

In the Minority: Black Physicians in Residency and Their Experiences

Jane M. Liebschutz, MD, MPH; Godwin O. Darko, MD, MPH; Erin P. Finley; Jeanne M. Cawse; Monica Bharel, MD; and Jay D. Orlander, MD, MPH

Washington, District of Columbia; Atlanta, Georgia; and Worcester, Boston and Jamaica Plain, Massachusetts

Financial support: Dr. Liebschutz was supported in part by the Robert Wood Johnson Foundation Generalist Faculty Scholar Award Program (RWJ #045452).

This work was presented at the Society of General Internal Medicine Annual Meeting, Boston, MA, May 2000.

Objective: To describe black residents' perceptions of the impact of race on medical training.

Materials and Methods: Open-ended interviews were conducted of black physicians in postgraduate year ≥ 2 who had graduated from U.S. medical schools and were enrolled in residency programs at one medical school. Using Grounded Theory tenets of qualitative research, data was culled for common themes through repeated readings; later, participants commented on themes from earlier interviews.

Results: Of 19 participants 10 were male, distributed evenly among medical and surgical fields. Four major themes emerged from the narratives: discrimination, differing expectations, social isolation and consequences. Participants' sense of being a highly visible minority permeated each theme. Overt discrimination was rare. Participants perceived blacks to be punished more harshly for the same transgression and expected to perform at lower levels than white counterparts. Participants' suspicion of racism as a motivation for individual and institutional behaviors was tempered by self-doubt. Social isolation from participants' white colleagues contrasted with connections experienced with black physicians, support staff and patients, and participants strongly desired black mentors. Consequences of these experiences varied greatly.

Conclusions: Black physicians face complex social and emotional challenges during postgraduate training. Creating supportive networks and raising awareness of these issues may improve training experiences for black physicians.

Key words: racism ■ grounded theory ■ residency

© 2006. From the Section of General Internal Medicine (Liebschutz, Darko, Finley, Cawse, Orlander), Boston Medical Center (Liebschutz, Darko, Finley, Cawse, Bharel, Orlander), Boston University Schools of Medicine (Liebschutz, Darko, Finley, Cawse, Bharel, Orlander) and Public Health (Liebschutz); Health Care for Homeless (Bharel); and VA Boston HealthCare System, Boston, MA (Orlander); General Internal Medicine, Washington Hospital Center, Washington, DC (Darko); Department of Anthropology, Emory University, Atlanta, GA (Finley, doctoral student); University of Massachusetts School of Medicine, Worcester, MA (Cawse, medical student). Send correspondence and reprint requests for *J Natl Med Assoc.* 2006;98:1441-1448 to: Dr. Jane Liebschutz; Section of General Internal Medicine, Boston Medical Center, Boston University Schools of Medicine and Public Health, Boston, MA 02118; phone: (617) 414-7399; fax: (617) 414-4676; e-mail: jliebs@bu.edu

INTRODUCTION

Black students enter medical training at half the expected rate compared to their representation in the U.S. population, and have higher attrition rates from medical schools.¹⁻⁵ The available literature identifies factors that predict success and describes programs supporting enrollment and retention of underrepresented minorities in medical school and other graduate programs.^{3,6,7} Higher test scores, undergraduate locale and performance, educational level of parents and enthusiasm of the admissions committee are predictive of medical school success.^{7,8} Complex environmental and psychological variables, such as integration into the academic environment, predict success in black graduate students.⁹

In medical school and residency, blacks have the universal stressors of the need to improve knowledge and skills, demanding hours, and limited social and personal pursuits. Financial pressures can be more intense for blacks who disproportionately come from less wealthy backgrounds than their white classmates.^{10,11}

Medical students and residents of all races perceive a high rate of mistreatment, such as harassment, verbal abuse and personal denigration, during training.¹²⁻¹⁵ Racial minorities, particularly blacks, report the highest rates of mistreatment.^{12,14,16-19} Blacks perceive more stress in medical school than whites, stemming from their minority status and racial discrimination experi-

enced in training.^{8,20} In a survey of physicians practicing in Massachusetts, more than half of the nonwhite respondents reported experiencing some form of discrimination on the job. For this group, racism tended to manifest itself in the disrespect of coworkers and perceived difficulty in advancing professionally.²¹ A recent literature review did not reveal any studies focused specifically on black residents.

Existing literature does not clearly describe the impact of racially motivated discrimination or abusive treatment on individuals. Most studies present data on the prevalence of individual discriminatory acts without detailing the range or consequences of such experiences. This lack of detail impedes our understanding of the impact of racial discrimination on the education, professional choices and personal lives of medical trainees.

Our study employed qualitative research methods to understand how black race affects the experience of medical training. While racial discrimination is an important focus, we also sought to understand how race impacts medical training more broadly. In our study, we defined "racial discrimination" as differential treatment based on race rather than individual merit. This definition is supported by the published work from the Committee on National Statistics, National Research Council, an effort to bring a national consensus for the definition of racial discrimination in social science research.²²

METHODS

Study Design

Qualitative methodology allows the researcher to formulate hypotheses from narrative data that explores the attitudes, feelings, beliefs and behaviors of the target group. Authors analyzed in-depth interviews to gain insight into the experiences of black medical residents and utilized a standard qualitative method—Grounded Theory—to organize the analysis and derive conceptual meaning.²³ As explained below, Grounded Theory requires development of themes and ideas during data collection that can be substantiated or refuted by subsequent participants.

Study Subjects

Participants were recruited from all postgraduate training programs affiliated with a medical school in the

northeast United States, and identified by the minority recruitment office and word of mouth. The trainees rotated at a variety of healthcare institutions, including tertiary care hospitals, community hospitals, veterans administration hospitals and numerous outpatient settings (community health centers, private physician offices, hospital affiliated clinics). Eligibility requirements included: self-identification as black or African-American, graduation from a U.S. medical school and completion of ≥ 2 postgraduate year (PGY). Twenty eligible residents were identified, and 19 agreed to participate. Interviewers told participants this was a study on medical training experiences of black doctors in residency. Each participant was interviewed one time. Authors obtained written informed consent and provided no compensation. The institutional review board approved the study.

Interview Technique

Investigators conducted semistructured, in-depth interviews between January 1998 and February 2000. An Asian-Indian female chief resident conducted the first three interviews; a black male physician who completed residency training at the same institution conducted the remaining interviews. The interviews started with an open-ended question on experiences related to racial background. This initial question was later changed to one emphasizing positive experiences to encourage participants to think broadly about the impact of race on their medical training experience and not limit themselves to incidents of stereotypical discrimination. Interviewers probed responses to encourage narrative descriptions of particular incidents (Figure 1). As qualitative research is iterative, interviewers asked later participants about concepts raised by earlier participants to clarify, confirm or refute theories developed by the investigators. Interviews lasting 60–90 minutes were audiotaped in private locations convenient to participants.

Analysis

A professional transcriptionist transcribed each interview. The interviewer listened to each tape while reviewing the transcript to ensure accuracy. To maintain confidentiality, the transcripts included altered versions of the names and locations mentioned on the audiotapes. The authors then read each transcript multiple times to clarify meaning and identify common narrative themes. According to the tenets of Grounded Theory, the interviewer then clarified and expanded these themes in subsequent interviews. This cycle of theme identification and clarification continued until there was no further new information revealed in the interviews.

Four of the authors (JL, GD, JC, EF) independently reviewed transcripts to identify prominent themes and concepts. They developed a preliminary coding scheme

Table 1. Characteristics of subjects

	Women (n=9)	Men (n=10)	Total (n=19)
Medical specialty	5	6	11
Surgical specialty	4	4	8
Postgraduate year 2 or 3	7	8	15
Postgraduate year 4+	2	2	4

while discussing each of the first 10 interviews. The authors then coded the remaining interviews using this scheme. For each interview, the authors compared coding and resolved differences in interpretation through close reading of the text. The authors adopted a final coding scheme once all the interviews were analyzed. Investigators then entered the interviews into NUD*ST, a software program for qualitative research, where they were electronically coded. Two people coded each interview and compared it for consistency. Investigators resolved differences through discussion of the text. Finally, the authors grouped the coding categories by larger themes to develop a coherent analysis of the reported experiences.

RESULTS

Ten participants were male and nine female. We categorize 11 as training in medical (family medicine, internal medicine, pediatrics) and eight in surgical specialties (emergency medicine, general surgery, obstetrics/gynecology and surgical subspecialties). Fifteen were in PGY2 or 3, the rest in PGY \geq 4 (Table 1). To preserve participant anonymity, we do not report individual specialty by gender or year of training. Other demographic information was not collected systematically.

Four themes characterize the study's major findings: discrimination, differing expectations, social isolation/social support and consequences/coping strategies. Key

to each is the ubiquitous experience of being part of a highly visible minority. Every participant repeatedly mentioned being "one of a few" black physicians in almost any medical or training setting. According to one resident, "You're in medicine, you're black, you're rare." Another reported,

At least once every time at the conference, I look around the room and I realize I'm the only person of color in this room and just by the basis of that I feel different.

For many participants, this visibility accentuated a sense of vulnerability at the hands of more senior physicians. Although the sense of vulnerability decreased somewhat as residents gained experience, awareness of visibility persisted. For the rest of the paper, we weave this concept of visibility into the reporting of other themes.

Discrimination

Participants report various kinds of discrimination, only some of which were recognizable as overt discrimination. In fact, only six subjects described incidences of blatant discrimination in medical training: a nurse referring to black residents as "you people," a chief resident reporting that a black resident needed to be watched carefully despite stellar evaluations, black residents being conspicuously ignored by teachers in a small class

Figure 1. Interview questions

Initial Question

- Have you been treated differently during your medical training because of your racial background? (initial eight interviews)
- OR
- Have you had any positive experiences during your medical training because of your racial background? (last 11 interviews)

Probe Topics (if not spontaneously mentioned by participant)

Experience and impact of the following:

- Positive experiences because of racial background
- Negative experiences because of racial background
- Interactions with students, peers, staff, faculty
- Interactions with patients
 - Pride*
- Future career choices
 - Sense of representing race as motivation*
- Local city environment
- Medical school or college experiences
- Childhood experiences of discrimination
- Suggestions for improving experience of blacks in medicine
- Representation of blacks in medicine*
- Mentorship*
- Disciplinary actions*
- Evaluations of performance*
- Being mistaken for nonphysician*

* Added for later interviews to clarify ideas noted earlier

setting, patients requesting nonblack physicians (≥ 1 reported this) and black residents being called derogatory names.

One participant describes an experience in which a patient with mental status changes said, “look at that nigger,” in a low voice to the entire treating team, including the attending. Unsure if she had heard correctly, the participant verified the slur “by the look on the attending’s face,” who responded, “okay, okay” to the patient. Afterwards, the team dispersed in different directions and the participant did not discuss the incident with colleagues or the attending for fear of making anybody uncomfortable.

Another common example of discrimination involved being mistaken for a nonphysician. Fifteen participants reported being mistaken for nurses, food service workers, orderlies and housekeepers on a regular basis. One male resident noted:

If you walk into a patient’s room and she says, “Oh, are you here to get my tray?” That’s a clue of racial interaction—you’re in a white coat, a certain tie, you have your nametag on, and that’s the only thing that was different. So, that’s absolutely clear.

Female participants attributed being mistaken for nurses to both their gender and race. Participants grew to expect this type of mistaken identity. Many compensated by taking extra care with their dress, so as to be identified as physicians, including always wearing white coats, displaying their nametags prominently and introducing themselves as “Dr. X.” One participant went so far as to wear a tie for the duration of night duty, despite the pervasive culture in the residency of wearing hospital scrubs for this rotation.

Study participants also reported more subtle forms of discrimination but often tempered these descriptions with qualifying language. Such reports fell under two broad categories: 1) instances in which the participant suspected discrimination occurred but used nonconfrontational, diplomatic or sarcastic language to qualify the description; and 2) instances in which the participant doubted whether the experience involved discrimination. An example of the former is from a male resident:

A case in point is that if you look at the X program here at this institution, it’s just a matter of fact—I’m not making any sort of implications about anything—that the residents who’ve been dismissed, in the last six years, have been 100% black. Now, maybe that’s a coincidence. Maybe it’s not a coincidence.

By saying “a matter of fact” and “100% black,” this participant made the case for discrimination. However,

he was careful to add “I’m not making any sort of implications about anything,” suggesting he was hesitant to accuse this program of discrimination.

In contrast, a female resident described a similar situation in which a black resident was dismissed from a training program:

People say they had it in for him, as a black man. I don’t know. I honestly don’t know. I don’t know the details. I’ve heard different stories. I’ve never talked to him. Obviously, the truth lies somewhere in the middle.

She felt unable to judge whether this was a discriminatory act because she lacked first-hand knowledge of the situation. On the other hand, she clearly took part in conversations where others implied the resident was not given a fair chance.

Differing Expectations

Inconsistent expectations and unequal treatment of minority and majority trainees were common narrative themes. The two examples given above represent one aspect of these differing expectations: any transgression by a black trainee seemed to be more harshly punished than one by a majority trainee. Thirteen participants described unfair punishment meted out to themselves or colleagues. The most potent examples involved peers dismissed from training. Participants perceived punishment to be the default response for dealing with blacks struggling in training and believed sanctions were disproportionately greater for minorities. This comment was from a male medical resident:

I think if he was a white resident, I don’t think it would have gotten to that point. I think someone would have stopped and said, “You need to do this, this and that.” And given him support and help instead of more and more bad reports. Finally, he just got kicked out.

Participants’ perceptions led them to believe they had fewer chances to make mistakes than their white counterparts. In many cases, participants felt pressure to perform without errors and to make sure to address all the details; these concerns were expressed in terms of not showing weakness or vulnerability.

Many participants believed others had lower expectations of black students’ performances. One participant explained:

First of all, they anticipate that they’re not as good from the get-go. Then you have to prove yourself. And I think you just have to work harder at it than the majority do.

These lowered expectations caused some participants to wonder whether they were recruited for their minority status or their abilities. A male medicine resident described this self-doubt:

Are you here because you're very good or because they'd like to recruit more people of color? So, you always think, in the back of your mind, you have to prove that you are as good or better than your colleagues, [to prove] that you deserve to be there.

Participants also mentioned instances of perceived discrimination when others' words and actions undermined their skills, knowledge and authority. Students, residents, nurses or faculty challenged participants' assessments in situations where majority colleagues would not be questioned. One female medical resident reported an incident where a student challenged her physical examination of a patient with hepatomegaly.

If I had been a big shot white male attending, he would have agreed with me. Or if I had been a white male resident, he would have agreed with me. But since I'm this small black female, he had to point out to the whole team, "the liver is small."

The patient was subsequently diagnosed with fulminant liver failure. Instead of feeling vindicated, the resident felt angry and humiliated.

Social Isolation/Social Support

Many participants felt like outsiders in the social interactions that accompanied medical training with colleagues, supervisors and supervisees. This social isolation included specific moments of discomfort in social conversations, not being invited to outings with peers as well as a generalized discomfort with not being surrounded by black faces and peers. Some subjects expressed feeling they do not have anything in common with their colleagues, which inhibited making small talk or sharing personal experiences despite the intense amount of time spent with their "team." Some reported the connections among majority physicians resulted in their white colleagues receiving guidance and support from each other to the exclusion of black members of the group. One male resident described this:

A lot of times, you'll find those individuals talking about things that you're not accustomed to and you don't find yourself being a part of. Like golf or wines, things that I, myself, have not been exposed to in my sort of social experience. I don't have the same bond or kinship that they have.

However, most participants also reported sources of

very strong social support, including black patients, black support staff in the hospital, black colleagues and dedicated mentors (both black and white). Study participants uniformly reported black patients took special pride in having a black physician. From a medical resident:

I've had really good feedback from my black patients in clinic. A lot of them are like, "Oh, we think you're great;" "It's so good to see a black woman." I feel like I'm helping them. In that way, there's a good bond and I feel a sense of community.

The majority of subjects felt black support staff gave them similar encouragement. This support included expressions of admiration and support as well as concern for their personal welfare. For example, a few participants noted getting extra food in the cafeteria line or from the nursing staff. A number experienced a comforting sense of familiarity in seeing black faces among support staff.

Another source of social support was the peer network of other black physician trainees. Participants who did not attend historically black medical schools remarked on the support provided by their fellow black students. In residency, there were fewer black peers, and participants described seeking out other black physicians. Interestingly, many of the participants knew one another despite being in different years and different training disciplines in a large institution with multiple teaching hospitals. Participants remarked on situations in which black trainees were dismissed from their residency program, even if the study participants were not in the same field as the dismissed trainee. This suggested a functioning network of communication, shared experience and support.

Our subjects yearned for mentoring by black faculty, describing two special benefits gained by having black mentors: having a source of aid in case of trouble, and more importantly, possessing a guide to success. One participant explained:

I think it's more important to have black mentors because ... if you're gonna be in an academic setting, there's so much politics that you need to know. I think any mentor's gonna help you tremendously, but I think someone who's black, who's been through all that bullshit can help you a little more to navigate exactly what you need to do and who you need to talk to and how you need to present things.

Based on participants' own experiences of needing to do more to get the same recognition, they believed a person of color successful in academic medicine must have broken through more barriers and accomplished more than someone who was white. Some reported

black mentors were more critical of them than nonblack mentors in an effort to make sure they “made it.” In addition, several described important relationships with white mentors who directly addressed the race issue and made promoting the participant’s career a priority.

Consequences and Coping Styles

Because the experiences of black trainees were individual and multifaceted, it was difficult to trace which consequences arose from race-related encounters. Two participants, however, contemplated leaving clinical medicine due to the strain of racial tension, one by leaving medicine completely and the other by changing to pathology. Several participants noted emotional consequences such as a damaged sense of self and a lack of confidence in professional roles, as well as feelings of being on guard at all times, doubting themselves and being frustrated with the system that surrounds them. Career consequences were also varied. Five participants described choosing their training institution based on racial diversity among faculty. Some thought they would have difficulty advancing into leadership and faculty positions because of bad evaluations or a lack of systemic support.

Participants reported different coping strategies to overcome the issues described above. One important coping strategy was strengthening social networks by seeking rapport with majority colleagues and with black colleagues and faculty, as described above. A female resident who actively sought out other black students as roommates stated:

Even if going to class every day was a drag, or everybody I ever saw at the hospital was all white, at least I could go home and feel comfortable.

Participants felt they needed to stand up for themselves and their race because they had few advocates. One resident made a point of correcting people who used culturally insensitive language. Another mode of assertiveness involved making sure that strengths and accomplishments were recognized properly.

For varied reasons, participants believed they have to perform at a higher standard than their majority colleagues. Participants spoke of working harder, going the extra mile, attending more carefully to details and being more aggressive in group settings to ensure their own success and to protect themselves from punishment.

A final coping strategy was to diminish the importance of potential problems. Many emphasized the positive aspects of generally negative experiences. Others reminded themselves of their own self-worth. As one participant remarked:

I don't preoccupy my mind with "am I being discriminated against or not?" I just do what I gotta do. I don't worry about it too much.

DISCUSSION

Black residents from across disciplines at an academic medical center in the northeastern United States shared several common perceptions and experiences of medical training. Their experiences stemmed from interpersonal racial discrimination, underrepresentation in a predominantly white training institution and cultural differences. The impact of these experiences ranged from negligible (“ignore it”), to positive (motivation to work harder), to destructive (leaving clinical medicine). From a recent review of the literature, this is the first study of black resident physicians.

A number of our findings echoed conclusions from studies of black students in medical and graduate school and black physicians in private practice.^{20,21,24} In our study, while participants reported rare instances of blatant racism and frequent doubt as to individual subtle acts, they overwhelmingly endorsed the existence of regular instances of subtle forms of racial discrimination. Post and Weddington reported similar findings in a qualitative study of 10 practicing African-American family physicians in Ohio,²⁴ as did Griffith and Delgado in observations of training in psychiatry.²⁵

Participants in our study appeared most affected by their perception of lowered expectations and harsher punishment, which induced both anger at the system and increased motivation to work harder. Similarly, in a qualitative study of 31 black medical students, Bullock and Houston reported 25 subjects believed faculty members perceived black students as intellectually inferior.²⁶ Of 19 participants who believed racism impacted their studies, 10 felt motivated to work harder and nine had more difficulty as a result.

Social isolation from white peers and supervisors encountered by our participants paralleled other studies measuring perceptions of medical school by black students and graduates.^{8,24,26,27} A comparison of 148 African-American and white medical school graduates found equivalent career satisfaction and achievement but a lasting dissatisfaction with the social environment of medical school among the African-American alumni. Griffith and Delgado suggested the socialization experience of residency training occurs within a group context.²⁵ Lack of shared experience between white and black colleagues may lead to differences in responding to the group process and then to the frustration and conflicts some of our participants report.

Participants in this study not only surmounted the obstacles of medical school but also made it into or beyond the second postgraduate year to qualify for entry into this study. Residency programs are generally smaller than medical school classes; thus, our participants were generally one of a very few in their training programs. Also, the position of resident is unique because it is a training position and a position of leadership (medical students and younger residents) and authority

(physician privileges). This unique position may have increased frustration for some participants because they felt neither protected by the attending physician nor respected by those over whom they had authority. For the most part, neither participants nor their programs explicitly considered their unique needs. Black residents' high visibility and role as community representatives may have intensified pressure to perform while increasing isolation. This motivated some to perform at higher levels while it increased self-doubt and dissatisfaction with the medical field in others.

Black residents in this study did seek support and rapport with majority colleagues but found relationships with black colleagues, mentors, support staff, family and community to be better sources of support. These relationships provided day-to-day psychological comfort, professional development and help with career planning.

Some of these experiences and perceptions are likely shared among other underrepresented minority groups and possibly women in fields with low representation of women. In fact, this is supported by studies of discrimination in groups of trainees.^{13,15,18} However, these studies also showed that blacks reported higher frequency of racial discrimination than other groups. Future studies can examine the differences between varied minority groups to understand common and unique themes. Nonetheless, we feel that this information is useful to understand the black experience during residency.

This report comes from a single institution in the northeast United States and may not represent experiences in other parts of the country or in other institutions. However, the programs included different types of hospitals (private, public, tertiary care, community based and veterans administration) and likely reflected similar institutions in other urban areas. The heterogeneity in the training specialties may have obfuscated themes particular to individual specialties and should be explored with a national sample. Likewise, the small number of participants may have limited important themes that may have arisen from a larger group of participants.

Implications

Unique challenges confront black trainees, and others have commented on larger institutional changes and programmatic interventions that may enhance the representation of minorities in clinical medicine.^{3,28} Further discussion on these broader societal issues is beyond the scope of this report. We can, however, assert a few lessons to share broadly with faculty and educational leaders of clinical programs.

Majority faculty and leaders need to remember that black trainees experience additional pressures and burdens during their medical training. Faculty members must be sensitive to the complex ways in which discrimination is manifest in our culture and how this discrimination and concomitant pressure systematically impact

black residents. There is a continual need for support, rapport and connection among black residents to faculty and peers to sustain the growth and well-being of the black physician community. Support must come from both majority and minority physicians. While trainees of all races require support, a support network is less available to black residents. Regardless of the source, any degree of social integration is likely to impact residents' work and well-being. Hence, even small residency programs may benefit from establishing formal social and professional support networks for black residents.

We believe the most immediately applicable result of our findings is the initiation of dialogue by majority faculty with residents, both individually and in small groups. As a result of this work, two white study authors (JL, JO), have altered our interactions with black residents. We now ask residents how race impacted their experience here and elsewhere and have used attending rounds and conference times to lead open discussions on the issue. For us personally, these encounters have been rewarding and well received by the trainees involved. This approach resonates with the precepts of learner-centered learning by putting forth an issue that is critically important to the trainee but often ignored or easily overlooked by majority faculty.

ACKNOWLEDGEMENTS

Thanks to Elliot Mishler and the Narrative group for comments on data interpretation. Thanks also to Julien Dedier, MD; Cathy Riessman, PhD; Tracy Battaglia MD; and Tali Averbuch, MPP for critical reading of the manuscript.

REFERENCES

1. Lloyd SM Jr, Miller RL. Black student enrollment in U.S. medical schools. *JAMA*. 1989;261(2):272-274.
2. Brotherton SE, Simon FA, Etzel SI. U.S. graduate medical education, 2001-2002: changing dynamics. *JAMA*. 2002;288(9):1073-1078.
3. Tekian A. A thematic review of the literature on underrepresented minorities and medical training, 1981-1995: securing the foundations of the bridge to diversity. *Acad Med*. 1997;72(suppl 10):S140-S146.
4. Tekian A. Attrition Rates of Underrepresented Minority Students at the University of Illinois at Chicago College of Medicine, 1993-1997. *Acad Med*. 1998;73(3):336-338.
5. Castillo-Page L, Zhang K, Steinecke A, et al. *Minorities in Medical Education: Facts & Figures 2005*. Washington, DC: Association of American Medical Colleges; 2005.
6. Shields PH. A survey and analysis of student academic support programs in medical schools. Focus: underrepresented minority students. *J Natl Med Assoc*. 1994;86(5):373-377.
7. Calkins EV, Willoughby TL. Predictors of black medical student success. *J Natl Med Assoc*. 1992;84(3):253-256.
8. Strayhorn G, Frierson H. Assessing correlations between Black and white students' perceptions of the medical school learning environment, their academic performances, and their well-being. *Acad Med*. 1989;64:468-473.
9. DeFour DC, Hirsch BJ. The adaptation of black graduate students: a social network approach. *Am J Community Psychol*. 1990;18(3):487-503.
10. Frierson HT, Jr. Black medical students' perceptions of the academic environment and of faculty and peer interactions. *J Natl Med Assoc*. 1987;79(7):737-743.
11. Kornitzer B, Ronan E, Rifkin MR. Improving the adjustment of education-

ally disadvantaged students to medical school: the Summer Enrichment Program. *Mt Sinai J Med.* 2005;72(5):317-321.

12. Sheehan H, Sheehan DV, White K, et al. A pilot study of medical student 'abuse': student perceptions of mistreatment and misconduct in medical school. *JAMA.* 1990;263(4):533-537.

13. Vanneveld CHM, Cook DJ, Kane S-LC, et al. Discrimination and Abuse in Internal Medicine Residency. *J Gen Intern Med.* 1996;11(7):401-405.

14. Kassebaum DG, Cutler ER. On the culture of student abuse in medical school. *Acad Med.* 1998;73(11):1149-1158.

15. Baldwin DCJ, Daugherty SR, Rowley BD. Residents' and Medical Students' Reports of Sexual Harassment and Discrimination. *Acad Med.* 1996;71(suppl 10):S25-S27.

16. Richardson DA, Becker M, Frank RR, et al. Assessing medical students' perceptions of mistreatment in their second and third years. *Acad Med.* 1997;72(8):728-730.

17. Reitzes DC, Elkhaniyal H. Black students in medical schools. *J Med Educ.* 1976;51:1001-1005.

18. Baldwin DCJ. Racial and ethnic discrimination during residency: Results of a national survey. *Acad Med.* 1994;69(10 suppl):S19-S21.

19. Crowley S, Fuller D, Law W, et al. Improving the climate in research and scientific training environments for members of underrepresented minorities. *Neuroscientist.* 2004;10(1):26-30.

20. Strayhorn G. Perceived stress and social supports of black and white medical students. *J Med Educ.* 1980;55:619-620.

21. Coombs AA, King RK. Workplace discrimination: experiences of practicing physicians. *J Natl Med Assoc.* 2005;97(4):467-477.

22. Blank R, Dabady M, Citro C, eds. *Measuring Racial Discrimination.* Washington, DC: National Academies Press; 2004.

23. Strauss A, Corbin J. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques.* Newbury Park, CA: Sage Publications; 1990.

24. Post DM, Weddington WH. Stress and Coping of the African American Physician. *J Natl Med Assoc.* 2000;92(2):70-75.

25. Griffith EEH, Delgado A. On the professional socialization of black residents in psychiatry. *J Med Educ.* 1979;54(6):471-476.

26. Bullock SC, Houston E. Perceptions of racism by black medical students attending white medical schools. *J Natl Med Assoc.* 1987;79(6):601-608.

27. Gartland JJ, Hojat M, Christian EB, et al. African American and white physicians: a comparison of satisfaction with medical education, professional careers, and research activities. *Teach Learn Med.* 2003;15(2):106-112.

28. Dennis GC. Racism in medicine: planning for the future. *J Natl Med Assoc.* 2001;93(3 suppl):1S-5S. ■

We Welcome Your Comments

The *Journal of the National Medical Association* welcomes your Letters to the Editor about articles that appear in the *JNMA* or issues relevant to minority healthcare. Address correspondence to ktaylor@nmanet.org.



REUSE THIS CONTENT

To photocopy, e-mail, post on Internet or distribute this or any part of *JNMA*, please visit www.copyright.com.



Is the pen your sword?

The *Journal of the National Medical Association* invites members to submit creative works for its "Art in Medicine" section. Send a summary of your artistic endeavors to shaynes@nmanet.org for consideration.

George Dawson, MD
JNMA Art in Medicine Editor

