



Exploring Racial Discrimination, Disability Discrimination, and Perception of the Future Among Black-Identifying Emerging Adults with and without Autism in the United States: A Mixed-Methods Descriptive Study

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Abstract

Discrimination experienced by Black emerging adults with autism is rarely studied nor have their experiences been juxtaposed to Black emerging adults without autism. A mixed methods descriptive approach was used to describe responses to open-ended questions collected as part of a larger study of discrimination experienced by Black emerging adults with autism (n = 14) and Black emerging adults without autism (n = 20). Questions focused around racial discrimination, disability discrimination, and perception of the future. Qualitative and quantitative content analysis were applied. Qualitatively- a manifest approach was used, and quantitatively- frequency counts and ratios were identified within themes and subthemes. Four main themes and twelve subthemes were identified. Racial discrimination had two themes: 1) *Impact on mental health*, and 2) *Societal threats*, with five subthemes, each reported at higher rates by people without autism (Theme 1 = 5:7, Theme 2 = 3:11). Disability discrimination was only reported on by those with autism, and had one main theme of neurodiverse/autism bias, and three subthemes. Perception of the future contained the theme of *emerging life hopes*, with four subthemes. Subthemes relating to work/career/family and future unknown were reported more highly by those without autism than with autism (1:8 and 4:7 respectively), while subthemes describing diverse or unique priorities for fulfillment and mental wellness were reported only by those with autism (6:0 and 4:0 respectively). Study findings suggest unique experiences and needs among Black emerging adults with autism, as well as the consequences of anti-blackness and anti-ableism/neurobigotry which can have double impact in their lives, spanning different ages and stages. Results have implications for building resiliency among Black persons with autism and without autism as they transition to adulthood.

Keywords Black autistic adults · Discrimination · Racism · Ableism · Intersectionality · Perception of the future

Introduction

Racism and ableism are ubiquitous problems in the United States with colliding effects on the lives of Black persons with autism. The cumulative effects of racism causes harm

to individuals who are racialized as ‘Black’ throughout the lifespan, including during the transition to adulthood (Hankerson et al., 2022; Williams et al., 2019). Independent from race, persons with autism spectrum disorder (ASD)^{1, 2} can also face stigma and discrimination throughout their lives due to neurological differences with struggles amplifying during emerging adulthood (Botha & Frost, 2020; Han et al., 2022). Emerging adulthood for Black persons with autism is

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¹ Person-first language is utilized commonly in this paper for sensitivity however identity first language is also utilized. The use of both terms is acknowledges that there is diversity within the neurodiverse population with respect to identity-first (‘person with autism’) or person-first language (‘autistic person’) preference.

² Autism Spectrum Disorder/ASD is used interchangeably with the term ‘autism’ in this paper.

understudied and to date their encounters of racial and disability discrimination are largely unknown (Davis et al., 2022).

ASD is a neurodevelopmental condition marked by social communication difficulties and restricted interests and repetitive behaviors (NIH, n.d.). Autism rates in the United States have significantly increased over the last two decades, with a recent estimate of 1 in 36 8-year-old children having ASD (CDC, 2023). Hispanic and Black children receiving ASD diagnoses is also seeing an upward trend (Nevison & Zahorodny, 2019). Autism-related disparities, such as differentials in age of first ASD diagnosis and lack of access to comprehensive services, can be viewed as a consequence of intersectionality (Aylward et al., 2021). Resultant disadvantages for Black children with autism and their families have longitudinal consequences well into adulthood.

Ableism and Racism: Double Threats

Black emerging adults with autism can face stigma/mistreatment that is interactional due to contributing societal factors of ableism and racism (Davis et al., 2022). Ableism is prejudicial, discriminatory, or oppressive behavior against people with disabilities (Bogart & Dunn, 2019) while racism is prejudice directed towards minoritized racial groups that operates through the use of power (Carter & Kirkinis, 2021). The complex interplay of race and disability in the life cycle of Black persons with autism can have cumulative effects that increase health risk in the early adult phase of life and beyond (Davis et al., 2022). Racism and its effects in the Black population has been linked with higher allostatic load burden leading to “weathering” (physiologically aging at a higher rate) and racialized health disparities (Thomas et al., 2019; Van Dyke et al., 2020). Racism, particularly pervasive discrimination, has been identified as having an effect on the weathering process being kickstarted early (i.e. early adulthood) among Black young adults (Richardson et al., 2021).

The Black/African American³ community in the United States has faced centuries of discrimination, disenfranchisement, and abuse that can be linked to elevated levels of collective trauma (Kirkinis et al., 2021; Krieger, 2000). Risks and vulnerabilities that have historically awaited the Black community across the life course can be viewed as a consequence of structural racism (Chatters et al., 2021; Elliott et al., 2022; Merolla & Jackson, 2019; Misra et al., 2022).

³ We acknowledge that due to the process of racialization, Black and African American can be viewed as interrelated, overlapping or separate terminology. We use these terms interchangeably throughout our paper as participants were asked if they were Black or African American in order to participate in the study and in recognition that there is variance in which term is preferred throughout the U.S.

Racially-motivated traumatizing experiences can accumulate in such a way to negatively impact the physical and mental states of persons of African descent in the United States (Bowen-Reid & Tulloch, 2022; Misra et al., 2022).

Racial trauma, is defined as consistent experiences of “*a sudden racist encounter, experienced as painful, followed by symptoms such as intrusive thoughts, avoidance, anger, and depression*” (Liu et al., 2019, p. 147). Racial traumatization can occur across the life course with encounters of racism becoming more glaring during emerging adulthood (Volpe et al., 2020). Racist experiences that may not have been obvious in the past are often more perceivable during this stage of life. Studies on Black emerging adults have tended to focus on the college-attending population at large, including more recently an examination of the effects of structural racism in this population (Christophe et al., 2022; Hurd et al., 2013; Longmire-Avital & McQueen, 2019; Volpe et al., 2021).

Emerging Adulthood and Autism

Entering into adulthood for persons with autism can be marked by encounters of ableism (Kirby et al., 2019). One reason for this may be that adulthood is associated with increased integration into society; however, society can be intolerant and less accepting of neurodivergent individuals (Hanlon et al., 2022). Ableism has been linked to workplace challenges (Lindsay et al., 2022) and an overall impaired sense of well-being (Jóhannsdóttir et al., 2022) for persons with disabilities and compounded for persons of color with disabilities who also experience racism in the workplace (Fuentes et al., 2023). The impact of ableism on persons with autism is increasingly being studied as greater attention is being given to autism in adulthood (Iland, 2021; Solomon, 2020). The phenomenon of ‘*falling off of the transition cliff*’ is an all-too-common experience for emerging adults with autism who exit the school system and/or reach the age of 21 (Ishler et al., 2022), often compounded by living in a largely ableist society. At this cliff juncture, mandated educational services are no longer provided, often leaving young adults with autism and their families without adequate wraparound services (Hendren, 2021).

A consequence of ableism is the high percentage of adults with autism who are not participating in the labor force (~50%), irrespective of cognitive ability (Anderson et al., 2021; Harmuth et al., 2018; Nicholas & Klag, 2020). Ableism can open the door to greater isolation and diminished physical and mental health among autistic and other neurodivergent individuals (Camm-Crosbie et al., 2019; Schiltz et al., 2021). Supplemental Security Income (SSI) can be protective as a regular source of income for some emerging adults with autism who qualify, while for others SSI receipt can add a layer of complexity that impacts

one's outlook of the future (Anderson et al., 2020; Davis & Gourdine, 2023).

Emerging Adulthood and Racial Marginalization

Emerging adulthood is a timeframe marked by a quest for personal and financial independence (Arnett, 2000, 2004). It is thought that emerging adults have in general an enhanced capacity to embrace life possibilities, attributable to their optimism for the future and being dreamful at this life stage (Arnett, 2004). However, as described by Syed and Mitchell (2013), "emerging adults from racial/ethnic backgrounds experience significant barriers to realizing their dreams and enjoying the optimism that characterizes emerging adulthood" (p. 87). While minoritized emerging adults may have high hopes for the future, many begin to see the reality of structural barriers that stand in their way (Syed & Mitchell, 2013) and consequently experience disenchantment and negative affect (i.e. low self-esteem, low self confidence, and low locus of control; Sibrava et al., 2019).

Perception of the Future and Discrimination

Mapping out one's future applies to many critical areas for emerging adults, such as entering into a marriage union, starting a family, career advancement trajectories and personal exploration (Cribb et al., 2019; McCabe & Barnett, 2000). Perception of the future for persons with autism can be affected by self-efficacy (Cribb et al., 2019), anticipation of discrimination (Conkel-Ziebell et al., 2019), parental or caregiver expectations (Chen et al., 2019), perceived societal acceptance (Hwang et al., 2017), and other mental health challenges (Cage & Howes, 2020). Some but not all persons who are neurodivergent, including persons with autism, may have executive functioning challenges that impact areas of their life such as pursuit of higher education (Alverson et al., 2019; Dijkhuis et al., 2020; Stark & Lindo, 2022) that then impacts perception of the future.

Racial-ethnic discrimination impacting perception of the future among minoritized groups has gained some scholarly attention (Armstrong et al., 2019). For example, studies suggest that discrimination can lead to diminished confidence in one's ability to gain financial success, achieve vocational goals, and greater likelihood to expect discrimination in the future (Armstrong et al., 2019; Conkel-Ziebell et al., 2019; Constante et al., 2021; Edwin & Daniels, 2022). Racial discrimination can unjustly impact many areas of employment, including hiring (Quillian & Midtbøen, 2021), job satisfaction (Wingfield & Chavez, 2020), retention (Zambrana et al.,

2021), and pay (Mandel & Semyonov, 2016; Manduca, 2018) that can impact one's mental state. The workplace is an environment where African Americans have historically faced lateral violence (e.g. punitive consequences) while attempting to voice concerns specific to receiving unequal/inequitable treatment (Mosley et al., 2017; Roscigno, 2019). Encounters of racial discrimination, including workplace encounters, can evoke anticipatory caution and affect the future-orientedness of minoritized groups, such as their perception of achieving 'The American Dream' (Armstrong et al., 2019).

Investigation into experiences of compounded discrimination (e.g. racial + disability) experienced by the Black community who are neurodivergent is lacking. The consequences of cumulative discrimination in the lives of Black persons with neurodevelopmental disabilities have received inadequate scientific attention (Davis et al., 2022; Malone et al., 2022). Similarly, research on perception of the future of dually marginalized emerging adults is scant. The experiences of Black individuals with autism in the context of emerging adulthood are scarcely studied. Further, there is a current research void in the experiences of Black emerging adults with autism and the resultant challenges faced by these individuals. Thus, the purpose of this study was to explore the self-reported experiences of Black emerging adults with and without autism, specific to 1) racial discrimination and their perception of their future, and 2) for those with autism, experiences of disability discrimination.

Design and Methods

Study Design

This work is a mixed- methods descriptive exploration of open-ended question data gathered from a larger, parent study (Davis et al., 2022), analyzing secondary findings from a survey exploring discrimination, stress and associated risk and protective factors among Black emerging adults with and without autism. This present work presents the analysis of the study's open text responses. An overarching qualitative descriptive approach was chosen as it supports analysis of data gathered via online sources and open-text responses, and supports a data-driven analytical approach as opposed to a theory driven orientation (Doyle et al., 2020). IRB approval for the study was provided by the University of California (Tables 1 and 2).

Participants

The original study included sixty-two participants; 32 Black emerging adults with autism and 30 Black emerging adults without autism (Davis et al., 2022). Study participants were recruited by purposive sampling and were required to: 1)

Table 1 Demographic information on included samples

	ASD diagnosis status		Total (N = 34)
	No (n = 20)	Yes (n = 14)	
	Percentage (column %)		
Age category			
18–21	7 (35.0)	2 (14.3)	9 (26.5)
22–26	13 (65.0)	12 (85.7)	25 (73.5)
In school or training currently?			
No	9 (45.0)	11 (78.6)	20 (58.8)
Yes	11 (55.0)	3 (21.4)	14 (41.2)
Living situation			
Live alone in my own home (house, apartment, condo, trailer, etc.)	1 (5.0)	2 (14.3)	3 (8.8)
Live in a household with other people	13 (65.0)	6 (42.9)	19 (55.9)
Live in a residential facility such as a group home that provides meals and 24-h nursing care	2 (10.0)	0 (0)	2 (5.9)
Temporarily staying in a shelter or homeless	1 (5.0)	0 (0)	1 (2.9)
Temporarily staying with a relative or friend	3 (15.0)	5 (35.7)	8 (23.5)
No information	0 (0)	1 (7.1)	1 (2.9)

self-identify as African American or Black; 2) be between the ages of 18 to 26; and 3) have a previous diagnosis of autism, Asperger's syndrome, or autism spectrum disorder (study group) or identify as being typically developing/neurotypical (comparison group). The data of thirty-four participants (14 Black adults with autism (age, Mean = 23.43, SD = 2.06) and 20 Black adults without autism (age, Mean = 22.35, SD = 1.76), were selected from the original study, and the data from their open-text box responses were analysed. The rationale for the selection of the 34 in the sample, is that these participants had explicitly described at least one personal experience of racial discrimination or disability discrimination. Participants of the study who described discrimination experiences of others or who provided responses that warranted follow up to understand context and clarity were excluded from the sub-analysis. This is because follow-up was not part of the original study approval and credible conclusions could not be drawn from qualitative analysis based on the information provided.

Data Collection

In the original study, the Understanding Discrimination Scale (UDS; Davis et al., 2022) and the Everyday Discrimination Scale (EDS; Clark et al., 2004) were used to examine discrimination among study participants. Details on additional measures can be found in the original study (Davis et al., 2022). In this sub-analysis, we drew from participants who responded to open-ended items as part of the UDS. The original study included participants recruited through an online survey which took place between March 2021 to June 2021. Online recruitment was prioritized to mitigate COVID-19 risk, with a digital study flyer shared out on

various mediums, including social media sites, community listservs, autism-specific research study recruitment websites, and email snowball strategies. Participants completed the study through the Qualtrics survey platform and received a \$20 e-gift card for full completion of the survey. In addition, study participants had the option of participating in a 15-20 min debrief session with the principal investigator, a licensed mental health professional, due to the sensitive nature of the questions asked.

Data Analysis

Data were analysed via a manifest content analysis methodology (Bengtsson, 2016). A manifest content analysis approach was deemed appropriate as it allowed for broad surface analysis, describing what has been said within the text provided by the participants (Bengtsson, 2016). Data were analysed qualitatively and quantitatively in order to describe what was said by and within the groups, as well as numerical reporting to show frequencies and ratios in how the two groups approached the topics. *Qualitative Content Analysis*: Inductive 'bottom-up', qualitative coding took place for this study, with one master coder first decontextualising the data and coding the racial discrimination, disability discrimination, and perception of the future responses, as well as exploration of between-group similarities and differences of participants with and without autism. The master coder (A.D.) provided a working code list to a second coder. The second coder (E.S.) analyzed responses and, a consensus was reached on the master code list as part of reconceptualization. The same process occurred for perception of the future with a third coder (X.Y.). A master code list for all three groups of codes was developed. Categories were then

Table 2 Themes, subthemes, and illustrative quotes

Query	Theme	Subtheme	Illustrative quotes	
Racial Discrimination	Mental Health Impact	Exclusion as painful	<i>"When I was in junior high school, my mates discriminated against me because I was a black American." (participant with ASD, age 25)</i>	
		Bullied throughout life	<i>"When I was ~8 years old a white kid in my neighborhood told me that I was a 'n-word [hard r] in a kkk hood'. (participant without ASD, age 23)</i> <i>"Very irritating and that can make someone of low courage to commit suicide. I used to play football before, but the day that I made a mistake, I stop playing cause I was really dissed and spit on, because am a black." (participant without ASD, age 20)</i> <i>"Very common in the United States, I have been often bullied due to my color and even as I am typing this, I am crying. But it's all gonna be okay. I am gonna make it." (participant without ASD, age 25)</i>	
		Employment discrimination	<i>"Lost a job once because I am a Black person" (participant without ASD, age 20)</i> <i>"I experienced racism when i was applying for a job, I passed all interview test but i was not employed." (participant with ASD, age 26)</i> <i>"I went to a job interview and the interviewer told me something about people of color and that they are not very skilled for the position I was applying for and he offered me a job but as a cleaning staff. (participant with ASD, age 23)</i>	
		Societal Threats	Police intimidation/harassment	<i>"It's happened to me and my beautiful black colleague yesterday, when a cop tried to arrest us for no tangible reason." (participant without ASD, age 23)</i> <i>"Often stopped by white police officers while driving" (participant with ASD, age 23)</i>
		Emotional hardship (harm)	<i>"Very bad experience that always brings tears out of my eyes am not an hoodlums for christ sake not every blacks are bad." (participant with ASD, age 20)</i> <i>"Very bad experience, it often made me think of committing suicide." (participant without ASD, age 24)</i> <i>"During college, people prefer associating with my white friend and they dislike me. That do get me petty aaf." (participant without ASD, age 24)</i> <i>"When I was in junior high school, my mates discriminated against me because I was a black American, they didn't allow me to be friends with them and eat with them..." (participant with ASD, age 25)</i>	

Table 2 (continued)

Query	Theme	Subtheme	Illustrative quotes
Disability Discrimination	Neurodiversity/ Autism Biases	Negatively perceived by employer/co-workers	"I had a previous employer treat me as if I was incompetent after I disclosed that I was on the spectrum. I had been working there for a year." (participant with ASD, age 26)
		Open season for everyday discrimination	"At a grocery store, the cashier asked me if I was mentally retarded because I stared at a package of potato chips for a long time, and I was just reading. I told her that I am like that because I have autism and I am meticulous about some things and she told me that autism is in the mentally retarded." (participant with ASD, age 23)
		Rejected/fear	"When I checked in at the hotel, I was discriminated against by the waiter and I was refused service". (participant with ASD, age 23)
Perception of the Future	Emerging life hopes	Work/career/family on my mind	"People always act as if they are afraid of me." (participant with ASD, age 26)
		Diversity in paths to fulfillment	"In the next five years I will have become a successful farmer". (participant without ASD, age 22)
			"Having finished my education and have a good job. I will have a good capital I might start my own business." (participant with ASD, age 25)
			"Married, working and living my dreams." (participant without ASD, age 24)
Unique priorities in the realm of mental wellness	"Doing things I like, working, driving my new car, and living near the beach." (participant with ASD, age 24)		
Future unknown	"Having finished my education and have a good job. I will have a good capital I might start my own business." (participant with ASD, age 25)		
		Unique priorities in the realm of mental wellness	"Living alone in a house with a large patio to plant my own garden." (participant with ASD, age 23)
		Future unknown	"I don't even know, just living to my dream, may God help us all." (participant without ASD, age 24)

developed for each group of codes. Finally, themes were identified based on a comparison of final codes and categories to quotes of respondents. Agreement among the research team was reached between codes and categories that relate to final themes and associated quotes. The coders used Microsoft Excel 2019 to organize and code participant responses. The outcome of this process is captured in Table 2: Coding Tree. *Quantitative Content Analysis*. Following the qualitative analysis, the lead author undertook a brief quantitative content analysis to provide frequency counts and ratios to describe differences between those with and without autism (Bengtsson, 2016). Specifically, the focus was on a comparison of frequency counts within the themes and subthemes of the topic areas 'Racial

Discrimination' and 'Perception of the Future', to characterize heterogeneity between the group with autism, and the group without autism (Table 3).

Results

Data were analysed from 34 Black emerging adults, 14 with autism, and 20 without autism. Table 1 provides further demographic information, however, based on historical and recent abuses of Black persons in research and the broader society, minimal personal identifiers were collected. This is reflected upon further in the discussion section.

Table 3 Quantitative appraisal of frequencies of themes and subthemes from qualitative analysis

Theme and Subtheme	Sample frequencies	
	Total	Autism: No Autism
Query 1: Racial Discrimination		
Theme 1: Impact on Mental Health		
<i>Subtheme total</i>	12	5:7
<i>1.a Exclusion as painful</i>	5	2:3
<i>1.b Bullied in life</i>	5	1:4
<i>1.c Employment discrimination</i>	3	2:1
Theme 2: Societal Threats		
<i>Subtheme total</i>	14	3:11
<i>2.a Police intimidation/harassment</i>	9	2:7
<i>2.b Emotional hardship (harm)</i>	7	1:6
Query 2: Disability Discrimination		
Theme 3: Neurodiverse/Autism Biases		
<i>Subtheme total</i>	11	11:0
<i>3.a Negatively perceived by employer/co-workers</i>	3	3:0
<i>3.b Open season for everyday discrimination</i>	4	4:0
<i>3.c Rejected/Fear</i>	4	4:0
Query 3: Perception of Future		
Theme 4: Emerging Life Hopes		
<i>Subtheme total</i>	26	11:15
<i>4.a Work/career/family on my mind</i>	9	1:8
<i>4.b Diversity in paths to fulfillment</i>	6	6:0
<i>4.c Unique priorities in the realm of mental wellness</i>	4	4:0
<i>4.d Future unknown</i>	11	4:7

Qualitative data analysis focused on three core topics from the original survey: 1. racial discrimination, 2. disability discrimination and 3. perception of the future, while quantitative analysis focused on racial discrimination and perception of the future. Qualitatively, within the three topics, we found a total of four themes, and 12 subthemes (Table 2). In topic 1 (Racial Discrimination) there were two themes: 1) **Mental Health Impact**, with three subthemes (Exclusion as Painful, Bullied in Life, and Employment Discrimination). Theme 2, **Societal Threats**, had two subthemes (Police Intimidation/Harassment, and Emotional Hardship). Topic 2 (Disability Discrimination) pertained only to participants who identified as living with autism, and had one main theme: **Neurodiversity/Autism Biases**, with three subthemes (Negatively perceived by employer/co-workers, Open season for everyday discrimination, and Rejected/Fear). Topic 3, explored with both groups (Perception of the Future), yielded a single theme: **Emerging Life Hopes**, which had four subthemes (Work/career/family on my mind, Diversity in paths to fulfillment, Unique priorities in the realm of mental wellness, and Future Unknown).

Quantitative analysis revealed that many of the Black emerging adults with and without autism in the sample reported experiences of racial discrimination, however these reports were higher for those without autism in all themes and subthemes (Total 5:7) (Table 3). In the area of perception of the future, there were marked differences in how those with autism approached the question compared to those without. Those with autism spoke more to the subthemes that reflect neurodiversity (Diversity in paths to fulfillment 6:0, and Unique priorities in the realm of mental wellness 4:0), while those without autism were concerned with more societal or intangible subthemes (Work/career/family on my mind 1:8, and Future unknown 4:7).

These themes capture how Black/African American emerging adults with and without autism experience racial or disability discrimination and the effects of these experiences. In our presentation of our findings below, we have blended the quantitative and qualitative findings together to provide substance and context. Quotes are provided verbatim in the participants original phrasing (i.e., use of capitalisation of race and other self-descriptions).

Topic: Racial Discrimination

Theme 1: Impact on Mental Health

This theme encapsulates the different ways that experiences of racial bias and discrimination have negative consequences on the psyche of emerging adults racialized as Black with and without autism. The racial discrimination theme of Impact on Mental health showed people without autism reported racial discrimination more than those without autism across all subthemes: 17 participants in total responded, with a frequency of 5:7 (ASD: non-ASD⁴). The following frequencies reflect responses found in the three subthemes (ASD: non-ASD): Exclusion as painful (2:3), bullied in life (1:4), employment discrimination (2:1). Aside from employment discrimination, all subthemes were mentioned more frequently by participants without autism except employment discrimination (2:1). Three of the 13 participants with autism included in this study provided racial discrimination responses that were not first-hand accounts and were excluded from the data set.

Subtheme 1a. Exclusion as Painful

Nine participants spoke to the subtheme, exclusion as painful; three with autism and five without. Across these participants, the proverbial racial/color line was commonly cited as influencing social experiences of participants while in school. Participants with and without autism (n = 5) reported feeling barred from social circles *and* social events. Two responses alluded to an unspoken rule system that prohibited Black students from being accepted by their school-age peers. As one participant with autism recalled: *"When I was in junior high school, my mates discriminated against me because I was a black American, they didn't allow me to be friends with them and eat with them, I couldn't do what my peers do, the first time I participated in a talent hunt, I was laughed at"*.

Another respondent without autism stated that he could not join a club *"due to the fact that I am black"*. Three participants, with and without autism, described being disliked by their classmates. One respondent without autism noted that his immediate peer group preferred to spend time with his white friend over him in college: *"During college, people prefer associating with my white friend and they dislike me. That do get me petty af"*.

Subtheme 1b. Bullied in Life

Five participants contributed to the subtheme 'bullied in life', one with autism, and four without autism. All

⁴ ASD=Autism Spectrum Disorder; non-ASD=non-Autism Spectrum Disorder.

described racial bullying across several ages and stages; there was no specific developmental stage to which bullying was most frequently reported. These experiences of bullying occurred in contexts such as during childhood, junior high school, and when engaging in extracurricular activities.

During childhood, one participant without autism recalled: *"When I was ~8 years old a white kid in my neighborhood told me that I was a 'n-word [hard r] in a kkk hood'. when I rode past him on my bike while wearing a hoodie. I remember that I knew what the n-word signified and was hurt and angry but I didn't understand the latter part at the time. Notably, he wanted to be a Police officer when he grew up"*.

Another respondent without autism highlighted the detrimental impact of racial condescension, and the hypothetical impact of potentially pushing someone to the brink of suicide: *We all know how people of other races do look down on we black people. Very irritating and that can make someone of low courage to commit suicide. I used to play football before, but the day that I made a mistake, I stop playing because I was really dissed and spit on, because am a black"*.

Reports of bullying were often accompanied by strong emotions. For example as one participant without autism stated: *Very common in the United States, I have been often bullied due to my color and even as I am typing this, I am crying. But it's all gonna be okay. I am gonna make it"*.

Subtheme 1c. Employment Discrimination

Three participants described experiencing challenges with employment (ASD vs non-ASD 2:1). Employment opportunities appeared to be withheld due to racial discrimination. A participant without autism described losing a job due to being Black. Further, two respondents with autism reported discrimination from potential employers during job interviews. Despite being qualified for their positions, they cited racial discrimination as a barrier to employment. One participant with autism recalled: *"I experienced racism when i was applying for a job, i passed all interview test but i was not employed"*.

Another participant with autism reported: *"I went to a job interview and the interviewer told me something about people of color and that they are not very skilled for the position I was applying for and he offered me a job but as a cleaning staff"*.

Theme 2: Societal Threats

This theme uncovers the threats perceived by Black emerging adults on a day-to-day basis (n = 16, ASD vs non-ASD 3:11). While participants without autism were more likely to report experiences with the police (subtheme 2a), the autistic sample also reported incidences of negative police

encounters (ASD vs non-ASD 2:7). The difficulties associated with being seen as a potential criminal or less safe in the larger context of a racialized society were made clear by participants (n=7, ASD vs non-ASD 1:6).

Subtheme 2a. Police Intimidation/Harassment

Police interactions were mentioned by a total of nine participants with and without autism (2:7). Eight study participants expressed negative experiences involving police, both with and without autism. In addition, unwarranted accusations and suspicions from police were described by six participants. One participant without autism described their experience as: *"it's happened to me and my beautiful black colleague yesterday, when a cop tried to arrest us for no tangible reason."* All participants who mentioned police interactions as part of their negative racial encounters felt that they were racially profiled. A few participants felt profiled while driving in their vehicles but not all individuals explicitly described 'driving while black' encounters.

Subtheme 2b. Emotional Hardship (Harm)

Seven participants expressed strong emotions as they described their experiences of racism, discrimination, or bias based on being Black or African American (ASD vs non-ASD 1:6). Some individuals (n=2) were vague about the specific experience and became upset as they thought about it. The participant with autism noted, *"Very bad experience that always brings tears out of my eyes am not an hoodlums for christ sake not every blacks are bad"*.

Another respondent without autism stated, *"Very bad experience, it often made me think of committing suicide"*.

Topic: Disability Discrimination

Theme 3: Neurodiversity/Autism Biases

The theme 'Neurodiversity/Autism Biases' focused solely on the group with autism. Eleven of the 14 participants with autism shared ways that they had experienced discrimination related to their neurodiversity. Participants faced discrimination across multiple settings (e.g., work, social settings, home), and fear and rejection occurred in family contexts and in everyday societal contexts.

Subtheme 3a. Negatively Perceived by Employer/Co-Workers

Three participants with autism described negative employment-related experiences such as rejection and being perceived as incompetent by their employers. One participant

reported experiencing workplace harassment by colleagues: *"I had a previous employer treat me as if I was incompetent after I disclosed that I was on the spectrum. I had been working there for a year"*.

Subtheme 3b. Open Season for Everyday Discrimination

Four respondents with autism cited experiencing everyday discrimination. These encounters are ubiquitous across settings, and included altogether refusals of service. Two accounts by respondents with autism are as follows:

"At a grocery store, the cashier asked me if I was mentally retarded because I stared at a package of potato chips for a long time, and I was just reading. I told her that I am like that because I have autism and I am meticulous about some things and she told me that autism is in the mentally retarded".

"When I checked in at the hotel, I was discriminated against by the waiter and I was refused service".

Subtheme 3c. Rejected/Fear

Four participants with autism described discrimination experiences that were fear-based and resulted in rejection. Some reported experiences beginning in childhood, such as being feared or rejected by one's family and in settings such as summer camp. One participant with autism stated, *"I was rejected in a summer camp because due to my disability I could not fully participate in the activities carried out at the camp"*. One participant with autism experienced being feared by others in general, noting, *"People always act as if they are afraid of me"*.

Topic: Perception of the Future

Theme 4: Emerging Life Hopes

This final theme, 'Emerging life hopes' captures the universal life goals of emerging adult participants with and without autism (ASD vs non-ASD 11:15). Four subthemes were seen, two of which spoke more to a heterogeneity and uniqueness of plans and expectations among the sample with autism: Diversity in paths to fulfillment (6:0) and Unique priorities in the realm of mental wellness (4:0). The remaining two subthemes were more common to the group without autism: Work/career/family on my mind (1:8), and Future unknown (4:7). The overlapping theme of future unknown for both samples demonstrates a lack of clear plans for the future for respondents with and without autism at the time surveyed. One respondent with autism and six participants without autism had career plans. Individuals without autism mentioned specific vocations which was not the case for individuals with autism.

Subtheme 4a. Work/Career/Family on my Mind (Group with and without Autism)

Some participants were general about their work/career goals. Others were more holistic in viewing their future from a work/life perspective, combined with envisioning starting a family. Four participants without autism reported an aim of pursuing a career in five years.

Two emerging adults without autism reported education pursuits as in their future. For example, one participant without autism noted that he hoped to *"be a graduate of medicine"*. The other stated: *"Hopefully I will be finishing up my PhD and I will have somewhat of an idea of what I want to do with it. However, knowing myself and life up to this point, I will probably be buried under a pile of new obstacles which seem insurmountable. I trust that I will make it."* In regard to career goals, some gave specific examples of occupational pursuits.

One participant without autism stated, *"In the next five years I will have become a successful farmer"*. Another participant without autism planned on *"being an accountant"*.

Two participants without autism mentioned plans to eventually start a family (e.g., marriage or kids). They reported their family plans in addition to their work plans, such as *"Married, working and living my dreams"* and *"Have my own business and family"*.

A participant with autism noted their five year plan as, *"having finished my education and have a good job. I will have a good capital I might start my own business"*.

Theme 4b. Diversity in Paths to Fulfillment (Group with Autism)

Among some with autism (n=6), there was diversity in their plans for the next five years of life. General career and relationship desires were expressed by them. These individuals were heterogenous in their goals related to career (work/entrepreneurship), education, and relationships (family/romance). One participant with autism felt very optimistic about the future, stating: *"Having finished my education and have a good job. I will have a good capital I might start my own business."* Another participant with autism expected to be doing the following: *"Doing things I like, working, driving my new car, and living near the beach."* Some participants with autism pictured themselves *"being in a romantic relationship"* or living with parents or partners. Overall, achieving career and relationship goals were paths to life fulfillment for participants with autism.

Theme 4c. Unique Priorities in the Realm of Mental Wellness (Group with Autism)

Some participants with autism (n=4) uniquely prioritized maintaining mental wellness when envisioning their future.

They noted acceptance, being solitary, freedom, life enjoyment, stability, and exercising (hobbies) as important dimensions of mental wellness. For example, one respondent with autism sought freedom and life enjoyment as that of: *"doing things I like...driving my new car, and living near the beach."* Another participant with autism wanted to feel accepted within a healthy relationship, saying, *"Be with someone who accepts me the way I am."* However, one participant with autism favored stability and expected no significant life changes in five years. Another participant with autism preferred a solitary life while enjoying gardening. Specifically, she imagined *"living alone in a house with a large patio to plant my own garden"*.

Theme 4d. Future Unknown (Group with Autism and Group without Autism)

Group with Autism Around one-third (n=4) of participants with autism expressed uncertainty about their future for the next five years. These individuals with autism did not provide a concrete or clear plan when responding to the survey question. Their future appeared unknown. One respondent with autism did not describe how achieving a better life would occur but stated, *"[be] better and very progressive."* Two respondents with autism also mentioned *"living their dreams"* but failed to elaborate further on their dreams. One respondent with autism admitted that it was hard to *"predict situations."* These individuals with autism all conveyed vague messages about the next five years of their life. Further, these participants might find it difficult to picture their lives over the next five year, and an example is the following response, *"I don't even know, just living to my dream, may God help us all"*.

Group without Autism Participants without autism also expressed uncertainty about their future (n=7). Like their counterparts with autism, they did not report specific educational/vocational goals. This group appeared to have a "go with the flow" type attitude. One respondent without autism reported that he hoped to be *"where life takes me."* Another respondent without autism stated, *"I don't expect much from the future, karma will do its things"*. Yet another participant without autism hoped for a brighter, yet undefined future, wishing that the next five years are *"better and fair"*.

Discussion

This novel study explored the experiences of racial and disability discrimination in the lives of Black emerging adults who do and do not have autism with consideration for their overall perception of the future. Participants' responses

provided insights into the similarities and differences in encounters and perceptions for each group (with autism and without autism) based on various themes and subthemes. Experiences of disability discrimination specific to the study group with autism were also contextualized.

The study team comprised a group of clinical and non-clinical researchers at different career stages, and of different racial and ethnic backgrounds, one of whom identifies as being neurodivergent. To ensure transparency in the reporting of this work, we note that the lead author and investigator is female, a Licensed Social Worker and African American. She conceived the study based on her observations of research exclusion of Black people with autism, and generalizations in care made without consideration of the differences in experiences and needs, stemming from the intersectionalities of Black people with autism in the United States, compared to other groups. Throughout the study, the team discussed their perspectives and position to the data, and the influence this was having on their interpretation.

Study findings elucidate that the most saliently remembered experiences for Black individuals with and without autism span the life course. Racism is a multi-level phenomenon (i.e. *interpersonal, institutional, structural*) with each level causing harm among participants who are both neurotypical and autistic as illustrated in the results. The systemic nature of racism and associated racial bigotry was expressed by participants indicating that the practices of prejudice, discrimination, and racism seep into the actions of individuals ubiquitously. Life course perspectives that inquire about **different ages and stages** of experiencing discrimination (i.e. racial, disability or other forms) are important for research and clinical practice. Our findings showcase the difficulties that ensue for individuals confronted with racial discrimination, particularly emotional difficulties. Racism literature corroborates that cumulative experiences of stress and trauma that result from being unaccepted in society and treated poorly are difficult to rebound from (Comas-Díaz et al., 2019; Edwin & Daniels, 2022).

The results of the study speak to racism's consequences on the body and mind. Several autistic and non-autistic participant responses' indicated experiences of physiological stress as the result of discrimination. Regular experiences of racial discrimination operate as additive stressors that contribute to the dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis via chronic cortisol release. Pervasive discrimination contributes to increased inflammation in the body, also known as weathering (Cuevas et al., 2020; Lu et al., 2019; Simons et al., 2021), and increased psychopathology risk (Auguste et al., 2021; Brownlow et al., 2019; Liu et al., 2022; Woody et al., 2022). It is critical that efforts are taken on a public health level to curb the negative sequelae of discrimination having negative physiological effects on the body and mind of Black emerging

adults with and without autism. Further, racial discrimination is being increasingly recognized as a suicide risk factor to which greater public attention must be given to (Arshanapally et al., 2018; Goodwill, 2024; Lindsey et al., 2019; Oh et al., 2019). It is critical to highlight that police brutality was mentioned by Black study participants with and without autism, which is a reason for researchers to be thoughtful about sustainable structural change to reduce negative societal encounters experienced by Black persons.

The findings of this study allude to Black emerging adults with autism being at risk for more adversities associated with the combined **effects of anti-blackness and anti-autism** (Botha & Gillespie-Lynch, 2022; Davis et al., 2022). Participants with autism represented different axes of identity, with responses providing context as to whether they are more at risk for experiencing a higher rate of cumulative discriminatory life events. As the result of America having both a racist and ableist underbelly, Black persons with autism may also be living with other traumatic experiences, as risk of exposures to trauma and violence may be more elevated for this population. Our study findings on disability discrimination illustrate the pervasiveness of stressful experiences based on one's disability status/being autistic. There was evidence that participants with autism were treated less than favorably by management and colleagues at work. Participants described an overall sense of being **unaccepted** in formal work settings. It is suspected that corporations, from leadership to the employee level, have a limited understanding of autism. Our findings are in alignment with Dreaver et al. (2020) who recognize that formal employer trainings that highlight inclusivity for neurodiverse employees may foster more inclusive work spaces for autistic persons. Autism literature also supports workplace accommodations that focus on the needs of employees with autism (e.g., task-related, social difficulties, or routine needs) to establish a workplace fit early on (Waisman-Nitzan et al., 2021). Our findings possibly support that Black individuals with autism face double discrimination when at work, supporting the premise of intersectionality occurring in a day-to-day context (Berghs & Dyson, 2022; Davis et al., 2022).

Participants with autism reported experiencing *everyday* discrimination while grocery shopping, checking into hotels, attending concerts, and dining at restaurants. These accounts support previous findings that the autistic population can and do experience **daily stigmatization** and the effects of neurodiversity-related discrimination (Botha & Frost, 2020; Davis et al., 2022). Autism literature cites being on the spectrum as a risk factor for social exclusion (Ee et al., 2019; Haruvi-Lamdan et al., 2020; Mitchell et al., 2021), which can be symbiotic to experiencing discrimination.

Our findings also suggest that the group with autism experienced being feared/rejected regularly, which may induce anxiety. While anxiety is a prevalent comorbidity

among the general population with autism, anxiety experienced by the Black population with autism is understudied (Halim et al., 2018; Vasa et al., 2018). Anxiety levels may be amplified in Black individuals with autism due to experiencing *being feared twice* and may co-occur with higher levels of depression (e.g. internalized rejection).

Many participants (with and without autism) demonstrated optimism for their future despite having experienced stressful and traumatic experiences of racism. Optimism was shown in domains of family relationships, career aspirations, self-efficacy, and decision-making. These findings are consistent with past research that describes the existence of optimism and resiliency during emerging adulthood among racialized groups (Aydogdu et al., 2017; Sumner et al., 2018). This study adds to an understanding of Black persons with autism with regard to optimism and hope for the future and can help to extend research on resilience-promoting factors in the Black autistic adult population. More research is sorely needed however to best understand the context of future-orientedness of Black autistic adults, as extant research has focused largely on the White population in this budding area of inquiry (Moody et al., 2022; Tesfaye et al., 2023). Overall, participants with and without autism were similar in their perception of the future, with a smaller subset that was either unclear or vague when perceiving about their future.

Among the group with autism, however, there were fewer responses to questions around educational and career goals, which may reflect research showing that goal-setting can be a counterintuitive, challenging or uncomfortable activity among people with ASD (Husain et al., 2021). These may be due to perceived salience of the question being asked, or executive functioning differences (Dijkhuis et al., 2020; Shmulsky et al., 2017; Wisner-Carlson et al., 2020; Husain et al., 2021). Additionally, studies indicate racial and disability discrimination as contributing factors to having a negative perception of the future (Conkel-Ziebell et al., 2019; Constante et al., 2021). An example is having a perception of future barriers to career or financial wealth attainment due to one's racial minority group status. Researchers contend that doubly minoritized emerging adults deal with added stressors that challenge their state of well-being in the present and potentially dampen their future horizon (Davis et al., 2022; Udonsi, 2022). Further, perceived racism coupled with perceived ableism can have ramifications on the envisionment of the future for Black young persons with neurodiversity (e.g. autism, learning disability).

Within the themes and subthemes exploring racial discrimination and perception of the future, we observed patterns between autistic and non-autistic participants that warrant further reflection and reporting. Both groups reported experiences of racial discrimination, however there were differences in where and how it was perceived which may tie to

the presence or absence of autism. For example, those who commented on exclusion were more likely to be autistic, whereas those who said they were bullied in life were more likely to not have autism. Possible explanations include ease of interpretation of social interactions for persons without autism compared to persons with autism (Keifer et al., 2020; Pepper et al., 2018). This could also be explained by amount of exposure to interactions, where people with autism may be less likely to engage in social activities compared to neurotypical individuals (Chan et al., 2023).

Study Limitations & Strengths

There are some limitations to this study. First, the diagnosis of ASD was self-reported, therefore the ASD diagnosis was not validated by the study team. Neuropsychological testing was not completed on either samples nor was data collected on the gender of participants in an effort to minimize the amount of information being illicit via the survey. While this does prevent comparisons of different sex/gender experiences of the study phenomenon, it was deemed more important to determine if any responses could be elicited via the survey mechanism. Future research by the study team will explore sex/gender patterns. The study also consisted of a convenience sample with a greater number of responses from emerging adults without autism than responses from emerging adults with autism, although the sample was still able to highlight potential patterns in experiences that demonstrate important areas for future study. Lastly, the study was conducted during the COVID-19 pandemic which may have influenced the perception of the future for study participants.

There were also a number of strengths to this work. First, this is one of a very small body of work exploring experiences of discrimination among Black emerging adults with autism compared to those without autism. Second, though the sample were analysed from a survey format, this work also shows the potential for future recruitment and partnership, which is key given the history and present occurrences of harm and exclusion among Black populations, and those with disabilities in research. Third, autism-focused research typically includes caregiver's personal perspectives or proxy perspectives, and this work demonstrates the potential and importance of hearing directly from those with autism.

Implications for Research and Practice

Integrating life course perspectives that ask about and capture different ages and stages for Black individuals who are neurodivergent and experience racial, disability, intersectional or other forms of discrimination are important for

research and clinical practice. Clinical practice would benefit from integration of intersectional approaches that attend to race and disability interactions across settings (i.e. corporate sector, academic institutions, social services). Research is needed to see if such approaches lead to reductions in stress and harm caused by failing to understand and tailor care to the intersections of the individual, rather than treating people according to monolithic identity classifications. Additionally, culturally responsive trauma-informed care is remiss without taking into account the co-occurrence of racial stress/trauma combined with disability-related stress/trauma in the lives of persons of color. Importantly, the findings of the study reflect intersectionality, highlighting key aspects of the cross-sections in the lives of Black emerging adults with autism where new interventions and study are most needed to support this population.

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Declarations

Conflict of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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