Improving Health Equity: The Role of the Oncology Advanced Practitioner in Managing Implicit Bias

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Abstract

Implicit bias (IB) is the involuntary activation of thoughts, feelings, attitudes, or stereotypes that exist outside of conscious awareness. Implicit bias develops early in life and research documents the existence of IB across health-care settings. Negative IB impacts patient-provider interactions, produces inferior patient outcomes, and contributes to health-care disparities. Oncology APs are subject to IB and should be aware of its potential impact on professional practice. This manuscript explores the concept of IB and reviews evidence examining the clinical impact of IB in the oncology setting. Strategies for identifying and mitigating IB are explored. Highlights include the use of the Implicit Association Test and emotional intelligence. Advanced practice implications are discussed and range from self-improvement to organizational transformation.

The Institute of Medicine's report, *To Err is Human: Building a Safer Health System*, shocked institutional health care with the revelation that as many as 98,000 people die per year in hospitals due to medical error (IOM, 2000). The IOM followed this report with *Crossing the Quality Chasm: A New Health System for the 21st Century* (2001) outlining six aims for health-care improvement (see Table 1). Health equity, the sixth aim, particularizes the responsibilities of the US health-care system in reducing illness-related morbidity and mortality and improving the health and well-being of every citizen. The achievement of such equity requires universal access to health care without quality variance due to race, gender, sexual orientation, age, ethnicity, income, education, disability, or residential status. Despite the IOM's clear objective, significant disparities in life expectancy and health-care outcomes continue in the US (Wyatt et al., 2016).

Several factors such as a lack of universal access to health-care coverage and unfair institutional reimbursement practices influence the gap between current health care in the US and the achievement of

Table 1. Institute of Medicine's Six Aims for Healthcare
Safe: Avoiding harm to patients when providing care intended to help them
Effective: Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and misuse, respectively)
Patient-centered: Providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions
Timely: Reducing waits and harmful delays for those who receive and give care
Efficient: Avoiding waste across the healthcare continuum
Equitable: Providing quality care regardless of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status
Note. Adapted from Institute of Medicine (2001). Copyright 2001 by the National Academies Press.

health equity at the population level. Analysis of root causes often focuses on broad concepts such as resource allocation and distribution. However, oncology APs must recognize that factors at the individual provider level can also contribute to health inequality and must be addressed as a means for promoting health-care fairness. One such factor is implicit bias (IB).

IMPLICIT BIAS
Implicit bias, also referred to as unconscious bias, is characterized by the involuntarily (automatic), uncontrolled activation of thoughts, feelings, attitudes, or stereotypes that exist outside of conscious awareness (explicit bias; Hall et al., 2015). Implicit bias develops early in life and results from the repetitive reinforcement of social stereotypes (The Joint Commission, 2016). Numerous elements influence the formation of IB, including cognitive learning, motor skill learning, habit learning, conditioning, and priming (Lucas et al., 2019). Children form detectable implicit attitudes toward social groups by age six, and evidence reveals that pro-white IB occurs among children as young as 3 to 5 years old (Baron & Banaji, 2006).

Although many reject the notion of IB by avowing a stance of impartiality, all health-care providers, including oncology APs, are subject to the pervasiveness of IB. Such reflexive bias can negatively alter an AP's perceptions with real-world effects on provider behavior, patient-provider interactions, and clinical decision-making (Staats et al., 2017). Implicit bias may also influence nonverbal behaviors such as eye contact and physical proximity (FitzGerald & Hurst, 2017). It is the impact of negative IB that is of greatest

concern in health care, particularly in regard to its impact on health disparities.

Impact of Bias
In the seminal report, *Unequal Treatment: Confronting Radical and Ethnic Disparities in Health Care*, Smedley and colleagues (2003) highlight the existence of racial/ethnic disparities in health care and assert that "bias, stereotyping, prejudice, and clinical uncertainty on the part of health-care providers may contribute to racial/ethnic disparities in health care" (p. 12). Early evidence examining the impact of IB on physician recommendations for thrombolysis for acute coronary syndromes among Black and White patients demonstrated that as physicians' prowhite IB increased, so did the likelihood of treating white patients and not treating Black patients with thrombolysis (Green et al., 2007).

While noting that health-care professionals exhibit the same levels of IB as the wider population, FitzGerald and Hurst (2017) investigated IB on the part of physicians and nurses as related to racial/ethnic bias, gender, socioeconomic status, age, and weight and found correlating evidence suggesting a significant positive relationship between levels of IB and a lower quality of care. In a systematic review, Hall and colleagues (2015) investigated racial/ethnic IB among health-care professionals examining the relationship between health-care professionals' attitudes and health-care outcomes. The authors concluded that most health-care providers appear to have IB and that IB was significantly related to patient-provider interactions, treatment decisions, treatment adherence, and patient health outcomes.

In oncology, implicit racial bias on the part of oncologists is negatively associated with communication patterns, patients' reactions to racially discordant oncology interactions, and patient perceptions of recommended treatments (Penner et al., 2016). Liang and colleagues (2019) examined gynecologic oncology care providers' implicit prejudice and stereotyping toward cervical cancer. The study concluded that oncology gynecologic oncology providers hold implicit prejudice and stereotyping toward cervical cancer, with nurses demonstrating greater levels of IB and stereotyping as opposed to physicians who did not demonstrate significant levels of IB. One example is that providers expressed stronger associations between beliefs about risky health behaviors and cervical cancer as opposed to ovarian cancer.

Elliott and colleagues (2016) conducted a randomized factorial trial of the relationship between patient race and physician communication using high-fidelity simulation to determine if hospital-based physicians use different verbal and/or nonverbal communication with Black and White patients at the end of life. Although the sample was small, the investigators found no difference in verbal communication behaviors when discussing end-of-life care among Black and White patients, but the physicians exhibited significantly fewer positive, rapport-building nonverbal cues with Black patients. Smith and colleagues (2018) explored discussions by 22 randomized oncologists about treatment, prognosis, and goals of care among patients with advanced cancer with less than a 2-year prognosis in minority and nonminority groups. The median face-to-face time spent with minority patients was 12 minutes compared with 17 minutes for nonminorities (p = .002).

The role of IB within the context of the recruitment of racial and ethnic minorities to cancer clinical trials has been recently explored. Niranjan and colleagues (2020) assessed the experiences of clinical and research personnel related to factors influencing the recruitment of racial and ethnic minorities for cancer clinical trials. Ninety-one qualitative interviews were conducted at five US cancer centers among cancer center leaders, principal investigators, referring clinicians, and research staff. Results indicate respondents view racial and ethnic minorities as less promising participants, and some respondents reported withholding trial opportunities from minorities based on that perception. It is important to note that to some respondents, race was perceived as irrelevant in clinical trial recruitment.

In the oncology setting, the provision of adequate pain management is key to improving quality of life for patients with cancer-related pain. The existence of IB has the potential to impede the proper assessment and treatment of pain in this setting. Hoffman and colleagues (2016) examined beliefs associated with racial bias in pain management with evidence suggesting that false bias about biological differences between Black and White patients is associated with racial disparities in pain assessment and treatment recommendations. Bias resulting in the inadequate control of cancer-related pain extends to other minorities, including patients from Hispanic backgrounds (Cleeland et al., 1997). Implicit bias has been found to impact prescribing of opioids in the pediatric setting (Sabin & Greenwald, 2012).

The destructive effects of IB are not restricted to relationships between patients and providers. Implicit bias poses substantial threats to professional development and collaboration. Implicit bias was linked to significant levels of White preference among medical school admissions committee members at the Ohio State University, findings which led to education and corrective measures that have resulted in improved university admission diversity (Capers et al., 2017). In an observational study of video-archived speaker introductions at the 2018 and 2019 Society of Surgical Oncology Annual Meeting, Stewart and colleagues (2020) concluded that residents and fellows were more likely to receive a nonprofessional form of address, and the likelihood of this increased with rising seniority of the introducer. This type of IB can foster academic disparities and impede academic advancement.

STRATEGIES TO ADDRESS IB

Despite obvious gaps in the literature specifically addressing IB among oncology APs, the negative impact of IB on patient-provider relationships, clinical outcomes, and health equity demands that oncology APs create and implement strategies to eliminate or reduce IB at the individual and organizational levels. Effectively addressing IB begins with an individual

acknowledgment of IB as a valid phenomenon. Oncology APs must become self-aware of existing biases and take measures to reduce or eliminate them once detected. The process of deliberative reflection improves individual recognition for bias (Marcelin et al., 2019). Mindfulness decreases IB by changing brain structures in ways that reduce prejudice, raise awareness of personal biases, provide an opportunity for self-regulation, and reduce stress and cognitive load (Burgess et al., 2017). However, the processes of self-introspection and mindfulness alone are not likely to be of benefit in uncovering IB. One tool oncology APs can use (and combine with self-introspection and mindfulness) to help explore and identify IB is the Implicit Association Test (IAT).

Implicit Association Test

The IAT is a validated tool that measures the attitudes and beliefs that many are unwilling or unable to report. The IAT involves rapidly pairing two social groups (concepts) with positive or negative attributes to measure the strength of associations between concepts and evaluations. The IAT requires multiple phases of sorting over time. The main theme is that making a response is easier when items that are closely related share the same response key. The IAT score is based on the time it takes a person to sort words in the third part of the test vs. the fifth part of the test. Feedback is then provided to users as a means for identifying IB (Project Implicit, 2011). Multiple categories are available for testing (see Table 2). For example, a provider could choose the race category. The race IAT requires the user to sort pictures (Black and White people) and words (good or bad) into pairs. Based on the time needed to perform these tasks, a computer algorithm calculates a bias score and provides feedback indicating no racial bias, slight pro-White bias, moderate pro-White bias, or strong pro-White bias (Marcelin et al., 2019). Testing and scoring are unique to each category. Access to the IAT is free and available online (https://implicit.harvard.edu/implicit).

Stereotype Replacement

Recognizing the existence of IB creates an opportunity for behavioral redirection with an ultimate improvement in patient-provider interactions and control of the potential negative impact IB can have on patient outcomes. Several strategies can be used by APs to confront IB. Stereotype replacement involves recognition that a response is based on a stereotype, labeling the response as such, and consciously replacing the response with an unbiased one. An important part of stereotype replacement is a reflection on the origin of the stereotype. Counter-stereotyping may also be useful in that

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Table 2. Implicit Association Test Categories

Transgender IAT: Transgender vs. cisgender celebrity faces

Gender-Career IAT: Reveals link between family and females and career and males

Asian IAT: Recognize White and Asian-American faces, and images that are American or foreign in origin

Arab-Muslim IAT: Distinguish names that belong to Arab-Muslims vs. others

Race IAT: Testing automatic preference for White over Black

Gender-Science IAT: Looking for link between liberal arts and females and between males and science

Weapons IAT: Ability to recognize White and Black faces, and images of weapons or harmless objects

Skin-tone IAT: Recognize light and dark-skinned faces.

Sexuality IAT: Distinguish words and symbols representing gay and straight people

Disability IAT: Recognize symbols representing abled and disabled persons

Religion IAT: Requires familiarity with religious terms from various world religions

Weight IAT: Distinguish faces of people with obesity vs. thin faces

Presidents IAT: Recognize photos of Joe Biden and one or more previous presidents

Age IAT: Distinguish old from young faces

Note. Adapted from Project Implicit (2011). Copyright 2011 by Project Implicit.

one can imagine individuals as the opposite of the stereotype (Devine et al., 2012).

Individualization

Individualization helps to evaluate an individual based on personal characteristics rather than those associated with a stereotyped group (Edgoose et al., 2019). Advanced practitioners can utilize this technique by taking an in-depth personal history of each patient.

Perspective-taking is the cognitive component of empathy that provides a medium for putting oneself in another's shoes and living an experience from another's perspective. Empathy has documented positive effects on patient satisfaction, perceptions of control, emotional distress, adherence, health outcomes, and patient enablement (Burgess et al., 2017; Derksen et al., 2013). It has been shown to decrease bias and to inhibit the activation of prejudices (van Ryn et al., 2011).

Partnership-Building and Cultural Humility

Partnership-building, reframing the interaction with the patient as one between collaborating equals working toward a common goal, reduces patients' experiences of stereotype threats (Devine et al., 2012). Exposure to counterstereotypical experiences by seeking opportunities for contact with individuals from different or underrepresented groups can have a positive impact on IB (Marcelin et al., 2019). As a means for decreasing IB, oncology APs are encouraged to engage in personal or professionally diverse experiences by intentionally collaborating with members of other racial or ethnic groups, genders, sexual preferences, etc. Practicing cultural humility, or acknowledging equality in the worldview of another, is foundational to rewarding diversity experiences.

Emotional Intelligence

Research suggests that providers with good emotional regulation skills and those who experience positive emotions during clinical encounters may be less likely to stereotype patients in terms of racial, ethnic, or cultural groups and more likely to embrace patients in terms of individual attributes (Devine et al., 2012). Emotional regulation is a group of psychological processes and behavioral tactics providers can use to manage emotional responses adaptively. Such an ability is theoretically and empirically associated with emotional intelligence (EI; Zysberg & Raz, 2019). Emotional intelligence is a group of five skills (self-awareness, self-regulation, motivation, empathy, and social skill) that enables individuals and leaders to maximize their performance and that of patients or followers (Goldberg, 2015). For most, these skills are not innate. Fortunately, they can be learned. Table 3 outlines key websites and resources for enhancing EI.

IMPLICATIONS FOR APs

Oncology APs are well-suited to address IB and can be instrumental in implementing strategies to reduce IB at a personal, professional, and organizational level. They can provide leadership by forming collaborative relationships with other providers and organizational leaders before assessing the system for IB and developing measures to correct it. Leadership is not possible without personal recognition of the existence of IB and successful management of its impact on patient-provider interactions. Mastery of this type of patient-focused leadership bridges oncology APs to organizational and system-focused leadership. Advanced practitioner capabilities that are likely to impact patients, families, nurses, the organization, and outcomes include collaboration, manag-

Table 3. Resources for Enhancing Emotional Intelligence	
HBR's 10 Must Reads on Emotional Intelligence	https://store.hbr.org/product/hbr-s-10-must-reads-on-emotional-intelligence-with-featured-article-what-makes-a-leader-by-daniel-goleman/15036
Transforming Care at the Bedside	http://www.ihi.org/Engage/Initiatives/Completed/TCAB/Pages/default.aspx
Relational Wisdom 360 by Ken Sande	https://rw360.org
Developing Your Emotional Intelligence	https://www.linkedin.com/learning/developing-your-emotional-intelligence
Emotional Intelligence: Why It Can Matter More Than IQ	https://www.danielgoleman.info

ing patient-centered care, advocating, improving quality of care, coaching and educating, networking, effectively communicating, and mentoring (Lamb et al., 2018).

Oncology APs can start by educating colleagues about IB, directing them to resources such as the IAT, and advocating for IB education and diversity training at the academic level. Implicit bias training and use of the IAT has been proven to reduce IB among medical school students and academic faculty, increasing diversity among medical school admissions (Staats et al., 2017). Oncology APs at the academic level can empower leadership to cultivate diversity experts and include IB and diversity training into curricula. This type of grassroots effort has the potential for long-lasting impact on improved patient outcomes free of the influence of IB.

Oncology APs occupying organizational leadership positions must accept responsibility for mitigating the effects of IB in organizational decision-making. One example is purging IB from the hiring and promotion of staff, clinicians, and faculty (Wyatt et al., 2016). Reports of overt discrimination or unfair treatment must be investigated. Collecting data on race or other indicators of social position can be used to monitor and evaluate the impact of the organization's strategies for eliminating care inequalities. Policies and procedures must be implemented to protect clinicians from high cognitive load and to promote positive emotions. Policies should promote racial diversity at all levels of the organizational hierarchy and support positive intergroup contact to reduce prejudice. When inequalities are found or IB impacts outcomes, oncology APs can provide equity-specific feedback, compassionate remediation, and IB training. Implicit bias training should include self-awareness of IB, skills related to perspective-taking, emotional regulation, and partnership-building (The Joint Commission, 2016).

Reducing IB in health care and ensuring diversity long term requires oncology APs to forge a cultural change at the organizational level. This requires building an institutional capacity for change that goes beyond amended vision or philosophy statements (Marcelin et al., 2019). Public relations campaigns and employee must-read check box attestations are likely to do little to support a cultural shift. True cultural change

will come from a genuine commitment to cultural inclusion. Organizations must enlist a critical mass of underrepresented individuals and recruit leaders who can act as change agents and are empowered to create equitable environments (Marcelin, et al., 2019). Such leadership is possible and begins with individual oncology AP accountability and fulfillment of the oath to provide equitable care to all.

CONCLUSION

Implicit bias is inherent among the general population, including oncology APs. It impacts patient-provider behavior and relationships, and is associated with unsatisfactory health outcomes. In the US, IB contributes to health-care disparities. Oncology APs must seek education regarding IB, acknowledge its potential for disruptive patient care, and use tools such as the IAT to identify personal IB. Once IBs are identified, they can be unlearned or modulated. Education and elimination of IB in the health-care setting extends beyond the individual space. As leaders, oncology APs must advocate for policy changes at the organizational level and work to ensure a culture of change within the organization and at academic levels. The generation of new knowledge exploring the impact of IB as it specifically relates to oncology APs is necessary to narrow the current gap in evidence and the literature. ●

Disclosure
The author has no conflicts of interest to disclose.

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