# Race, Gender, Healthcare, and Research Perceptions among Orthopedic Patients: A Qualitative Study 

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INTRODUCTION: Race and gender impact health outcomes in multiple and complex ways. Direct patient experiences as well as patient attitudes and beliefs about race and gender may affect various aspects of healthcare, including patient willingness to participate in healthcare research. Despite numerous research studies on the relationship between sociodemographic factors, discrimination, and healthcare and research participation in other areas of medicine, literature is limited within the orthopedic population. This study aimed to describe 1) patient perceptions of racial and/or gender influences on their healthcare and 2) attitudes and barriers related to orthopedic research participation among primarily Black/African American orthopedic patients.

METHODS: Twenty-two patients between the ages of 45 to 85 who presented with knee pain to an orthopedic clinic within a Level 1 county hospital were asked to be interviewed and 20 agreed (response rate $=91 \%$ ). Patients were primarily female $(70.0 \%)$, on average 63.6 years old, mostly Black/African American ( $75.0 \%$ ), and had an education level attainment of high school or less ( $65 \%$ ). Patients were approached during their clinic visit by two or three research team members. One researcher asked the interview questions, which included a series of prompts about perspectives on race, gender and healthcare, and preferences for research participation. The other study team members recorded the patient's verbal and non-verbal responses. Researchers coded and analyzed recorded responses as well as researcher generated memos. The study team met to interpret themes, interpret data and resolve any discrepancies.

RESULTS: Half of the patients interviewed ( $\mathrm{n}=10$ ) believed that race or gender impact healthcare. Two patients acknowledged that while they did not experience any discrimination personally, they had heard of experiences with discrimination in healthcare settings. Four patients believed that their race or gender influenced who they selected as their providers, while other patients' provider selections depended on other factors such as proximity to their home or provider reputation. Three of these four patients, who were all female, noted that gender mattered (e.g., "I just feel like a female would understand female problems more than someone else"). Two patients who identified as Black expressed a preference for providers of a similar racial/ethnic background. One patient did express some racial bias regarding provider selection. Of the 20 patients interviewed, seven ( $35 \%$ ) had participated in health research studies in the past and five ( $25 \%$ ) had friends and/or family who participated in research. The majority of participants expressed positive ( $45 \%$ ) or neutral ( $37 \%$ ) attitudes about research. Common reasons for participation included the desire to learn more about their medical condition and helping others. Most patients stated they depend on public transportation ( $15 \%$ ), medical transportation ( $35 \%$ ), or family and friends $(25 \%)$ to get them to medical appointments while only $25 \%$ reported reliable transportation or the ability to drive themselves. Most patients were unemployed ( $85 \%$ ) for reasons including disability and retirement. Most patients had smartphones ( $80 \%$ ) and reliable internet $(75 \%)$, but fewer reported access to a computer $(25 \%)$.

DISCUSSION: Half of the interviewed patients in this study perceived race or gender to be factors in their healthcare. The most salient factors included the quality of care received as well as their provider choice. Patients who expressed a preference for a provider desired a shared experience (e.g., concordant gender) with their provider, which is consistent with existing literature ${ }^{1}$. Among the interviewed orthopedic patients, there was a moderate to high level of trust in their provider. The majority of patients had positive attitudes about research and would be likely to participate in studies, if barriers to participation that they enumerated were addressed. Further research is needed to explore provider perspectives on these topics, the existence of institutional bias, and the extent to which the perception of race and gender or direct experiences of discrimination in the healtheare setting impact orthopedic clinical outcomes.

SIGNIFICANCE/CLINICAL RELEVANCE: (1-2 sentences): Orthopedic patient perspectives on race, gender, and healthcare can impact research participation and clinical outcomes. More research is needed to explore these relationships, improve healthcare, and increase research participation among minority groups.

REFERENCES: (1) Abghari, M.S., Takemoto, R., Sadiq, A., Karia, R., Phillips, D., \& Egol, K.A. (2014). Patient perceptions and preferences when choosing an orthopaedic surgeon. The Iowa Orthopaedic Journal, 34, 204-208.

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Table 1. Potential Barriers to Research Participation among Primarily Black/African American Orthopedic Patients with Degenerative Knee Pain, $\mathrm{N}=20$

| American Orthopedic Patients with Degenerative Knee Pain, $\mathbf{N}=20$ |  |  |
| :--- | ---: | ---: |
| Barriers |  | $\mathbf{N ( \% )}$ |
| Mode of Transportation | Uber | $1(5)$ |
|  | Bus | $2(10)$ |
|  | Rely on Family/Friends | $5(25)$ |
|  | Drive self/Have reliable transportation | $5(25)$ |
|  | Medical Transportation | $7(35)$ |
| Childcare Responsibilities | Yes | $6(30)$ |
|  | No | $14(70)$ |
| Mode of Questionnaires Willing to Complete | Text | $13(65)$ |
|  | Email | $13(65)$ |
|  | Phone | $12(60)$ |
|  | In-Clinic | $18(90)$ |
|  | Mail | $18(90)$ |
| Smartphone | Yes | $16(80)$ |
|  | No | $2(10)$ |
|  | Did not ask | $2(10)$ |
| Internet Access | Yes | $15(75)$ |
|  | No | $5(25)$ |
| Reliable Computer Access | Yes | $5(25)$ |
|  | No | $15(75)$ |

