Racism’s impact on health is well documented.1–4 Patients experiencing racism often have disparities in mental health, maternal morbidity and mortality, and cardiovascular treatment.2,3,5,6 Medical schools and residency programs are integrating curriculum on racism as a crucial social determinant of health7–9 but this has been difficult.8,10,11 Educators’ fear of learner reactions is a barrier to facilitating racial dialogue.

This study sought to evaluate learner reactions to teaching about racism as a social determinant of health. Activities were organized by educators interested in teaching about the impact of racism on health. The sessions occurred with postgraduate students and graduate students in two separate programs.

Learner reactions to discussions about racism can inform family medicine (FM) educators who want to implement curricula on the role of racism on health outcomes.12 This is an initial assessment of learners’ responses to sessions drawing heavily on Jones’ “Three Levels of Racism”13 framework. To our knowledge, this is one of the first reports from an effort to contextualize the three levels of racism in a medical education setting.

Methods

Setting and Participants
Participants were OU-TU School of Community Medicine University of Oklahoma, Department of Family and Community Medicine (OUF-CM) residents, and Tulsa Albert Schweitzer Fellowship (TASF) fellows.
and University of Tulsa granted this study exempt status.

**Intervention**

Two OUFCM faculty (a family medicine physician and a behavioral psychologist) and TASF’s director designed and implemented this intervention to enhance learners’ understanding that individual experiences are embedded within a social-cultural context.14-15 Table 1 describes the sessions. Activities were based on the conceptual framework of the “Three Levels of Racism,”13 and drew on the “Toolkit for

| Program | Learner Characteristics | Setting | Mission/Focus | Activities | Description |
|---------|------------------------|---------|---------------|------------|-------------|
| OU-TU School of Community Medicine, Family and Community Medicine Residency (OUFCM) | n=25 Demographics n (%): 13 (52) Male 12 (48) Female 11 (44) White 2 (8) Black or African-American 1 (4) Hispanic or Latino 8 (32) Asian 3 (12) American Indian or Alaskan Native | OUFCM is a university-based residency program (Rural, Teaching Health Center, Traditional Tracks). | The OU-TU School of Community Medicine is a track within the University of Oklahoma, with special interest in training learners to improve the health of communities. | Lecture | Three Levels of Racism 1 hour: didactic overview of the Three Levels of Racism, video Allegories on Race and Racism by Dr C. Jones https://www.youtube.com/watch?v=GNhcY6fTyBM, discussion and discussion of learner reactions and impact on health and healthcare disparities |
| | | | | Workshop | Privilege Exercise (Henry Ford adaptation) | 1-hour workshop: privilege statements placed on table tents. Tokens placed beside statement and collected if identified with statement. Small group debrief postactivity. |
| | | | | Tour | Greenwood Cultural Center16 | 1-hour guided museum tour discussion of Black Wall Street and Tulsa Race Massacre |

(continued on next page)
Teaching About Racism” presented at the 2016 Society of Teachers of Family Medicine (STFM) Annual Spring Conference,16 and the Accreditation Council on Graduate Medical Education (ACGME) Family Medicine Residency Milestones17 related to racism (Table 2).

Educators incorporated tours of the Greenwood Cultural Center (GCC; both groups),18 and John Hope Franklin Reconciliation Park (TASF only).19 Both memorialize the 1921 Tulsa Race Massacre.20 These visits exposed learners to the roots of structural racism within the community. The tours connected a profound historical event to local community health outcomes.

Classroom sessions formed another part of the intervention. Privilege activities16,21 illustrated how race, ethnicity, and other socioeconomic and cultural factors influenced learners’ experiences in everyday life. TASF used the privilege activity from the Toolkit,16 with modification for space (Table 1). OUFCM’s planned privilege session was delayed due to acts of explicit racism affecting residents and their families. Facilitators modified an activity from Henry Ford Health Systems21 to limit vulnerability as compared with the public nature of the Toolkit’s exercise. Privilege statements were privately read. If the resident identified with the statement, they collected a token. Stratification occurred by number of tokens with small group debriefing sessions after the activity.

Data Collection and Analysis
An ex-postassessment of responses to learning sessions was conducted. Quantitative and qualitative surveys were given to OUFCM residents and narrative reactions were completed by TASF fellows. Data from the groups were collected and analyzed in parallel, then triangulated for a final interpretation.

OUFCM. Standard anonymous postdidactic assessments comprised of five questions regarding the quality and value of sessions were administered and written feedback was collected (Table 3). A mean score for all respondents per learning session was calculated. Written comments were collected after the tour of GCC.

TASF. Postsession, fellows (non-anonymous) submitted answers via email to the question “How will you incorporate what you learned during this monthly meeting into your project, studies, and other aspects of your life?” Facilitators applied inductive methods to analyze qualitative data, condensed raw textual data, identified themes, and formed a hypothesis based on those themes.22

Results
Resident assessments of the sessions were positive, with a mean rating above 4 on a 5-point scale (Table 3). Themes derived from the residents’ written feedback (Table 4) suggest increased awareness. Themes and quotes from the TASF fellows fall into the conceptual framework of the Three Levels of Racism (Table 5), indicating learners’ increased insight into the connection between race and health. The themes identified were “topic is sensitive,” “will lead to advocacy and education,” “deepened understanding of bias and privilege (critical consciousness),” “challenged assumptions of self, colleagues, patients, and client,” and “increased self-awareness (critical self-awareness).”

Table 1, continued

| Program | Learner Characteristics | Setting | Mission/Focus | Activities | Description |
|---------|-------------------------|---------|---------------|------------|-------------|
| Albert Schweitzer Fellowship-Tulsa (TASF) | n=14 Demographics*<br>n (%):<br>- 2 (14) Male<br>- 12 (86) Female<br>- 3 (21) Hispanic or African-American<br>- 2 (14) White<br>- 17 (113) African-American<br>**1** (7) Asian<br>- 2 (14) American Indian or Alaskan Native<br>**1** (7) Native<br>- 1 (7) White<br>- 2 (14) Asian<br>- 2 (14) Black or African-American<br>**1** (7) Native<br>- 1 (7) White | TASF’s mission is to prepare the next generation of professionals to serve and empower vulnerable people to live healthier lives and create healthier communities, through community-based projects and monthly leadership workshops. A core competency of TASF is addressing implicit bias. | Lecture | Implicit Bias | 1-hour lecture on implicit bias and implications of health care outcomes |
| | | | Workshop | Privilege Exercise (circle adaptation) | 1-hour fellows formed a circle with individuals stepping forward while privilege statements were read, before stepping back before the next question. Small group debrief |
| | | | Tour | Greenwood Cultural Center18<br>John Hope Franklin Reconciliation Park19 | 2-hour guided tour of museum and park with discussion of history of Tulsa’s Black Wall Street and Tulsa Race Massacre |
Table 2: ACGME Family Medicine (FM) Milestones Related to Racism Curricula
Adapted from ACGME Milestone Project (October 2015)

| FM Milestones          | Level 1                                                                 | Level 2                                                                 | Level 3                                                                 | Level 4                                                                 | Level 5                                                                 |
|------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Patient Care 3         |                                                                                                                                 | Identifies the roles of behavior, social determinants of health, and genetics as factors in health promotion and disease prevention |                                                                                                                                 | --                                                                      |                                                                                     |
| Systems Based Practice 3 | Recognizes social context and environment, and how a community’s public policy decisions affect individual and community health | Lists ways in which community characteristics and resources affect the health of patients and communities | Identifies specific community characteristics that impact specific patients’ health |                                                                                     |                                                                                     |
| Professionalism 3      | Consistently demonstrates compassion, respect, and empathy; recognizes impact of culture on health and health behaviors          | Displays a consistent attitude and behavior that conveys acceptance of diverse individuals and groups, including diversity in gender, age, culture, race, religion, disabilities, sexual orientation, and gender identity | Incorporates patients’ beliefs, values, and cultural practices in patient care plans | Demonstrates leadership in cultural proficiency, understanding of health disparities, and social determinants of health |                                                                                     |
| Communication 2        | Identifies physical, cultural, psychological, and social barriers to communication                                               | Matches modality of communication to patient needs, health literacy, and context |                                                                                     |                                                                                     |                                                                                     |

Elicits cultural factors from patients and families that impact health and health behaviors in the context of the biopsychosocial model

Identifies health inequities and social determinants of health and their impact on individual and family health

Develops organizational policies and education to support the application of these principles in the practice of medicine
Table 3: OUFCM Learners’ Responses to Academic Afternoon Racism-Specific vs All Academic Year (AY) Activities

| Type of Activity          | Topic                                      | Mean Rating | Response Rate |
|---------------------------|--------------------------------------------|-------------|---------------|
| Lecture/discussion        | Three Levels of Racism<sup>13</sup>        | 4.40        | Data unavailable |
|                           | Race to Equity                             | 4.27        | Data unavailable |
|                           | Reflection Discussion on Privilege and Intersectionality | 4.15 | 68% (13/19) |
| Workshop                  | Henry Ford’s Privilege<sup>18</sup>        | 4.78        | 63% (12/19)  |

Descriptive Statistics of Average Ratings for Racism Activities (n=4)

| Mean (standard deviation) | 4.40 (0.24) | -- |
|---------------------------|-------------|----|
| Median                    | 4.34        |    |
| Minimum                   | 4.15        |    |
| Maximum                   | 4.78        |    |

Descriptive Statistics of Average Ratings for All AY16/17 Academic Afternoon Activities (n=126)

| Mean (standard deviation) | 4.67 (0.51) | -- |
|---------------------------|-------------|----|
| Median                    | 4.73        |    |
| Minimum                   | 3.38        |    |
| Maximum                   | 5.00        |    |

n=number of curricular activities.

Ratings represent averages across five postactivity questions assessing (a) the content’s pertinence and applicability to training, (b) the presentation’s organization and comprehensiveness, (c) the presenter’s knowledge of the topic, (d) the content’s evidence base and currency, and (e) the session’s advancement of degree of knowledge. A 5-point, Likert-type scale was used (1=Did Not Meet Expectations, 2=Below Expectations, 3=Met Expectations, 4=Exceeded Expectations, 5=Far Exceeded Expectations). Data for analysis are available only as group averages for each activity. Average ratings for all academic afternoon activities are available only for AY16/17.

Table 4: Themes and Illustrative Quotes From the Evaluation Comments of OUFCM Residents

| Themes                  | Illustrative Quotes                                                                 |
|-------------------------|-------------------------------------------------------------------------------------|
| Appreciation            | Thank you                                                                          |
|                         | Excellent                                                                          |
|                         | Thoughtful exercise                                                                 |
| Positive experience     | Eye opening                                                                         |
|                         | Profound                                                                           |
|                         | Good discussion                                                                    |
| Awareness/education     | Important to address                                                                |
|                         | …not talked about or taught in schools.                                             |
|                         | …need to be aware of.                                                              |
| Concern                 | Getting too much of this type of thing                                             |
|                         | Need more time to discuss                                                           |
|                         | Need more definitions for discussion                                              |
### Table 5: Themes From Reflections of TASF Fellows

| Themes                                           | Link to Conceptual Framework of the Three Levels of Racism | Quotes                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| **Topic is sensitive**                           | Institutionalized, personally mediated                 | ... one of the other fellows pulled me aside ... saying “thank you for talking about this, I know it's not an easy subject.”                                                                                                                                                                                                                                                                                                                                                       |
|                                                  |                                                          | ...being at the place where it occurred and seeing the pictures and testimonies of the survivors made me emotional.                                                                                                                                                                                                                                                                                                                                                 |
|                                                  |                                                          | ... I was nervous to see how people would react.                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                  |                                                          | Everyone was so vulnerable and I really appreciate their honesty and openness about their struggles. It was a very raw and emotional meeting but I think we are now a tighter knit group because of it.                                                                                                                                                                                                                                                          |
| **Will lead to advocacy and education**          | Institutionalized                                       | The guide told us to share the history and the story with our friends and family. That is something I will do moving forward.                                                                                                                                                                                                                                                                                                                                         |
| **Deepened understanding of bias and privileges (critical consciousness)** | Institutionalized, personally-mediated                  | ... surprisingly was not a historical event that I learned about growing up in the Tulsa area.                                                                                                                                                                                                                                                                                                                                                         |
|                                                  |                                                          | ... when working with clients from the North Tulsa area, I will always have the race massacre in the forefront of my mind.                                                                                                                                                                                                                                                                                                                                          |
|                                                  |                                                          | ... always try to understand the history, culture, and events that have taken place that created the health dilemma or disparities in the community you are serving.                                                                                                                                                                                                                                                                                                      |
|                                                  |                                                          | ... giving students the space to explore their personal histories and learn about each other is critical.                                                                                                                                                                                                                                                                                                                                                       |
|                                                  |                                                          | Implicit biases regarding race and crime heavily impact many of the people living at [project site]. I can be more empathetic and aware of these possibilities.                                                                                                                                                                                                                                                                                             |
| **Challenged assumptions - self/colleagues/patients/client** | Personally-mediated                                   | ... be able to identify your own areas of privilege, but also to have empathy rather than sympathy for others.                                                                                                                                                                                                                                                                                                                                                 |
|                                                  |                                                          | ... I thought I knew many of these people very well, yet I still remained surprised.                                                                                                                                                                                                                                                                                                                                                                               |
|                                                  |                                                          | ... recognizing that the participants and families may experience implicit bias from others based on their medical condition ...                                                                                                                                                                                                                                                                                                                                       |
|                                                  |                                                          | ... interesting to me to see how much bias we have without realizing it.                                                                                                                                                                                                                                                                                                                                                                                        |
| **Increased self-awareness - critical self awareness** | Internalized, personally mediated                   | ...feel more capable of addressing my biases now that I know where they exist.                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                  |                                                          | ... more prepared and competent to balance my biases in the work that I'm doing with my students and as a medical student.                                                                                                                                                                                                                                                                                                                                       |
|                                                  |                                                          | ... you begin to understand that we don't all recognize privilege in the same way and we don't all seem to see the privileges that we ourselves have.                                                                                                                                                                                                                                                                                                                                 |
|                                                  |                                                          | I am still learning about the ways my brain processes the world, and I am grateful that the Fellowship gives me so many opportunities to examine this process without judgment.                                                                                                                                                                                                                                                                               |

**Bolded** quotes highlight reflections specifically addressing impact of racism on health and community.
Discussion
Prior studies of resident reactions to discussions on racism are limited and learner responses are mixed.\textsuperscript{23} Our results show a positive learner reaction to addressing racism as a factor in health outcomes in an educational setting. One learner did indicate that there was too much exposure to the topic (Table 4). Future research could explore appropriate spacing and time needed for education around this important topic. OUFCM’s ratings for this session were lower than the median of other didactics. Further research could explore differences in perception of sessions about racism as an SDOH in comparison with traditional biomedical lectures.

This study has several limitations. As a retrospective analysis, there was no pretest conducted and the authors did not have comprehensive data. For example, while the average rating of the OUFCM’s survey was available for analysis, specific results for each question were not. Also, data were not available to calculate a response rate for all sessions, thus precluding an estimate of nonresponse bias. Additionally, the facilitators conducted data analysis, which introduces bias in the interpretation. Furthermore, participants self-selected into community health programs which may increase the positive reception to the sessions. Finally, this study did not permit evaluation of changes in attitude nor effects on behavior of participants.

Resident assessments indicated the modified privilege exercise was well received, suggesting value in modifying activities to meet the needs of individual programs. Our findings suggest educator fear of negative responses should not be a barrier to implementing curricula on racism.

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Corresponding Author: Address correspondence to Syeachia N. Dennis, MD, 1101 S St Louis, Tulsa, OK 74120. 708-945-5305, 918-619-4707. Syeachia-dennis@ouhsc.edu

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