated patients in the UK) from black and minority ethnic communities.

3. Conceal your study from your subjects.

a) Don't call anyone with same phone number, office address, or name as another subject in the pool. Randomly select among them. This is a conservative approach, but is unlikely to compromise representativeness.

b) If you are conducting a panel study where the recipient of the call is expected to be the same during each wave, then separate calls by at least one month.

c) During the experiment planning phase, consult people who have the same occupation as the subjects to make sure the call content seems authentic.

d) Conduct surveys to ensure that the speech sounds natural (i.e., not stilted) and that any accents are regionally appropriate.

- e) If you use live callers instead of recordings, then use the subject's name (e.g., "Hello Dr. Nadkarmi").
- f) If the auditors are conducting live interactive calls then they need a convincing and consistent backstory.
- g) Limit the number of experimental conditions to which a subject is exposed. Typically, subjects are not exposed to more than two. An un-paired design has lower odds of arousing suspicion than a matched-pair design.

4. Measure twice, cut once.

- a) Conduct extensive piloting and carefully consider the sample you use for pilot tests. For example, I used a different insurance company for phone audit and used Canadian therapists for email audit, so I wouldn't deplete my sampling frame.
- b) Improve interrater reliability and save time by training auditors (actors) and RAs (coders) early. Training is more complicated if your experiment involves live calls because auditors need to respond on the fly and RAs need to code a wider range of responses. Calibrate RAs on sample pilot responses so that time isn't wasted getting calibrated once the real data pours in. If possible, use the same RAs for the pilot and experiment.
- c) Have two RAs code each response. Resolve any discrepancies and check a subsample of responses.
- d) Err on the side of creating more instead of fewer coding categories. It's easier to collapse later than to re-code. Moreover, sometimes more categories can decrease the coding time per response without compromising interrater reliability and precision because narrow categories can reduce ambiguity as long as they are still comprehensive and mutually exclusive.

5. Evaluate experimental stimuli by using Amazon’s Mechanical Turk—or another crowdsourced micropayment labor market platform that supplies a large pool of survey-takers.

a) Researchers use Mechanical Turk as an alternative to traditional survey collection methods. They post a self-contained task (e.g., a survey) that workers are paid to complete. Mechanical Turk’s marketplace provides a quick, cheap, effective way to evaluate audio or correspondence samples and iterate as needed. Indeed, it’s technically just as easy to pre-test audio stimuli as written stimuli.

b) The subject pool is not nationally representative, but it is a better approximation than a traditional sample of undergraduates. See Hitlin (2016) for a description of M-Turker demographics.

b) Ask M-Turkers to identify the speaker’s race, class, age, accent, message authenticity, etc. My survey is available upon request.

c) Ask M-Turkers a standard demographic battery, plus any exclusionary criteria.

d) There are many challenges associated with and decisions to be made about pre-testing on M-Turk:

(1) Should you expose each respondent to more than one stimulus? That’s a more efficient use of funds, and preserves the available sample, but the contrast could heighten perceived differences.

(2) How many response options should be provided for race and class identification items? What class categories to use (e.g., Do respondents understand “working class”)?

(3) Should you offer a “not sure” option, “certainty” thermometer, skip option? This will make reliability statistics look worse than forced response to mutually exclusive multiple-choice options, but respondents tend to be reluctant to answer race questions.

(4) Be aware of two objectives: You want stimuli that match your ideal but also that match each other. (These are not orthogonal objectives. See point (5) below.) E.g., You want testers to sound 25 – 35 years old and want them all to sound the same age. For some traits one may be important than the other (meeting your ideal vs. matching each other), so it’s useful to set a minimum threshold before you start evaluating them so that you don’t end up compromising your ideal in order to achieve a match across testers.

(5) What traits do you want a match on, and which do we want to let vary? E.g., I wanted the actors to sound equally depressed, but should I have tried to make all actors rated as equally likable if likability is part of the stereotypes associated with the manipulated variables?

(6) How many iterations of audio samples should be tested before there are diminishing returns? Should the number of iterations be determined in advance? Should that decision be driven by budget or by empirical requirements?

(7) What components of the survey analysis should be pre-registered?

(8) How will you handle the tradeoff between correct race identification and class identification? Will you privilege one over the other? For example, in my audit lower class whites were more likely to sound Hispanic than other race-class combinations were.

(9) How narrowly do you want to mirror your intended subjects? A narrower sampling frame adds expense and data collection time. I’d argue that American survey-takers are necessary for experiments conducted in the U.S. because of culturally specific stereotypes about race and class. American is easy because M-Turk gives you that option. In my case, the next

most relevant is profession, but that requires a decision about how narrowly to define relevant professions (e.g., Solo mental health practitioners only? Anyone who has worked in the field of mental health? Any medical care provider?). Using profession as a criterion could make the pre-test cost prohibitive or even impossible. Education level is a more practical criterion and one that might be very important if social class (or any components thereof) are being manipulated. Be sure to include “current college student” as a response option; college students compose a non-trivial fraction of M-Turkers, so failing to account for them makes education level a less effective proxy for SES.

(10) Decide whether to exclude disqualified M-Turkers prior, during, or after the survey. One good option is to design a very short “see if you qualify” pre-survey. I wasn’t aware of this trick until after I’d completed my M-Turk studies, so I relied on M-Turkers to read the instructions and honestly respond to the demographic questions. Those who did not qualify were re-directed to the end of the survey.

(11) The first round of surveys will help you determine the right amount of money to offer and how much each sample restriction will cost you. For example, imposing no restrictions will get you a lot of M-Turkers living in India, but restricting to Americans may only increase the cost from 15 cents to 25 cents, whereas insisting on those with a similar profession may increase the cost to 75 cents per survey.

e) Explore alternatives to Mechanical Turk, such as Daemo or Microworkers.

6. Weigh alternatives for placing the calls.

a) Google Voice is free, enables tracking of calls just like you would emails, and has the benefit of linking calls and emails to the same account. Transcription accuracy, while still not great, is improving.

b) Other options for placing calls: Skype, burner phones, call center lines, Android and iPhone apps. Some considerations: cost, whether you want to be able to control the area code, whether you want to answer the phone in real time for a live interaction.

c) Quality of call reception can vary from location to location, so test it in advance and keep location consistent. That is, don't permit undergraduate testers to place calls from their dorm rooms.

d) Will you hide the caller phone number ("private caller") or allow it to be visible? If it is visible then subjects will be able to call back even if they can't hear the phone number in the message, but it also means that you need a regionally appropriate area code.

d) Consider whether you want the tester to indicate that the number s/he is leaving is a cell phone number. The American Psychological Association claims that doctors more likely to leave message in return if they know it is a private line.

e) Consider what will cause you to abort the calls. Examples: subject answers the phone, voice message indicates subject is on vacation, voice message does not specify the subject's name. In my experiment I also aborted calls if there was any indication of a group practice or if voice message indicates that subject is not accepting new patients. Answering machine messages vary by profession, so conduct extensive pilot testing so that you know what to expect. Also decide whether to hang up or say "wrong number" if you are aborting due to subject pick-up. (Hanging up without explanation increases the risk of a call back.) During the administration, record which calls were aborted and why.

f) If you are leaving messages, do so outside of business hours so that subjects are less likely to answer the phone.

7. Choose auditor (tester) names carefully.

a) Consider class, even if you are not manipulating it. You can use birth records of mother's education to get approximation of the class associated with each name and validate for reliable identification on M-Turk. See Gaddis (Forthcoming) for an empirical consideration of this issue.

b) Decide whether to test first and last names together, separately, or not at all (many recycle Bertrand and Mullainathan's names (2004)).

c) Make sure that the names you choose are consistent with the intended age of the characters. For example, Jaden/Jayden is a relatively common African American middle class male name, popularized by celebrities Will Smith and Jada Pinkett's choice for their son in 1998. It went from virtually non-existent in the 1990s to one the top 20 black male names since the aughts. You can use government records or online tools like "Baby Name Voyager" to check.

8. Register your study prior to execution of the experiment or as early as practical.

This facilitates planning and clarifies your experimental design.

9. Take ethical considerations seriously.

a) Write your Institutional Review Board application as early as practical. If you have a survey-based component, submit that to the IRB separately first so that it is not delayed by the more extensive review that may be triggered by the field experimental component. In the application request for the waiver of consent, mention that the subjects' participation requires nothing that

deviates from their typical professional activities. Some review boards may even determine that the study does not constitute human subjects research.

b) Be prepared to defend your design to audiences outside of the IRB—and outside of academia. Members of your target profession may not look kindly upon your decision to employ a research strategy that requires deception. See Rhodes (2011) for a persuasive argument in favor of using audit studies in health care research.

c) Budget time and money for debriefing subjects even though the IRB will likely advise against it because of the risk of emotional distress. (For example see Milkman et al.'s (2012) controversial debrief.) Debriefing can take many forms; for example, you could send a letter to all potential subjects (i.e., those in the sampling frame), indicating that they *may* have been included in the study. See Rhodes and Miller (2012) for a discussion of ways to mitigate the risk associated with debriefing.

d) Remember: Your testers are simulated, but your subjects are real. Be courteous and respectful of their time. Refuse appointment offers promptly.

SUPPLEMENT 2. DEFINITIONS OF MENTAL HEALTH CARE PROVIDER TYPES

For analytic purposes, I clustered MHPs into three categories: psychologist, social worker, and licensed counselor. On PsychologyToday.com's listings, they are not mutually exclusive. Moreover, even within the same category, MHPs with the same qualifications may select different labels. For example, any "Psychologist" must also be a PhD or a PsyD, but not all MHPs who select "Psychologist" also specify their degree, and vice versa.

The following definitions are provided by PsychologyToday.com. Approximately three-quarters of therapists listed fall into one of these three categories. The remainder identify themselves by more specialized occupational titles, such as "Art Therapist" or "Alcohol and Drug Counselor." Those were excluded from the sampling frame, as were psychiatrists.

Category 1. Psychologist

Psychologist: Psychologists in the US hold a doctoral/post graduate degree in psychology (in Canada some may only have a master's degree). Psychologists who practice typically will have completed their graduate training in clinical psychology, counseling, neuropsychology and educational/school psychology. Psychologists are required to complete several years of supervised practice before becoming licensed.

PhD: A PhD in psychology emphasizes theory as well as statistics and data gathering. Psychologists with a PhD are also fully trained in the assessment and treatment of all behavioral conditions.

PsyD: The Doctor of Psychology, PsyD, is an applied clinical doctorate that emphasizes the application of psychology in a wide range of clinical settings to promote mental health. Training typically lasts between 4 to 7 years and includes 3 to 4 years of supervised clinical work experience. An individual who earns a Psy.D. in clinical psychology from an accredited program may become licensed to diagnose and treat mental disorders, conduct assessment and complete psychological evaluations, present expert testimony, and provide psychotherapy.

Category 2. Social Worker

Clinical Social Work/Therapist: Clinical social workers commonly hold a master's degree in social work (or the equivalent) and have completed two years of supervised practice to obtain a clinical license. They may use a variety of therapeutic techniques, including psychodynamic therapy or cognitive-behavioral therapy.

LCSW: The Licensed Clinical Social Worker has a graduate academic degree, has had supervised clinical work experience, and has passed a national- or state-certified licensing exam. This advanced professional can receive health-care insurance reimbursements.

MSW: The Master of Social Work degree typically requires two to four years of study. This professional works with an individual in the context of the wider community, helping those dealing with domestic violence, child abuse, drug abuse, or foster-care issues, among many others.

Category 3. Licensed Counselor

LMHC: The Licensed Mental Health Counselor has advanced training, a graduate academic degree, clinical work experience, and has completed a state-certified licensing examination.

Counselors often treat people dealing with problems such as alcoholism, addiction, or eating disorders. Some specialize in marriage, family, or child counseling.

LPC: The Licensed Professional Counselor has advanced training, a graduate academic degree, clinical work experience, and has passed a state-certified licensing examination. Counselors treat all sorts of problems: from alcoholism and eating disorders to relationship issues and depression.

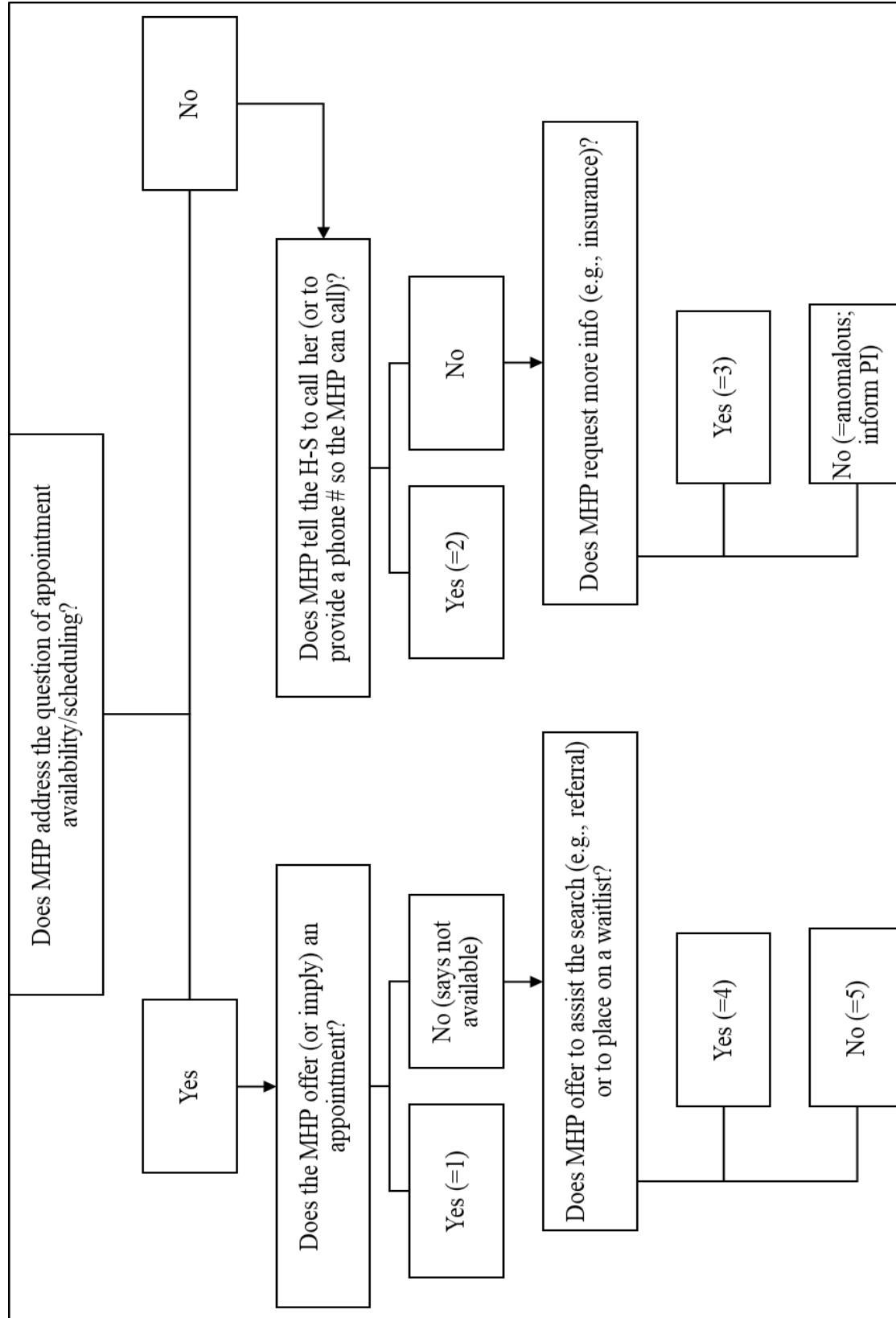
SUPPLEMENT 3. VARIABLES WEB-SCRAPED FROM PSYCHOLOGYTODAY.COM

<u>Variable</u>	<u>Example</u>
name	Dr. Gertrude Marx
female	yes
photo present	yes
phone	123-456-7890
state	New Jersey
zip code	11542
"email me" button	yes
"email us" button	no
video call available	yes
external website	www.gmarxcounseling.com
free consultation	yes
occupation	psychologist
specialties	coping skills; anxiety; depression
issues	addiction; grief
mental health	personality disorders
client focus: religion	Christian
client focus: ethnicity	Hispanic; African American
languages spoken	Spanish
client focus: age	adults; children
client focus: sexuality	lesbian issues
client focus: categories	cancer
treatment orientation	cognitive behavioral; existential
treatment modality	individual; couples
avg cost per session	\$90-150
sliding scale	yes
payment method	cash; American Express; check
insurance plans	Aetna; out-of-network; Medicaid
years in practice	10
school graduated	Stanford
year graduated	1980
license number	12345
license state	New Jersey
last date modified	10-Dec-14
professional groups	Living and Learning with Llamas
professional connections	Harvey Simmel, known for 6 yrs
verified by PsychToday	yes

SUPPLEMENT 4. INSTRUCTION CODEBOOK FOR DATA COLLECTION AND ENTRY

LAY VARIABLE NAME	COLUMN	DESCRIPTION	VALUES // INSTRUCTIONS
Pre-entered			
MHP ID	profid	therapist (MHP) unique numeric identifier	minimum 4 digits, maximum 6 digits // use this ID to refer to MHPs in all files and records
MHP name	name	therapist (MHP) name including title, as appears in PsychToday database	Title First Last // use title and last name when distributing emails
MHP gender	fem	MHP gender retrieved from webpage's underlying data	1=female, 0=male // use corresponding title (Ms. or Mr.) when no other title specified
psychologist	psych	MHP occupation contains "psychologist", "phd", or "psyd"	1=psych, 0=not; in Study1 is mutually exclusive w/ other occupations
social work	sw	MHP occupation contains "social work", "msw", or "lcsw"	1=sw, 0=not; in Study1 is mutually exclusive w/ other occupations
licensed counselor	lc	MHP occupation contains "lmhc" or "lpc"	1=lc, 0=not; in Study1 is mutually exclusive w/ other occupations
MHP profile url	proful	web address for the MHP's individual profile if the profile is active	if the MHP's profile page no longer exists, type 77 in Notes
MHP client focus black	clblack	MHP lists "African American" as a client focus	1=Af Am focus on profile, 0=client focus does not list Af Am
MHP race	mhp_race	MHP's race as identified by photo (mhp_black is the binary formulation)	1=black, 2=white, 3=asian, 4=hispanic, 5=other or uncertain // confirm match before emailing MHP
Email Distribution Phase			
* research assistant name	ra_name	name of RA (you) sending and processing emails to the MHP	lower case alpha // enter for any profile you look up, even if that MHP doesn't qualify to be emailed
* study number	s_num	numeric identifier for each study	enter for any profile you look up, even if that MHP doesn't qualify to be emailed
character name	char_name	character's first name	lower case alpha
character email	char_email	what you entered in the email address field of the message to MHP	typically 4 pre-specified variations of the email address, differentiated by period placement
email script	script	number assigned to the script used, when relevant	evenly distributed (every other MHP), or otherwise specified by me
ip address	ip	ip address in use when email sent	use VPN to select a new ip address when you switch email addresses and keep a list of all ip addresses
* email sent	sent	whether or not you sent an email when you reached this MHP on your list	1=sent, 0=not sent // if 0, then explain why in Notes column (e.g., reverend, clinic)
time email sent	time_sent	time that you sent initial email through Psychology Today	HH:MM
date email sent	date_sent	date that you sent initial email through Psychology Today	m/d/yyyy
** RA notes	notes	any anomalies; reason for unsent email (e.g., 77)	open alpha field // no commas, quotes, or symbols, but periods ok
Processing Phase			
MHP reply date	date_thereply	date that the MHP first sends a reply	m/d/yyyy
RA reply date	date_unreply	date that you reply to the MHP	m/d/yyyy // reply within 48 hours of date_thereply
*** response to apt inquiry	appt	levels of positive and negative responses	0, 1, 2, 3, 4, 5
*** not solo practitioner	not_solo	indication that this is not a solo practitioner gatekeeper	0=signed by MHP (=name), 1=signed by someone other than MHP, 2=other indication of group practice
word count	length	number of words in the MHP's reply	numeric minimum 1 // number of words in anonymized message, excluding MHP's name
*** cordial salutation	cordial	how many of the 6 courtesy words (see list) the MHP's first reply contains	numeric range 0 - 6 // count each word only once. "good" counts only when in salutation
*** multiple replies	handshake	if the MHP sends a response to your reply (e.g., good luck)	1=MHP replied more than once, otherwise leave blank
Key			
* must be filled even for ineligible MHPs			
** may be blank even if email was successfully sent			
*** consult guides and examples			

SUPPLEMENT 5. CODING GUIDE FOR MHPs' EMAIL RESPONSES



EXAMPLES OF RESPONSES IN EACH CATEGORY

1 = Has availability

I do have some limited time available. Please call my voice mail at {123} or email me your phone number so we can discuss what you are looking for. Thanks for your message.

2 = Call/email request (without acknowledging availability of appointments); may be accompanied by questions

Is there a phone number and good time to reach you?

Let's talk by phone tomorrow. You can reach me at {123} and please leave your cellphone number, if you don't get me directly.

3 = Request for more information (without appointment mention or call request)

To ensure that I am the best person for you to see, can you tell me a bit more about your situation and concerns?

Hello. What do you need to be seen for and what type of insurance do you have?

4 = Temporarily unavailable, but leaves the door open for a future encounter (“soft rejection”). Offers (a) to put on waitlist (b) give a specific referral, or (c) to personally facilitate search in some other way

Thank you for contacting me. I think the earliest that I will be taking on new clients will be the first or second week of November. If you would like, I will put you on my waitlist and give you a call early next month as I have openings.

Both of my offices are full at the moment. I may have openings in mid-March or I may be able to give you the name another therapist. If you like, let me know your availability, insurance provider and what you are seeking counseling for and I'd be glad to do what I can to help.

5 = Explicit rejection

Unfortunately, my practice is full at this time.

SUPPLEMENT 6. GUIDE FOR REPLYING TO MHPs VIA EMAIL

Research assistants checked help-seekers' email accounts at least once per day. They replied to MHPs within 48 hours of receiving a response. They selected the most appropriate of the following replies.

Standard replies for Study 1 of Paper 2

I found another therapist, but thank you.

Thanks, but I found another therapist.

Ok, thanks for replying.

No thanks.

Standard replies for Study 2 of Paper 2, Paper 3, and Supplement 8

i found another therapist but thank you

ok thanks for replying

no thanks

SUPPLEMENT 7. PILOT FIELD EXPERIMENT OF MHPs WHO ACCEPT MEDICAID

EXTENDED ABSTRACT

Study Objective. This online pilot study used an experimental correspondence design to determine the extent to which mental health care providers (MHPs) who accept Medicaid express preferences for simulated patients (“help-seeker”) based on the help-seekers’ race or gender.

Background. Almost one in four black Americans rely on Medicaid for health insurance (The Kaiser Family Foundation 2017) and one-fifth of Medicaid recipients are black (The Kaiser Family Foundation 2013). There is observational evidence that the black-white disparity in utilization of outpatient mental health care is smaller under Medicaid than private insurance sources (Snowden and Thomas 2000). The present study experimentally investigates racial disparities in appointment offers, drawing methodological inspiration from audit studies of health care providers’ responses to requests for appointments from privately insured versus Medicaid-insured simulated patients (e.g., Bisgaier et al. 2011; Bisgaier and Rhodes 2011; Rhodes et al. 2014; Rhodes, Vieth, Kushner, Levy, and Asplin 2009). The present work builds on a recent audit study by Sharma, Mitra, and Stano (2015) which, by considering the influence of race/ethnicity and gender, extended earlier comparisons of appointment availability by insurance status. Sharma, Mitra, and Stano (2015) did not find a significant difference in the overall likelihood that black, Hispanic, or white Medicaid recipients would receive an

appointment offer from a primary care physician. They did, however, find a race-by-gender interaction, with black women disadvantaged relative to white men. The present study further contributes this line of inquiry by measuring MHPs' responses to requests for care from black and white, male and female simulated help-seekers covered by Medicaid.

Procedures. This study targeted only MHPs who accept Medicaid. The sample of MHPs (n=475) was randomly drawn from eligible MHPs in PsychologyToday.com's therapist directory. Fewer than ten percent of MHPs in the directory accept Medicaid. MHPs were contacted by simulated patients through PsychologyToday.com. Each MHP was randomly assigned to receive an email from a black or white man or woman, as cued by name (Figure S7.1).

Results. Seventy percent of MHPs replied. Categories of responses were collapsed into two categories: negative (which includes non-response) or positive. Of the replies received (i.e., excluding non-response), two-thirds were positive. None of the four groups of help-seekers—black male, black female, white male, and white female—significantly differed in likelihood of receiving a positive response (Figure S7.2). Furthermore, results were similar in states that had applied the ACA's public insurance expansions and those that did not (Table S7.1). Eight percent of MHPs replied that they were not currently accepting Medicaid, even though their profile stated otherwise.

Conclusion. This pilot experiment did not find black-white discrimination among a sample of providers who accept Medicaid. This is consistent with prior research investigating appointment offers to help-seekers with Medicaid coverage—both observational research of access to MHPs (Snowden 2001) and experimental research on access to physicians (Sharma et al. 2015). This study sampled MHPs nationwide and did not have adequate statistical power to detect between-state effects. In order to increase power, future research could adopt the approach of Polsky et al. (2017) by drawing the sample of providers from a subset of states ($n=10$) that vary along a few key dimensions. Moreover, future research should use a multi-level model to address the considerable variation across non-expansion states' requirements for Medicaid eligibility, and rates of reimbursement to consumer and provider.

TABLES AND FIGURES

Table S7.1. No differences in the odds of positive responses from MHPs in Medicaid expansion states vs. non-expansion states (n=475)

	Expansion States	Non-expansion States
black help-seeker	1.30 (0.68, 2.56)	1.02 (0.47, 2.22)
female help-seeker	1.83 (0.94, 3.57)	0.92 (0.41, 2.06)
black*female help-seeker	0.68 (0.26, 1.81)	1.17 (0.40, 3.49)
n MHPs	265	210

*p<.05, **p<.01, ***p<.001

Notes:

1. Logit coefficients are exponentiated to produce odds ratios.
2. 95% confidence intervals are in parentheses.
3. The referenced list of states that expanded Medicaid was compiled in July 2016.

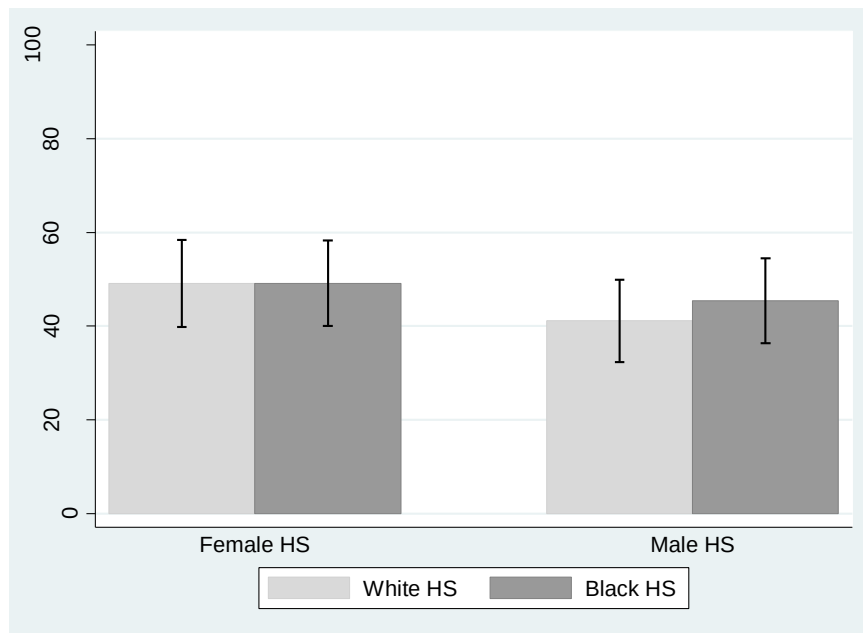
Figure S7.1. Email script from a white female help-seeker

Your Name: Katelyn Larsen
Your Email: katelyn.larsen.930@gmail.com
Your Phone:
Subject: appointment

Message:

Dr bale
do you have appointments, I think therapies a good idea, Ive got medicaid? thanks
Katelyn Larsen

Figure S7.2. No racial or gender differences in the percentage of email inquiries from help-seekers that elicited a positive response from MHPs accepting Medicaid (n=475)



Note: “HS” stands for “help-seeker.”

Deceiving Subjects

Deception by omission is necessary feature of all natural field experiments, and efforts to evade detection by subjects are commonplace. For example, in matched-pair experiments, researchers typically temporally separate encounters with subjects by several weeks so as to avoid arousing suspicion (e.g., Guilietti et al. 2015). My efforts to evade detection in my matched-pair, phone-based audit study are described in Supplement 1.

Detection by subjects is less likely in unpaired experiments, such as the online field experiments I conducted for Papers 2 and 3. Nevertheless, I reduced the likelihood of suspicion by (a) customizing each email to refer to the MHP by name, and (b) completing all data collection for Papers 2 and 3 before Paper 1 was published. None of the subjects' replies gave any indication that they suspected they were part of an experiment or that the inquiry was anomalous in any way. Moreover, PsychologyToday.com blocks any email addresses that receives more than two complaints from MHPs.

Deceiving Web-based Agents

Field experiments conducted online sometimes necessitate that steps be taken to evade detection not only by subjects, but also by the platform in which the experiment takes place (e.g., Besbris et al. 2015). In the remainder of this supplement, I describe

some challenges associated with collecting large quantities of data from Psychology Today. These data fall into two categories: profile data, and MHPs' replies.

Profile data. The software engineer who performed the web-scrape described the profile data retrieval process this way.

I first retrieved the locale directory, then retrieved the therapist directory for each locale, sorting both male-to-female and female-to-male. By finding the crossover, I was able to discern the binary gender of each therapist. I then visited the profile of each therapist. Web crawling was performed using 'mechanize' (<https://pypi.python.org/pypi/mechanize/>), a stateful web browser package for Python. Content was parsed using 'BeautifulSoup' (<https://www.crummy.com/software/BeautifulSoup/>), an HTML parser for Python.

MHPs' replies. The MHPs' replies to help-seekers were the second set of data collected without Psychology Today's knowledge. Because the email messages are transmitted through PsychologyToday.com's interface, I suspected that sending too many emails in too short period a period of time could trigger interference by a spam-blocking mechanism. My efforts to address that, and other potential issues, are described below.

Activity on the PsychologyToday.com Platform

Prior to embarking on the correspondence field experiments, I created a profile on PsychologyToday.com. Profile creation does not require a clinical license. (PsychologyToday.com also has a "verified" mark that requires confirmation of clinical licensing.) I supplied only the minimum required fields, so as to deter help-seekers from contacting me—none did.

My profile creation achieved three purposes. First, completing the registration process allowed me to see the full set of response options associated with each profile

field, as well as the information (e.g., gender) that is collected but not displayed on the profile. Second, I was able to use it in order to train research assistants on email distribution procedures. Most importantly, it provided a necessary measure of quality control, ensuring that emails were in fact being delivered. I terminated Paper 3's study earlier than planned after failing to receive two emails sent to my MHP account.

I conducted technical viability pilots in the summer of 2015 to determine what technical measures would be needed to evade detection by PsychologyToday.com's spam blockers. Approximately 185 emails were sent during this pilot, primarily to Canadian therapists. During this pilot, I determined that a "reply to" email address will be blocked after emailing 10 MHPs within 48 hours. To circumvent this limitation, I used four different versions of each help-seeker's email address. Because each help-seeker was represented by two names, there were a total of eight email addresses per experimental condition. (See Paper 2, Appendix C for more information about email address variations.) Each "reply to" email address was used only 10 times within a 72-hour period. Research assistants took two additional security measures, which may not have been necessary: first, they waited at least 60 seconds between emails; and second, they used a VPN to alternate IP addresses every 10 emails.

During the technical viability pilot, I discovered that after a help-seeker clicks "send," s/he receives an automated pop-up message that reads, "your message has been sent," *regardless* of whether or not the message was actually transmitted. This underscored the need to incorporate my MHP account into administration procedures. During each email distribution session, each research assistant sent an email to my MHP account after the first nine emails per help-seeker and after the 39th.

PsychologyToday.com does not have a lag in email transmission time, so the experiment could proceed uninterrupted because I could immediately confirm that the email had been successfully transmitted to my account.