Association of periOperative Registered Nurses

Health Disparities Experienced by Surgical Patients of Color: What is Known and Key Actions to Take

A White Paper

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ABSTRACT

As in health care in general, disparities in surgical care and outcomes exist between patients of color and their white counterparts. The reasons are multifactorial and interconnected, with contributing factors related to the patient, health care providers, the health care system, and surgical and postoperative care. Disparities can occur at any point along the perioperative continuum. Research conducted during the past 10 years supports the existence of disparities in the surgical experience, but few researchers have recommended strategies that perioperative teams can implement for improvement. This paper identifies disparities in surgical care and outcomes experienced by patients of color as well as actions that can be taken to decrease disparities, which include addressing social determinants of health, addressing health care provider bias, increasing the minority nursing workforce, promoting change at the institution and national level, and implementing ERAS protocols. Future research should focus on surgical disparities experienced by other minority groups, including other racial and ethnic minorities and LGBTQ+ populations.

PURPOSE

In the United States, health care disparity occurs in the broader context of social and economic inequality and ethnic and racial discrimination.[1] The National Academy of Sciences defines health care disparity as "racial or ethnic differences in the quality of healthcare that are not due to access related factors or clinical needs or preference or appropriateness of interventions."[1]

Discrimination is defined as "differences in care that result from biases, prejudices, stereotyping, and uncertainty in clinical communication and decision-making."[1]

The purpose of this review was to gain insight into racial disparities in the surgical setting, highlight actions that facilities and perioperative teams can take to mitigate disparities, and identify information gaps that should be the focus of future research. Perioperative team members are ethically responsible to lead the development and implementation of changes in health care and in public and health policies that address disparities in surgical care and outcomes.

LITERATURE SEARCH METHODS

A medical librarian with a perioperative background conducted a systematic search of the databases EMBASE, MEDLINE, CINAHL, and the Cochrane Database of Systematic Reviews. Results were limited to literature published in English from January 2010 to May 2021. Search terms included the subject headings and keywords *healthcare disparities* and *surgery*. Included were articles written in English that mentioned racial disparities in any surgical specialty area. Studies from outside of the United States were excluded. The initial search yielded 242 articles.

The author requested additional articles that either did not fit the original search criteria or were discovered during the review process. After removing duplicate articles, the author reviewed the remaining articles in their entirety and evaluated them. After this review, the author included 57 articles as references for this paper. Terms related to social determinants of health (SDOH) were not included in the literature search; however, because disparities in care and outcomes are interconnected with SDOH, this topic is included in the Actions to Decrease

Disparities section of the document. Resources related to SDOH are provided at the end of this paper.

SURGICAL DISPARITIES

Compared to white patients, patients who are members of a racial or ethnic minority

- are less likely to
  - undergo surgical treatment and
  - receive timely followup and
- are more likely to
  - suffer from multiple chronic conditions,
  - experience an adverse event,
  - have inappropriate tests ordered,
  - have a longer length of hospital stay,
  - be readmitted to the hospital,
  - be admitted to hospitals when their illnesses could be managed on an outpatient basis,
  - have fewer medically indicated treatments and procedures,
  - have worse surgical outcomes and longer lengths of hospital stay, and
  - have less satisfaction with care.[2-10]

Disparities in surgical care and outcomes can occur at any point along the perioperative continuum.[6] Preoperative disparities may be related to access to surgery; screening prior to surgery; patient co-morbidities; patient gender, race, and other characteristics; insurance status; and proximity to hospitals that provide care. Intraoperative disparities may be related to variations in care, hospital quality, surgical volume, clinical protocols, provider decision making,

provider clinical and cultural competency, unconscious bias, and technology. Postoperative disparities may be related to disparate outcomes (eg, morbidity and mortality, complications, re-hospitalizations), the patient's ability to understand and comply with postoperative care instructions, and the availability of high-quality rehabilitation venues.[11]

In a comprehensive review, Torain et al[12] synthesized the literature into a framework for conceptualizing surgical disparities to inform interventions that will improve surgical care and outcomes.[12] They identified five major themes: patient factors, provider factors, system and access factors, clinical care and quality factors, and postoperative care and rehabilitation factors. (Table 1).

Table 1. Factors that Affect Surgical Disparities

Patient	Provider	System and Access	Clinical Care and Quality	Postoperative Care and Rehabilitation
• Sociodemographic factors (eg, race, sex, socioeconomic status, culture, environment) • Psychosocial and clinical factors (eg, comorbidities, chronic illness, severity of illness, mental illness) • Patient behaviors (eg, lifestyle choices, adherence to treatment) • Patient-system-physician interaction (eg, rapport, communication, trust, access to medical care, health literacy) • Care processes (eg, treatment plan, counseling, testing) • Outcomes (eg, surgical outcomes, complications, readmissions)	• Unconscious bias • Cultural competency • Language used to communicate with the patient • Clinical training and competency • Awareness and motivation of health disparities • Supportive hospital policy • Facility staffing and available resources	• Access to health care • Insurance coverage • Hospital or institutional policies • Surgical protocols and strategies • Cost containment, payment structures, and incentives • Data systems and electronic health care records	• Patient-centered care (eg, shared decision making, perceived quality of care, patient satisfaction • Supportive technology • Quality improvement strategies (eg, board certified physicians in hospitals that serve minorities) • Clinical guidelines and surgical protocols • Hospital characteristics (eg, volume and quality, safety, practice variations)	• Postoperative care and experience • Entry point into rehabilitation • Length of rehabilitation • Timing • Management of rehabilitation and care referral

Reference
Torain MJ, Maragh-Bass AC, Dankwa-Mullen I, et al. Surgical disparities: a comprehensive review and new conceptual framework. *J Am Coll Surg*. 2016;223(2):408-418.

ACTIONS TO DECREASE DISPARITIES

Among 36 articles that examined surgery in general, pediatric surgery, laparoscopic surgery, cancer surgery, heart surgery, bariatric surgery, anesthesia, and orthopedics,[3,5,13-45] most of the studies demonstrated that racial disparities exist in the surgical setting and across these specialties, but few recommended interventions for perioperative practice. More research needs to be conducted on mitigating disparities to improve outcomes. However, there are issues that can be addressed to improve health care providers' understanding of disparities related to the perioperative setting and begin to reduce disparities for surgical patients.

Addressing Social Determinants of Health

Social determinants of health can be defined as the conditions in which people are born, grow, live, work, and age. They include factors such as socioeconomic status, physical environment, access to healthy food, social support networks, neighborhood of residence, employment, access to safe housing and transportation, and health care coverage.[46] Patients may live in areas where there is substandard housing; a lack of safety; and little access to sidewalks, playgrounds, parks, recreational areas, and libraries.[46] These factors negatively affect people's access to healthy options and thus their health outcomes. Patient behaviors such as smoking, exercise, and diet as well as socioeconomic factors are main drivers of health outcomes, and social and economic factors can shape the health behaviors of an individual patient.[46]

In a study that examined disparities between white and black patients with Medicare, the researchers reviewed data from 838 hospitals across six states that included 18,861 elderly black patients and white matched control patients.[47] The primary outcome measure was 30-day mortality, and other outcomes measures were in-hospital mortality, failure-to-rescue,

complications, length of hospital stay, and readmissions. Black patients had higher rates in all measured outcomes; however, after the researchers adjusted for preoperative risk factors, they found no significant difference in mortality or failure-to-rescue and the other outcome differences were small. These findings led the researchers to conclude that the difference in outcomes was attributable to preoperative risk factors and not hospital quality.[47]

Addressing SDOH in the perioperative setting is a critical step in improving health equity because SDOH are interwoven as drivers of patient health outcomes. It is important to understand SDOH within the individual community and the employee population.[48] Nurses are holistic caregivers, but they are not routinely taught about SDOH and its impact on patient outcomes. Knowledge of SDOH provides nurses with a deeper understanding of the root causes of illness and poor quality of life that some patients face and the impact of these on surgical outcomes.[49] Making SDOH a priority in nursing education, practice, research, and policy should be part of every organization's strategic plan.[49]

Phillips and colleagues[49] conducted a cross-sectional study to assess nurses' knowledge, perceived self-efficacy, and intended behaviors relative to integrating SDOH into clinical practice. Fifty percent of the nurse respondents reported feeling more knowledgeable or confident in their ability to discuss issues related to access to care compared to the other SDOH. Barriers included time to address identified patient needs and unfamiliarity with internal or external patient resources. The nurses emphasized the need for interprofessional education and collaboration among health care providers and the need for more information on the role of social workers. The study findings support the need for providing education and resources for frontline nurses and addressing the broader patient societal needs that influence health status and patient outcomes.[49]

Addressing patient's social needs as well as their medical needs offers health care facilities the opportunity to increase value, which the American Hospital Association describes as "a complex concept comprised of improving outcomes, enhancing the patient experience and reducing cost."[50] Examining and understanding a person's social needs starts with asking sensitive questions and having important crucial conversations.[51] In a survey of hospitals and health systems, 8% of respondents reported they were screening for SDOH, but a quarter of the screenings were only performed occasionally or with a select patient population.[50] Reported barriers to SDOH screening included the following[50]:

- Discomfort engaging in conversations about potentially sensitive topics such as SDOH. Health care providers reported that they worry that patients will perceive the questions as offensive if not delivered in a manner that conveys empathy.
- Insufficient time and compensation for screening because medical providers tend to prioritize medical care over social needs.
- Lack of systems and standardized processes for documentation and referrals.
- Perceived lack of impact that clinicians can have on a patient's complex social, behavioral, and economic needs (ie, that this issue is out of their sphere of influence).
- Patients' reluctance to discuss social needs with anyone including their health care provider for reasons such as shame at not being able to provide for themselves, fear of what the clinician will do with the information, and the perception of stigma attached to needing help and support.

A successful screener understands the patient, allows them to talk to identify their needs, and seeks recommendations to help them. This openness supports equitable patient care and adds value to the health care facility.[51] Health care providers are in a unique position to screen patients

for SDOH. Having dedicated health coaches and patient navigators can bridge that gap by helping to improve engagement and understanding of social needs.[48] Health care providers build true relationships with patients by actively listening to them and providing a safe space for them to talk and share concerns. This allows patient interactions to be empowering, positive, empathetic, and encouraging.[51] There is no one-size-fits-all approach to SDOH screening, and each hospital or health care facility should adapt its approach to the specific needs of their community as well as resources to operationalize SDOH screening and referrals (Sidebar 1).[50]

Health care facilities creating an SDOH screening process should optimize opportunities for collaboration,[50] for example, by co-designing the screening process with providers, patients, and community stakeholders. Providers can make sure that SDOH screening aligns with providers' clinical work and gives them ownership in the process. Patients can provide insight into the best for providers and community stakeholders to talk to patients about SDOH. Community stakeholders know the needs of the community and can strengthen the relationship between health care facilities and all community stakeholders. Partnering with the community can not only affect patients but improve their communities at large.[51] The co-designing process can identify locations where clinicians and others can screen for SDOH. These include hospital offices, examination rooms, and via telehealth or electronic communication. Real time SDOH screening can identify issues quickly and connect patients with resources in a timely manner.

Results of SDOH screening should be documented in the patient's medical record so social determinants can be added to the patient's treatment plan that can then be accessed by all health care providers. Additionally, the patient can be followed to determine changes to the screening over time and identify any new patient needs. Health care facilities should establish a

process of next steps when a patient SDOH screening identifies a social need. This process should include[51]

- defining the roles and responsibilities of all members of the patient's care team;
- empowering the care team with tools, skills, and time to learn, implement and track the screening and referral process;
- creating a centralized system to capture the patient's information and data;
- creating a referral network and foster relationship with community resources;
- identifying key community resources in which to work and develop a database of these resources; and
- developing a system to track referrals and make sure the process is completed and successful.

Providing training to all health care providers and giving them SDOH tools and the time necessary to guide culturally competent, empathic, sensitive conversations can promote SDOH screening in everyday care.

Sidebar. Guiding Principles for SDOH Screening Strategies

No matter the screening strategy or tool that a facility chooses, there are some guiding principles that should be incorporated[1]:

- Empathy—building connections between patients and their health care providers
- Respect—valuing the feelings, wishes, rights, and traditions of others
- Autonomy—supporting the rights of patients to make their own decisions about their care
- Trust—gaining patients' confidence to help overcome barriers and help health care providers gain insight into a patient's life circumstances and priorities
- Dignity—recognizing patients as equals, valuing their needs, and informing them about the medical diagnosis and treatment while understanding a patient's right to make decisions
- Collaboration—partnering with community stakeholders to develop plans to meet their community's social needs
- Support—taking time to understand health and social needs of patients and respecting their decision to seek help
- Sensitivity—appreciating the feelings of others when asked to share social concerns and building a safe environment in which to share

- Cultural competence—Recognizing diversity and establishing a culture in which health care providers acknowledge that society and attitudes toward health have a cultural grounding and individuals should be encouraged to address health and society needs in a culturally appropriate manner[2]
- Community engagement—partnering with community organizations to address issues that impact the well-being of groups in the community.

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Addressing Providers' Biases

There is limited data on surgical provider perspectives of racial disparities. Stereotyping, bias, prejudice, and clinical uncertainty on the part of health care providers may contribute to disparities in health care. A greater understanding of the prevalence of this problem needs to be gained through research.[1,10]

Researchers who surveyed perioperative team members at one institution to assess their perceptions of disparities in perioperative care based on clinical position found that physicians had a greater perception of disparities than non-physician team members. This study emphasized the need for discussing disparities with perioperative staff and that further research is needed.[52]

The authors of one article discussed that surgical and clinical decision making can be subject to implicit bias, which is an area that facilities need to address,[53] for example by reducing implicit bias within organizational policies.[2] Health care providers should be taught to recognizing unconscious bias and stereotyping in the clinical setting, and more research should be conducted on its effects. Perioperative team members should be able to acknowledge unconscious bias and provide equitable, compassionate care to all patients in the surgical setting.[53]

Diversifying the Nurse Workforce

The population of registered nurses in the United States is growing in diversity; however, minority nurses are still underrepresented in the workforce.[48] The influence of the minority nurse population on health disparities is not well documented; but it is assumed that increasing the diversity of the nurse workforce will lead to a decrease in health care disparities among racial and ethnic minority groups.[48] A growing number of minority nurses are leading research on health care disparities and are advancing the knowledge of the types interventions needed to combat health care disparities.[48]

The underrepresentation of minority nurses in leadership is also a concern. Minority nurses in leadership roles could influence health disparities in individual institutions by allocating resources, focusing on recruitment and retention of a diverse workforce, and helping to shape local and national policy aimed at reducing disparities.[48]

Organizations such as the National Black Nurses Association, the National Association of Hispanic Nurses, the Association of Black Nursing Faculty, the National Coalition of Ethnic Minority Nurse Associations (comprising the Asian American/Pacific Islander Nurses Association, National Alaska Native American Indian Nurses Association, National Association of Hispanic Nurses, National Black Nurses Association, and Philippine Nurses Association of America) are committed to reducing health care disparities by recruiting minority nurses and supporting them with mentoring, financial resources, and professional development opportunities.[48] These organizations serve communities, are policy advocates, are active politically, and support research that addresses health care disparities.[48]

Making Institutional and Policy Changes

Some disparities can be attributed to a health care system in which there are ineffective communication processes, limited understanding different cultures, and an insufficient focus on health literacy.[2] Some national initiatives and health policy changes over the years have addressed racial disparities.[13] In a study of nationwide Medicare inpatient claims data from 2005 to 2014, researchers found that 30-day postoperative mortality rates improved for both white and black patients. The study findings suggested that surgical disparities were narrowing,[54] but there is still much work to be done.

Creating a framework to improve health equity should be a strategic priority for health care organizations.[2] This initiative will require sustainable funding and leadership commitment to improving equity at all levels of the organization.[2] A governance committee should oversee and support the effort and should establish strategies to address SDOH that can have a direct impact on the patient population and community (eg, promotion of healthy behaviors, provision of community health services).[2] When outcome disparities become apparent for a specific surgery of condition, the organization should target interventions toward that problem.[55]

Practitioners should receive workforce education and cross-cultural training to increase awareness of racial and ethnic disparities. Education and policies should promote consistent use of evidence-based guidelines and checklists to promote equitable care.[1,55] Interdisciplinary teams can be convened to focus on optimizing patient care and implementing patient education to increase patients' knowledge of how to access care and participate in treatment decisions.[1]

Changes that health care organizations and providers should advocate for at the national policy level include[1]

- expanding affordable and quality health coverage,
- increasing the number and capacity of providers in underserved communities,

- structuring payment systems to improve services for minority patients and limit provider incentives that may promote disparities,
- providing financial incentives for practices that reduce barriers and encourage evidence-based practice, and
- implementing performance measurements based on health care disparities.

Implementing ERAS Programs

Enhanced Recovery After Surgery (ERAS) programs focus on standardizing care through multimodal strategies to reduce the body's physiological stress and help promote early recovery.[56] The interventions include elements such as educating patients, promoting early mobility, optimizing nutrition, and using multimodal analgesia. Implementing ERAS programs requires collaboration of interdisciplinary teams to improve postoperative outcomes for patients.[56]

Wahl and colleagues[56] examined using ERAS to decrease racial disparities. This was a retrospective matched cohort study of all patients undergoing colorectal surgery with an ERAS protocol at one institution that served minority populations and served as a tertiary referral center. These patients (n = 210) were matched with patients who underwent colorectal surgery before ERAS protocols were instituted in the facility (n = 210). Within the pre-ERAS group, hospital stays for black patients were a mean of 2.7 days longer than expected compared with white patients. In the ERAS group, patients had a significantly shorter length of stay compared to pre-ERAS patient group, and there were no differences between white and black patients. Additionally, there were no difference in mortality or readmissions between black and white patients treated using ERAS protocols. The researchers concluded that the ERAS program

eliminated racial differences in length of stay, mortality, readmissions, and most postoperative complications and recommended that ERAS be used as a strategy to eliminate racial disparities in surgical outcomes.[56]

LIMITATIONS OF THIS REVIEW

The literature search had a very narrow scope, and a wider scope could have revealed more studies. Minority populations include but are not limited to racial and ethnic minorities; people with disabilities; and lesbian, gay, bisexual, transgender, and queer groups (LGBTQ+).[12] Individuals may possess more than one of these minority characteristics simultaneously, for instance by being both Hispanic and a member of the LGBTQ+ community. This is called intersectionality; multiple identities such as race, gender, sexual orientation, socioeconomic status, and disability intersect, which influences each person's lived experience.[2] Most studies are retrospective reviews or literature reviews, most only examined race and did not address ethnic groups, the LGBTQ+ patient population, cultural disparities, or the impact of health care insurance on disparities.

RECOMMENDATIONS FOR FUTURE RESEARCH

Most of the research on surgical disparities focuses on differences between black and white patients. More research needs to be conducted on disparities experienced by other racial and ethnic groups and LGBTQ+ populations and on the effects of SDOH.

Research should be focused not only what the disparities are but also on the reasons they exist and interventions to eliminate them.[57] Evaluation measures and metrics are needed to assess the contributions of a diverse workforce toward eliminating health disparities. The effects of

health care providers' stereotyping, bias, prejudice, and clinical uncertainty on disparities should be a focus of future research, and more research should be conducted on ERAS protocols and their effects on reducing disparities.

CONCLUSION

As with health care in general, there is an interconnectedness in surgical care between race; ethnicity; socioeconomic factors; and patient, provider, and systemic factors.[10,12] Solutions to eliminating disparities need to address the root causes experienced by people of color and other minority populations. States will need to develop policies to address the multitude of problems that patients of color and minorities face. Health care facilities will need to address access to care, insurance coverage, navigating the health care system, provider biases, screening, and referrals for SDOH, and the use of patient navigators and community health workers to help address social problems that contribute to disparities. Individual health care providers need to be educated and open to examining their own stereotyping, bias, prejudice, and clinical uncertainty and become engaged in working on this pervasive problem. Research into the multitude of factors that produce health care disparities needs to continue to inform future recommendations and guidance.

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Resources

- American Hospital Association
  - Addressing the Social Determinants of Health | AHA Trustee Services
  - Resource on ICD-10-CM Coding for Social Determinants of Health | AHA
  - Social Determinants of Health Series: Food Insecurity and the Role of Hospitals | AHA
  - Social Determinants of Health Series: Housing and the Role of Hospitals | AHA
  - Social Determinants of Health Series: Transportation and the Role of Hospitals | AHA
  - Social Determinants of Health Virtual Expedition Modules | AHA
- Department of Health and Human Services
  - Health Disparities Resources | HHS.gov
- Referral Tools for Positive Social Needs Screens
  - One Degree | Community resources near you (1degree.org)

- 211.org
- findhelp.org, by Aunt Bertha - The Social Care Network
- Social Determinants of Health Management- Healthify
- Technology and Data Partnerships — Health Leads (healthleadsusa.org) No longer works
- Home - NowPow
- PARTNER Platform - Visible Network Labs

- Skill Building Tools for Patient-Centered Conversations
  - The Importance of Listening in Healthcare | Nell Tharpe | TEDxUNE - YouTube
  - A Playbook for Fostering Hospital-Community Partnerships to Build a Culture of Health | AHA
  - How to Show Empathy (charterforcompassion.org)
  - Food-Insecurity-Toolkit.pdf (feedingamerica.org)
  - Motivational Interviewing in Healthcare: 10 Strategies (healthcatalyst.com)