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How consciousness of race and ethnicity-based discrimination affects the health and wellbeing, and academic motivation of minority group students

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ABSTRACT

Discrimination based on race and ethnicity remains prevalent in today's society. There is numerous literature on how conscious racial and ethnic bias and discrimination affects individuals from black and minority ethnic groups, but little on effects of unconscious racial and ethnic bias and discrimination. This study aimed to determine and compare effects of conscious versus unconscious racial and ethnic discrimination on black and minority ethnic students. Black and minority ethnic participants complete an online survey, asking about their experiences of racial and ethnic discrimination, how conscious or unconscious they felt the discrimination was, their health, wellbeing, and academic motivation. Race and ethnicity-based discrimination was positively correlated with poor health, wellbeing, and academic motivation. Consciousness of the discrimination did not seem to affect health, wellbeing, and academic motivation, dismissing comparing effects of conscious versus unconscious ethnic bias on health, wellbeing, and academic motivation. Further research investigating conscious versus unconscious racial and ethnic bias will raise more awareness on the topic.

Keywords: race and ethnicity-based discrimination (REBD), consciousness, health and wellbeing (HW), academic motivation (AM)

INTRODUCTION

Racial discrimination refers to unequal treatment of a person or group based on their race or ethnicity (Pager and Shepherd, 2008). It manifests into different forms, such as prejudice and overt bias, stereotyping, racial profiling, and more subtle and subversive racial bias (Ontario Human Rights Commission). These manifestations

occur on an individual or systemic level (Alberta Civil Liberties Research Centre); individual racism refers to an individual's assumptions, beliefs and behaviours, whilst systemic racism refers to policies and practices ingrained in established institutions, leading to excluding or promoting designated groups.

Plenty of research finds racial discrimination is predicted to significantly impact mental and physical health of black and minority ethnic (BAME) group members. Some studies researching the impact of racism on physical health have found hormonal and neurobiological changes e.g. chronically elevated cortisol levels (Berger and Sarnyai, 2014), raised blood pressure (Armstead et al, 1989; Steffen et al, 2003). Perceived racism has been correlated with poor psychological wellbeing as found in over 160,000 BAME individuals in meta-analyses (Pieterse et al, 2012; Schmitt et al, 2014). Among 153 Aboriginal Australians interviewed in a study by Ziersch et al (2011), almost two thirds of participants felt the racism they experienced affected their health and wellbeing. Furthermore, Johnson (1994) reported suicide among American-Indian veterans being double the national average, with alcohol abuse in over 90% of successful suicides. Research also finds racial discrimination to affect academic performance. Latin and Asian American adolescents reported more discrimination than their peers from European backgrounds (Huynh and Fuligni, 2010). This discrimination predicted lower grade point averages and self-esteem, more depressive symptoms, distress, and physical complaints. Overall, results support the idea of perceived discrimination impairing physical and psychological wellbeing, and academic performance.

A report by the Royal College of Psychiatrists (2018) stated that a concerted effort was needed to raise literacy on racism's impact on mental health, and provide leadership in implementing preventative interventions and actions to improve affected individuals' wellbeing. A study found Black clients of the ages 27 to 41 years (n=135) to be distrustful of white people in counselling settings (Terrel and Terrel, 1984). It was suggested that as a measure to aid those seeking help, that Black clients who are distrustful of White people should initially be seen by a Black counsellor, allowing them to build trust in the mental health system and improve their mental health. The mistrust may be due to subjects experiencing or witnessing racism (Combs et al, 2006), so although the preventative measures may not stop the racism occurring, it could lessen its impact and allow those affected to seek help and guidance.

However, some or most perpetrators of racial bias and discrimination may not have intention to perpetrate this in the first place (Blanton and Jaccard, 2008; Dovidio and Gaertner, 2017), this is known as unconscious bias. An example of this is someone moving their valuable items e.g. wallet, away from a BAME individual (Moule, 2009). Blanton and Jaccard (2008) suggested that people may sometimes lack knowledge and control of the causes and consequences of their racial biases, and there is currently little evidence to support the claim that people possess unconscious racist attitudes. Many arguments supporting the claim are based on strong interpretations of response patterns on implicit attitude tests. For example, the Implicit Association Test by Greenwald et al (1998) measures implicit attitudes individuals may have towards others, based on factors such as race and ethnicity. The test uses participants' speed of responses to positive and negative associations presented to them. The original experiment found white participants to exhibit implicit attitudinal

preferences for white over black individuals. Despite its usefulness in measuring implicit attitudes and unconscious prejudices, it focuses on the perpetrator of the prejudice, and not the recipient. Some research has found unconscious bias to detriment relationships between teachers, students, and other educators (Moule, 2009), and loss of productivity and authenticity in the workplace (Queensland Government, 2020).

A type of racial discrimination that can be unconscious occurs in the form of microaggressions. Although brief and subtle, intentional or unintentional, microaggressions can be received by BAME individuals as hostile, derogatory or negative (Sue et al, 2007). Sue et al (2008) found that racial microaggressions cause considerable psychological distress among Black Americans. Subjects would attempt to determine whether the incidents were racially motivated, resulting in high stress, feelings of powerlessness, invisibility, forced compliance, loss of integrity, and pressure to represent one's group. Walls et al (2015) surveyed 218 American Indian adults diagnosed with Type 2 Diabetes Mellitus. Over a third of participants reported experiencing microaggressions from their health providers. Furthermore, the reports correlated with self-reported history of heart attack, worse depressive symptoms, and prior-year hospitalization. It was implied that health providers should be more aware of these subtle, often unconscious forms of discrimination.

Overall, besides microaggression, there is little research on the effects of unconscious racial bias on the individual subject to the bias (Blanton & Jaccard, 2008), and how its effects on the individual's health and wellbeing (HW) and academic motivation (AM) differ to effects by experiencing conscious, more blatant racial bias. Previous literature may only include one minority ethnic group per study, impacting awareness on how racial and ethnic discrimination affects the BAME community as a whole (Williams et al, 1997).

AIM

- Understand more about unconscious REBD by determining if conscious and unconscious REBD affects HW and AM.

- Understand and compare the experiences of consciously versus unconsciously perpetrated REBD on HW and AM.

HYPOTHESES

- Both conscious and unconscious REBD will affect HW and AM.

- Experiences of conscious versus unconscious REBD on HW and AM will differ.

NULL HYPOTHESES

- Neither conscious nor unconscious REBD will affect HW or AM.

- If REBD affects HW and HM, there will be no difference between the ways either conscious or unconscious REBD affects them.

METHOD

Participants

Participants were BAME students, at least 18 years old (age range of 18-29 years (M = 20.5, SD = 1.83)) from Keele University and other UK universities. A sample size of 91 was needed to achieve a power level of 0.8, therefore making the participant involvement worthwhile. They were requested by:

1. contacting Keele cultural and religious societies via email and direct messaging on social media sites, and were sent a link to the survey. The start of the survey contained a brief description of the study, and contact details of the author and supervisor, if participants had any questions about the research.
2. messaging BAME friends on social media,
3. posting onto Keele University-related pages such as the 'Keele Freshers' page on Facebook, the post containing a brief description of the study, the survey link, and the author's contact details.
4. using Prolific, an online participant recruitment platform.

Data was collected from 126 participants in total. 42 participants either did not fit the criteria or did not complete the survey, so their data was removed. After the data removal, a total of 84 participants' data remained for analysis.

Design

This study was a cross-sectional online survey design, collecting quantitative data. The independent variable was participants experiences of perceived consciously versus unconsciously perpetrated REBD, whilst the dependent variables were participants' HW and AM.

Measures and materials

The scales listed below were used to create the survey questions. The Likert scale was used to rate the statements and questions on e.g. a scale of 1 to 7, where 1 could be "strongly disagree" and 7 could be "strongly agree". Some aspects of the measures outlined below were adapted to suit the research topic and reduce participants distress e.g. questions about harm and death.

Race and ethnicity-based discrimination

Perceived Discrimination Scale – Branscombe, Schmitt & Harvey (1999).

This scale measures participant experience and perception of REBD. Additional items were added to adapt the scale to measure consciousness versus unconsciousness of REBD. Following each original question, participants were asked "With regard to the above statement, to what extent do you think that the ethnic/racial discrimination that you have experienced (if any) has been unconsciously versus consciously perpetrated?" and would rate their perception on a scale from "1 = completely unconscious" to "7 = completely conscious".

Health and wellbeing

Patient Health Questionnaire (PHQ-9) – Spitzer, Kroenke & Williams (2001). This scale measures symptoms of depression.

Generalised Anxiety Disorder Assessment (GAD-7) – Spitzer, Kroenke, Williams & Löwe (2006). This scale measures symptoms of anxiety.

UEROHIS-QOL – Schmidt, Luhlan & Power (2006). This scale measures quality of life.

Academic motivation

Academic Motivation Scale (AMS-C 28), College (CGEP) Version – Vallerand, Pelletier & Blais (1992). This scale measures AM. Only the items measuring intrinsic motivation in the original scale were included in this survey.

The presentation of the measures of REBD, HW and AM were counterbalanced to reduce the likelihood of order effect: 1) experiences of REBD; 2) HW; and 3) AM.

Procedure

1. The research was approved by the Keele University School of Psychology Ethics Committee.
2. The survey was uploaded onto Qualtrics – the platform used for administering the survey. To increase participation, the ethics form was amended to include students from other universities. Following approval, the survey was also uploaded onto Prolific.
3. Participants were informed of the research focus, anonymity of the data collection, their right to withdraw at any time without reason, and the contact details of the author and supervisor in case they have any questions or concerns about the research.
4. Participants were asked to provide consent to taking part in the study.
5. Following completion of the survey, participants were debriefed about the aims of the research and were provided with contact details of the researcher and supervisor.
6. Participants were asked if they wanted to enter an optional prize draw to win an Amazon gift voucher.

Ethics

Participants were required to remember experiences of racial prejudice but were informed of this and given details of mental health services. Sensitive data that may be collected included their responses to questions asking about racial bias and its effects on HW and AM. The data that was analysed and stored included their ratings of the statements and questions.

Participants' data remained completely anonymous and did not reveal any identifying information other than participants' IP address, and socio-demographic data; age, gender, ethnicity, university course and level of study in that course. Participants were made aware of this and consent was obtained before the survey. Their data was stored on data files on password-protected computers, which only the author and supervisor working on the project had access to. Participants were made aware

that if they requested their data deleted, provided they had an IP address of the device they completed the survey on, it will be deleted without having to give a reason. Qualtrics automatically collects their IP address, therefore participants providing an IP address would allow the author to retrieve their data. All participant data will be deleted from the author's computer at the end of their final year, the supervisor will keep a copy of the data indefinitely and share it with other competent researchers.

Data analysis

1. Cronbach's alpha – determine the reliability of the survey items.
2. Pearson's correlation analysis – used on mean variable scores from each participant to find a relationship/s between the IVs and DVs, and examine the associations of REBD with HW and AM.
3. Regression analysis – analyse the relationship/s between the IV and DVs, and examine whether consciously or unconsciously perpetrated REBD is more strongly associated with HW and AM.

All processes used SPSS software. The cut off for statistical significance was $p \leq 0.05$.

RESULTS

Cronbach's alpha

The Cronbach's alphas for REBD, HW scales, and AM ranged from .83 to .92, indicating high reliability. The alpha for REBD consciousness was .60, indicating poor reliability. The alphas for all items were above .50 therefore no items were removed from any scale (see Table 1).

Pearson's correlation analysis

REBD and REBD consciousness were significantly positively correlated, $r(84) = -.50$, $p = .000$. A positive but insignificant correlation was found between REBD and depression, $r(84) = .19$, $p = .07$, and between REBD and anxiety, $r(84) = -.11$, $p = .31$. A significant negative correlation was found between REBD and satisfaction with life, $r(84) = -.31$, $p < .01$, and between REBD and AM, $r(84) = .24$, $p < .05$ (see Table 2).

No correlation was found between REBD consciousness and depression ($r(84) = -.01$, $p = .90$), anxiety ($r(84) = .02$, $p = .87$), satisfaction with life ($r(84) = -.12$, $p = .28$), or AM, ($r(84) = -.04$, $p = .73$), therefore regression analyses were not conducted.

Pearson's correlation analysis was also conducted between the 6 items of perceived REBD, and the HW scales (see Table 3). Correlations between REBD items and depression and anxiety were positive, except for the item *"Statement 1 - I have personally been victimised by discrimination because of my race,"* r(84) = -.02 (depression), -.08 (anxiety). Correlations were negative between REBD items and quality of life, except for the item "*Statement 4 - I have personally been victimised by harassment because of my race,"* r(84) = .18.

DISCUSSION

Conclusions from correlation analysis

Results show individuals who reported more experiences of REBD reported poorer HW and higher AM. Only the effects of REBD on quality of life and AM were statistically significant, indicating a less than 1% probability that the results were due to chance. REBD consciousness did not affect any dependent variables. Correlations between levels of REBD consciousness and dependent variables were statistically insignificant, indicating a more than 1% probability that results are due to chance. We reject the null hypothesis that neither experience of consciously nor unconsciously perpetrated REBD will affect HW and AM of BAME students, and accept the alternative hypothesis that both experiences of consciously and unconsciously perpetrated REBD affects HW and AM. Regarding REBD consciousness, we accept the null hypothesis that if REBD affects BAME individuals, there will be no difference between the ways conscious or unconscious REBD have an effect.

Perceived REBD had a significant positive correlation with REBD consciousness, inferring that the more participants experienced and were affected by the discrimination, the more likely they are to view those experiences as conscious and intentional. REBD was also positively correlated with symptoms of depression and anxiety and was negatively correlated with quality of life. These results are consistent with findings in previous literature where racism is found to affect health and wellbeing of BAME individuals (Paradies et al, 2015; Liu and Suemoto, 2016).

The positive correlation between REBD and AM contradicts previous findings (Reynolds, Sneva and Beehler, 2010) in which institutional racism was positively correlated with amotivation in African-American and Latino-American undergraduate students. Our findings contrast this, moreover, the item *"Statement 2 - I consider myself a person who has been deprived of opportunities because of my race."* was significantly negatively correlated with HW, -.31 (p=0.004) (See Appendix M). It may be that individuals who experience more REBD are more motivated to excel academically to make the most of the opportunities given and reduce the likelihood of being deprived of future opportunities.

The effects of conscious versus unconscious REBD on HW and AM did not differ. A possible explanation for this is that in some situations, perceived consciousness of REBD matters, in others it does not. Results imply that participants' experiences of REBD were not of the nature in which intent influences consequences. Intent of actions and words may not always matter; both blatant and unintentional racism could be equally as detrimental to the victim.

Evaluations and future steps

Positives of this research are that participants from a range of ethnic minority backgrounds completed the study. The study being online meant that participants' data could easily be collected whilst retaining participant anonymity. The data collected was quantitative, so was easy to process and determine the existence, absence and strength of a correlation. Ethical risks were low and existing risks were minimised. Participants were not required to give information about their experiences of REBD that could give more context to their responses. Qualitative data along with quantitative, being collected over an extended period rather than one given point, could give more insight and understanding into how different forms of racism affects people. Whichever form of data is collected, responses are based on participants' perceptions of their experiences with REBD so will remain subjective to them. We cannot confirm if people experience what they say they do in their responses, but more research with more comprehensive measures than in this study will aid psychologists in seeing patterns that could help determine the subjectivity of experiences of racism.

Some methodological drawbacks of this study limit its levels of generalisation to wider BAME populations. Only 84 participants' data were eligible for analysis, so not enough data was collected to make participant involvement worthwhile. Participants were from Keele University or other UK universities not specified in the survey. If researchers aim to observe effects of conscious and unconscious REBD in university populations, they would need to survey more students from other universities. Participants in this research were also of the ages 18-29, limiting applicability of results to those outside that age range. Researching BAME individuals in educational settings such as schools would be useful in examining patterns of conscious and unconscious REBD in children and adolescents, and could help shape school curriculums and services to improve HW, AM and academic performance in students. If looking into effects of conscious versus unconscious EBD on HW of the general population, conducting a national or international survey would be the most suitable approach of doing so, to see if there is a pervading correlation or pattern between EBD consciousness and HW.

Situational factors limit the findings that suggest REBD affects HW and AM. The survey was published during the second semester of university, and the majority of the students were completing the final year of their degree, which would have contributed to poorer HW and increased AM due to stress. Repeating this research in the first semester would help to see if time of survey completion is a factor for participants' scores. Furthermore, socio-demographic factors may contribute to conscious versus unconscious REBD's effect on BAME individuals. Research has reported poorer mental health in LGBTQ+ people of colour, including prevalence of anxiety, low mood (Diaz et al, 2001), depression, and suicide ideation (Sutter and Perrin, 2016). Researching socio-demographic factors that can influence effects of conscious versus unconscious REBD may be beneficial in understanding how different groups are affected by conscious and unconscious REBD. This is the first study exploring unconscious REBD. However, conducting further research will address the points discussed, furthering our understanding of how conscious versus unconscious REBD affect BAME individuals.

CONCLUSION

This study set out to look for a relationship between race and ethnicity-based discrimination, and health and wellbeing and academic motivation of ethnic minority group students. An attempt was also made to find a relationship between the level of race and ethnicity-based discrimination consciousness, and health and wellbeing, and academic motivation. The findings of this study support previous findings into racism affecting health and wellbeing, and academic motivation of black and minority ethnic individuals. No difference in relationships was found in the ways conscious and unconscious race and ethnicity-based discrimination affects health and wellbeing, nor academic motivation of participants.

Extensive research shows racism affects the health of ethnic minorities. Further research investigating the conscious and unconscious forms of racism is a potential next step in understanding its effects. Developing this small-scale study could enable psychologists, professionals, and practitioners to support victims of racial and ethnic discrimination in improving their quality of life.

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TABLES

Table 1

The means, Standard Deviations (SD) and Chronbach's alpha coefficients (α) for the measures of EBD, EBD consciousness, depression, anxiety, quality of life, and academic motivation.

	Predictor variables		Outcome variables			
	Ethnicity based discrimination	EBD consciousn-ess	Depression	Anxiety	Quality of life	Academic motivation
Mean	23.76	23.40	17.69	14.63	27.58	54.92
SD	8.24	5.46	5.90	5.46	6.20	14.81
α	0.83	0.60	0.87	0.88	0.85	0.92

Table 2

Pearson correlation matrix of all the variables: EBD, EBD consciousness, depression, anxiety, satisfaction with life, and academic motivation. Column 1 shows correlations between EBD and outcome variables, and column 2 shows correlations between EBD consciousness and outcome variables. Values are to 2 d.p.

Variable	1	2	3	4	5	6
1. EBD	-					
2. EBD consciousness	.50**	-				
3. Depression	.20	-.01	-			
4. Anxiety	.11	.02	.74**	-		
5. Quality of life	-.31**	-.12	-.63**	-.48**	-	
6. Academic motivation	.24*	.04	.02	.15	-.11	-

***p* < .01 (2-tailed).
**p* < .05 (2-tailed).

Table 3

Pearson correlation matrix of all items of EBD against depression, anxiety, and quality of life, correlation between EBD items have been removed (See Appendix M). Values are to 2 d.p.

Item	Mean depression score	Mean anxiety score	Mean quality of life score
Statement 1 - I have personally been victimised by discrimination because of my race.	-.02	-.08	-.14
Statement 2 - I consider myself a person who has been deprived of opportunities because of my race.	.20	.13	-.31**
Statement 3 - I feel like I am personally victimised by society and institutions because of my race.	.30**	.18	-.37**
Statement 4 - I have personally been victimised by harassment because of my race.	.02	.02	.18
Statement 5 - I regularly witness prejudice against people from minority ethnic groups.	.23*	.08	-.15
Statement 6 - Prejudice towards people from minority ethnic groups has affected me personally.	.20	.20	-.25*

***p* < .01 (2-tailed).

**p* < .05 (2-tailed).