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## Paved With Good Intentions: Do Public Health and Human Service Providers Contribute to Racial/Ethnic Disparities in Health?

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There is extensive evidence of racial/ethnic disparities in receipt of health care. The potential contribution of provider behavior to such disparities has remained largely unexplored. Do health and human service providers behave in ways that contribute to systematic inequities in care and outcomes? If so, why does this occur?

The authors build on existing evidence to provide an integrated, coherent, and sound approach to research on providers' contributions to racial/ethnic disparities. They review the evidence regarding provider contributions to disparities in outcomes and describe a causal model representing an integrated set of hypothesized mechanisms through which health care providers' behaviors may contribute to these disparities. (*Am J Public Health*. 2003;93:248-255)

**THERE IS EXTENSIVE EVIDENCE** of racial/ethnic disparities in receipt of a wide range of health and social services. The past decade has seen an explosion of empirical literature documenting racial/ethnic disparities in medical care received, independent of clinical appropriateness, insurance status, treatment site, and other clinical and socioeconomic status (SES) correlates.<sup>1-6</sup> These findings parallel documentations of disparities in the justice, child welfare, education, labor, and housing sectors.

This deluge of evidence leads us to some painful questions. Because institutional racism (differential processes or outcomes according to race/ethnicity) is the result of the sum total of policies and procedures created and enforced, and the behaviors engaged in, by institutional mem-

bers, we must ask whether health and human service providers directly contribute to these racial/ethnic disparities in care and health outcomes. If so, how does this occur? Our intent here is to begin to answer such questions by applying existing theory and evidence to a framework designed to guide future inquiry and intervention. First, we provide a brief summary of the empirical evidence supporting the hypothesis that the behavior of health and human service providers contributes to race/ethnicity differences in care and, thus, institutional discrimination.

Second, we integrate the empirical evidence regarding social cognition, unintentional bias, and provider behavior into a hypothesized causal model. *Social cognition* is a subfield of social psychology that studies how we

make sense of other people, that is, the mental representations and processes that underlie social perception, social judgment, social interaction, and social influence. Social psychologists focusing on social cognition have been studying the ways in which group characteristics influence person perception and interpersonal processes for several decades, resulting in a massive body of evidence with significant implications for understanding how race/ethnicity influences provider behavior. Finally, we briefly discuss implications for future directions and interventions.

### EVIDENCE OF CONTRIBUTIONS TO DISPARITIES

Public health, medical care, and human service providers

influence race/ethnicity and class health disparities in several interconnected ways. First, providers may influence help seekers' views of themselves and their relation to the world (society, culture, community). For example, providers may intentionally or unintentionally reflect and reinforce societal messages regarding help seekers' fundamental value, self-reliance, competence, and deservingness.<sup>7-9</sup> Providers may both have and intentionally or unintentionally communicate lower expectations for patients in disadvantaged social positions (owing to their race/ethnicity, income, education, class, or any stigmatized characteristic) than for their more advantaged counterparts. In this way, providers can influence help seekers' expectations for the future, the degree to

ch they expect to obtain the resources and help they need, and their expectations for improvements in their situations or conditions,<sup>10-16</sup> which in turn may account for some of the disparities observed in outcomes and health status.<sup>14,17,18</sup>

Second, the potential influence of provider communications on help seekers' health-related cognition and behavior has been well documented.<sup>7,19-32</sup> Thus, disparities in communications regarding health promotion and disease prevention behavior and services may account for an additional portion of documented health disparities. Third, providers are powerful gatekeepers and may influence health disparities via such mechanisms as differential access to treatments or services and loss of benefits and rights. This is the mechanism that has received the most research attention and thus is a significant part of our focus here.

Research focusing specifically on provider contributions to racial/ethnic disparities in care is in its infancy. However, a growing body of evidence is reviewed briefly in the sections to follow (for a more extensive review, see van Ryn<sup>33</sup>).

### Specialty Care

There is good evidence of physician contributions to racial/ethnic disparities in both kidney transplant rates and cardiac procedures.<sup>34-36</sup> For example, one study showed that Black dialysis patients were less likely than their clinically similar White counterparts to be told about transplantation, obtain all of the medical information they desire, discuss with a physician the possibility of receiving a kidney from a family member, and report that a physician had recommended a transplant. Among patients who were certain they wanted a transplant, Blacks were less likely than Whites to be referred for evaluation and to be placed on a waiting list.<sup>35</sup> Similarly, racial/ethnic disparities have been extensively documented in relation to cardiac tests, diagnoses, and procedures,<sup>2,37</sup> with several studies revealing significant provider contributions to these disparities via treatment recommendations and clinical decisionmaking.<sup>36,38,39</sup>

### Pain Assessment and Treatment

Non-Whites have been found to be at significantly higher risk for inadequate or no pain assessment or pain control than their White counterparts in a variety of situations, including emergency department treatment of long bone fractures,<sup>40,41</sup> non-malignant pain in a nursing home,<sup>42</sup> treatments for cancer-re-

lated pain,<sup>43,44</sup> and evaluation of chest pain emergencies.<sup>45</sup> These studies suggest that both nurses and physicians may contribute to racial/ethnic disparities in care, although in general the role of nurses has been understudied.

### Mental Health Services

It has been shown that, independent of clinical factors, both US and UK psychiatrists are more likely to prescribe antipsychotic medications to non-Whites than to their White counterparts; also, these individuals are more likely to be involuntarily hospitalized and to be placed in seclusion once hospitalized.<sup>46-63</sup> In addition, African Americans and Latinos have been found to be less likely than Whites to receive guideline-adherent treatment<sup>64,65</sup> and follow-up.<sup>66</sup>

### Child Welfare and At-Risk Youths

African American children are more likely to be placed in foster homes than White children and, along with Hispanic and American Indian children, are overrepresented in child abuse and neglect reports.<sup>67,68</sup> These disparities persist even though 3 national incidence studies conducted by the US Department of Health and Human Services indicate that child maltreatment does not vary according to race/ethnicity.<sup>69</sup> Similarly, in regard to every offense category, Black youths are more likely than White youths to be incarcerated. Among those charged with drug offenses, Black youths are 48 times more likely than White youths to be sentenced to juvenile prison.<sup>70</sup>

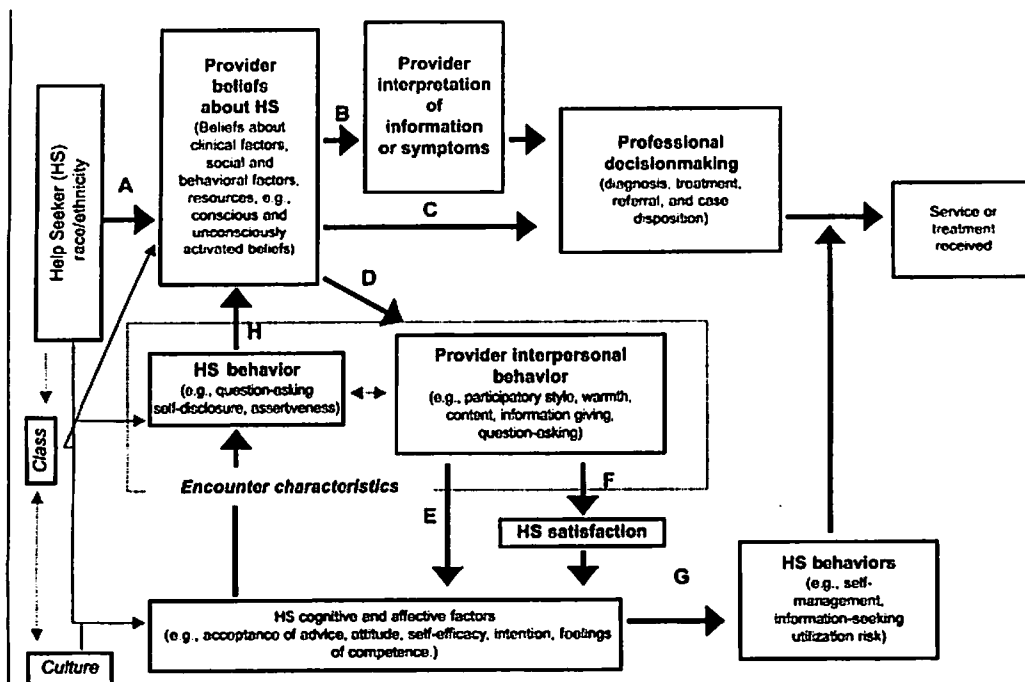
Although this body of evidence provides support for the hypothesis that providers contribute to at least a portion of the observed racial/ethnic disparities

in health care and outcomes, these studies do not provide sufficient insight into why providers' behavior varies by race/ethnicity to allow for meaningful conclusions or intervention directions. Thus, the following section is intended to help guide research and intervention directions by proposing a causal model representing a set of hypotheses regarding the effect of help seekers' race/ethnicity on providers' beliefs and behaviors. These hypotheses result from an integration of the social cognition literature and the empirical literature on provider-patient interactions.

## IMPLICATIONS REGARDING SOCIAL COGNITION

Figure 1 represents an integration of the social cognition and provider behavior research into a hypothesized model of the effects of help seeker race/ethnicity on provider behaviors and, in turn, the effects of these behaviors on help seeker outcomes (care received, case disposition, or service provided). It is important to note here that the effect of social class is likely to be as powerful as that of race/ethnicity and that there are likely to be significant interactions between class and race/ethnicity. In addition, the concepts represented in Figure 1 are clearly influenced by economic, social, and setting factors. However, these important structural factors, as well as the independent and interaction effects of class, have received little research attention and are beyond our scope here.

Arrow A in Figure 1 reflects the hypothesis that the primary cognitive mediator of the effect of help seeker race/ethnicity on provider behavior is providers'



Note. HS = help seeker.

**FIGURE 1—Proposed mechanisms through which health and human service providers can influence race/ethnicity disparities in treatment.**

conscious and unconscious beliefs about the help seeker. We expect providers to conduct encounters, make assessments, and recommend courses of action in a way that it is unaffected or unbiased by the sociodemographic characteristics of the people they serve. In addition, they are expected to be attuned to cultural differences and to be culturally sensitive as they work, in an unbiased manner, with various populations. Finally, they are expected to engage in these practices with little specific training or support.

Unfortunately, there is a massive body of research on social categorization and stereotyping demonstrating that humans universally apply stereotypes when making sense of other people.<sup>71–75</sup> All humans share the highly adaptive cognitive strategy of making the world more man-

ageable by using categorizing and generalizing techniques to simplify the massive amounts of complex information and stimuli to which they are exposed.<sup>73,76,77</sup> This process is efficient. It simplifies cognitive processing, reduces effort, and frees cognitive resources to meet other demands.<sup>78</sup> In applying this process to the social world, people develop beliefs and expectations about categories or groups of people and generalize these beliefs and expectations to all individuals mentally assigned to a given category or group.<sup>72,73,76–80</sup>

There is substantial evidence that when people mentally assign an individual to a particular class or group, they unconsciously and automatically<sup>81</sup> assign the characteristics of that group to the individual in question, a process referred to as stereotype application.<sup>73,82–84</sup> Although

most people do not believe that they engage in stereotyping, almost all of us are able to quickly list the characteristics and describe the images that automatically come to mind when we hear words such as “librarian,” “welfare mother,” “plumber,” “Navajo,” “Minnesotan,” or “New Yorker.” It is both difficult and painful for many of us to accept the massive evidence that social categories automatically and unconsciously influence the way we perceive people and, in turn, influence the way in which we interpret their behavior and behave toward them. However, given that this type of strategy is common to all humans in all cultures and is more likely to be used in situations that tax cognitive resources (e.g., time pressure),<sup>78,82,85–88</sup> the expectation that providers will be immune is unrealistic.

There is substantial evidence that patients’ sex, age, diagnosis, marital status, sexual orientation, type of illness,<sup>29,30,78,89–105</sup> and, more recently, race/ethnicity<sup>58,71,106–108</sup> can influence providers’ beliefs and expectations. For example, one study revealed that, independent of physician characteristics and patient personality, clinical, and sociodemographic characteristics, cardiac patients’ race/ethnicity and socioeconomic status negatively influenced physicians’ ratings of their personality, education, intelligence, career demands, and likely treatment adherence.<sup>71</sup> However, existing research is limited and unable to predict circumstances in which providers’ perceptions will or will not be influenced by help seeker characteristics, nor can we predict the specific perceptions that will be influenced.

Arrow B reflects the hypothesis that providers’ beliefs about help seekers influence their interpretation of the problems or symptoms of these individuals. There is ample evidence that we interpret information about others through a “screen,” filter, or framework of beliefs created by the way in which we cognitively classify them.<sup>72,73,77,78,90,109</sup> A number of studies have shown that observers assign different meanings to the same behavior depending on the race, class, or other demographic characteristics of the individual involved.<sup>73,74,77,110–114</sup> The effect of race/ethnicity on interpretations of behavior is exacerbated when the behavior is ambiguous or open to multiple interpretations.<sup>74,115</sup>

For example, Burk and Sher found that mental health workers’ diagnoses of a videotaped adolescent varied significantly according to whether they were

told or not told that they were watching the child of an alcoholic.<sup>116</sup> Another example of this phenomenon can be found in a study in which one group of 20 psychotherapists was presented with a scenario involving a White adolescent and a second group of 20 psychotherapists was presented with an identical scenario involving a Black adolescent. Overall, the behaviors of the Black adolescent were rated as less clinically significant than the behaviors of the White adolescent.<sup>117</sup> Finally, Stern et al. found that medical students' and Israeli providers' assessments of normal children were negatively influenced by whether or not they were told the children had been born prematurely.<sup>98,97</sup>

Arrow C reflects the hypothesis that providers' beliefs about help seekers' social and behavioral characteristics directly influence their professional or clinical decisionmaking. This may occur as a result of either of 2 kinds of interconnected reasoning: moral rationing or appropriateness. In the case of moral rationing, the provider believes that a patient's characteristics make her or him more or less deserving of treatment. For example, a cardiac surgeon told one of the authors that he was not going to treat cardiac patients who were "just going to go out and do drugs." In the case of appropriateness, the provider believes that a social or behavioral characteristic of the help seeker makes her or him more or less appropriate for a particular treatment or more or less likely to benefit from a service or procedure.

To date, only 2 studies of which we are aware have tested is hypothesized cause of racial/ethnic disparities in treatment. Bogart and colleagues

found that physicians were more likely to provide highly active antiretroviral therapy to HIV/AIDS patients when they were perceived as likely to be adherent to treatment.<sup>118</sup> They then examined patient characteristics associated with physician predictions of adherence by randomly assigning physicians to review patient vignettes varying only in terms of the patient's sex, disease severity, ethnicity, and risk group. Results revealed that, independent of other factors, the patient depicted in the African American vignette was more likely to be rated as nonadherent.<sup>119</sup>

Similarly, van Ryn et al. found that physicians' ratings of patients' likelihood of having adequate social support or participating in cardiac rehabilitation predicted physicians' recommendations for revascularization, independent of the clinical appropriateness of revascularization and patient demographic characteristics. In turn, these physicians were more likely to rate African American patients as lacking in social support and as more unlikely to participate in cardiac rehabilitation than White patients.<sup>120</sup>

It is possible that these findings are due to providers' overapplication of population statistics to individual help seekers. There is evidence that data on population rates may be incorporated into providers' general belief systems and professional decisionmaking such that group probabilities are overapplied to decisionmaking about individuals.<sup>121,122</sup> In this way, providers may fail to correctly incorporate individual data, instead being swayed by their beliefs regarding the probability of individuals in a particular sociodemographic category possessing a given charac-

teristic.<sup>123</sup> This is a disturbing possibility because it suggests that statistical data on marginalized populations may be inadvertently incorporated and applied by providers in a way that reinforces marginalization. Some of the data that reinforce bias in fact result from bias, compounding this situation. For example, as mentioned earlier, although 3 national incidence studies indicate that child maltreatment does not vary according to race,<sup>69</sup> minority groups are heavily overrepresented in child neglect and abuse reports; as a result, in publications based on reported cases of abuse, authors state that victimization varies by race.<sup>68,124</sup>

Arrow D reflects the hypothesis that providers' conscious beliefs about and unconscious stereotypes regarding help seekers influence their interpersonal behavior. There is considerable evidence that stereotypes activated outside of consciousness influence our behavior toward other individuals and thus affect their reactions and behaviors, as represented in arrow I.<sup>74,125</sup> For example, one study revealed that subliminal exposure to photographs of African Americans as opposed to photographs of Whites caused naive participants to *unknowingly* behave in a more hostile manner in a subsequent word-guessing game.<sup>125</sup> The partners of these participants, who were also unaware of the experiment's design, in turn behaved in a more hostile manner. These findings illustrate the way in which the well-documented "self-fulfilling prophecy" can be produced. Provider behavior may be influenced by help seeker race/ethnicity (or another characteristic), and this behavior influences help seekers' behavior in turn.<sup>77,82,125-127</sup>

Several studies directly support the hypothesis that help seekers' characteristics influence provider behavior. In well-controlled studies, physicians have been found to have a less participatory decisionmaking style<sup>128,129</sup> and to adopt a more "narrowly biomedical" communication pattern (characterized by low patient control of communication and psychosocial talk and high levels of physician biomedical information provision and closed-ended question asking) with non-White than with White patients.<sup>130</sup> In other studies, patients' characteristics have been found to be associated with provider communication effectiveness<sup>131-133</sup> and physician interpersonal behaviors such as nonverbal attention, empathy, courtesy, and information giving.<sup>134</sup>

Arrows E and F represent the hypotheses that providers' interpersonal behavior influences help seekers' satisfaction as well as cognitive factors such as attitudes, self-efficacy, trust, and behavioral intentions, while arrow G represents the well-established causal relationship between cognitive factors and behavior. There is a substantial body of evidence indicating a strong relationship between provider interpersonal behavior and patient satisfaction, adherence, utilization, and outcomes.<sup>7,19,20,29-32</sup> A more participatory decisionmaking style on the part of providers, which can be defined as increased help seeker engagement in medical care through information sharing, negotiation, and consensus seeking, has been shown to be positively associated with satisfaction,<sup>29,30,128-130</sup> disclosure,<sup>135</sup> successful self-management, adherence, lower pain levels, and

symptom recovery<sup>20,21,25,136-139</sup> among patients.

In addition, there is evidence that help seekers' race/ethnicity and SES influence the substantive content of encounters. For example, 4 separate studies involving patients with advanced illnesses showed that non-White patients were less likely to report that their provider discussed end-of-life care with them than their White counterparts, despite their equal or stronger desire to have such a discussion.<sup>133,140-142</sup> Similarly, African Americans and low-income patients have been found to be less likely to report receiving advice to quit smoking during their primary care visit,<sup>143</sup> less likely to discuss diet and exercise with their physician,<sup>144</sup> less likely to receive a recommendation for mammography,<sup>144-146</sup> and less likely to receive prenatal preventive care advice regarding smoking cessation, alcohol use, and breastfeeding.<sup>147</sup>

Arrow H represents the hypothesis that providers' beliefs about help seekers are influenced by help seekers' behaviors during the encounter. In one study testing this hypothesis, physicians viewed randomly assigned videotapes of women seeking care for breast cancer; the videotapes varied only in regard to the patients' sociodemographic characteristics, general health status, and assertiveness. Results revealed that physician decisions were affected by the interaction of patient assertiveness with race and SES, in that assertive behavior increased the likelihood of full tumor staging among Black and low-SES patients but not White or upper-SES patients.<sup>148</sup> This study suggests the possibility that providers' beliefs and behaviors are influenced by complex inter-

actions between patients' race/ethnicity and behavior.

While not a primary focus of this review, it is important to bear in mind that a variety of class and cultural factors contribute to help seeker variations in health beliefs, beliefs regarding the nature of care and cure, and past experiences with and attitudes toward providers. These factors, in turn, influence help seekers' interactions with providers.<sup>149-151</sup> Further research is necessary to examine the complex interactions between the expectations, beliefs, and behaviors that help seekers and providers bring to their encounters.

## CONCLUSIONS

In conclusion, there is sufficient evidence for the hypothesis that provider behaviors contribute to racial/ethnic disparities in care to warrant further study and intensive efforts to develop evidence-based interventions. There have been insufficient resources devoted to this line of inquiry, perhaps reflecting the fact that bias on the part of providers is very uncomfortable and disturbing to contemplate. Many providers, devoted to justice and equity, may understandably find the hypothesis that they and their professional peers contribute to systematic inequities in health difficult to believe. Yet, we would argue that resistance to exploring the ways in which providers may contribute to health disparities reflects a lack of understanding of the automatic, unconscious, and ubiquitous nature of fundamental social cognition processes.

In addition, lack of attention to the interpersonal mechanisms or mediators of institutionalized discrimination may undermine the

effectiveness of our strongest policy- and organizational-level strategies. Laws, incentives, mandates, court-based remedies, reimbursement methodologies, sanctions, and reorganizations may not create the desired effects if the fundamental human information-processing, social cognition, and social interaction processes that contribute to institutional discrimination are not addressed.

Furthermore, the current lack of research in this area creates a barrier to the development of evidence-based interventions addressing racial/ethnic disparities in care. Our ability to develop informed interventions is severely limited by our lack of knowledge regarding the effects of providers' education, socialization, setting, and other characteristics on the degree to which their behaviors are influenced by help seekers' race/ethnicity. Two overarching categories of research are suggested by the evidence gathered to date: (1) multimethod studies (e.g., combining clinical, survey, and qualitative data) intended to test and refine the hypotheses presented here and provide greater knowledge of the conditions under which provider behaviors do and do not influence racial/ethnic disparities and (2) theory- and evidence-based intervention research intended to: develop and test methods that influence racial/ethnic variations in providers' perceptions of help seekers; reduce disparities in providers' and help seekers' behaviors during their encounters; and examine the resultant effects on racial/ethnic variations in care.

Finally, although social categorization is an automatic and dominant information-processing strategy, recent reviews of the evidence suggest that some of

the associated processes may be controllable in certain circumstances.<sup>82,87</sup> These reviews point to the crucial influence of 3 broad categories of factors that may influence automatic activation of stereotypes: public health providers' acceptance and awareness of the automatic nature of these processes, providers' motivation to detect and inhibit stereotypes, and setting and system characteristics that allow providers to have sufficient cognitive resources to overcome and replace automatic cognitive processes.

This evidence clearly suggests that while awareness and motivation are necessary conditions for individuals to exert control over stereotypes, they are not sufficient. Considerable reorganization of our service delivery and reimbursement systems may be needed if providers are to have the time and cognitive resources needed to overcome unconscious bias.<sup>82,87</sup> ■

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