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Study 1

Thematic Coding Methodology used to Distill Stereotypes Identified from Free-Responses

Consistent with established methodology for thematic coding of qualitative data,^{1, 2, 3, 4} a multistep approach was used to increase the rigor of our analysis.

- 1. All free responses were de-identified such that coders would not know whether the response was generated for Black or Latinx youth.
- The first three authors reviewed all free responses to identify repeated cited stereotypes (e.g., aggression/anger, academic failure, lack of motivation, delinquency/rule breaking, "broken family", limited English proficiency) and developed a codebook.
- 3. The 2nd and 3rd author along with another research assistant independently coded 10% of all free responses using the first draft of the codebook, reached consensus through joint discussion, and revised the codebook to improve specificity of each identified stereotype.
- 4. There 3 coders (same as in step 3) coded all free-responses to determine which stereotype(s) were identified in each free-response (with 97% agreement) and jointly discussed disagreements until consensus was reached for all codes.
- 5. Final codes or stereotype identified for each free response was then reconnected to the original free response items to reveal the group for which the stereotype was cited.

^{1.} Saldaña J. The coding manual for qualitative researchers. Sage; 2009

^{2.} Saldaña J. The coding manual for qualitative researchers, 4th Edition. Sage; 2021 Jan 27.

^{3.} Gibbs GR. Thematic coding and categorizing. Analyzing qualitative data. 2007;703:38-56.

Hemmler VL, Kenney AW, Langley SD, Callahan CM, Gubbins EJ, Holder S. Beyond a coefficient: an interactive process for achieving inter-rater consistency in qualitative coding. Qualitative Research. 2020 Dec 10:1468794120976072.



Summary Graph for Frequency of Most Commonly Identified Stereotypes

Chi-Square Analysis Results

	Black youth	Latinx youth	X ² (42, 1)	р
Academic Failure	81%	81%	0.00	1.00
Unmotivated	45%	62%	2.41	0.12
Delinquent/rule-breaking	55%	48%	0.41	0.52
Anger/aggression	76%	29%	18.38	<.001

Study 2

Implicit Association Tests (IAT) Development Process

The original Black/White race IAT⁵ and more recently developed Latinx IATs ^{6, 7} use photos of adult faces. For the current study, we developed IATs with Black or Latinx youth faces representing the full developmental school age range (K – 12th grade)—the population served by school mental health clinicians. Photos of elementary school age children (first 2 in each group below) were selected from a published young children's IAT.⁸ Photos representing middle and high school age youth were selected from another validated source of youth faces.⁹ Youth faces stimuli used in the current IATs were selected from among those that were reliably identified as one specific racial/ethnic group (i.e., white, black, or Latinx) and matched on perceived likeability and perceived age (as rated by youths ages 10 to 23). IAT attribute words were selected following established methods of IAT development,¹⁰ paying careful attention to balancing meaning, size, and reading level of attribute words describing opposing constructs (e.g., obedient vs. defiant). All IATs were programmed using the IATGen Shiny App¹¹ and administered via Qualtrics—a secure online data collection platform.

^{5.} Greenwald, A. G., McGhee, D. E. & Schwartz, J. L. Measuring individual differences in implicit cognition: the implicit association test. *J. Pers. Soc. Psychol.* **74**, 1464 (1998).

^{6.} Blair IV, Havranek EP, Price DW, Hanratty R, Fairclough DL, Farley T, Hirsh HK, Steiner JF. Assessment of biases against Latinos and African Americans among primary care providers and community members. *American journal of public health*. 2013 Jan;103(1):92-8.

Stone J, Moskowitz GB, Zestcott CA, Wolsiefer KJ. Testing active learning workshops for reducing implicit stereotyping of Hispanics by majority and minority group medical students. *Stigma and health*. 2020 Feb 1;5(1).

^{8.} Dunham Y, Baron AS, Banaji MR. Children and social groups: A developmental analysis of implicit consistency in Hispanic Americans. *Self and Identity*. 2007 Apr 1;6(2-3):238-55.

^{9.} Rodman AM, Powers KE, Somerville LH. Development of self-protective biases in response to social evaluative feedback. *Proc. Natl. Acad. Sci.* 2017 Dec 12;114(50):13158-63.

Greenwald AG, Brendl M, Cai H, Cvencek D, Dovidio JF, Friese M, Hahn A, Hehman E, Hofmann W, Hughes S, Hussey I. Best research practices for using the Implicit Association Test. *Behavior research methods*. 2022 Jun;54(3):1161-80.

Carpenter TP, Pogacar R, Pullig C, Kouril M, Aguilar S, LaBouff J, Isenberg N, Chakroff A. Surveysoftware implicit association tests: A methodological and empirical analysis. *Behavior research methods*. 2019 Oct;51(5):2194-208.

Implicit Association Tests Stimuli and Attributes

Attributes

Good	Excellent, Wonderful, Good, Positive, Happy, Nice		
Bad	Terrible, Awful, Bad, Negative, Sad, Mean		
Academic Success	Ambitious, Dedicated, Studious, Motivated, Achieving, A grade		
Academic Failure	Delinquent, Dropout, Careless, Unmotivated, Failing, F grade		
Obedient	Calm, Gentle, Cooperative, Controlled, Polite, Well-behaved		
Defiant	Angry, Aggressive, Oppositional, Explosive, Rude, Disruptive		

Youth Faces Stimuli

Photos below are presented in ascending order by perceived age.

Black Youth Faces*



*While most adult IAT race stimuli consist of faces with neutral expressions, there are very few previously studied youth face stimuli with neutral expressions, especially for non-white youth.

Latinx Youth Faces*









White Youth Faces*

















IAT Psychometrics

IATs	Error Rate	Reliability	D-Score	SD	
	N =	= 58	n = 42*		
Black-White / Good-Bad	6.10%	.91	.42	.46	
Black-White / Defiant-Obedient	4.93%	.83	.35	.44	
Latinx-White / Good-Bad	5.56%	.71	.31	.39	
Latinx-White / Academic Failure-	6.13%	.82	.30	.42	
Academic Success					

* Excluding participants who identified as Black/African American or Latinx/Hispanic; D-Score = IAT difference score, SD = Standard Deviation

	1	2	3	4	5	6
1. Black-White / Good-Bad	1	.64**	.54**	.48**	27†	16
2. Black-White / Defiant-Obedient		1	.39*	.67**	26†	22
3. Latinx-White / Good-Bad			1	.36*	25	37*
4. Latinx-White / Academic Failure-Success				1	31*	26
5. Implicit Bias Awareness – Black Youth					1	.69**
6. Implicit Bias Awareness – Latinx Youth						1

IAT Correlations

*p < .05, **p < .01, ***p < .001, †p < .1