



TAHOE FOREST HOSPITAL DISTRICT

2024-11-22 Board Quality Committee Meeting

Friday, November 22, 2024 at 12:00 p.m.

Tahoe Forest Hospital - Eskridge Conference Room

10121 Pine Avenue, Truckee, CA 96161



Meeting Book - 2024-11-22 Board Quality Committee Meeting

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No related materials.

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QUALITY COMMITTEE AGENDA

Friday, November 22, 2024 at 12:00 p.m.
Eskridge Conference Room – Tahoe Forest Hospital
10121 Pine Avenue, Truckee, CA 96161

1. CALL TO ORDER

2. ROLL CALL

Michael McGarry, Chair; Robert Barnett, Board Member

3. CLEAR THE AGENDA/ITEMS NOT ON THE POSTED AGENDA

4. INPUT – AUDIENCE

This is an opportunity for members of the public to address the Committee on items which are not on the agenda. Please state your name for the record. Comments are limited to three minutes. Written comments should be submitted to the Board Clerk 24 hours prior to the meeting to allow for distribution. Under Government Code Section 54954.2 – Brown Act, the Committee cannot take action on any item not on the agenda. The Committee may choose to acknowledge the comment or, where appropriate, briefly answer a question, refer the matter to staff, or set the item for discussion at a future meeting.

5. APPROVAL OF MINUTES OF: 08/06/2024 ATTACHMENT

6. CLOSED SESSION

6.1. Hearing (Health & Safety Code § 32155)

Subject Matter: Case Review

Number of items: One (1)

6.2. Approval of Closed Session Minutes

6.2.1. 08/06/2024 Closed Session Board Quality Committee

7. ITEMS FOR COMMITTEE DISCUSSION AND/OR RECOMMENDATION

7.1. Informational Reports

7.1.1. Patient & Family Centered Care

7.1.1.1. Patient & Family Advisory Council (PFAC) Update..... ATTACHMENT

Quality Committee will receive an update related to the activities of the Patient and Family Advisory Council (PFAC).

7.1.2. Patient Safety

7.1.2.1. BETA HEART Program Progress Report ATTACHMENT

Quality Committee will receive a progress report regarding the BETA Healthcare Group Culture of Safety program.

7.2. Safety First

7.3. Standard Work Bundles ATTACHMENT

Quality Committee will review the standard work bundle data and process improvement activities to date.

7.4. Process Improvement Projects

Quality Committee will receive an update on the Vizient project plan, Management Systems, and future process improvement activities.

7.5. Board Quality Education ATTACHMENT

Quality Committee will review the educational articles listed below and discuss topics for future board quality education:

- 7.5.1.** Hall, WJ, Chapman, MV, Lee, KM, Merino, YM, Thomas, TW, Payne, BK, Eng. E, Day, SH, Coyne-Beasley, T. *Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review*. American Journal of Public Health, 105, 12 (2015).

8. REVIEW FOLLOW UP ITEMS / BOARD MEETING RECOMMENDATIONS

9. NEXT MEETING DATE

The next committee date and time will be confirmed for February 2025.

10. ADJOURN

*Denotes material (or a portion thereof) may be distributed later.

Note: It is the policy of Tahoe Forest Hospital District to not discriminate in admissions, provisions of services, hiring, training and employment practices on the basis of color, national origin, sex, religion, age or disability including AIDS and related conditions. Equal Opportunity Employer. The telephonic meeting location is accessible to people with disabilities. Every reasonable effort will be made to accommodate participation of the disabled in all of the District’s public meetings. If particular accommodations for the disabled are needed or a reasonable modification of the teleconference procedures are necessary (i.e., disability-related aids or other services), please contact the Executive Assistant at 582-3481 at least 24 hours in advance of the meeting.

QUALITY COMMITTEE

DRAFT MINUTES

Tuesday, August 6, 2024 at 12:00 p.m.
Donner Conference Room – Tahoe Forest Hospital
10978 Donner Pass Road, Suite 3, Truckee, CA 96161

1. CALL TO ORDER

Meeting was called to order at 12:01 p.m.

2. ROLL CALL

Board: Michael McGarry, Chair; Robert Barnett, Board Member

Staff in attendance: Dr. Brian Evans, Chief Medical Officer; Janet Van Gelder, Director of Quality & Regulations; Hillary Bayliss, Manager of Care Coordination; Dr. Mieka Conway, Medical Director of Quality; Martina Rochefort, Clerk of the Board

Other: Kevin Ward, Patient & Family Advisory Council

3. CLEAR THE AGENDA/ITEMS NOT ON THE POSTED AGENDA

No changes were made to the agenda.

4. INPUT – AUDIENCE

No public comment was received.

5. APPROVAL OF MINUTES OF: 05/07/2024

Director Barnett moved to approve the Board Quality Committee minutes of May 7, 2024, seconded by Director McGarry.

6. ITEMS FOR COMMITTEE DISCUSSION

6.1. TIMED ITEM – 12:00PM - Patient Experience Presentation

Jason and Becky Estabrook shared their recent experience with the clinics and Tahoe Forest Hospital.

Sadie Wangler, Director of Diagnostic Imaging; Christine O'Farrell, Risk Manager; and Dr. Jeff Fountain, Medical Director of Radiology joined the meeting at 12:26 p.m.

Manager of Care Coordination, Mr. Ward and Mr. & Mrs. Estabrook departed the meeting at 12:31 p.m.

Open Session recessed at 12:31 p.m.

7. CLOSED SESSION

7.1. Hearing (Health & Safety Code § 32155)

Subject Matter: Case Review

Number of items: One (1)

Discussion was held on a privileged item.

7.2. Approval of Closed Session Minutes

7.2.1. 05/07/2024 Closed Session Board Quality Committee

Discussion was held on a privileged item.

Open Session reconvened at 1:01 p.m.

Kevin Ward rejoined the meeting at 1:01 p.m.

8. ITEMS FOR COMMITTEE DISCUSSION AND/OR RECOMMENDATION

8.1. Informational Reports

8.1.1. Patient & Family Centered Care

8.1.1.1. Patient & Family Advisory Council (PFAC) Update

Board Quality Committee did not have any questions on the report. No discussion was held.

8.1.2. Patient Safety

8.1.2.1. BETA HEART Program Progress Report

Board Quality Committee did not have any questions on the report. No discussion was held.

8.2. Safety First

Janet Van Gelder, Director of Quality & Regulations, shared a Safety First on constant improvement of communication.

8.3. Process Improvement Projects

Quality Committee discussed the Vizient project plan, Management Systems, and future process improvement activities.

Dr. Brian Evans, Chief Medical Officer, shared progress on the Vizient project. Vizient is currently working on consistent visual management and huddle boards. There has been a lot of work on the access to care project. CMO felt more resources are needed to make the project go farther and faster. Departments that are not currently participating in the Access to Care project are doing their own process improvement projects.

All of the Access to Care work will be trackable through the A3s.

Director McGarry noted there were a lot of points made in the patient presentation that touch on weaknesses in this area. CMO said it speaks to variability we have in the system. Patients generally land in the right spot. The Health System needs to build a process so that no matter what a patient can get to the right area.

8.4. Board Quality Education

Quality Committee reviewed the educational articles listed below and discuss topics for future board quality education:

- 8.4.1.** Sampath B, Rakover J, Baldoza K, Mate K, Lenoci-Edwards J, Barker P. *Whole System Quality: A Unified Approach to Building Responsive, Resilient Health Care Systems*. Boston: Institute for Healthcare Improvement (2021).

Quality Committee discussed the impact of growth and change on quality as noted in the article.

Board members asked if the Health System has a change management office and whether or not it is big enough for a change management team. CMO felt that we should. Marshall Medical recently came

up and presented on their kaizen department. It took them four years to feel like they were making progress.

Director Barnett asked about the care coordination program. Patients get referred to Care Coordination at discharge or through Primary Care providers. Care Coordinators evaluate what the patients need. Some are basic and other needs are complex. Patients can self-refer. Pediatrics has their own Care Coordinator.

9. REVIEW FOLLOW UP ITEMS / BOARD MEETING RECOMMENDATIONS

No discussion was held.

10. NEXT MEETING DATE

The next committee date and time will be scheduled for mid-November.

11. ADJOURN

Meeting adjourned at 1:27 p.m.

DRAFT



Patient and Family Advisory Council (PFAC) Summary Report

January 2024 – October 2024

Alix Crone, DC, CPXP – Clinical Patient Experience Specialist

Summary of Monthly Topics

January – Kat Sigafoose, Director of Patient Access, discussed our current customer service training/expectations of our registration staff and identified improvement opportunities through a “Secret Shopper” program. We elicited input from the PFAC with regard to evaluation criteria and process for implementation. Emphasized that positive experiences should be shared/reinforced with the involved staff to help incentivize. Discussed a proposed “Disruptive Patient” agreement and policy that has come about in response to increased incidents of disruptive and aggressive patients. Proposed new messaging/wording of signs displayed to notify patients of behavior expectations. Suggested de-escalation training for all staff to be considered as a requirement.

February – Jonathan Lowe, NP, a Behavioral Health provider, presented on Spravato (aka esketamine) treatment for chronic depression. This is the first FDA-approved psychedelic treatment, though the Covid pandemic halted/slowed its use. It is used primarily for treatment-resistant depression and so far over 750 treatments have been administered at TFH with a very high patient-reported success rate. Currently limited due to lack of a “buy and bill” system which would allow us to collect better reimbursement and cut out the need for using specialized pharmacies in other states outside of our health system. Jonathan discussed other current needs for our community to include more therapists, more space and expanded services, such as group therapy.

March – Heather Hiller, Clinical Quality Analyst, presented about the prevalence and warning signs of sepsis, and elicited input from PFAC with regard to spreading community education/awareness. Sepsis is the leading cause of death in US hospitals as well as the leading cause of hospital readmissions. TFH has implemented sepsis “bundles” that are utilized for initial intervention. TFH also initiated a Multidisciplinary Sepsis Committee 2 years ago, performs sepsis drills, and identifies awards for staff with great recognition/care for sepsis on a quarterly basis. We are well above the National and State compliance rate benchmarks for our CMS Core Measure that tracks Severe Sepsis/Septic Shock at 92.3% as of last year. Ideas on improving education/awareness through our local news outlets (Moonshine Ink), links to videos online, education through the Rec Center during “Golden Hour” sessions, and on our internet page or collaboration with our Marketing Department.

April – Alix Crone, Clinical Patient Experience Specialist, reviewed our current Patient Satisfaction scores from Press Ganey for our main service lines. We discussed the survey process and reviewed the questions asked on the surveys. We looked for potential factors and explanations into trends and changes occurring over the last couple of years to current. We discussed how scores and comments were shared with leadership, and improvement opportunities stemming from the feedback. One member recommended exploring use of ChatGPT to help organize feedback and identify immediate trends/themes within.

May – Ellie Cruz, Manager of Labor and Delivery, will be presenting on possible community labor doula services at Tahoe Forest. She educated on the positive clinical outcomes associated with the utilization of doulas, and seeking

PATIENT AND FAMILY ADVISORY COUNCIL (PFAC) SUMMARY REPORT

January 2024 – October 2024

buy-in for a doula program. The primary objective and goal is to obtain a registry of volunteers to serve as hospital doulas. TFH would cover the training classes for free in exchange for their volunteer hours. Ellie was seeking input from PFAC on how to spread the word within the community to gather interest.

June – Meg Rab, Director of Marketing and Advertising, along with Ted Owens, Executive Director of Governance and Business Development, came to gather input on general marketing and advertising ideas for the near and distant future. Presented new initiatives and re-allocation of funds currently in place. The overarching goal is to re-engage our community. The PFAC members were able to provide feedback on the current branding/perception within the community, from which to help guide the messaging and mode of communication. We also presented suggestions for boosting our service lines where we do have more capacity (Urgent Care, Emergency Department), as there is concern that additional marketing/advertising to the outside would further inhibit access to care for the local population. Marketing will return this fall for additional updates on the current website.

September – Dylan Crosby, VP of Facilities and Construction, updated the group on future construction projects at Tahoe Forest. The primary objective of these projects is to improve patient access to care, by expanding both the capacity for service lines with physical space, as well as improving efficiency. The Patient and Family Advisory Council were the first “public” community members to have been updated on proposed projects. The primary areas discussed were plans for the former Rite Aid building, the Gateway building, and the Tahoe City clinics on Fabian Way.

October – Ted Owens, Executive Director of Governance and Business Development, and Meg Rab, Director of Marketing and Advertising, returned to provide some updates to the group on current projects and media campaigns. Ted presented on two seismic bills that recently went through the CA legislature, one of which was approved and one of which was denied. He informed the group of the potential impacts on TFH with regard to proposed legislation. Meg presented new media campaigns, to include a video that was produced to celebrate TFH'S 75th anniversary, as well as eNewsletters for various service lines, and plans for the TFHD website. User engagement via social media has improved significantly over the last year and this will continue to be a focus for outreach to the community.

Current Overview

- Ongoing goal is to have PFAC identify ways to help educate community on all services offered by TFHS, as well as provide input and feedback on current and future processes and systems.
- Plan for 2024 is to receive updates from the ongoing topic/concern of patient access, and to be at forefront of upcoming changes and plans to the health system's services offered.
- PFAC meets every month, 9 months in the year. We do not meet during the months of July, August, or December.
- Next PFAC meeting is November 19, 2024

PATIENT AND FAMILY ADVISORY COUNCIL (PFAC) SUMMARY REPORT

January 2024 – October 2024

Current Members and Start Date

Kevin Ward	9/20/2018	Cris Valerio	12/1/2022
Sandy Horn	9/5/2019	Jane Rudolph-Bloom	1/1/2024
Violet Nakayama	10/31/2019	Amber Mello	5/1/2024
Alan Kern	2/20/2020	Sharon Strojny	6/1/2024
Carina Toledo	11/17/2022		

Beta HEART Progress Report for Year 2024

(October 2024)

Beginning in 2020, Beta Healthcare Group changed their annual Incentive process to be “Annual”, meaning that each year the five (5) domains have to be re-validated each year to be eligible for the incentive credit. General updates for 2024:

- Beta HEART Validation Survey completed May 9, 2023; validated in all 5 domains with a total cost savings of \$152,971
- Beta HEART Validation Survey completed May 22, 2024: validated in all 5 domains, cost savings of \$159,866.

Domain	History of Incentive Credits (2% annually)	Readiness for next Validation	Goal	Comments
Culture of Safety: A process for measuring safety culture and staff engagement (Lead: Ashley Davis, PSO & Beta HEART Lead)	Validated 2024: \$31,973.20	100%	-Greater than 60% completion rate for Culture of Safety Survey Pulse Check-In -Achieve Tier 2 in Zero Harm (OB & ED)	<ul style="list-style-type: none"> • Pulse check-in version of SCOR Culture of Safety survey was completed in March 2024 with 76% response rate (974 completions). Results to be shared and debriefings to start in May 2024. • TFHD Women & Family Center was recognized for achieving Tier 1 in Zero Harm for Fetal Monitoring and Tier 2 for Maternal Sepsis and Perinatal Safety Collaborative; TFHD was the only BETA facility to achieve fetal monitoring assessment scores in the upper quartile of nursing and physician staff (cost savings of \$94,277). • 5 leaders attended February 2024 workshop in Palm Desert, CA; topics include Culture of Safety and Rapid Event Response and Analysis.
Rapid Event Response and analysis: A formalized process for early identification and rapid response to adverse events that includes an investigatory process that integrates human factors and systems analysis while applying Just Culture principles (Lead: Christine O’Farrell, Risk Manager)	Validated 2024: \$31,973.20	100%	-75% or greater response time for event analyses within 45 days of event reported -75% or greater response time for closure of action items within 90 days of event reported	<p>TFHD incorporates the transparent and timely reporting of safety events to ensure rapid change in providing safer patient care. All investigations utilize “just culture” and high reliability principles and encourage accountability. The Reliability Management Team reviews all action plans to address strength of action items.</p> <ul style="list-style-type: none"> • 5 leaders attended February 2024 workshop in Palm Desert, CA; topics include Culture of Safety and Rapid Event Response and Analysis.
Communication and transparency: A commitment to honest and transparent communication with patients and family members after an adverse event (Lead: Christine O’Farrell, Risk Manager)	Validated 2024: \$31,973.20	100%	75% or greater response time for closure of event within 60 days	<ul style="list-style-type: none"> • Disclosure checklist updated and refined as we update process and leaders trained to respond to events. • TFH and IVCH ED participating in Zero Harm program and focusing on standardizing handoff (cost savings of \$3,681) • 7 leaders attended April 2024 workshop in La Jolla, CA; topics include Communication & Transparency and Care for the Caregiver.
Care for the Caregiver: An organizational program that ensures support for caregivers involved in an adverse event (Lead: Stephen Hicks, Peer Support Lead)	Validated 2024: \$31,973.20	100%	75% or greater response time for peer supporter deployment made in 0-12 hours	<p>Ongoing training and quarterly peer support and steering committee meetings. Currently have 40 peer supporters available to all staff. New peer supporters attended onsite training in April 2024. One peer supporter is now trained in Critical Incident first aid and plans for more peer supporters to go through this training. Plan for train-the-trainer education in 2024 so we can train new peer supporters in-house.</p> <ul style="list-style-type: none"> • 7 leaders attended April 2024 workshop in La Jolla, CA; topics include Communication & Transparency and Care for the Caregiver.
Early Resolution: A process for early resolution when harm is deemed the result of inappropriate care or medical error (Lead: Christine O’Farrell, Risk Manager)	Validated 2024: \$31,973.20	100%	75% or greater response time for closure of event within 60 days	<p>12 leaders attended Early Resolution workshop and awards ceremony in Huntington Beach, CA in September 2024.</p>



BETA  **HEART**[®]

Healing • Empathy • Accountability • Resolution • Trust

A holistic approach to reduce harm in healthcare

Validation Assessment Report

Tahoe Forest Health System

May 22, 2024

BETA HEART Assessments and Activities
2023-2024 Activities Completed

Current Year in HEART: Year 7

	Yes	No	
2023 Workshop Three (9/22/23)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	# of Attendees: <u>11</u>
2024 Workshop One (2/08-09/24)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	# of Attendees: <u>5</u>
2024 Workshop Two (4/25-26/24)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	# of Attendees: <u>7</u>
SCORE/Culture Safety Survey administered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2024 Response Rate: <u>76%</u>
Culture Debrief Trainings completed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Date: _____ # Trained: _____
BETA Just Culture Training completed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Date: <u>2/15/24</u> # Trained: <u>3</u>
Rapid Event Response and Analysis Training	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Date: _____ # Trained: _____
Cognitive Interviewing Workshop	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Date: <u>7/12/23</u> # Trained: <u>1</u>
Communication Assessments completed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	# completed: <u>15, and 74 total YTD</u>
Communication and Transparency Training	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Date: _____ # Trained: _____
Care for the Caregiver Training	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Date: <u>7/18/23</u> # Trained: <u>3</u>
HEART Event case submitted for validation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Date: <u>3/12/24</u>
BETA HEART Dashboard Data Submitted? <i>(If no, review dashboard during validation)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Last Submission Date: _____
2023 Domain(s) Validation Achieved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Date: <u>5/9/23</u> # Domain(s): <u>I-V</u>

Culture of Safety

Requirement	Status	Documents to be Reviewed	Comments
Has member previously achieved validation in this domain?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
The organization has designated a Culture Team lead and team members responsible for overseeing organizational culture measurement and strategies to develop a culture of safety.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Interviews with Culture Team and leader List of HEART team participants HEART implementation plan or other documents describing organizational efforts to improve culture of safety	
The organization has administered a culture of safety survey of all staff and providers using a psychometrically sound, scientifically validated instrument within the past year. A 60% response rate is required to ensure statistical significance.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Most recent culture survey results with response rate	<p>TFHD achieved a 76% response rate in 2024.</p> <p>Results shared with Exec Team 5/2. A handful of departments that scored lower than last year – half of those departments just changed leadership – since the survey. In other low-scoring departments, staff noted that they did not feel heard.</p> <p>Results were shared with all departments (except low-scoring).</p> <p>Starting next week: open office hours for the low-scoring departments for the dept leader to meet with Ashley, HR, for guidance.</p> <p>Discussing debriefing staff 1:1 – but will offer open office hours.</p> <p>Ashley is working with departments to develop a debriefing plan. Most will occur before the end of June. We will meet with the executive team to determine how we will hold departments accountable.</p>
For first time HEART participants, a baseline survey completed within the six months prior to opting in may be used.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input type="checkbox"/> Met	As above	N/A as TFHD is a continuing HEART member.

Culture of Safety

Requirement	Status	Documents to be Reviewed	Comments
<p>Evidence that the culture survey results have been analyzed and shared.</p> <p>Debriefs are facilitated and have been held in focus group settings.</p> <ul style="list-style-type: none"> • Debrief records include the number of attendees • Debriefs are led by staff that have been educated to the debriefing process 	<input type="checkbox"/> Not Started <input checked="" type="checkbox"/> In Progress <input type="checkbox"/> Met	<p>Medical staff committee minutes reveal culture of safety survey results are reviewed and shared</p> <p>Staff interviews (debrief facilitator, scribe, front-line, manager/director and provider)</p> <p>Documentation of leadership briefing and analysis</p> <p>Culture survey debriefing plan/process</p> <p>Completed culture survey debrief tools</p> <p>Scribe notes or other documentation with the date, number of participants and person leading debriefing session</p> <p>Post-debriefing action plans</p> <p>Unit-based Culture Survey results with corresponding debrief notes, performance improvement activities and results (data) over past year</p>	<p>2024 survey results are currently being reviewed.</p> <p>Have selected a few leaders with highly positive comments – asking them to be resources for other leaders through the debrief process.</p> <p>Considering bringing in external coaches for a few of our department leaders as well as using “peer coaches/supporters.”</p>
<p>Lessons learned are shared</p> <ul style="list-style-type: none"> • Department/unit specific trends from event reports (incident reports/QRRs) are shared and discussed, at a minimum on a quarterly basis with medical staff and nursing staff • To raise staff awareness of safety concerns, a process for disseminating lessons learned from individual case studies is developed and implemented. Dissemination may be accomplished through case study presentations, M&M rounds or patient safety newsletters/written communications discussing errors and/or near miss events 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Twelve months incident reporting data</p> <p>Staff meeting minutes or other documentation reflecting lessons learned</p> <p>Medical staff meeting minutes documenting discussion of lessons learned</p> <p>Documentation of lessons learned presentations and/or newsletters</p>	<p>TFHD has a newsletter that publicizes lessons learned.</p> <p>Lessons learned are also reported in staff meetings and brought to med exec as warranted.</p>

Culture of Safety

Requirement	Status	Documents to be Reviewed	Comments
<p>Policies are in place that support reporting of adverse clinical events.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<ul style="list-style-type: none"> • Adverse Event policy • Sentinel Event policy • Incident Reporting policy • Just Culture policy • Risk Management/Patient Safety Plan 	
<p>The organization adopts a Just Culture philosophy and approach to adverse event investigation and response.</p> <ul style="list-style-type: none"> • HR policies and adverse event policies contain language consistent with a fair and just approach to investigation of adverse events and determining employee culpability • Adverse event investigations focus on evaluation of systems factors for determining causative and contributing factors that led to the event • Where an adverse event or error is determined to be due to individual behavior, the organization utilizes a consistent algorithm to evaluate such behavior 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Human resources policies</p> <p>RCA/Adverse event policy</p> <p>Just Culture policy</p> <p>Last three RCA/collaborative case reviews reflecting application of Just Culture principles and system analysis</p> <p>Policy reflecting Just Culture and how algorithm is applied</p> <p>Current Just Culture/accountability algorithm and examples of application of algorithm</p>	<p>Reviewing the Just Culture process and making some edits and revisions to the current policy and reliability response guide – includes both a manager and non-manager algorithm.</p> <p>Who applies the algorithm? Risk or HR? It is usually in collaboration with one of the experts.</p> <p>SG Collaborative came out a couple of years ago. It reviewed RCA questions and provided tips on how to word the questions.</p>
<p>Measurement: The organization completes a scientifically validated, psychometrically sound culture of safety survey and staff/physician engagement survey annually.</p> <ul style="list-style-type: none"> • Specific culture survey items are selected and studied over time <p>At a minimum, at least one additional evaluation criteria is measured:</p> <ul style="list-style-type: none"> • Staff turnover/retention rates • Number of reported adverse events • Number of reported near miss events 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Culture of safety survey results (see above)</p> <p>Documentation of selected criteria and organization specific data/dashboard</p> <p>Documentation of how data is communicated</p> <p>Facility specific selected data</p>	
<p>The organization has adopted a HEART dashboard and communicates selected data broadly to medical staff and workforce members.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Organizational HEART dashboard (if developed)</p>	

Culture of Safety

Subsequent Year Validation Requirements

If member has previously achieved validation in this domain, in addition to the requirements listed above, organizations must also meet the following criteria:

Requirement	Status	Documents to be Reviewed	Comments
Updates to your culture team and lead have been submitted to BETA.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of Opt-In Agreement	
HEART Culture of Safety leads have provided prior approval of any targeted vs. house-wide survey administration proposals.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Documentation of BETA pre-approval	TFHD administered the PULSE SCORE survey this year. The team acknowledged appreciation for the shortened survey.
Show evidence of performance improvement based on survey and debrief findings for at least three work settings annually.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review selection of culture survey items and the performance improvement strategies developed Document review and/or meeting minutes (medical staff, quality, staff) demonstrate the organization's structure and process for oversight, tracking and accountability of PI projects	HH department – last year was abysmal with difficult debriefings. The director has taken direct actions to be more engaged with the frontline. PT department implemented a time block and a block for 15-minute team collaboration to allow for the sharing of cases. The third department, which is spread across campuses, is focused on developing teamwork – difficult being so spread out. Incorporated virtual times to collaborate, and leaders are doing more frequent rounding. Scores have improved.
Policy revisions/changes from the previous year are provided to BETA.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of updated policies	

Culture of Safety

Requirement	Status	Documents to be Reviewed	Comments
<p>Develop and show evidence of a process for oversight/review of the algorithm's use in practice to ensure consistency.</p> <p>Develop and show evidence of a process for ongoing coaching/ education of Just Culture.</p> <p>Suggestions include:</p> <ul style="list-style-type: none"> • Presentation of cases where the Just Culture algorithm was used appropriately in management and/or staff meetings • Simulate case review using the algorithm at management meetings 	<input type="checkbox"/> Not Started <input checked="" type="checkbox"/> In Progress <input type="checkbox"/> Met	Medical staff committee and/or staff meeting minutes reflect process for oversight, education, and coaching of Just Culture in practice	<p>The Just Culture process is currently being evaluated.</p> <p>Relooking at Just Culture process and making some edits and revisions to the current policy and reliability response guide – includes both a manager and non-manager algorithm.</p>
Demonstrate improvement in at least one of the measures selected previously.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of data to demonstrate improvement	

Validation Decision:

<input checked="" type="checkbox"/> Met validation requirements <input type="checkbox"/> <i>Conditional validation:</i> requirements noted for validation in subsequent year(s) <input type="checkbox"/> Did not meet validation requirements	Validation assessment conducted by BETA Risk Director: <u>Maria Olton and Deanna Tarnow</u>
<p><u>ADDITIONAL NOTES:</u></p> <p>Congratulations on a successful Culture of Safety validation. We are happy to hear the pulse survey was helpful this year and appreciate your perspective on the current survey administration window. We also want to applaud you for your best practice in debriefing and supporting managers through what can be a challenging process.</p>	

Rapid Event Response and Analysis

Requirement	Status	Validated By	Comments
Has member previously achieved validation in this domain?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
An Executive Leader and Event Analysis team are identified and actively involved in program development.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	HEART Opt-In Agreement List of HEART team participants Interview with Executive and Team Lead	Incorporating RMT (Reliability Management Team) into the Event Analysis process as well as the HEART team. "Fact Gatherer" certification for team members.
Adverse events are reported to Risk Management in a timely manner. <ul style="list-style-type: none"> • Serious or sentinel events, as defined by organizational policy, are reliably reported within one (1) hour of event detection or recognition. • Other adverse events are reliably reported within 24 clock hours of the event 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Risk management data reflecting category, severity and length of time from event occurrence to receipt of event report	
The organization provides varying methods of submitting adverse event reports in order to support easy access for physicians and staff. <ul style="list-style-type: none"> • Online reporting system • Risk/Patient Safety Hotline 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Adverse/sentinel event reporting policies and process	House supervisors and online reporting are utilized for early notification.

Rapid Event Response and Analysis

Requirement	Status	Validated By	Comments
<p>A sample* of closed event analyses/RCAs from the relevant policy year demonstrates the following:</p> <ul style="list-style-type: none"> • Key investigative interviews are conducted by individuals trained in cognitive interviewing methods • Patients, families, or both, are routinely interviewed to elicit information during investigations of adverse events (when relevant) • Event reviews are inter-professional, multidisciplinary and, whenever appropriate, include physician engagement • The organization applies principles of human factors/safety science to the analysis of adverse events and to process improvement planning • The organization determines whether any harm suffered by the affected patient or family was caused by inappropriate care • When individual behaviors are determined to have contributed to harm, a consistent and fair process is utilized to determine their culpability • RCA/Event Review Action Plans include at least one strong or intermediate action item 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input type="checkbox"/> Met	<ul style="list-style-type: none"> • Evidence of participation in cognitive interviewing workshop • Documentation of interview process reflects use of proven methods to elicit memory retrieval • Evidence of the application of just culture principles in event analyses/RCAs completed in the relevant policy year. • Adverse event policy reflective of just culture principles • Closed event analysis/RCA files, with action plans, from the relevant policy year • Event analyses accord, at minimum, with IHI RCA² Five Rules of Causation • List of event analysis/RCA participants and their professional disciplines for the relevant policy year • Interviews of current and recent event analysis/RCA team members reflect broad participation • Committee minutes with names of participating patient/family advisors 	<p>Multiple HEART events were reviewed that demonstrated prompt event analysis.</p> <p>Documentation of RCA process clearly outlined and Just Culture principles applied.</p> <p>The team is consistently interviewing patients and families after events.</p> <p>We applaud Tahoe Forest for incorporating members of your high-reliability team in the event review process and utilizing PFAC members to drive strong action items, demonstrating leadership and community engagement.</p> <p>An interdisciplinary team that comes together to work on systems issues – gives the reports more visibility.</p>
<p>* The number of cases BETA must review in order to make a validation decision shall be: For critical access hospitals and non-hospital facilities: ≥3 moderate or severe patient harm events For hospitals with ≤100 licensed beds: ≥5 moderate or severe patient harm events For hospitals with >100 licensed beds: ≥7 moderate or severe patient harm events</p>			
<p>Evidence that organizational lessons learned are distributed.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of internal publications, such as newsletters and meeting minutes</p>	<p>Great Catch Award program is in place, and staff is recognized. Lessons learned are also shared during huddles and department meetings and brought to leadership and Med Exec.</p>

Rapid Event Response and Analysis

Requirement	Status	Validated By	Comments
<p>For each HEART event, the organization tracks the following data:</p> <ul style="list-style-type: none"> • Length of time (in hours) from event occurrence to notification of Risk Management or another organizational representative • Length of time (in hours) between notification of Risk Management or another organizational representative and the beginning of the investigation or fact-finding • Length of time (in hours) between notification of Risk Management or another organizational representative and initial communication by organizational representative about event with patient/family 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Dashboard reflecting specified data	<p>Event reporting system is now the risk register for the high-reliability team.</p> <p>Steering committee reviews events every week. Identify which events require additional support beyond the manager's investigation.</p>
<p>Aggregated data:</p> <ul style="list-style-type: none"> • Number of adverse events reported (denominator) • Number of serious events reported to Risk Management >24 hours after event • Range and mean length of time (in days) between the organization becoming aware of serious events and completion of the RCA/event analysis (include raw data) • Patient demographics data including race, ethnicity, preferred language of patients who experience serious adverse events • Trends in the reporting of lower-severity events and near misses 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Dashboard reflecting specified data	

Rapid Event Response and Analysis

Subsequent Year Validation Requirements

If member has previously achieved validation in this domain, in addition to the requirements listed above, organizations must also meet the following criteria:

Requirement	Status	Documents to be Reviewed	Comments
Updates to your rapid event response and analysis team and lead have been submitted to BETA.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of Opt-In Agreement	
Events brought to the attention of the organization by patients or families through grievances, claims, notices of intent to sue, or state licensing board complaints are handled in a manner comparable to those that were detected and reported by employees or contractors of the organization.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Case review	
At least 75% of HEART events are reported to BETA Risk Management within five (5) business days from the date of discovery in accordance with the terms of the policy amendment.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Comparison of incident reports, grievances, claims, and reports of HEART events made to BETA	
Patient demographics data including race, ethnicity, preferred language of patients who experience serious adverse events resulting in a HEART response are being captured.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Race/ethnicity and preferred language for the patient associated with each HEART event is reported	Tracked on the HEART Event submissions.
Demonstrate improvement in at least one of the measures selected previously.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of data to demonstrate improvement	TFHD has continued its focus on the timeliness of HEART event notifications, and there is evidence that there has been an improvement in the strength of action items from RCAs.
Strategies to improve patient safety following adverse events are developed with input from patient and family representatives (such as a Patient and Family Advisory Council or inclusion of Patient Safety Advocates on organizational Performance Improvement or Patient Safety committees).	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Case review	PFAC is now engaged in the RCA process and is able to provide feedback on proposed action items.
Process improvement/RCA action items address upstream (distal) human performance-shaping system issues.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Case review	

Rapid Event Response and Analysis

Requirement	Status	Documents to be Reviewed	Comments
The organization has a process for determining whether harm was caused by inappropriate care (including an alternative process for evaluating medical decision-making or technique independent of the medical staff peer review process, if needed).	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Case review	
Policy revisions/changes from the previous year are provided to BETA.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of any updated policies or procedures	
The organization provides specific evidence of applying BETA's recommendations from previous validations to its processes.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of data to demonstrate improvement	

Validation Decision:

<input checked="" type="checkbox"/> Met validation requirements <input type="checkbox"/> <i>Conditional validation</i> : requirements noted for validation in subsequent year(s) <input type="checkbox"/> Did not meet validation requirements	Validation assessment conducted by BETA Risk Director: <u style="text-decoration: underline;">Maria Olton and Deanna Tarnow</u>
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ADDITIONAL NOTES:

It was wonderful to meet with your team and share your progress and successes in this domain. You are developing best practices in the engagement of PFAC, and ensuring families and patients are interviewed as part of your event analysis.

Congratulations!

Communication and Transparency

Requirement	Status	Validated By	Comments
Has member previously achieved validation in this domain?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
The organization has designated a communication team and team leader responsible for implementation of specific strategies.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Interviews with communication team lead on process for team selection in addition to the communication assessment tool List of communication resource team members Daily Call Schedule of communication resource team members	
The organization has administered a communication assessment for all potential Communication Team members. Those assessed have received individualized feedback.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Names of physicians and staff who have completed the communication assessment Documentation of feedback having been provided	
Final Communication Team selection is done in part, based on communication assessment findings. The organization has considered the communication assessment results in its determination of Communication Team development. Additional sources of information to be considered in selecting Communication team members include: <ul style="list-style-type: none"> • Professional experience within the organization, position within the organization, performance reviews, patient satisfaction scores, personal experience recommendations 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	List of communication resource team members Interviews with communication team member and staff Communication assessment data findings	

Communication and Transparency

Requirement	Status	Validated By	Comments
Key leaders and staff, including communication team members are provided additional training and developed in empathic communication.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Documented evidence of (at a minimum) participation in HEART Communication workshop</p> <p>Attendance list of Communication Team members who attended the BETA HEART train the trainer communication program</p> <p>Date, program content and sign-in list of participants attending non-BETA training</p> <ul style="list-style-type: none"> o <i>If training was through a BETA workshop, please inform as we will access workshop registration list</i> 	
<p>The organization sets a goal of sixty (60) minutes for timeline from adverse event until initial communication to patient/family by healthcare providers or organizational leaders.</p> <p>Time from event to response is tracked and communicated across the organization.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Adverse Event/Sentinel Event or HEART Event policy reflecting response time</p> <p>Data reflecting timeframe of response such as the BETA HEART measurement tracker located in the communication domain toolkit</p> <p>Records reflecting process for communicating response times (meeting minutes, dashboards, etc.)</p>	These are noted in organizational policy.
Utilizing the HEART Huddle, the Communication Resource Team proactively prepares for the initial conversation with patient/family	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Discussion with Communication Resource Team members and obtaining narrative as to how the HEART Huddle is utilized	The HEART Huddle is incorporated into the organization's policy and process steps for responding to harm/adverse events.

Communication and Transparency

Requirement	Status	Validated By	Comments
<p>The initial communication includes the following:</p> <ul style="list-style-type: none"> • Acknowledging the event (this is not an admission of guilt, rather it acknowledges that an adverse event occurred while the patient was under the organization's care) • Showing empathy • Affirming first priority is to take care of the patient and meet their healthcare, social and emotional needs • Informing the patient/family that an investigation and analysis will be completed to understand what occurred and that results will be shared • Designation of an organizational contact person the patient/family can reach with questions/concerns and who will reach out to the patient/family within an agreed upon time period 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Organizational Communication After Harm policy	<p>Demonstration of this occurring was shared during a discussion of HEART events with the team.</p> <p>We have been impressed with the timeliness and thoughtful nature in which these conversations are approached.</p>
<p>Communication Team reviews event analysis findings in preparation for follow up communication.</p> <p>A communication checklist is utilized as a guide in preparing to hold the communication.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Communication debrief forms</p> <p>Communication checklist</p>	
<p>The organization evaluates the effectiveness of their communication process:</p> <ul style="list-style-type: none"> • Debriefings are held with communication team members who participated in meeting with patient/family <p>Measurement:</p> <ul style="list-style-type: none"> • Time from event to time of communication with patient/family are tracked and reported • # of communications/# adverse events where communication is indicated • # claims with documented communication with patient/family 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Debriefing notes</p> <p>Data reflecting number of communication interactions, response time from event to first communication</p> <p>Communication team quarterly meeting minutes if applicable</p> <p>Claims data</p>	

Communication and Transparency

Subsequent Year Validation Requirements

If member has previously achieved validation in this domain, in addition to the requirements listed above, organizations must also meet the following criteria:

Requirement	Status	Documents to be Reviewed	Comments
The Communication Resource Team is consistently accessed and utilized when communicating with patients and families who experience a HEART event. Communication team leaders identify opportunities to further develop communication skills among providers	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Documentation reflects consistent engagement and support of Communication Team members. HEART Dashboard reflects Communication Resource Team is activated in 100% of events at all subsequent validations Debrief process incorporates feedback to members who participate in communication interactions with patients/family	
There is evidence of early and ongoing communication with patients and families in at least 90% of the HEART events that cannot be resolved at the bedside at the time of the event or and 100% of events that meet sentinel event or HSC 1279.1 events	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of HEART event medical records and/or event case files Adverse event/HEART Event log	

Validation Decision:

<input checked="" type="checkbox"/> Met validation requirements <input type="checkbox"/> <i>Conditional validation</i> : requirements noted for validation in subsequent year(s) <input type="checkbox"/> Did not meet validation requirements	Validation assessment conducted by BETA Risk Director: <u>Maria Olton and Deana Tarnow</u>
<p>ADDITIONAL NOTES:</p> <p>Tahoe Forest demonstrates best practice in communication with timeliness, empathy, and follow-through, allowing the patient or family to guide the communication and determine when closure has been met.</p> <p>Congratulations on a successful validation.</p>	

Care for the Caregiver

Requirement	Status	Validated By	Comments
Has member previously achieved validation in this domain?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
A Care for the Caregiver Executive Champion and Team Lead are identified, and roles are defined: <ul style="list-style-type: none"> • The Executive Champion will have oversight of the program development and ongoing identifications and provision of resource needs • The Team Lead will have oversight of the program operations and serve as or designate a coordinator 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	CEO, CNO, CFO and VP of Human Resources will sign and submit an Opt-in agreement prior to engagement in the Care for the Caregiver program	
The organization has assessed its current infrastructure and resources to support development of a Care for the Caregiver program.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Organizational evaluation of current infrastructure and resources Organization has completed a personnel resource assessment HEART Care for the Caregiver toolkit: Peer Support Implementation Guide/worksheet	
A Care for the Caregiver Steering Committee is created to drive the program development forward. <i>Recommended members include: Department Directors, Champions representing physicians, nursing and residents; Executive sponsors such as VP Patient Safety, VP Human Resources, Behavioral Health Liaison; and representatives from Employee Health, Pastoral Care, Risk Management and Marketing.</i>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of roster for Care for the Caregiver Steering Committee members	The charter has been revised. A new peer support application process is in place, and marketing is being done. The hospital has experienced more engagement and interest in the peer support team.
Staff is surveyed as to their perceptions of safety through an evidence-based culture of safety survey and the results are shared with staff.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review of Culture Survey results and evidence of mechanism used to share results with staff.	

Care for the Caregiver

Requirement	Status	Validated By	Comments
<p>Policies consistent with the principles of Just Culture are in place to encourage and support staff to feel safe in reporting adverse events.</p> <ul style="list-style-type: none"> • Staff is aware of organizational philosophy and policy 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Adverse/harm event (or related) policies</p> <p>Related HR Policies</p> <p>Policy reflecting the values of Just Culture</p> <p>Interviews with staff</p>	<p>Just Culture is well embedded throughout the organization.</p>
<p>A process is in place for identification and training of peer supporters.</p> <ul style="list-style-type: none"> • As one component of the team selection process, potential Peer Supporters will complete a communication assessment • Peer Supporters sign a formal agreement defining their role, and indicating their commitment to complete required training, be available to staff and maintain confidentiality of discussions • Peer Supporters participate in formalized training that includes: responding to healthcare team members who are involved in an unanticipated patient event, communications, crisis intervention, active listening, situational awareness, and recognition of signs and symptoms that a colleague may benefit from peer support • Team meetings (for trained peer supporters) to occur at least quarterly and ongoing training at least annually 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of Peer Supporter Communication Assessment roster</p> <p>Review of Peer Supporter training materials and sessions</p> <p>Review of signed Peer Supporter agreements</p> <p>Review of Peer Supporter team meeting agenda, minutes and educational curriculum</p> <p>Review of Peer Supporter sign-in sheet or other attestation as to participation</p>	<p>There is a robust process for training and onboarding new peer supporters. There is also opportunity to receive advanced mental health first aid training. This is wonderful!</p>
<p>A policy is in place specifying team deployment 24/7, intervention, follow-up, and support from time of event through the investigation and litigation process.</p> <ul style="list-style-type: none"> • Policy includes criteria to determine the need for total team debrief (make up of team is determined by event and may include both clinical and non-clinical staff) 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of organizational Care for the Caregiver policy and procedure</p> <p>Interviews with staff regarding debrief process</p>	

Care for the Caregiver

Requirement	Status	Validated By	Comments
<p>Organization will designate a "Safe Space" where caregivers can go after a harm event to begin to recover.</p> <ul style="list-style-type: none"> • Location(s) are specified in policy • If selected spaces have multiple uses, must be able to shift purpose immediately when needed • Staff is aware of locations 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Care for the Caregiver policy</p> <p>Review of evidence of communication of Safe Space locations to frontline staff</p> <p>Interview staff regarding the locations and availability of Safe Spaces</p>	
<p>Development of a formal, proactive Peer Support program will include:</p> <ul style="list-style-type: none"> • A process by which a peer proactively contacts the affected member of the healthcare team immediately after the event • The number of Peer Supporters should be commensurate to the size of the organization and the number employees and physician staff and adequately cover every shift and day of the week. (Rule of thumb: there should be enough peer supporters so that none will be deployed more than two or three times a month) • The program includes all disciplines: clinical and non-clinical, medical staff and organization employees • The program is designed to be distinct and apart from other employee wellness activities 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of program structure, policy, and process</p> <p>Review of Peer Supporter team roster</p> <p>Review of Peer Support deployment data</p> <p>Review of the Implementation Guide/Worksheet</p>	

Care for the Caregiver

Requirement	Status	Validated By	Comments
<p>Care for the Caregiver policy contains a mechanism for connecting staff involved in an event with a peer supporter within the department immediately after the event.</p> <ul style="list-style-type: none"> Peer support team is multidisciplinary Peer support is available for each shift and day of week Process allows for peer supporter's routine responsibilities to be managed when assistance is needed for staff support 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Peer Support (Care for Caregiver) Program policy</p> <p>Schedule or mechanism for identifying peer supporters on-call</p> <p>List of current peer supporters</p>	<p>In speaking with the peer supporters, it is evident that there is a lot of pride in this volunteer role and the peer supporters feel supported.</p>
<ul style="list-style-type: none"> A Peer Support Encounter form is used by peer supporters to document peer supporter activities after events Encounter forms are used by the Steering Committee to determine the need for additional resources or training 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of Steering Committee meeting minutes</p> <p>Peer supporter encounter forms/log reflects entries for each peer supporter encounter within the policy year</p> <p>Steering committee action/project plan or similar documentation reflecting review of encounter forms/logs and any actions taken as a result</p>	
<p>A process for referring clinicians needing a higher level of support is in place and includes guideline criteria and mechanism for obtaining expedited access.</p> <ul style="list-style-type: none"> Referral Network includes resources available both locally as well as separate from the organization such as: Chaplain Services, Social Workers, Clinical Psychologist, and Employee Assistance Program 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of process and user feedback surveys</p> <p>Peer Support Program policy</p> <p>List of approved referral resources</p> <p>Interviews with staff</p>	<p>Robust marketing, including a spot on the intranet page.</p>
<p>Using BETA's HEART toolkit, an individualized organizational Care for the Caregiver program and related peer supporter tools are developed and implemented.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review organizational policies, forms and tools</p> <p>Interviews with staff</p>	

Care for the Caregiver

Requirement	Status	Validated By	Comments
<p>A process is in place to evaluate the effectiveness and/or staff satisfaction with the Care for the Caregiver program.</p> <ul style="list-style-type: none"> • Surveys to recipients of peer support • Surveys to Peer Supporters • Program Evaluation 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of peer support survey process, tools, and results</p> <p>Review of Culture of Safety Survey results</p> <p>Review of data as defined below</p> <p>Interviews with Peer Supporters</p>	<p>A confidential QR code is provided.</p>
<p>A measurement strategy is identified, implemented and included in the HEART dashboard.</p> <p>Examples:</p> <ul style="list-style-type: none"> • # of Peer Support calls activated (peer to peer interactions) per month • # of Peer Support interactions by unit/department • Types of referrals made (clinician self-referral/supervisor/RM/other) • Effectiveness and timeliness of response (User survey) • Timely access to higher level of support (User survey) • Staff retention rates <p>Data is shared with the Steering Committee and Peer Supporter team</p> <p>Data is shared with the organizational Performance and Quality Improvement structure (Patient Safety Program, QI Committee, Board, Med Staff committees)</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input type="checkbox"/> Met	<p>Review of HEART Dashboard</p> <p>Review of Care for the Caregiver activation logs</p> <p>Review of Steering Committee and Peer Supporter Team meeting agenda and minutes</p> <p>Review of Care for the Caregiver reports to the organization (as defined in requirement)</p>	<p>Activation logs continue to be well documented.</p>

Care for the Caregiver

Subsequent Year Validation Requirements

If member has previously achieved validation in this domain, in addition to the requirements listed above, organizations must also meet the following criteria:

Requirement	Status	Documents to be Reviewed	Comments
<p>Subsequent Year Validation Requirements (in addition to all above listed requirements):</p> <p>Organization demonstrates program growth through</p> <ol style="list-style-type: none"> 1. Expansion of peer supporter team size 2. Multidisciplinary team includes medical staff, ancillary support departments, and non-clinical personnel <p>Organization demonstrates on-going engagement efforts through</p> <ol style="list-style-type: none"> 1. Continued marketing 2. Orientation/onboarding of new employees and medical staff 3. Steering Committee activities <p>Organization demonstrates on-going improvement efforts through</p> <ol style="list-style-type: none"> 1. Communication between Peer Supporter Team and Steering Committee 2. Utilization of feedback from Peer Support surveys and interaction logs by Steering Committee in identifying, assessing, and addressing resource needs <p>Organization is encouraged to participate in Schwartz Rounds</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review of Peer Supporter team roster and activation logs</p> <p>Review of Steering Committee meeting minutes and Peer Supporter Team meeting minutes</p>	<p>It is evident the peer support program and its peer supporters are continuing to expand.</p> <p>Chaplains and supervisors, as well as pet therapy, have been added as part of the program relaunch.</p> <p>Peer supporters have been offered the ability to attend Placer County mental health first aid training.</p>

Validation Decision:

<input checked="" type="checkbox"/> Met validation requirements <input type="checkbox"/> <i>Conditional validation</i> : requirements noted for validation in subsequent year(s) <input type="checkbox"/> Did not meet validation requirements	Validation assessment conducted by BETA Risk Director: <p style="text-align: center; border-top: 1px solid black; margin-top: 5px;">Maria Olton and Deanna Tarnow</p>
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ADDITIONAL NOTES:

To say we were impressed with your Care for the Caregiver Peer Support program is an understatement. The life and energy you have infused into the program relaunch with 40 peer supporters is palpable with many best practices. Congratulations, and thank you for your commitment to supporting your staff.

Early Resolution

Requirement	Status	Validated By	Comments
A Resolution Executive Champion/team lead and team are identified and actively involved in program development.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Interview with Executive Champion and team	
All criteria of the Culture of Safety domain have been met.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Validation of Culture of Safety domain results reflect successful completion	As noted in the Culture domain section of this report.
<p>The organization has implemented a process for timely, honest and transparent communication that meets HEART communication domain criteria. The communication includes the following:</p> <ul style="list-style-type: none"> • Taking responsibility for the event (this is not an admission of guilt, rather it acknowledges that an adverse event occurred while the patient was under the organizations care) • Expressing empathy • Designation of an organizational contact who will oversee ongoing, empathic and transparent communication with the patient/family • Making restitution 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Documentation of event specific communication with patient and family members</p> <p>Interviews with communication and early resolution team</p> <p>Review organization adverse event and communication policies</p> <p>Validation of Communication & Transparency domain results reflect successful completion</p>	
All criteria for Rapid Event Response and Analysis are met.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Domain specific HEART validation assessment (completed by BETA team member</p> <p>Review of event analysis criteria</p> <p>Review event specific investigations and analysis</p> <p>Validation of Rapid Event Response and Analysis domain results reflect successful completion</p>	As noted above under Rapid Event Response and Analysis domain.
<p>A Care for the Caregiver program is implemented and in place.</p> <p>Peer supporters are deployed to assist physicians and staff who have been involved in or impacted by adverse events.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Validation of Care for the Caregiver domain results reflect successful completion	Tahoe Forest has one of the most robust and successful Care for the Caregiver programs that continues to flourish year after year.

Early Resolution

Requirement	Status	Validated By	Comments
When patient harm is determined to be the result of inappropriate care or medical error, a sincere apology is made.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<ul style="list-style-type: none"> • Review organizational communication policy • Records reflecting communication and apology with patient/family • Review medical record for evidence of documentation of apology • Interview with communication champions 	This is clearly set forth in policy, and reflected in interviews.
When harm is identified but evaluation of care indicates care was appropriate, a thorough explanation is provided to patient and family.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Evidence of implementation of action plans identified as a result of RCA/collaborative case reviews <ul style="list-style-type: none"> • Communication policy • Medical record documentation of conversation with patient/family • Interview with communication champions 	
Leaders seek to learn from HEART events and implement process changes to prevent similar harm to patients.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Evidence of implementation of action plans identified as a result of RCA/collaborative case reviews Documentation of lessons learned from adverse event Minutes reflecting performance improvement activities including committee membership and process changes as a result of event review findings Evidence performance improvement actions have been fully implemented	

Early Resolution

Requirement	Status	Validated By	Comments
<p>The organization submits at least one HEART event per year to the HEART Validation Panel for review and learning.</p> <p>Feedback from the HEART Event Validation panel is incorporated into performance improvement strategies for further development of organizational HEART response.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	HEART Event Validation case application and report	In addition to submitting HEART events for validation, Tahoe Forest partners with BETA's HEART team to report and respond to HEART events.
<p>There is evidence of broad dissemination of lessons learned and process improvements as a result of event analysis.</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Documentation and/or observation reflects evidence of implementation of process improvement efforts</p> <p>Documentation reflecting method and completion of dissemination of lessons learned, including to which departments/areas communication is provided</p> <p>Interviews with frontline staff reveals understanding of lessons learned</p> <p>Interviews with frontline staff reveal understanding of lessons learned</p>	
<p>The organization adopts an early resolution process that has at its core the goal of re-establishing patient trust and includes at a minimum, the following:</p> <ul style="list-style-type: none"> • Apology • Taking responsibility; Reparation • Commitment to improvement 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	<p>Review organizational policies:</p> <ul style="list-style-type: none"> • Responding to Adverse Events • Communication and Apology • Early Resolution • Performance Improvement/Patient Safety Plan 	

Early Resolution

Requirement	Status	Validated By	Comments
<p>The organization has identified a multidisciplinary early resolution team (stakeholder consensus team) that collaboratively evaluates events and determines, when appropriate, fair and reasonable reparation for patients and/or families.</p> <ul style="list-style-type: none"> The team consists of representatives from administration, risk management, medical staff, hospital clinical staff, finance, claims and patient/family advisors 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Stakeholder consensus meeting records List of Stakeholder consensus team Early Resolution policy Event review team structure	
<p>The early resolution team works with claims partners to access external resources/ consultants and experts on an ad hoc basis.</p> <p>Resources may include:</p> <ul style="list-style-type: none"> Life care planners Actuaries Economists Financial planners 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Stakeholder consensus meeting records HEART event file (if maintained separately) Early Resolution policy/process Interview with Early Resolution team	
<p>The early resolution process addresses both financial compensation (where indicated) as well as other opportunities to help patients and families to find resolve.</p> <p>(Examples may include involving patient and family members in performance improvement processes, family presenting their story to Medical Staff or other clinical forum, memorialization of loss suffered via memory garden plaque, bench, etc.).</p>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Documentation of process utilized to reach resolution Documentation of resolution efforts and rationale for the type of resolution proposed Review early resolution policy, PI plan Previous early resolution case files address financial resolution efforts Early resolution case files address non-financial resolution strategies such as engagement of patient/family members in PI efforts or other processes to bring about resolution	

Early Resolution

Requirement	Status	Validated By	Comments
<p>Measurement: The organization has identified and implemented measurement strategies to evaluate the effectiveness of the early resolution process.</p> <ul style="list-style-type: none"> • Timeliness of reporting: Length of time from event to receipt of report • Timeliness of communication: Timeline from event to communication • # of harm events that organization first becomes aware of through notice of intent or by plaintiff's counsel • # of events to which organization proactively responds to patient/family • Time from event to settlement agreement • Dollars involved in settlements versus dollars involved in actual suits • Median and average payment to claimants • Claims frequency • Defense costs 	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Review organizational data	Tahoe submits data to the dashboard.

Early Resolution

Subsequent Year Validation Requirements

If member has previously achieved validation in this domain, in addition to the requirements listed above, organizations must also meet the following criteria:

Requirement	Status	Documents to be Reviewed	Comments
There is evidence of patient/family advisors in organizational patient safety activities.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Performance Improvement Committee minutes PFAC committee minutes Interviews with patient/family advisors (please arrange for a 30-minute interview with advisors or inclusion of PFAC in gap analysis focus group sessions noted below)	PFAC members are included in patient safety activities.
The Stakeholder team is consistently convened prior to offering resolution.	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Stakeholder consensus meeting minutes Evidence of Stakeholder consensus meetings in at least 80% of cases resolved HEART Event analysis and files reflecting activities of Stakeholder consensus team and inclusion of appropriate representation	The grievance committee fulfills this role. The in-house general counsel, Dir. Quality and Regulations, Risk Manager, CMO and possibly another provider. Any claims against or litigation go to the Board. Pre-claim or HEART resolution cases are reported if they result in compensation.
The principles of HEART are understood and adopted broadly throughout the organization as evidenced through findings from repeat Gap Analysis. Repeat Gap Analysis is conducted to include review of organizational documents, findings from validation process and interviews conducted via focus group sessions. <i>(BETA will provide Gap Analysis process and structure upon member request)</i>	<input type="checkbox"/> Not Started <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Met	Completion of repeat Gap Analysis by BETA team	A repeat Gap Analysis was conducted in the spring of 2022.

Early Resolution

Validation Decision:

- Met validation requirements
- Conditional validation*: requirements noted for validation in subsequent year(s)
- Did not meet validation requirements

Validation assessment conducted by BETA Risk Director:

Maria Olton and Deanna Tarnow

ADDITIONAL NOTES:

Congratulations on your revalidation in all five domains of BETA HEART and continuing to be a leader on this journey. We appreciate you and your efforts in championing patient safety.

BETA HEART Event Evaluation and Scoring

Thank you for submitting your HEART Event cases for review, evaluation, and scoring. We are pleased to provide you with the results of our review.

Scoring Process

The scoring process involved an assessment of thirty separate elements of the five HEART Domains: Culture, Rapid Event Response and Analysis, Communication and Transparency, Care for the Caregiver, and Early Resolution.

There was a total of 120 potential points for each case submitted. Each element was scored on a four-point scale with one point granted for submission of information related to the element, but was not met, two points if the element was partially met, three points if the element was substantially met, and four points for fully met.

If, in the context of the case, there was no ability to score an individual element or if there was insufficient information provided to score adequately, that element received a Non-Applicable [N/A] score or zero points. If the element was scored as not applicable, the total score possible for that item was deducted from the overall denominator.

The scoring sheet you are receiving includes two graphs:

- The first graph shows the range of scores based on the potential for 120 possible points and where your event scored.
- In the second graph, recognizing that some events did not allow for the opportunity to address all the elements, the N/A element values were removed from the denominator, and the score provided reflects the percentage of possible points with the adjusted denominator.
 - For some of these events, the rating in the second graph will be substantially higher as the N/A elements have been removed from the denominator.

For each graph, we provided the median and standard deviation. Events are ranked as follows:

- **Beginning** if their score is less than one standard deviation from the median
- **Developing** for those that score between the median and one standard deviation below
- **Advancing** for those scoring between the median and one standard deviation above
- **Approaching** for those events scoring more than one standard deviation above the median

The terminology (beginning, developing, advancing, approaching) reflects the stage at which we determined your organization's response as applied to the event submitted.


We hope you will find this analysis meaningful as you move forward in your organizational HEART response.


General Tips to be Mindful of for Future Submissions:

The goal of the HEART Event Review is to provide you with meaningful feedback as it applies to each of the principles of HEART.

- When selecting an event to submit, consider the extent to which your organization was able to address each component of a HEART response.
 - The more information you can provide and the extent to which you can show how HEART principles were followed, the more feedback we can provide.
 - Closed cases enable a full review of all elements being measured.

Thank you again for submitting your event for review. Please feel free to contact Deanna Tarnow at deanna.tarnow@betahq.com with any questions.

 BETA HEART® Event Scoring Worksheet		Not applicable	Element not met	Partially met	Substantially met	Fully met	Member Facility:	Tahoe Forest Hospital District
							Review Date:	4.18.24
Criteria								
Culture								
The event was recognized and reported timely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
There is evidence of Just Culture principles being applied correctly and consistently.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	It is unclear how the algorithm was used. However, this was further discussed at validation.	
The organization learns from the event and shares that learning broadly; lessons learned are shared across the organization.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lessons learned in staff meetings and action plans went to Med Staff Quality, Board, PFAC, Patient Safety, Reliability Management and Nursing Leadership Committee. "Safety First" email blast to all staff.	
11	Total Score for Culture of Safety (12)							
Rapid Event Response and Analysis								
Scoring of harm was accurate and reasonable.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The fall did not cause the death.	
Fact finding process began as soon as reasonably possible and includes preservation of evidence and initial witness interviews.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Patient or family (as appropriate) are interviewed as part of the investigatory process.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Investigative interviews were conducted using cognitive interviewing techniques.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
The investigation is adequately resourced and completed in a timely manner.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
The investigation considers the interactions between human operators and various elements of the work systems in which they are situated.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
To the extent possible, the investigation is unbiased.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Conclusions about causal or contributing factors comply with 5 rules of causation. (See IHI RCA2 5 Rules of Causation)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Improvement actions are identified and implemented. Weak action plans = partially met Moderate action plans = substantially met Strong action plans = fully met (See IHI Safety Toolkit Action Hierarchy)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
31	Total Score for Rapid Event Response and Analysis (32)							
Communication and Transparency								
Communication Resource Team members utilized the HEART huddle in preparing for the initial conversation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Initial communication or attempts at communication with patient and family occurred in a timely fashion – defined as first communication occurring. Partially met = within 1 week		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

 BETA HEART® Event Scoring Worksheet		Not applicable	Element not met	Partially met	Substantially met	Fully met	Member Facility: Tahoe Forest Hospital District
							Review Date: 4.18.24
Criteria							
Substantially met = within 24 hours Fully met = within 1 hour							
There is evidence that core elements of empathic communication (as noted in the HEART Guideline) are covered during the initial conversation (as noted in the application or medical record if provided).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
The patient/family are informed of an organizational contact who maintained open dialogue with them.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
There is evidence of ongoing communication having occurred.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Communication with the patient/family continued until the patient/family expressed closure or disengages.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Findings from event investigation were shared with the patient/family.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
27	Total Score for Communication and Transparency (28)						
Care for the Caregiver							
There is evidence that Tier 1 emotional first aid was provided to members of the team.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If indicated, trained peer supporters proactively and in a timely way, reached out to and made contact with involved or impacted frontline physicians and staff. N/A = not indicated Not met = no consideration for Tier 2 peer support Partially met = Manager or supervisor asked/offered peer support Substantially met = Emotional support provided by non-trained colleague or manager Fully met = timely, proactive peer support offered and provided by trained peer supporter		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Consideration was given to the need for Tier 3 referral.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Consideration was given to the need to offer the release of the physician/staff from duties. <i>Acceptable options are either: Element not met or Fully met</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	Total Score for Care for the Caregiver (12)						
Early Resolution							
The process for reaching resolution takes into consideration, all information learned through RCA and peer review processes when determining appropriateness of care.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
A Stakeholder Consensus team met to consider all facts learned, determine if care was appropriate and the approach to resolution.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



BETA HEART® Event Scoring Worksheet

Not applicable	Element not met	Partially met	Substantially met	Fully met
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Member Facility:	Tahoe Forest Hospital District
Review Date:	4.18.24

Criteria

The patient and family were provided an opportunity to participate in a resolution conversation. Their individual family dynamics and needs were considered when developing the resolution process, and they were represented by an advocate if warranted by their level of sophistication, disability or bargaining power.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
The resolution conversation includes explaining facts learned, a sincere apology, sharing of process improvements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
An offer of resolution, financial or non-financial, is made and is consistent with the impact of the event, needs and desires of the patient/family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
The organization inquires as to patient/family satisfaction with resolution efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Bills associated with the event were waived if appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

28	Total Score for Early Resolution (28)
120	Maximum Number of Points Included in Scoring Worksheet
106	Total Points Your Organization Earned
112	Your Organization's Points Possible (maximum number minus elements noted as N/A)

Additional Comments

This case represents strong action items and a great escalation of the need to purchase beds.

Scoring Criteria

* **Fully met** means that this element of the organization's response conformed to the specifications of the HEART Toolkit and accorded with the principles of HEART; the organization could not reasonably have been asked to do more in regard to this element. (Score 4 points)

† **Substantially met** means that while this element of the organization's response was imperfect, incomplete, or that the organization could reasonably have done more to operationalize the principles of HEART, the organizational response was sufficiently conforming to the requirements of this element to accept. (Score 3 points)

Partially met: There is evidence of efforts to meet this element of the HEART response (Score 2 points)

Element not met: There is no evidence of efforts to meet this element of the HEART response (Score 1 point)

Not applicable: The element would not apply to this event or there is not enough information included in the application to reliably score the element. If not applicable is noted, there should be evidence as to why the component is not applicable. The element is eliminated from scoring and not included in the denominator.

Tahoe Forest Hospital
Standard Work Bundles
2024

- 1. OP-35: Emergency Visits after Outpatient Chemotherapy**
 - a. Stakeholders: Kelley Bottomley, Derek Baden
 - b. Standard work items
 - i. Initial prevention
 - ii. Symptomatic patients during treatment
 1. Evaluations and referrals
 - c. Numerator-Chemo patients with validated chemo teach
 - d. Denominator-New start chemo patients
 - e. **Goal = $\geq 92\%$**
- 2. HAI-6/C-Diff**
 - a. Stakeholders: Trent Foust, Nicole Becker
 - b. Standard work items
 - i. Testing- call MD before
 - ii. Enteric contact precautions
 - iii. If C-Diff positive- PPE present, private room, hand hygiene observed
 - c. Numerator-Patients with bundle items done
 - d. Denominator- Patients with 3 or more loose stools in 24 hrs
 - e. **Goal $\geq 90\%$**
- 3. Sep-1/Sepsis**
 - a. Stakeholders: Trent Foust, Nicole Becker, Ellie Cruz
 - b. Standard work items
 - i. 3 hour bundle
 - ii. 6 hour bundle
 - c. Numerator- Sepsis patients with 3 and 6 hour bundles verified
 - d. Denominator- Sepsis admissions or new sepsis developed
 - e. **Goal $\geq 90\%$**
- 4. Falls**
 - a. Stakeholders: Trent Foust, Nicole Becker
 - b. Standard work items
 - i. Fall risk bundle in place
 - ii. Ambulation status posted (ICU/MS)
 - c. Numerator- High fall risk patients with all bundles in place
 - d. Denominator- Fall risk patients reviewed
 - e. **Goal $\geq 90\%$**
- 5. SSI**
 - a. Stakeholders: Calley Corr, Kate Cooper
 - b. Standard work items
 - i. Pre-op hair removal
 - ii. CHG Pre-op
 - iii. Nasal Decolonization
 - iv. Oral Decolonization
 - v. Vanco MRSA Positive only

Tahoe Forest Hospital Standard Work Bundles 2024

- vi. Normo-thermia pre-op
 - c. Numerator- TJR patients with all bundles
 - d. Denominator- Elective TJR patients
 - e. **Goal ≥ 90%**
- 6. OP-10: Abdomen CT Use of Contrast**
- a. Stakeholders: Sadie Wangler, Shayna Vosburgh
 - b. Standard work items
 - i. Exclusion diagnosis present
 - ii. Verified with Provider correct order
 - c. Numerator- Appropriate combined abdomen CT orders
 - d. Denominator- Combined abdomen CT orders
 - e. **Goal ≥ 90%**
- 7. Total Joint Replacements**
- a. Stakeholders: Danielle Moran, Missy Jones
 - b. Standard work items
 - i. Medical and social clearance
 - ii. Patient education
 - iii. Monitoring/follow-up
 - 1. Sub-items within each category
 - c. Numerator- TJR patients with all bundles
 - d. Denominator- Elective TJR patients
 - e. **Goal ≥ 90%**
- 8. Hospital-Wide All Cause Unplanned Readmissions**
- a. Stakeholders: Karyn Grow, Anna McGuire
 - b. Standard work items
 - i. TCM referral
 - ii. Follow-up with PCP within 14 days
 - c. Numerator- High risk discharges with bundle items
 - d. Denominator- High risk discharges, score ≥3
 - e. **Goal ≥ 90%**

The concurrent bundles are for internal tracking and not reportable to CMS. Previously we have tracked outcome measures, showing noncompliance with the quality metric. The concurrent bundle is being proactive to ensure compliance with the process measure to avoid a negative outcome. We are focused on standard work and adhering to it every time to ensure the best outcome for our patients. Tracking the bundles will be reported out in the form of a numerator (number of patients with quality metric bundle completed) and denominator (total number of patients being measured).

Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review

William J. Hall, PhD, Mimi V. Chapman, PhD, Kent M. Lee, MS, Yesenia M. Merino, MPH, Tainayah W. Thomas, MPH, B. Keith Payne, PhD, Eugenia Eng, DrPH, Steven H. Day, MCP, and Tamera Coyne-Beasley, MD

Background. In the United States, people of color face disparities in access to health care, the quality of care received, and health outcomes. The attitudes and behaviors of health care providers have been identified as one of many factors that contribute to health disparities. Implicit attitudes are thoughts and feelings that often exist outside of conscious awareness, and thus are difficult to consciously acknowledge and control. These attitudes are often automatically activated and can influence human behavior without conscious volition.

Objectives. We investigated the extent to which implicit racial/ethnic bias exists among health care professionals and examined the relationships between health care professionals' implicit attitudes about racial/ethnic groups and health care outcomes.

Search Methods. To identify relevant studies, we searched 10 computerized bibliographic databases and used a reference harvesting technique.

Selection Criteria. We assessed eligibility using double independent screening based on a priori inclusion criteria. We included studies if they sampled existing health care providers or those in training to become health care providers, measured and reported results on implicit racial/ethnic bias, and were written in English.

Data Collection and Analysis. We included a total of 15 studies for review and then subjected them to double independent data extraction. Information extracted included the citation, purpose of the study, use of theory, study design, study site and location, sampling strategy, response rate, sample size and characteristics,

measurement of relevant variables, analyses performed, and results and findings. We summarized study design characteristics, and categorized and then synthesized substantive findings.

Main Results. Almost all studies used cross-sectional designs, convenience sampling, US participants, and the Implicit Association Test to assess implicit bias. Low to moderate levels of implicit racial/ethnic bias were found among health care professionals in all but 1 study. These implicit bias scores are similar to those in the general population. Levels of implicit bias against Black, Hispanic/Latino/Latina, and dark-skinned people were relatively similar across these groups. Although some associations between implicit bias and health care outcomes were nonsignificant, results also showed that implicit bias was significantly related to patient-provider interactions, treatment decisions, treatment adherence, and patient health outcomes. Implicit attitudes were more often significantly related to patient-provider interactions and health outcomes than treatment processes.

Conclusions. Most health care providers appear to have implicit bias in terms of positive attitudes toward Whites and negative attitudes toward people of color. Future studies need to employ more rigorous methods to examine the relationships between implicit bias and health care outcomes. Interventions targeting implicit attitudes among health care professionals are needed because implicit bias may contribute to health disparities for people of color. (*Am J Public Health.* 2015;105:e60–e76. doi:10.2105/AJPH.2015.302903)

PLAIN-LANGUAGE SUMMARY:

Implicit attitudes are thoughts and feelings that often exist outside of conscious awareness, and thus are difficult to consciously acknowledge and control. Negative implicit attitudes about people of color may contribute to racial/ethnic disparities in health and health care. We systematically reviewed

evidence on implicit racial/ethnic bias among health care professionals and on the relationships between health care professionals' implicit attitudes about racial/ethnic groups and health care outcomes. Fifteen relevant studies were identified through searches of bibliographic databases and reference lists of studies that met

inclusion criteria. Low to moderate levels of implicit racial/ethnic bias were found among health care professionals in all but 1 study. These implicit bias scores are similar to those in the general population. Levels of implicit bias against Black, Hispanic/Latino/Latina, and dark-skinned people were relatively similar

across these groups. Although some associations between implicit bias and health care outcomes were nonsignificant, results also showed that implicit bias was significantly related to patient-provider interactions, treatment decisions, treatment adherence, and patient health outcomes.

In the United States, people of color face disparities in access to health care, the quality of care received, and health outcomes.¹⁻³ Compared with Whites, people of color face more barriers to accessing care, which includes preventive services, acute treatment, and chronic disease management.⁴ People of color are also generally less satisfied with their interactions with health care providers. The National Healthcare Disparities Report showed that White patients received better quality of care than Black American, Hispanic, American Indian, and Asian patients.⁴ Dominant communication styles, fewer demonstrated positive emotions, infrequent requests for input about treatment decisions, and less patient-centered care seem to characterize patient-provider interactions involving people of color.⁴⁻⁶

People of color also face disparities in terms of morbidity, mortality, and health status. Black Americans, Hispanic Americans, and American Indians have higher infant mortality rates than White and Asian Americans.¹ The premature death rate from heart disease and stroke is highest among Black Americans. In addition, numerous disparities in health conditions and risk behaviors exist among people of color, including asthma, cigarette smoking, diabetes, early childbearing, HIV/AIDS, hypertension, low birth weight, obesity, periodontitis, preterm births, and tuberculosis.^{1,4} Black Americans, Hispanic Americans, and American Indians were more likely to rate their health as fair or poor, and reported more days of feeling unwell in the past month, compared with White and Asian Americans.¹ Despite all of the advancements in health care in the past century, disparities based on race and ethnicity persist in access to health care, quality of care

received, disease incidence and prevalence, life expectancy, and mortality.

HEALTH DISPARITIES AND PROVIDER ATTITUDES

Provider attitudes and behavior are a target area for researchers and practitioners attempting to understand and eradicate inequitable health care.⁷ Although overt discriminatory behavior in the United States may have declined in recent decades, covert discrimination and institutional bias are sustained by subtle, implicit attitudes that may influence provider behavior and treatment choices. As a result, patients of color may be kept waiting longer for assessment or treatment than their White counterparts, or providers may spend more time with White patients than with patients of color. In addition, providers may vary in the extent to which they collaborate with patients in systematic though nondeliberate ways, in considering treatment options based on patients' characteristics. Subtle biases may be expressed in several ways: approaching patients with a dominant and condescending tone that decreases the likelihood that patients will feel heard and valued by their providers, failing to provide interpreters when needed, doing more or less thorough diagnostic work, recommending different treatment options for patients based on assumptions about their treatment adherence capabilities, and granting special privileges, such as allowing some families to visit patients after hours while limiting visitation for other families. Variation in provider behaviors may be driven in part or in full by positive and negative attitudes that providers hold toward various racial and ethnic groups.

Negative attitudes toward certain social groups or personal

characteristics often exist at the margins of awareness and are not easily accessible to individuals. Social psychology scholars have conceptualized prejudicial attitudes or bias as implicit and explicit.⁸ Explicit attitudes are thoughts and feelings that people deliberately think about and can make conscious reports about. On the other hand, implicit attitudes often exist outside of conscious awareness, and thus are difficult to consciously acknowledge and control. These attitudes are often automatically activated and can influence human behavior without conscious volition. Racial/ethnic bias in attitudes, such as feeling that White people are nicer than Black people, whether conscious or not, can lead to prejudicial behavior, such as providers taking more time with White patients than Black patients and therefore learning more about the White patients' needs and concerns.

Within the general population, significant research exists about implicit racial/ethnic bias. For example, White Americans have tended to associate negative valence in general, and certain feelings such as fear and distrust, with Black Americans.⁹⁻¹⁵ Such group notions are automatically activated and applied most often when people are busy, distracted, tired, and under pressure.¹⁶ The cognitive effort to assess and process a person's individual characteristics appears to be greater than that required to quickly categorize a person into a particular group with particular characteristics.⁹ Such short cuts in thinking may be useful in certain situations, but when providers are seeking to establish genuine working relationships with their patients and deliver equitable health care, fast thinking or quick categorization may get in the way. For example,

during a diagnostic examination with a Black American adolescent, a provider may automatically presume that they are sexually active rather than asking open-ended questions about sexual activity and listening carefully to the responses.

Some White health care providers maintain problematic explicit ideas about their Black American patients, viewing them as less intelligent, less able to adhere to treatment regimens, and more likely to engage in risky health behaviors than their White counterparts.¹⁷ Hispanic/Latino/Latina patients too were viewed as unlikely to accept responsibility for their own care and more likely to be noncompliant with treatment recommendations.¹⁸ Yet, even if explicit attitudes are modified, implicit bias among providers toward people of color is likely to remain and influence care in ways that perpetuate disparity and inequity. Thus, even if explicit attitudes demonstrate a desire to provide equitable care, health care providers may unintentionally interact with patients of color less effectively than with White patients, which may contribute to health disparities.^{19,20}

PURPOSE OF THE SYSTEMATIC REVIEW

To reduce racial and ethnic disparities in health care, we must ascertain the prevalence of biased attitudes among health care providers and whether bias contributes to problems in patient-provider interactions and relationships, quality of care, continuity of care, treatment adherence, and patient health status. Although significant research has been conducted on racial/ethnic bias in the general population, relatively few studies have examined

implicit racial/ethnic bias among health care professionals, despite its potentially significant impact on service delivery and health. This is therefore an important and emerging area of research. Systematic literature reviews are particularly useful in emerging areas because they synthesize what is known about a topic area, summarize the methods used to study a particular topic, and provide directions for future research. This systematic review seeks to answer 2 research questions: (1) Is there evidence of implicit racial/ethnic bias among health care professionals toward people of color? (2) Are there relationships between implicit racial/ethnic bias among health care professionals and health care outcomes (e.g., patient-provider interactions, clinical decision-making, standards of care, treatment adherence, symptomatology, health status, and patient satisfaction with care)?

METHODS

We prepared this review using methods outlined in Cooper²¹ and Littell et al.²² and adhering to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) criteria.²³ We developed protocols for bibliographic searches, study inclusion and exclusion, and data extraction before beginning the systematic search for relevant studies. In addition, we registered this review with PROSPERO, an international database of systematic reviews on health and social well-being.

Inclusion and Exclusion Criteria

We included studies in the review if they met the following criteria: (1) collected data from participants who were health care providers or were in training to become health care providers,

(2) measured and reported results on implicit attitudes toward racial/ethnic groups, and (3) were written in English. We defined health care professionals as individuals who provided or were in training to provide preventive, curative, therapeutic, or rehabilitative health services to patients. Examples include physicians, dentists, pharmacists, physician assistants, nurses, midwives, dieticians, chiropractors, podiatrists, clinical psychologists, clinical social workers, phlebotomists, physical therapists, respiratory therapists, occupational therapists, audiologists, speech pathologists, optometrists, emergency medical technicians, and paramedics.

We excluded studies that only examined explicit bias, as well as studies that examined implicit bias that was not related to race or ethnicity. We also excluded articles or reports that were strictly theoretical or conceptual. Because of our limited proficiency in other languages, and because implicit racial/ethnic bias may be a different phenomenon in non-Western or non-English-speaking countries, we included only studies written in English. Finally, we did not use time frame restrictions because implicit bias is a relatively recent construct and we wanted to perform an exhaustive review of the literature.

Search Strategy

We consulted a behavioral and social sciences librarian to assist with identifying relevant computerized bibliographic databases in which to search. We used the following search string to search all databases for studies completed prior to June 5, 2014: (“implicit bias” OR “implicit attitude” OR “implicit prejudice” OR “conscious bias” OR “conscious attitude” OR “conscious prejudice”) AND (race OR racial OR ethnic OR ethnicity OR Hispanic

OR Black OR African OR Asian OR Latin*) AND (health OR health care OR “health care”). The term “conscious” was used because implicit bias is sometimes referred to as unconscious or nonconscious bias.

Searching multiple databases increases the likelihood of identifying all possible studies falling within the scope of the review; we therefore searched 10 databases, some of which included gray literature sources. We performed searches in the following databases via EBSCO, with terms searched within the titles, abstracts, subject headings, and keywords: Academic Search Complete, CINAHL, Health Source: Nursing/Academic, PsycInfo, and Social Work Abstracts. We searched the following databases via ProQuest with terms searched within the titles, abstracts, and subject headings: ASSIA, Dissertations & Theses Full Text, and Social Services Abstracts. In addition, we searched the Conference Proceedings Citations Index with terms searched within titles, abstracts, and keywords. Finally, we searched PubMed with terms searched within titles, abstracts, and subject headings. When available, we used the English language filter. In addition to database searches, we used a reference-harvesting technique to locate relevant studies whereby we examined the reference lists of included studies to identify studies that might have not been incorporated into computerized bibliographic databases, such as papers in press or unpublished studies.

Study Selection Methods

We created a checklist of the inclusion and exclusion criteria prior to the search and used it for eligibility assessment. We piloted the checklist using 4 articles, and then 2 members of the research team who were responsible for

screening were trained on the checklist and screening procedures. After performing the bibliographic searches, we imported 105 results into the RefWorks software program to assist with organization and duplicate removal. Following duplicate removal, 84 studies remained. Two trained members of the research team independently screened each of the 84 studies to determine eligibility. We included or excluded most studies after reading the title and abstract; however, it was also necessary to examine the full text document of some studies to determine eligibility. To examine interrater agreement, we compared the screening decisions of the 2 screeners and calculated Cohen κ with SPSS version 21 (IBM, Somers, NY), which showed excellent agreement ($\kappa = 0.82$; $P < .05$).²⁴ There were only 6 disagreements between the screeners, which the first author resolved by examining the source documents. We excluded 69 studies because they did not meet all of the inclusion criteria. Many of these studies did not address implicit bias, some did not address racial/ethnic bias, and others were nonempirical.

Data Extraction Methods

After completing the inclusion and exclusion process, we included 15 studies and then subjected them to data extraction. Figure 1 shows the process of identifying and including studies. We developed a data extraction spreadsheet to assist with identifying and collecting relevant information from the included studies. Information extracted included the citation, purpose of the study, use of theory, study design, study site and location, sampling strategy, response rate, sample size and characteristics, measurement of relevant variables, analyses performed, and results and findings. Four members of the research team

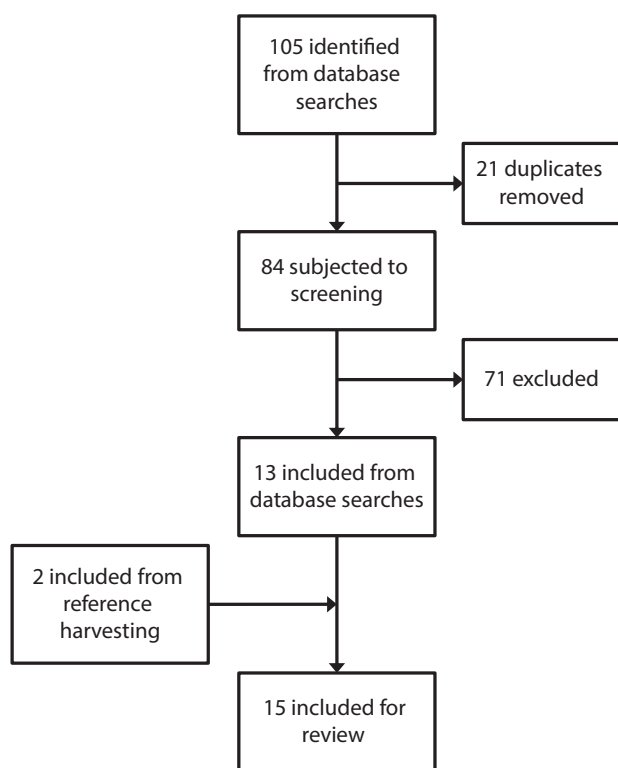


FIGURE 1—Flowchart depicting the identification, screening, and inclusion of studies of implicit racial/ethnic bias among health care professionals.

Eleven studies (73%) sampled participants from a single city; the cities were all large urban areas (e.g., Atlanta, GA; Baltimore, MD; and Denver, CO). Only 4 studies sampled participants from multiple locations across the United States. Among health care professional participants, the response rates ranged from 28% to 84% (mean = 57%; SD = 18.6%), and 2 studies did not report response rates. Among the 6 studies that used patient participants, 2 did not report response rates; among the studies that did report them, they ranged from 47% to 75% (mean = 66%; SD = 12.8%).

Study Samples

All 15 studies were conducted in the United States, although country in which the research was published was not an exclusion criteria. Twelve studies sampled practicing health care professionals, which included physicians, nurses, and nurse practitioners in the areas of primary care, pediatrics, internal medicine, emergency medicine, and spinal cord injury. Three studies included medical, nursing, and pharmacy students as participants. The sample sizes for health professionals varied drastically, from 14 to 2535 participants. Five studies had fewer than 50 participants, and 9 studies had between 50 and 350 professional participants. In most studies, about 75% to 80% of professionals were White, followed by small but substantial proportions of Asian professionals (10%–30%) and small proportions of Black and Hispanic/Latino/Latina professionals (0%–10%). In most studies, the proportions of males and females were about equal; however, samples tended to have more female than male participants. Six of the 12 studies that sampled practicing professionals measured their

professional experience, which showed that about half had less than 10 years of experience. National estimates of physician demographics have shown that 72% of physicians are male, 74% are White, 17% are Asian, 5% are Hispanic, 4% are Black, 29% have less than 10 years of experience, 32% have between 10 and 20 years of experience, and 39% have more than 20 years of experience.⁴⁰ However, the 15 studies in this review included physicians and other health care professionals from a variety of disciplines, which may account for the demographic differences.

Six of the 15 studies (40%) collected data from patients. Patient sample sizes ranged from 112 to 4794 (mean = 1399; SD = 1991), with 2 studies having about 3000 or more participants and 4 studies having between 100 and 300 participants. All 6 studies included Black patients, 4 included White patients, and only 2 included Hispanic/Latino/Latina patients. Most studies had larger proportions of female (about 60%–70%) than male patients. Patient samples consisted primarily of middle-age and older adults. Only 3 of the 6 studies reported information about patients' socioeconomic status, which showed that most patients' highest level of education was a high school degree and most had low to moderate incomes (i.e., <\$35 000 per year).

Measurement of Implicit Racial/Ethnic Bias

Of the 15 studies reviewed, 9 examined bias against Black people compared with White people; 3 examined bias against both Black and Hispanic/Latino/Latina people compared with White people; 1 examined bias against Hispanic/Latino/Latina compared with White people; 1 examined bias

participated in the extraction process. Each study was independently extracted 2 times by 2 different researchers. Another researcher then compared the 2 extraction results for each study to examine agreement and Cohen κ statistics were calculated, which showed excellent agreement ($\kappa = 0.83$; $P < .05$). There were 21 disagreements between the extractors, which 2 researchers resolved by examining the full text source document.

RESULTS

We included 15 studies in this review: 14 peer-reviewed journal articles and 1 doctoral dissertation. We present a summary of the methodological characteristics of

these studies followed by a synthesis of the substantive findings regarding the presence of implicit racial/ethnic bias among professionals and the relationships between implicit bias and health care outcomes. Table 1 shows a summary of information extracted from each study.

Study Design Characteristics

Of the 15 included studies, 13 (87%) were cross-sectional and 2 studies used cross-sectional survey data from health care providers merged with longitudinal data from patients. All of the studies sampled participants from the United States, and only 1 study included a small portion of participants from outside the United States. All of the studies used convenience sampling.

TABLE 1—Summary of Studies Included in the Systematic Review of Implicit Racial/Ethnic Bias Among Health Care Professionals

Citation	Purpose of the Study	Study Design, Location, and Sampling Strategy	Sample Description for Health Care Professionals	Sample Description for Patients	Assessment of Implicit Bias Among Professionals	Analysis and Results on Associations Between Implicit Bias and Health Care Outcomes
Bean et al. ²⁵	To examine implicit stereotyping of Hispanic American patients among nursing and medical students	Cross-sectional study Tucson, AZ Convenience sampling	36 students (53% nursing students, 47% medical students) 81% White, 19% non-White 78% female, 22% male Response rate not reported	NA	Sequential priming examined Hispanic/Latino/Latina vs White faces associated with words related to good and bad patients. Participants were faster in recognizing noncompliance ($d = 0.68^*$), risk ($d = 1.53^*$), and general stereotype words ($d = 0.88^*$) after exposure to Hispanic/Latino/Latina faces vs White faces.	NA
Blair et al. ²⁶	To assess implicit and explicit bias against Hispanics/Latinos and Black Americans among primary care providers and community members	Cross-sectional study Denver, CO Convenience sampling	210 primary care physicians 84% White, 6% Hispanic/Latino/Latina, and 1% Black 53% female, 47% male 4% aged 18-35 y, 73% 36-55 y, 11% ≥ 56 y 47% 1-10 y of clinical experience, 30% 11-20 y of clinical experience, 21% ≥ 20 y of clinical experience Response rate = 60%	NA	Race IAT examined Black vs White faces and associated them with positive and negative words. Physicians showed moderate pro-White, anti-Black bias (Mean IAT $D = 0.27$; $SD = 0.34$). Race IAT examined Hispanic/Latino/Latina vs White faces associated with positive and negative words. Physicians showed moderate pro-White, anti-Hispanic/Latino/Latina bias (Mean IAT $D = 0.33$; $SD = 0.38$)	NA
Fitzsimmons ²⁷	To examine the extent to which implicit racial bias against students of color exists in nursing faculty teaching in baccalaureate programs in nursing	Cross-sectional study United States Convenience sampling and snowball sampling	107 nursing faculty members 92% White, 2% Black, 1% Hispanic/Latino/Latina, and 2% other 98% female, 2% male Mean years in nursing education = 14 Response rate = 30%	NA	Skin tone IAT examined associations between dark- vs light-skinned faces and positive and negative words. Nurses showed moderate bias against dark-skinned faces (mean IAT $D = 0.35$; $SD = 0.42$).	NA
Sabin et al. ²⁸	To measure implicit and explicit attitudes about race among medical doctors	Cross-sectional study United States and abroad Convenience sampling	2535 medical doctors 66% White, 11% Asian, 8% Black, and 5% Hispanic/Latino/Latina 62% male and 38% female Mean age = 37 y 79% reside in United States Response rate not reported	NA	Race IAT examined Black vs White faces associated with positive and negative words. Physicians showed moderate pro-White, anti-Black bias (Mean IAT $D = 0.39$; $SD = 0.47$).	NA

Continued

TABLE 1—Continued

White-Means et al. ²⁹	To examine race and skin tone preferences among preprofessional health care providers	Cross-sectional study Memphis, TN Convenience sampling	333 students (57% pharmacy students, 34% medical students, and 9% nursing students) 74% White, 18% Black, 7% Asian, and 1% Hispanic/Latino/Latina Response rate = 38%	NA	Race IAT examined Black vs White faces associated with positive and negative words. 100% of Hispanics/Latinos/Latinas, 94% of Whites, 76% of Asians, and 62% of Blacks showed a preference for White over Black people. Overall, students showed moderate pro-White, anti-Black bias (Mean IAT D = 0.40; SD not reported). Skin tone IAT examined associations between dark- vs light-skinned faces and positive and negative words. 100% of Hispanics/Latinos/Latinas, 85% of Asians, 83% of Whites, 41% of Blacks, and 51% of mixed race (Black and White) were more likely to prefer light skin to dark skin. Overall, students showed a moderate bias against dark-skinned people (mean IAT D = 0.31; SD not reported).	NA
Blair et al. ³⁰	To examine if clinicians' explicit and implicit racial/ethnic bias is related to Black and Hispanic/Latino/Latina patients' perceptions of their care in established clinical relationships	Cross-sectional study Denver, CO Convenience sampling	134 primary care physicians 75% White, 25% non-White 54% female, 46% male 50% with ≥ 10 y of clinical experience Response rate = 60%	2908 patients 49% White, 30% Hispanic/Latino/Latina, 21% Black 58% female, 42% male 2% aged 18–35 y, 33% 36–55 y, 64% ≥ 56 y Education: 18% < high school diploma, 27% high school diploma or GED, 30% 1–3 y of college, 24% ≥ 4 y of college Household income: 35% < \$15 000; 19% \$16 000–\$35 000; 14%	Hierarchical linear modeling results: For Black patients: Provider's interpersonal treatment (B = -5.81*, SE = 2.52) ^a Patient-provider communication (B = -4.31c; SE = 2.47) ^a Trust in provider (B = -2.65; SE = 2.09) ^a Contextual knowledge of patient (B = -5.58*, SE = 2.73) ^a Composite score of patient-centeredness (B = -4.61*, SE = 2.25) ^a For Hispanic/Latino/Latina patients: Provider's interpersonal treatment (B = -0.58; SE = 1.71) ^a Patient-provider communication (B = -0.13; SE = 1.68) ^a Trust in provider (B = 0.85; SE = 1.42) ^a Contextual knowledge of patient (B = -0.19; SE = 1.86) ^a Composite score of patient-centeredness (B = -0.04; SE = 1.53) ^a	

Continued

TABLE 1—Continued

Blair et al. ³¹	To determine the relationship between implicit racial/ethnic bias among primary care providers and treatment processes and outcomes related to hypertension among Black and Hispanic/Latino/Latina patients compared with White patients	Cross-sectional survey of primary care providers merged with multiyear patient record data following initial visit with the provider Denver, CO Convenience sampling	138 primary care physicians 83% White, 17% non-White 54% female, 46% male 49% with ≥ 10 y of clinical experience Response rate = 52%	4794 patients 49% White, 31% Hispanic/Latino/Latina, 20% Black 58% female and 42% male Mean age = 60 y Response rate not reported	Race IAT examined Black vs White and Hispanic/Latino/Latina vs White faces associated with positive and negative words. 70% of physicians showed some level of implicit bias against Black people and Hispanics/Latinos. 51% of physicians had moderate-to-strong levels of bias against Hispanics/Latinos/Latinas. 42% of physicians had moderate-to-strong levels of bias against Black people. IAT D score not reported.	Multilevel random coefficient modeling results: For Black patients: Treatment intensification (B = 0.007; SE = 0.030) ^a Medication adherence (B = -3.8*; SE = 1.7) ^a Hypertension control (B = -1.9; SE = 2.2) ^a Time out of stage 2 hypertension (B = -1.2; SE = 1.4) ^a For Hispanic/Latino/Latina patients: Treatment intensification (B = 0.014; SE = 0.024) ^a Medication adherence (B = 1.3; SE = 1.4) ^a Hypertension control (B = 2.3; SE = 1.8) ^a Time out of stage 2 hypertension (B = -1.0; SE = 1.1) ^a
Cooper et al. ³²	To examine associations of clinician's implicit attitudes about race with visit communication and patient ratings of care	Cross-sectional study Baltimore, MD Convenience sampling	40 clinicians (90% physicians, 10% nurse practitioners) 48% White, 30% Asian, 22% Black 62% female, 38% male 38% aged 27–39 y, 35% 40–49 y, 25% 50–62 y Mean experience since residency = 13 y Response rate = 63%	269 patients 79% Black and 21% White 71% female and 29% male Mean age = 56 y 81% high school graduates 59% annual income > \$35 000 Response rate = 67%	Race IAT examined Black vs White faces associated with positive and negative words. Physicians showed slightly moderate pro-White, anti-Black bias (Mean IAT D = 0.26; SD = 0.49). Medical Compliance IAT examined Black vs White faces associated with compliant and reluctant patients. Physicians showed moderate association of White race with compliance (Mean IAT D = -0.29; SD = 0.41).	Linear and logistic regression with generalized estimating equations results: For White patients: Clinician verbal dominance (B = 11.0*) ^a Visit length (B = 8.0) ^a Clinician speech speed (B = 0.25) ^a Patient centeredness (B = -0.05) ^a Clinician positive affect (B = -0.01) ^a Patient positive affect (B = 0.01) ^a Clinician asked for patient input (OR = 16.6*; 95% CI = 7.3, 33.5) ^a Clinician respected patient (OR = 26.5*; 95% CI = 18.7, 36.0) ^a Clinician liked patient (OR = 8.0*; 95% CI = 3.0, 19.5) ^a Patient liked clinician (OR = 31.4; 95% CI = 20.8, 44.5) ^a Patient trust in clinician (OR = 76.9; 95% CI = 68.9, 83.4) ^a Patient confidence in clinician (OR = 79.0; 95% CI = 70.7, 85.4) ^a Patient would recommend clinician (OR = 29.1; 95% CI = 19.4, 41.2) ^a Clinician verbal dominance (B = -25.0*) ^b Visit length (B = -21.0*) ^b Clinician speech speed (B = 3.9*) ^b Patient centeredness (B = 0.15*) ^b Clinician positive affect (B = 0.12*) ^b Patient positive affect (B = 0.11†) ^b Clinician asked for patient input (OR = 19.4*; 95% CI = 6.8, 44.1) ^b

Continued

TABLE 1—Continued

Clinician respected patient (OR = 21.6; 95% CI = 8.3, 45.5) ^b	
Clinician liked patient (OR = 6.6; 95% CI = 1.8, 21.4) ^b	
Patient liked clinician (OR = 31.6; 95% CI = 22.5, 42.5) ^b	
Patient trust in clinician (OR = 73.9; 95% CI = 64.2, 81.7) ^b	
Patient confidence in clinician (OR = 74.9; 95% CI = 66.0, 82.0) ^b	
Patient would recommend clinician (OR = 23.7*; 95% CI = 15.5, 34.5) ^b	
For Black patients:	
Clinician verbal dominance (B = 9.0) ^a	
Visit length (B = 7.0) ^a	
Clinician speech speed (B = -0.76) ^a	
Patient centeredness (B = -0.10) ^a	
Clinician positive affect (B = -0.10) ^a	
Patient positive affect (B = -0.10*) ^a	
Clinician asked for patient input (OR = 28.3; 95% CI = 22.3, 35.1) ^a	
Clinician respected patient (OR = 34.9*; 95% CI = 27.2, 43.5) ^a	
Clinician liked patient (OR = 23.8; 95% CI = 17.9, 31.0) ^a	
Patient liked clinician (OR = 32.7*; 95% CI = 26.2, 39.9) ^a	
Patient trust in clinician (OR = 67.6; 95% CI = 60.6, 73.8) ^a	
Patient confidence in clinician (OR = 71.4*; 95% CI = 64.1, 77.7) ^a	
Patient would recommend clinician (OR = 34.4*; 95% CI = 27.1, 42.5) ^a	
Clinician verbal dominance (B = 10.0) ^b	
Visit length (B = 20.0*) ^b	
Clinician speech speed (B = -1.75*) ^b	
Patient centeredness (B = -0.93) ^{†b}	
Clinician positive affect (B = -0.06) ^b	
Patient positive affect (B = -0.04) ^b	
Clinician asked for patient input (OR = 23.0*; 95% CI = 16.8, 30.7) ^b	
Clinician respected patient (OR = 37.0; 95% CI = 28.7, 46.2) ^b	
Clinician liked patient (OR = 23.2; 95% CI = 16.7, 31.3) ^b	
Patient liked clinician (OR = 38.4; 95% CI = 31.7, 45.5) ^b	
Patient trust in clinician (OR = 64.0*; 95% CI = 6.5, 70.9) ^b	
Patient confidence in clinician (OR = 71.2 [†] ; 95% CI = 63.8, 77.7) ^b	
Patient would recommend clinician (OR = 36.3; 95% CI = 29.4, 43.8) ^b	

Continued

TABLE 1—Continued

Green et al. ³³	To test the presence of implicit race bias among physicians and assess its prediction of thrombolysis recommendations for Black and White patients with acute coronary syndromes	Cross-sectional study Boston, MA, and Atlanta, GA Convenience sample	220 resident physicians (83% internal medicine residents, 17% emergency medicine residents) 63% White, 24% Asian/Pacific Islander, 6% Other, 5% Black, 2% Hispanic/Latino/Latina 60% male, 40% female Response rate = 28%	NA	Race Preference IAT examined Black vs White faces associated with positive and negative words. Residents showed moderate pro-White, anti-Black bias (Mean IAT D = 0.36; SD = 0.40). Race Cooperative IAT examined Black vs White faces associated with general cooperativeness. Residents showed moderate association of White race with cooperativeness (mean IAT D = 0.30; SD = 0.39). Race Medical Cooperative/Compliance examined Black vs White faces associated with medical cooperativeness. Residents showed moderate association of White race with cooperativeness (mean IAT D = 0.22; SD = 0.40).	Multiple linear regression results: For White patients: Recommend thrombolysis for treatment of coronary artery disease (B = 0.17*) ^b Recommend thrombolysis for treatment of coronary artery disease (B = 0.08) ^b Recommend thrombolysis for treatment of coronary artery disease (B = 0.10) ^c Recommend thrombolysis for treatment of coronary artery disease (B = 0.16*) ^d For Black patients: Recommend thrombolysis for treatment of coronary artery disease (B = -0.19*) ^a Recommend thrombolysis for treatment of coronary artery disease (B = -0.09) ^b Recommend thrombolysis for treatment of coronary artery disease (B = 0.02) ^c Recommend thrombolysis for treatment of coronary artery disease (B = -0.11*) ^d
Hagiwara et al. ³⁴	To examine how non-Black primary care physician's explicit and implicit racial bias and Black patients' perceived past discrimination affected physician-patient talk time ratio during medical interactions and the relationship between this ratio and patients' subsequent adherence	Cross-sectional survey of physicians and longitudinal data collection with patients Detroit, MI Convenience sampling	14 primary care physicians 86% Asian, 14% White 50% female, 50% male Mean age = 30 y Response rate = 83%	112 patients 100% Black 77% female, 23% male Mean age = 43 y 100% low income Response rate = 75%	Race IAT examined Black vs White faces associated with positive and negative words. Physicians showed a very slight pro-Black, anti-White (Mean IAT D = -0.10; SD = 0.36). Physician verbal dominance during patient encounter ($r = 0.32^*^a$) Patient treatment adherence at baseline ($r = 0.03^a$) Patient treatment adherence at 4-wk follow-up ($r = 0.11^a$) Patient treatment adherence at 16-wk follow-up ($r = 0.12^a$) Patient trust in physician ($r = 0.03^b$) Physician verbal dominance during patient encounter ($b = 0.33^†$; SE = 0.19) ^a	Correlation and OLS regression results: For Black patients: Physician verbal dominance during patient encounter ($r = 0.32^*^a$) Patient treatment adherence at baseline ($r = 0.03^a$) Patient treatment adherence at 4-wk follow-up ($r = 0.11^a$) Patient treatment adherence at 16-wk follow-up ($r = 0.12^a$) Patient trust in physician ($r = 0.03^b$) Physician verbal dominance during patient encounter ($b = 0.33^†$; SE = 0.19) ^a
Haider et al. ³⁵	To estimate unconscious race and social class bias among 1st-year medical students and examine the association of these biases with clinical assessments	Cross-sectional study Baltimore, MD Convenience sampling	202 medical students 54% White, 31% Asian, 6% Black, 6% Hispanic/Latino/Latina, 3% other 52% female, 48% male 16% aged ≤ 21 y, 76% 22-25 y, 8% ≥ 26 y Response rate = 84%	NA	Race IAT examined Black vs White faces associated with positive and negative words. No implicit bias among 17% of medical students. 69% of students demonstrated preference for White over Black. 14% of students demonstrated preference for Black over White. Students showed moderate pro-White, anti-Black bias (Mean IAT D = 0.32; SD = 0.33).	OLS regression and logistic regression results: For Black patient vignettes: Assessment of pain level ($b = -0.35^a$) Appropriate informed consent (OR = 0.60; 95% CI = 0.22, 6.2) ^a Reliability of patient (OR = 2.45; 95% CI = 0.82, 5.36) ^a Trust in patient (OR = 1.22; 95% CI = 0.35, 4.30) ^a For White patient vignettes: Assessment of pain level ($b = -0.69^a$) Appropriate informed consent (OR = 0.93; 95% CI = 0.20, 4.20) ^a Reliability of patient (OR = 1.50; 95% CI = 0.38, 5.80) ^a Trust in patient (OR = 1.34; 95% CI = 0.43, 4.21) ^a

Continued

TABLE 1—Continued

Hausmann et al. ³⁶	To examine implicit racial bias of SCI physicians and its association with functioning and well-being for individuals with SCI	Cross-sectional study United States Convenience sampling	14 SCI physicians 57% White, 29% Asian, 7% Black, 7% Pacific Islander 93% male, 7% female Mean age = 48 y 57% had at least 15 y experience in SCI medicine Response rate = 49%	162 patients with neurologic impairments from SCI 60% White, 40% Black 77% male, 33% female Mean age = 40 y Response rate not reported	Race IAT examined Black vs White faces associated with positive and negative words. 100% of SCI physicians show some level of implicit bias toward Black people. Physicians showed strong pro-White, anti-Black bias (Mean IAT D = 0.62; SD = 0.35).	Multilevel logistic and linear regression results for White and Black patients: Patients' social integration (OR = 4.80 ^a ; 95% CI = 1.44, 16.04) ^a Depression (B = 3.24) ^a Satisfaction with life (B = -4.54) ^a Patient mobility (OR = 0.38; 95% CI = 0.11, 1.35) ^a Occupational engagement (OR = 0.61; 95% CI = 0.20, 1.89) ^a Physical independence (OR = 2.91; 95% CI = 0.57, 14.80) ^a General health status (OR = 1.40; 95% CI = 0.38, 5.16) ^a
Penner et al. ³⁷	To examine the relationship of non-Black physicians' implicit and explicit racial bias to their perceived behavior and their perceptions of their interactions with Black patients	Cross-sectional study Detroit, MI Convenience sampling	15 primary care physicians 80% Asian, 20% White 53% male, 47% female Mean age = 31 y Response rate = 83%	150 patients 100% Black 75% female and 25% male Mean age = 44 y Response rate = 73%	Race IAT examined Black vs White faces associated with positive and negative words. Physicians showed slight pro-White, anti-Black bias (Mean IAT D = 0.10; SD not reported).	Multilevel modeling with general estimating equation results: Among physicians: Feeling on the same team (b = -0.28) ^a Consultation with patient on treatment decisions (β = 0.22) ^a Among Black patients: Physician warmth and friendliness (b = -0.29) ^a Feeling on the same team (b = -0.18) ^a Consultation with patient on treatment decisions (b = -0.08) ^a Satisfaction with interaction (b = -0.31) ^a Composite score of patients' team feelings, physician warmth and friendliness, and satisfaction with interaction (b = -0.26) ^a
Sabin et al. ³⁸	To assess implicit racial bias among pediatricians	Cross-sectional study Seattle, WA Convenience sample	95 pediatricians (59% resident physicians, 41% attending physicians) 82% White, 18% non-White 65% female, 35% male 42% aged 20–30 y, 33% 31–40 y, 25% > 40 y Response rate = 58%	NA	Race Attitude IAT examined Black vs White faces associated with positive and negative words. Physicians showed slight pro-White, anti-Black bias (Mean IAT D = 0.18; SD = 0.44). Race and Compliant Patient IAT examined Black vs White faces associated with compliant and reluctant patients. Physicians showed a moderate implicit association between complacency and White faces (Mean IAT D = 0.25; SD = 0.42). Race and Quality of Medicine IAT examined Black vs White faces associated with preferred and acceptable medical care. Physicians showed a moderate association between preferred care and Black faces (Mean IAT D = -0.21; SD = 0.33).	Correlation results regarding racial differences in ideal treatment recommendations for pain control, UTI management, ADHD, and asthma control: (r = 0.00, r = -0.04) ^a (r = 0.16, r = -0.05) ^b (r = -0.27, r = 0.09) ^c

Continued

TABLE 1—Continued

Sabin and Greenwald ³⁹	To examine the association between attitudes and beliefs about race among pediatricians and treatment recommendations for asthma, ADHD, UTI, and pain	Cross-sectional study Seattle, WA Convenience sampling	86 pediatricians (59% resident physicians, 41% attending physicians) 82% White, 18% non-White 35% male, 65% female Response rate = 53%	NA	Race IAT examined Black vs White faces associated with positive and negative words. Physicians showed slight pro-White, anti-Black bias (Mean IAT D = 0.18; SD = 0.44). Medical Compliance IAT examined Black vs White faces associated with compliant and reluctant patients. Physicians showed a moderate pro-White implicit race and compliance bias (mean IAT D = 0.25; SD = 0.42). Race-Quality of Care IAT examined Black vs White faces associated with preferred and acceptable medical care. Physicians showed a moderate implicit association of Black patients with preferred medical care (Mean IAT D = -0.21; SD = 0.33).	Correlation results: For White patient vignettes: Recommended ideal treatment of pain ($r = 0.47$) ^a Recommended ideal treatment of UTI ($r = -0.12$) ^a Recommended ideal treatment of ADHD ($r = -0.38$) ^a Recommended ideal treatment of asthma ($r = -0.04$) ^a Recommended ideal treatment of pain ($r = 0.37$) ^{a,b} Recommended ideal treatment of UTI ($r = -0.14$) ^b Recommended ideal treatment of ADHD ($r = 0.11$) ^b Recommended ideal treatment of asthma ($r = -0.09$) ^b Recommended ideal treatment of pain ($r = 0.67$) ^{a,c} Recommended ideal treatment of UTI ($r = -0.06$) ^c Recommended ideal treatment of ADHD ($r = -0.14$) ^c Recommended ideal treatment of asthma ($r = -0.09$) ^c For Black patient vignettes: Recommended ideal treatment of pain ($r = -0.38$) ^a Recommended ideal treatment of UTI ($r = -0.15$) ^a Recommended ideal treatment of ADHD ($r = 0.49$) ^a Recommended ideal treatment of asthma ($r = -0.10$) ^a Recommended ideal treatment of pain ($r = -0.11$) ^b Recommended ideal treatment of UTI ($r = 0.04$) ^b Recommended ideal treatment of ADHD ($r = 0.04$) ^b Recommended ideal treatment of asthma ($r = 0.16$) ^b Recommended ideal treatment of pain ($r = 0.04$) ^c Recommended ideal treatment of UTI ($r = -0.07$) ^c Recommended ideal treatment of ADHD ($r = -0.21$) ^c Recommended ideal treatment of asthma ($r = 0.43$) ^c

Note. ADHD = attention deficit hyperactivity disorder; CI = confidence interval; IAT = implicit association test; NA = not applicable; OLS = ordinary least squares; OR = odds ratio; SCI = spinal cord injury; UTI = urinary tract infection. IAT D score is an effect size: 0 indicates no bias, positive scores indicate preference for White people over people of color, and negative scores indicate preference for people of color over White people.

^a $P < .1$; ^b $P < .05$.

^aAssociation between outcome variable and implicit bias assessed in terms of good vs bad.

^bAssociation between outcome variable and implicit bias assessed in terms of compliant vs noncompliant.

^cAssociation between outcome variable and implicit bias assessed in terms of cooperative vs uncooperative.

^dAssociation between outcome variable and implicit bias composite score.

^eAssociation between outcome variable and implicit bias assessed in terms of high quality of care vs low quality of care.

against individuals with darker versus lighter skin tones; and 1 examined bias against Black, Hispanic, and dark-skinned individuals versus White or light-skinned individuals. Fourteen of the 15 studies used the Implicit Association Test (IAT)⁴¹ to measure implicit bias. The IAT is a computerized categorization task in which participants sort stimuli (e.g., pictures, names, and words) into opposing categories as quickly and as accurately as possible. For example, a participant might demonstrate faster reaction times between negative words (e.g., nasty) and pictures of Black faces than White faces, which would reflect an association between negativity and Black Americans. To score responses on the IAT, a D score is calculated, which is an effect size.⁴² When interpreting IAT D scores, 0 indicates no bias, positive scores indicate preference for White people over people of color, and negative scores indicate preference for people of color over White people. All 14 studies examined associations along the dimension of positive versus negative using words such as wonderful and peace versus words like horrible and evil. Of these studies, 4 also examined associations related to the medical context, such as patient compliance and cooperativeness. Only 1 study²⁵ did not use the IAT, but instead used sequential priming. In this method, faces were presented very briefly, at a subliminal level, followed by positive and negative words to be evaluated. Meta-analytic data suggest that sequential priming measures show evidence of validity similar to that of the IAT.⁴³

Implicit Racial/Ethnic Bias Among Professionals

Of the 15 reviewed studies, 14 found evidence of low to moderate levels of implicit bias against people of color among health care

professionals. Only 1 study reported no evidence of implicit bias against people of color.³⁴ Thirteen studies reported that health care professionals were more likely to associate Black Americans with negative words compared with White Americans. The D scores reported in these studies ranged from -0.10 to 0.62 (mean = 0.28; SD = 0.18). Two studies did not provide D scores, but found evidence of low to moderate bias against Black Americans in 42% and 43% of their samples of professionals. Four studies reported prevalence rates of anti-Black bias in their overall sample, which ranged from 42% to 100% (mean = 63.5; SD = 23.7). In sum, 13 of 14 studies examining implicit anti-Black bias found that health care professionals tended to possess low to moderate levels of negative associations with Black Americans.

Further, 4 studies found evidence of moderate anti-Black bias in health care professionals' evaluations of Black Americans as patients, with D scores ranging from 0.22 to 0.30 (mean = 0.26; SD = 0.03). However, 2 studies also reported that their samples of professionals associated high-quality medical care, as opposed to low-quality care, more with Black Americans than with White Americans.^{38,39} Thus, these 4 studies revealed that, overall, health care professionals associated Black Americans with being less cooperative, less compliant, and less responsible in a medical context.

Four studies reported evidence of moderate levels of implicit bias against Hispanic/Latino/Latina individuals compared with White individuals. Two studies did not report their D scores, but reported that about half of their participants demonstrated moderate to strong implicit bias against

Hispanic/Latino/Latina individuals.^{30,31} One study reported an overall moderate bias against Hispanic/Latino/Latina individuals relative to Whites on the IAT (D = 0.33).²⁶ Further, Bean et al.²⁵ reported that professionals tended to associate Hispanic/Latino/Latina people with noncompliance and risky behavior, and had general stereotypes of them (e.g., that they were unimaginative). These studies suggested that health care professionals possess implicit bias against Hispanic/Latino/Latina individuals at a level comparable to levels of implicit bias against Black Americans.

Finally, 2 studies reported moderate amounts of implicit bias among health care professionals against darker-skinned individuals compared with lighter-skinned individuals.^{29,32} IAT D scores in these studies were 0.33 and 0.31, which are comparable to the D scores reported in other studies of implicit biases against Black Americans and Hispanic/Latino/Latina individuals.

To characterize the effect size in these studies, we performed a meta-analysis on the 13 studies that reported an effect size or sufficient information to compute one. The weighted mean effect size was $d = 0.34$, which is significantly different from zero ($z = 7.17$; $P < .001$). Tests for heterogeneity of effects were not significant ($Q[12] = 3.94$; $P = .98$) indicating a lack of heterogeneity across samples. Implicit bias scores were robust and showed little variability across studies, suggesting that this moderate effect size may provide a good estimate of the effect in the population of health care professionals.

Implicit Racial/Ethnic Bias and Health Care Outcomes

Ten of the 15 studies examined the relationships between implicit

racial/ethnic bias scores and particular types of health care outcomes. We chose to divide these outcomes into 4 general categories to succinctly summarize the literature: patient-provider interactions, treatment decisions, patient treatment adherence, and patient health outcomes. Within these categories the outcome data source (e.g., patient self-report, provider self-report, and medical records) varied. Five studies focused on patient-provider interactions. Four studies considered treatment decision-making and recommendations. Two examined treatment adherence, and 2 looked at health or mental health outcomes. Among the 80 associations between implicit bias and variables related to patient-provider interactions, 33 were significant or marginally significant. Among the 40 associations between implicit bias and variables related to treatment decisions, 7 were significant or marginally significant. Among the 5 associations between implicit bias and variables related to treatment adherence, 1 was significant. Finally, among the 11 associations between implicit bias and patient health outcomes, 3 were significant. We did not perform a meta-analysis on these associations because the 136 reported associations came from only 10 samples, which poses problems for the assumption that observed effects reflect independent estimates.

There were also differences in the ways implicit bias was measured and the presence of significant associations with health care outcomes. General good versus bad bias was the most common method used to assess bias; however, some studies attempted to tap more nuanced forms of bias in terms of compliant versus non-compliant, cooperative versus

uncooperative, and high versus low quality of care. Among the 84 associations between general bias and health care outcomes, 26 were significant or marginally significant. Among the 102 associations between more nuanced forms of bias and outcomes, 18 were significant or marginally significant. Thus, the more general and perhaps visceral comparison, good versus bad, seemed more often to have an impact on health care outcomes.

Patient–provider interactions. Black patients perceived poorer treatment in domains such as patient centeredness, contextual knowledge of the patient, and patient–provider communication from providers who demonstrated implicit bias against Blacks on the IAT; Latino patients in the same study did not perceive poorer treatment in these domains, although higher percentages of physicians showed bias against them than against Black patients.³⁰ In another study, White and Black patients found physicians with anti-Black bias to be more dominant in their communication styles. Pro-White, anti-Black physician bias was associated with White patients feeling more respected by the physician. However, among Black patients, provider bias was associated with less respect from providers, lower levels of liking the providers, and less willingness to recommend their provider to someone else. They also reported longer visits and experienced their visits with the provider as being less collaborative.³² Another study also found an association between implicit racial bias and verbal dominance by physicians during encounters with Black patients.³⁴ Pro-White attitudes among primary care physicians were associated with lower scores by Black

patients on physician warmth and friendliness, as well as lower scores by physicians regarding their feelings of “being on the same team” with their Black patients.³⁷ Conversely, no significant associations were noted when vignettes were used to assess the impact of bias on medical student responses in terms of assessment of pain delivery or proper informed consent.³⁵

Treatment decisions. When treatment recommendation was used as an outcome, Green et al.³³ found that physicians demonstrating pro-White bias were less likely to recommend thrombolysis to Black patients and more likely to recommend this treatment of White patients. Among pediatricians, Sabin et al.³⁸ found no significant associations between implicit bias and treatment recommendations for pain control, urinary tract infection, attention deficit hyperactivity disorder, and asthma control. Yet in a similar study, Sabin and Greenwald³⁹ found pediatricians recommending the ideal management of pain at lower rates when responding to vignettes of Black patients as opposed to White patients.

Patient treatment adherence. Pro-White bias was associated with Black patients being less likely to fill prescriptions; however, this relationship was not found for Hispanic/Latino/Latina patients.³¹ Another study did not find significant relationships between implicit bias assessed at baseline and Black patient treatment adherence at 4 and 16 weeks follow-up.³⁴

Patient health outcomes. Two studies examined health and mental health outcomes: one with spinal cord injury patients and another with hypertensive patients. The study of physicians specializing in spinal cord injury found significant relations

between implicit bias scores and patient health outcomes.³⁶ Psychosocial health outcomes (i.e., social integration, depression, and life satisfaction) for Black and White patients appeared to be negatively affected by the presence of physician bias in this sample. However, physical health outcomes (i.e., mobility, physical independence, and general health status) appeared uninfluenced by the presence of bias. Another study found no significant associations between implicit bias and hypertension outcomes among Black and Hispanic/Latino/Latina patients.³¹

DISCUSSION

Results of this review suggest that implicit bias against Black, Hispanic/Latino/Latina, and dark-skinned individuals is present among many health care providers of different specialties, levels of training, and levels of experience. Mean IAT scores and prevalence rates of implicit racial/ethnic bias among the reviewed studies are similar to those documented using the general population.⁴⁴ In addition, the levels of implicit bias among health care professionals against Black, Hispanic/Latino/Latina, and dark-skinned people appear to be relatively similar across these groups. Virtually absent in the literature, however, is evidence-based information on how to reduce an individual health care provider’s bias.

The extant literature is also unclear on how implicit bias affects health care outcomes both through direct and indirect pathways. Results were mixed, as some studies reported significant relationships between implicit racial/ethnic bias scores and health care outcomes and other studies found no significant relations.

Nonetheless, implicit bias appears to be more frequently associated with patient–provider interactions and relationships than other outcomes. These findings may imply a pathway by which patient–provider interactions mediate the relationship between provider implicit bias and patient outcomes in terms of treatment adherence and health status. Other factors not considered in this review, such as health care system characteristics, provider background characteristics, and patients with multiple minority identities, may mediate or moderate the ways in which provider attitudes influence patient–provider relationships and health outcomes.

This review also raises questions of how biases may interact in terms of intersecting identities. The patient and professional samples used were predominantly female. Because women in the general population have been shown to have lower levels of implicit racial/ethnic bias,⁴⁵ it is possible that the estimates of bias, both in attitudes and in outcomes, in the samples represented in this review are lower than if the samples of both patient and providers were more gender balanced. Likewise, women, regardless of ethnicity, are more likely than men to experience biased interactions and treatment in care.^{46,47}

Implicit bias toward people of color may indeed interact with other characteristics such as gender, age, sexual orientation, national origin, and disability status to produce differential treatment outcomes. There is evidence of implicit bias based on gender, age, sexual orientation, ethnicity, religion, and disability in the general population.⁴⁴ However, research on implicit bias in health care has tended to focus on race, and few studies have

investigated bias related to other identity characteristics.

Findings from this review suggest that implicit bias may be activated under stressful working conditions. Health profession students demonstrated levels of implicit racial/ethnic bias similar to those of practicing providers; however, students' bias may have been less likely to affect decision-making and outcomes than practitioners' bias. Only 1 study examined the relationship between implicit bias among students and health care outcomes, but it found no significant relationships.³⁵ However, 8 of the 9 studies of practicing providers found significant relationships between implicit bias scores and health care outcomes. Perhaps the impact of bias becomes more pronounced as professionals progress through their health care training and career. Repeated instances of certain patient situations may become engrained as "truths" about an entire population group. For example, Hispanic/Latino/Latina patients often coming to appointments late may lead to a provider's belief that this group does not take responsibility for their health care, and consequently the provider is generally less respectful and pleasant with future Hispanic/Latino/Latina patients. In addition, exposure to bias among providers' peers may reinforce their bias, making them more likely to make treatment decisions that are based on racial/ethnic stereotypes rather than an individual patient's medical status. There is evidence of cultural and institutional bias in health care settings.⁴⁸⁻⁵⁰ Researchers seeking to develop and test interventions to decrease bias should consider multiple targets, including primary prevention for health profession students, interventions for practitioners actively

working with patients, and systemic interventions that neutralize biases that have been institutionalized in health care settings.

Finally, the reviewed studies focused on relatively few health care specialties, making comparisons of implicit bias between areas of health care difficult. Nonetheless, 2 studies^{38,39} of pediatricians in this review found that they had lower levels of implicit bias than other types of health care providers. Certain health care disciplines may be more prone to implicit bias. It is possible that certain types of training address problematic attitudes throughout the education period so that practicing professionals demonstrate lower levels of bias. Within medicine, examinations of the curriculum and comparisons by specialty may prove useful. Interventions for bias may look different according to the needs and realities of particular specialties. For instance, because of time pressure, critical care professionals may need more systemic interventions, whereas specialties such as internal medicine, pediatrics, or family medicine may benefit from a combination of both individual and systemic intervention strategies.

In sum, the current literature suggests that implicit racial/ethnic bias is present in health care and bias can affect health care outcomes. However, the current literature is not strong enough to make definitive statements about the impact of implicit bias because of the methodological limitations of studies in the literature.

Methodological Limitations of Studies

We identified 5 prominent limitations among the studies reviewed. First, all but 2 of the studies used cross-sectional designs. Although cross-sectional

designs are useful in determining the prevalence of a condition within a given population, they have limited ability to determine predictive relationships between variables. Because cross-sectional studies are conducted at 1 point in time, it is difficult to infer causality between a risk factor (e.g., exposure to a biased health care provider) and an outcome (e.g., a patient's psychological distress).

A second limitation was the use of convenience sampling. Although convenience sampling may be highly feasible and efficient, it can lead to the underrepresentation or overrepresentation of particular groups within a sample. It is therefore unlikely that a convenience sample is representative of the population of interest, which raises questions about the generalizations that can be made from the findings.

Small sample size was a third limitation because the studies were estimating the prevalence of implicit bias and quantitatively examining the strength and direction of relationships between bias and health care outcomes. Eight studies had sample sizes of approximately 100 professional participants or less, and 3 of these studies had 15 participants or less. These small sample sizes raise the concern of whether these studies possessed enough statistical power to detect the prevalence of implicit bias in their sample and the effect of implicit bias on health care outcomes. In addition, certain statistical analyses in some studies relied on much smaller samples than the initially reported total sample size (e.g., Sabin and Greenwald³⁹), which reduces the chance of detecting a true effect.

A fourth limitation related to the measurement of implicit bias. Fourteen studies used the IAT to measure implicit bias. Although

the IAT has demonstrated good internal consistency, with Cronbach alphas ranging from 0.70 to 0.90,⁵¹ the instruments' test-retest reliability has been criticized.⁵² The relatively low test-retest reliability of the IAT, ranging from 0.25 to 0.60,⁵³ raises concerns about whether the IAT measures stable implicit attitudes or if other, nonattitudinal factors influence performance on the IAT. For example, contextual information such as whether a Black individual is presented in a positive or negative context influences the degree to which participants make negative associations with Black individuals.⁵⁴ Some researchers have also argued that performance on the IAT might be influenced by individuals' knowledge or awareness about group stereotypes in a society rather than their personal attitudes.⁵⁵⁻⁵⁸ Other researchers have argued that some effects of the IAT may be influenced by whether paired categories are similar in salience.^{59,60} For example, images of people of color may be more salient to the average White participant because of unfamiliarity, whereas negative words may be more salient in general because of their affective nature. Thus, when 2 highly salient categories are paired (e.g., people of color and negative words), participants are quicker to respond than if categories different in salience are paired (e.g., White individuals and negative words). The IAT is the most widely known implicit measure but also the most controversial.^{52,61}

A final limitation was the narrowness in measurement of implicit bias. Most studies focused on bias against Black Americans. Few studies examined implicit bias against Hispanic/Latino/Latina Americans, and no studies

examined bias toward other racial/ethnic minority groups, such as American Indians, Asian Americans, and Arab Americans. These groups also face health disparities,^{1,4} and there is evidence of stereotypical and negative implicit attitudes toward these groups among the general population in the United States.⁴⁴ In addition, no study investigated implicit bias toward immigrants. Many people of color are also immigrants and may face a unique form of prejudice related to their race/ethnicity as well as their immigrant status. Finally, although Black versus White inequalities have tended to dominate the focus of race relations in the United States, Asian, Hispanic/Latino/Latina, and multiracial Americans are the fastest-growing racial/ethnic groups,⁶² and examining bias toward these groups should not be neglected.

Recommendations for Future Research

Implicit attitudes appear to be an important target for further research in health care; however, methodological limitations need to be addressed in future studies to more fully and accurately understand how implicit bias affects care and health. In addition, researchers will need to ask more nuanced questions and use more rigorous designs and analytic methods to fully understand the role, impact, and appropriate intervention strategies for implicit bias within health care.

In the future, cross-sectional studies should primarily be used to ascertain national estimates of implicit bias among health care providers, to examine correlational research questions, or to test exploratory hypotheses. Longitudinal studies are needed to examine causal relations between implicit bias and health care

outcomes. Longitudinal studies could also provide information on changes in implicit bias over time throughout providers' careers and could help identify appropriate intervention points and factors that affect the acquisition of implicit bias. Interventions to address implicit bias are emerging; to date, they are not well tested, although some intervention studies are in process.^{63–65} To evaluate the efficacy and effectiveness of such interventions, researchers should use pretest–posttest cohort designs, well-matched intervention–comparison group pretest–posttest designs, and randomized control trials, which are the gold standard design for measuring intervention impact. Finally, multi-level study designs may be needed to address clustering concerns, such as providers being nested within medical specialties and care delivery sites. Likewise, if the unit of analysis is patients and their experience, patients can be nested within families, providers, and health care settings. Not accounting for clustering during analyses can lead to biased estimated standard errors and spurious results.⁶⁶ Multilevel studies also allow researchers to examine the influence of both provider and institutional bias on health care outcomes.

In terms of sampling, future studies should strive for samples that are more representative. Research on implicit bias would be strengthened by more geographically representative samples of providers and patients. At this point, we know little about whether providers in particular regions are more likely to be influenced by implicit bias than those in other geographic regions. Sampling of providers could be stratified by geographic location or specialty. Although this review focused on bias among various health care

professionals from different specialties and levels of training and experience, future researchers may want to focus on specific groups of providers, such as those from a particular discipline, to investigate training and professional socialization related to implicit bias. In terms of sampling patients, researchers may stratify on the basis of geographic location or patient type. The influence of implicit bias may differ between patients experiencing only acute health problems and those struggling with chronic diseases, or between pediatric and adult patients. When patients are sampled, every effort must be made to extend beyond convenience sampling. Sampling practices should attempt to include all patients, not just those who are easy to reach or those who are nonintermittent patients—patients may stop or avoid care because of discriminatory experiences. In addition, although costly and perhaps difficult to obtain, large national samples would allow for more accurate prevalence estimates of implicit bias among US providers. Large sample sizes also provide more statistical power, which is needed for multilevel modeling, multivariate analyses, and the detection of small or moderate effects in terms of associations between variables and group differences.

A comprehensive understanding of the role of implicit bias in health care will require converging evidence using a wider variety of well-validated implicit measures. Although the research reviewed here relied almost exclusively on the IAT to assess implicit bias, this test is only one of several well-studied implicit assessments. Sequential priming tasks are another well-validated class of implicit measures, and meta-analytic comparisons show that the average association

between priming tasks and behavior ($r=0.28$)⁴³ is similar to the meta-analytic association between the IAT and behavior ($r=0.27$).⁶⁷ Sequential priming tasks include evaluative priming,¹² lexical decision tasks, and the Affect Misattribution Procedure.⁶⁸ Of these, the Affect Misattribution Procedure displays the highest reliability (meta-analytic average Cronbach $\alpha=0.81$)⁶⁹ and associations with behavior (meta-analytic $r=0.35$).⁴³ Because each type of measure has unique strengths and weaknesses, future research should employ a broader array of measures to avoid systematic biases in results.

Future studies should also expand the assessment of implicit bias. Although health disparities are particularly prominent among Black Americans, inequities also exist for other people of color, including American Indians, Asian Americans, and Hispanic/Latino/Latina Americans. Thus, future studies should examine levels of implicit bias among providers regarding these groups and whether bias contributes to health disparities. Researchers should also measure bias based on social identity characteristics in addition to race/ethnicity, such as age, gender, socioeconomic status, national origin, sexual orientation, gender identity, religious orientation, and disability status. Bias can exist on multiple social dimensions, and patients with multiple minority identities may be particularly affected. In addition, measuring various demographic characteristics among patients and providers would allow more advanced hypothesis testing. For example, a patient's gender may moderate the relationship between a provider's implicit racial/ethnic bias and quality of care, and providers in some specialties may

have significantly higher levels of implicit bias than those in other areas (e.g., emergency medicine physicians vs pediatricians).

Finally, findings from this review indicate that we are at the fetal stage of understanding what represents the construct of implicit racial/ethnic bias, how it functions in health care, and what it influences. Theory can be useful as we move forward in this area. However, of the 15 studies reviewed, only 3 were informed explicitly by theory (e.g., aversive racism theory).^{27,31,37} The predictive utility of a theory depends on whether it can be applied to distinguish underlying processes and their respective effects on outcomes. Although implicit attitudes may influence a range of outcomes in health care, very few studies examined the relationship between implicit bias and the end result of care—patient health. Our findings suggest that greater conceptual clarity is needed for interpreting existing differential effects of implicit bias on behavior and patient health outcomes, developing new theories, and designing future studies. New intervention research questions for future studies to consider are on the malleability of implicit bias and the mechanisms for regulating the effects on behavior that contribute to racial/ethnic inequities in health. ■

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This article was accepted September 5, 2015.

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W. J. Hall, M. V. Chapman, K. M. Lee, Y. M. Merino, T. W. Thomas, and S. H. Day participated in data extraction. W. J. Hall, M. V. Chapman, K. M. Lee, and B. K. Payne assisted with analysis and interpretation. All authors were involved in the conception or design of the review and assisted with writing, editing, or revising the content of the article.

Acknowledgments

We were supported by a grant from the National Institute of Biomedical Imaging and Bioengineering of the National Institutes of Health (grant no. 1R23EB018620-01). In addition, the first author was supported by the National Research Service Award Postdoctoral Traineeship from the National Institute of Mental Health sponsored by the Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, and the Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine (grant no. T32 MH019117).

We also appreciate the support of the entire Envisioning Health research team: Mimi Chapman, Robert Colby, Tamara Coyne-Beasley, Steven Day, Geni Eng, William Hall, Janet Jarman, Kent Lee, Alexandra Lightfoot, John McGowan, Yesenia Merino, Xan McKnight, Rachele McFarland, Keith Payne, Florence Simán, Kari Thatcher, and Tainayah Thomas.

Human Participant Protection

No human participant protection was required because no human participants were involved in this study.

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