Original Article

Differences in Physicians' Verbal and Nonverbal Communication With Black and White Patients at the End of Life

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Abstract

Context. Black patients are more likely than white patients to die in the intensive care unit with life-sustaining treatments. Differences in patient- and/or surrogate-provider communication may contribute to this phenomenon.

Objectives. To test whether hospital-based physicians use different verbal and/or nonverbal communication with black and white simulated patients and their surrogates.

Methods. We conducted a randomized factorial trial of the relationship between patient race and physician communication using high-fidelity simulation. Using a combination of probabilistic and convenience sampling, we recruited 33 hospital-based physicians in western Pennsylvania who completed two encounters with prognostically similar, critically and terminally ill black and white elders with identical treatment preferences. We then conducted detailed content analysis of audio and video recordings of the encounters, coding verbal emotion-handling and shared decision-making behaviors, and nonverbal behaviors (time interacting with the patient and/or surrogate, with open vs. closed posture, and touching the patient and physical proximity). We used a paired *t*-test to compare each subjects' summed verbal and nonverbal communication scores with the black patient compared to the white patient.

Results. Subject physicians' verbal communication scores did not differ by patient race (black vs. white: 8.4 vs. 8.4, *P*-value = 0.958). However, their nonverbal communication scores were significantly lower with the black patient than with the white patient (black vs. white: 2.7 vs. 2.9, *P*-value 0.014).

Conclusion. In this small regional sample, hospital-based physicians have similar verbal communication behaviors when discussing end-of-life care for otherwise similar black and white patients but exhibit significantly fewer positive, rapport-building nonverbal cues with black patients. J Pain Symptom Manage 2016;51:1–8.

Key Words

Communication, race, terminal care, provider behavior, disparities

Introduction

One in five people die with intensive care unit (ICU) services,[1] yet most people have preferences against dying in the hospital with aggressive, life-prolonging treatment.[2–4] End-of-life ICU and life-sustaining treatment use (e.g., mechanical ventilation, feeding tubes, and hemodialysis) varies by race, with blacks being more likely than whites to die in ICU with life-sustaining treatments.[4–9] This is contrary to the well-documented phenomenon of black patients being less likely than whites to receive preventive and early curative treatments.[10–15]

Commentators advance several hypotheses to explain greater end-of-life treatment intensity among black patients, including inferior patient-doctor communication.[16–18] Black patients report worse

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communication with their physicians,[19–37] which in turn impacts trust,[20,22–27] adherence,[26–29] disease outcomes,[29–36] and mortality.[37] Communication is not just the spoken word (verbal communication), but also involves nonverbal cues such as eye contact, body positioning, and touch (nonverbal communication). Nonverbal communication influences interpretation of verbal messages,[38] is linked to rapport, patient trust, satisfaction, recall, compliance, symptom resolution, long-term health improvements, and understanding of high-intensity medical scenarios.[39–45]

Implicit bias, also known as implicit social cognition, refers to attitudes or stereotypes that affect our understanding, actions, and decisions unconsciously. In the nonmedical setting, studies demonstrate that blacks experience such bias through nonverbal communication during their interactions with whites.[46–48] Little is known about how nonverbal communication by physicians might influence patients' treatment preferences at the end of life. In a recent experiment using high-fidelity simulation, we found that hospital-based physicians made similar ICU admission and intubation decisions for otherwise similar black and white patients with end-stage cancer and life-threatening hypoxia, yet held exaggerated beliefs regarding blacks' preference for ICU and life-prolonging treatment.[17] We hypothesize that these beliefs may manifest as differences in communication behaviors when discussing prognosis and treatment with black compared to white patients. The purpose of the present study was to test whether hospital-based physicians use different verbal and/or nonverbal communication behaviors when they interact with black and white simulated patients and their surrogates.

Methods

Details of the simulation study have been published previously.[17,49] Briefly, we conducted a randomized factorial trial to evaluate the relationship between patient race, embodied by the skin color of a patient, and physician decision-making and communication behaviors using high-fidelity simulation. Subject physicians completed two encounters with prognostically similar, critically and terminally ill black and white elders with identical treatment preferences, accompanied by a family member. We used block random allocation to counterbalance encounter order, case (metastatic gastric cancer vs. metastatic pancreatic cancer), and patient race (black vs. white). A distracting survey, collecting demographic, training, and risk perception data, separated the encounters.

Subjects and Recruitment

We recruited 33 hospital-based attending emergency medicine physicians, hospitalists or intensivists from Allegheny County, Pennsylvania, using a combination of probability sampling and convenience sampling.[50] Eligibility criteria included a minimum of one month of hospital-based clinical service per year.

Communication Behavior Coding

We audio and video recorded each encounter using a handheld digital audio recorder and two wall-mounted cameras in each simulation room (Fig. 1). We used a previously validated verbal communication content coding scheme to code encounter audio for emotion handling and shared decision making behaviors.[51,52] Providers received 1 point or 0 points for the presence or absence of a positive communication behavior (Table 2).

We developed a novel nonverbal communication coding scheme to code the encounter videos. To create this scheme, we first drew on published literature to identify and adapt key constructs.[53–55] Specifically, behaviors such as open body position, eye contact, proximity, and touch express positive constructs that underlie patient-doctor rapport, such as "involvement, availability, attention, warmth, encouragement, respect, understanding, empathy, and affiliation."[41,55–59] Two team members (A. M. E. and A. E. B.) operationalized these constructs into independently verifiable nonverbal communication behaviors, adjusted for the length of the encounter (which varied from 3 minutes 40 seconds to 20 minutes and 13 seconds). Measures included 1) percent time spent with open body language; 2) percent time interacting with patient or surrogate (vs. with the chart, the monitor, or the nurse); 3) percent time touching the patient not for diagnostic purposes; and 4) distance from the patient in two planes: along the axis of the patient's body (e.g., distance from the head of bed, with the chest being the most proximate possible) and along the axis perpendicular to the patient's body (e.g., from the right handrail or lateral most plane of the patient's body, with sitting on or touching the bed being the most proximate possible). To measure behaviors 1–3, we used a stopwatch to time portions of the encounter during which the physician subject demonstrated a behavior. We then summed the time demonstrating the behavior and divided by the total encounter time to arrive at a measure of proportion of the encounter time, ranging from 0 (none) to 1 (100% of the time). To measure distance from the patient, we used context clues to assess distance from the head of bed (i.e., the patient's hip, knee, and foot) and from the side of the body (i.e., 12" × 12" floor tiles). We assessed distance beginning at