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Exploring implicit bias among ENT surgeons: an analysis of the implicit association test

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Abstract

Objective. This study aimed to investigate the presence of implicit bias among ENT surgeons and explore the impact of the results of the Implicit Association Test on the surgeons' behaviour towards patients.

Method. Seven ENT surgeons who were not black, Asian or minority ethnic were asked to complete the Race Implicit Association Test. The surgeons also completed a survey about their perceptions of their implicit biases and the impact of the Race Implicit Association Test results on their behaviour towards patients.

Results. The mean Race Implicit Association Test score for the ENT surgeons suggested a slight bias that favoured white over black people. Furthermore, 42 per cent of the surgeons thought that they had hidden or unconscious racial bias, 42 per cent said they would change their behaviour towards patients after receiving these results and 85 per cent thought that the Race Implicit Association Test was helpful for appraisal purposes.

Conclusion. The results suggest that ENT surgeons who are not black, Asian or minority ethnic may have implicit biases towards black patients. These findings highlight the need for interventions to reduce implicit bias among ENT surgeons and improve healthcare outcomes for marginalised populations.

Short Communication

Zareena Shah-Altaf takes responsibility for the integrity of the content of the paper

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Introduction

The issue of implicit bias in healthcare has gained increasing attention recently. Research has suggested that implicit biases held by healthcare providers may contribute to disparities in healthcare outcomes for marginalised populations. A recent study by Miu and Ranford found that patients with names that sounded either black, Asian, minority ethnic or other white were more likely to be discharged from the ENT department after missing an appointment when compared with patients with white British sounding names.[1]

In order to further understand what contributes to these healthcare inequalities, this study used the Race Implicit Association Test to assess for subconscious bias within the ENT department. The Race Implicit Association Test is a recognised tool that measures the time individuals spend matching people from different social groups to certain characteristics.[2]

This study is important because it addresses the issue of implicit bias in healthcare and its impact on marginalised populations. Additionally, the study contributes to the growing body of literature on implicit bias in ENT medicine. It provides valuable information that can be used to inform the development of interventions aimed at reducing implicit bias among ENT surgeons.

Materials and methods

In a previous study, Miu and Ranford examined the impact of ethnicity on missed appointment outcomes.[1] For this study, we studied the same cohort of surgeons that participated in the previous study and disseminated two survey instruments via email: (1) the Race Implicit Association Test[2] and a (2) survey that was used to gather information about the ENT surgeons' perceptions.

Race Implicit Association Test

A web-based survey was distributed to eight ENT surgeons who were not black, Asian or minority ethnic. The survey measured potential implicit racial bias using the Race Implicit Association Test. The Race Implicit Association Test assesses unconscious bias using the hypothesis that participants will match a group representative to an attribute more quickly if they connect these factors in their minds, regardless of their awareness of this connection. For instance, the more strongly participants associate pictures of white people with good concepts and pictures of black people with bad concepts, the more quickly they will match them, and vice versa. The computerised Race Implicit Association Test measures the aggregate time required for these matching tasks under two conditions (pairings). A difference in average matching speed for opposite pairings (e.g. black + bad/white +

good *vs* black + good/white + bad) determines the Race Implicit Association Test score. Participants are typically aware that they are making these connections but unable to control them given the test's rapid response times and structure. In order to understand the Race Implicit Association Test procedure, readers can sample the test at www.implicit.harvard.edu.20.2

The second questionnaire in this study was a survey that was used to gather information about the ENT surgeons' perceptions of their own implicit biases and the impact of the Race Implicit Association Test results on their behaviour towards patients. The survey was disseminated via email. The second survey was anonymous, and the data was collected and analysed separately from the Race Implicit Association Test data to ensure anonymity and confidentiality of the participants. Moreover, survey questions were pilot-tested before administering them to the participants, in order to ensure the questions were clear and easy to understand and to identify any issues that may arise during the data collection process.

Statistical analysis was made by comparison of the mean Race Implicit Association Test score to established benchmark scores (0.25) using Cohen's d.[3]

Results

Of the 8 ENT surgeons, 7 completed the Race Implicit Association Test, and their results were analysed (87.5 per cent response rate). The majority of respondents were men (87.5 per cent). Two respondents were trainees and six were consultants.

Overall, the respondents showed a slight bias that favoured white over black people. The mean Race Implicit Association Test score was 1 (standard deviation = 1.29). The distribution of scores is shown in Figure 1. Cohen's d was 0.39, which is considered a weak to moderate preference for one group over another group.

The outcomes of the second survey on ENT surgeons' perceptions of their own implicit biases and the impact of the Race Implicit Association Test results on their behaviour towards patients are shown in Table 1. The results show that a majority of the participants believe the Race Implicit Association Test is useful and they are willing to change their behaviour, but a significant minority of participants either disagreed with the results or had uncertainty about the results.

Table 1. ENT surgeons' perceptions of their own implicit biases and the impact of the Race Implicit Association Test results on their behaviour towards patients

Question	Yes (% (*n*))	No (% (*n*))	Maybe (% (*n*))
Do you think you have hidden/unconscious racial bias?	28 (2)	42 (3)	28 (2)
Were you surprised by your results?	28 (2)	71 (5)	0 (0)
Do you believe your results were accurate?	42 (3)	57 (4)	0 (0)
Will you change your behaviour towards patients after receiving these results?	42 (3)	42 (3)	14 (1)
Do you think that this test is helpful for appraisal purposes?	85 (6)	0 (0)	14 (1)

Discussion

The results of our study indicated that the participants, ENT surgeons who were not black, Asian or minority ethnic, showed a slight preference for white over black, as evidenced by a mean Race Implicit Association Test score of 1. It is noteworthy that the initial study found that patients with names that sounded either black, Asian, minority ethnic or other white were more likely to be discharged from the ENT department after missing an appointment when compared with patients with white British sounding names. These findings suggest that implicit biases may play a role in missed appointment outcomes.

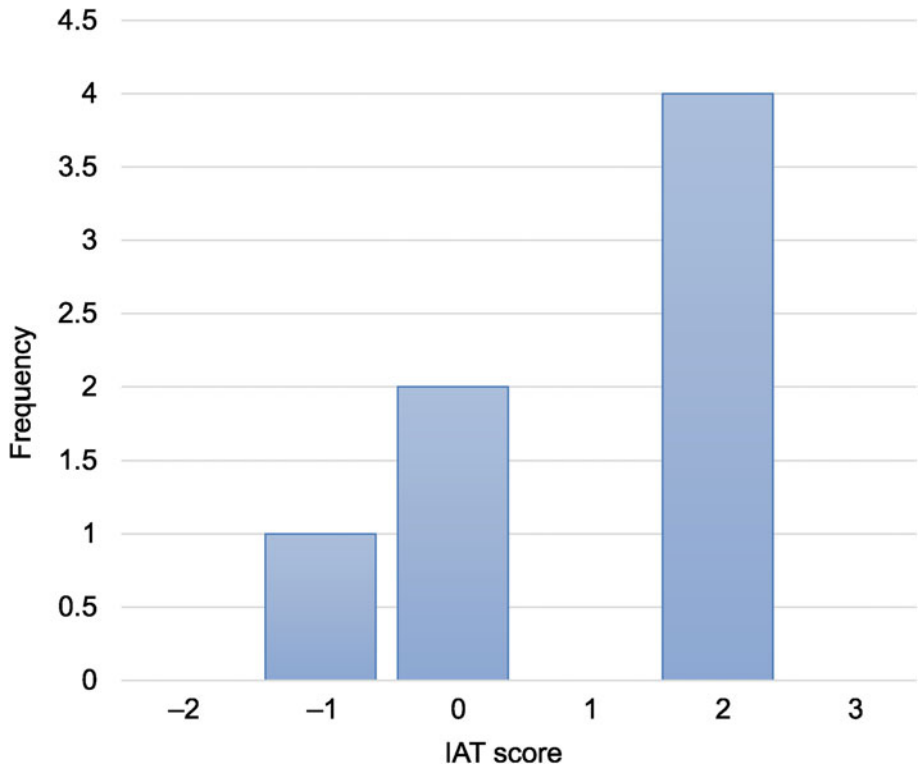

Figure 1. Histogram showing distribution of Race Implicit Association Test (IAT) scores. 3 = strong white preference; 2 = moderate white preference; 1 = slight white preference; 0 = little/no preference; –1 = slight black preference; –2 = moderate black preference; –3 = strong black preference. Higher score = bias that favoured white over black people. Mean score = 1.00; standard deviation = 1.2

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These findings align with previous research that has shown that implicit biases exist among healthcare providers and that these biases can have a negative impact on patient care. Green *et al.* found that physicians with higher levels of implicit bias as measured by the Race Implicit Association Test had lower adherence to clinical guidelines for the treatment of black patients with hypertension.[4] This suggests that implicit bias among physicians may contribute to disparities in healthcare outcomes for black patients. Dovidio and Gaertner found that aversive racism may play a role in selection decisions. They found that participants showed a bias that favoured white over black candidates when the decision was based on qualifications but not when the decision was based on other factors.[5]

It is important to note that the Race Implicit Association Test scores should be interpreted with caution because they are only one measure of implicit bias. Additionally, a person who scores high on the Race Implicit Association Test does not necessarily act in a discriminatory way. However, these results suggest that further education and training on implicit bias may be beneficial for ENT surgeons in order to improve patient care.

In terms of confounding factors, our study controlled for some potential confounding variables such as participants' age, gender and education level. However, there are other potential confounding factors that should be considered, such as participants' prior experience with bias training, their self-reported attitudes and beliefs about race, and social desirability bias. Additionally, the socio-economic status of the patients and the context of the study could have also influenced the results. Therefore, further studies are needed to control for these confounding factors and to examine the relationship between implicit bias and missed appointment outcomes.

The study has several limitations, including its small sample size, the fact that the participants were not randomly selected and that the survey responses were subjective. However, despite these limitations, the study provides valuable information about the presence of implicit bias among ENT surgeons who were not black, Asian or minority ethnic and the relationship between implicit bias and missed appointment outcomes.

Conclusion

In conclusion, the results of this study indicate that the participants, who were all ENT surgeons who were not black, Asian or minority ethnic, have a slight bias that favoured white over black people. These findings suggest that implicit biases may play a role in missed appointment outcomes, and further education and training on implicit bias may be beneficial for ENT surgeons. Future studies should control for potential confounding factors and examine the relationship between implicit bias and missed appointment outcomes.

Competing interests. None declared

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