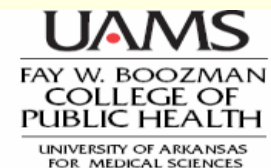


Economic & Educational Factors do not Explain Racial Differences in the Accuracy of Parental Perception of Overweight in their Child

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Childhood Obesity in the US & Arkansas

- Childhood obesity is a major health threat throughout America and requires urgent attention
 - Over $\frac{1}{3}$ of American children (2-19 yrs) are overweight or obese
 - 38% of Arkansas children are overweight or obese
 - Overweight children are more likely to become overweight adults and suffer from obesity-related co-morbidities

Disparities in Childhood Obesity

- African American girls (2-19 yrs) have a significantly higher prevalence of overweight than non-Hispanic white girls
- African American youth have a higher risk of obesity-related co-morbidities than non-Hispanic white youth, even after adjusting for weight

Parental Perception of Weight Status

- Parents may be less likely to support changes in their child's diet and physical activity if they do not perceive their child as being overweight or obese
- African Americans have been shown to be more accepting of larger body sizes and less concerned about weight than whites

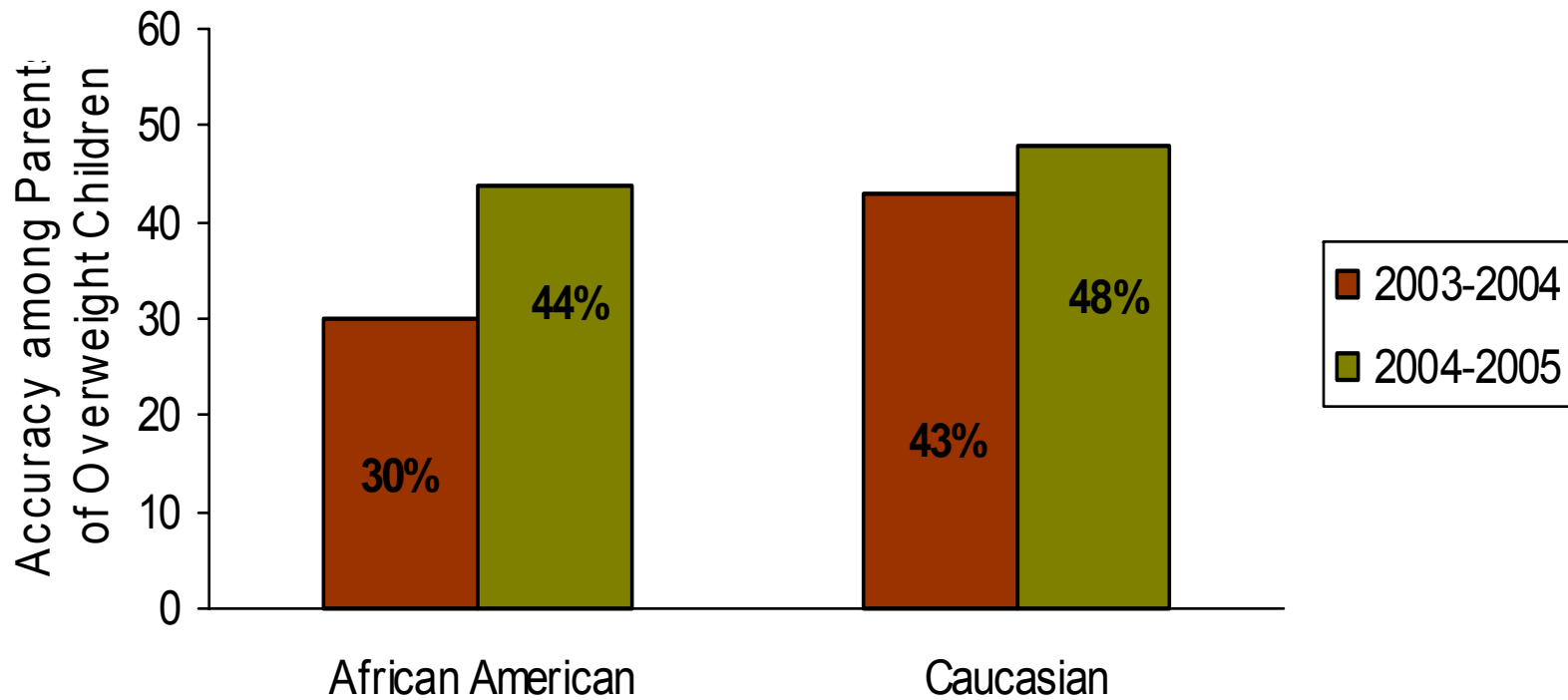
Arkansas Legislative Act 1220 of 2003

- Statewide comprehensive legislation to address childhood obesity
 - Restricted vending machine access & required report of vending revenues
 - Created Nutrition and Physical Activity Advisory Committees in every school district
 - Established Arkansas Child Health Advisory Committee
 - Funded Community Health Promotion Specialists to assist schools
 - Instituted annual school wide BMI measurements with results sent to guardians

Act 1220 Evaluation Project

- The Act 1220 Evaluation Project annually evaluates multiple dimensions of the legislation
 - Parent, adolescent, and child proxy surveys
 - Statewide telephone survey
 - Pre-kindergarten through 10th grade parents/guardians with children in public schools
 - Conducted prior to BMI result mailing (2003-2004) and in each subsequent year

African American Parents Less Likely to Accurately Identify the Weight Status of their Overweight or Obese Child



(West et al., 2007)

Research Question

Does the parent's educational level and/or socioeconomic status (SES) affect the relationship between parent's race and the accuracy of parental perception of overweight in their child?

Survey Methodology

■ Multistage Stratified Random Sample

① School

- School enrollment – small, medium, and large
- Geographic region – 5 regions
- Type of school – elementary, middle, and high school

② Family

- Listed sample based on proximity to school
- Most knowledgeable, self-selected

③ Child

- Randomly selected if more than one

Survey Items

- Child's approximate height and weight
 - Used to calculate CDC gender-and-age-specific BMI percentile categories
- Personal description of child's weight
 1. Obese
 2. Overweight
 3. A healthy or normal weight
 4. Underweight
- Among parents of children $\geq 85^{\text{th}}$ %tile, perceptions were considered accurate if parent indicated child was overweight or obese

Survey Items

- Does your child participate in the free or reduced price lunch program at school?
 - Yes / No
 - Used as a proxy for low SES
- What is the highest grade or year of school you completed?
 - HS graduate or less / Any college or higher
- Which one of the groups would you say best represents your race?
 - Restricted analysis to African American or Caucasian

Results - Sample Characteristics

	Baseline 2003-2004 N = 1551	1-year 2004-2005 N=2508
Parent Demographics		
Female	80%	80%
Caucasian	81%	82%
African American	15%	15%
High School Graduate or less	38%	37%
Selected Child Demographics		
Girl	50%	48%
Age, Mean (SE)	10.94 (0.082)	11.08 (0.069)
Participate in federal lunch program	32%	32%
Calculated Weight Category by Parent Report of Child's Weight & Height		
Underweight	8%	9%
Healthy Weight	55%	53%
Overweight	16%	17%
Obese	21%	21%

Results

- African American parents were less accurate

Variable	P-value	OR* (95% CI)
Race of parent (African American)	0.0171	0.691 (0.51 - 0.936)

* Controlled for year of survey

Results

- African American parents were still less accurate

Variable	P-value	OR* (95% CI)
Race of parent (African American)	0.046	0.73 (0.53 - 0.99)
Socioeconomic status (Participates in federal lunch)	0.522	0.92 (0.72 - 1.18)
Educational level (High school graduate or less)	0.055	0.79 (0.63 - 1.01)

* Controlled for year of survey

Interactions

- No significant interactions were found between race and education level or race and year
- Significant interaction was found between SES and race ($p=0.0391$)
 - Low SES African American parents had 47% lower odds of accurately perceiving their child as overweight than low SES Caucasian parents
 - OR=0.53 and 95% CI (0.35, 0.81)

Summary

- Parental misclassification of overweight child's weight status was common regardless of race
- African Americans were more likely than Caucasians to underestimate their overweight child's weight status
- Adjustment for low income and educational level did not significantly modify this relationship

Conclusion

- Further delineation of cultural factors which affect parental recognition of overweight status may lead to improved approaches to engage parents to support diet and physical activity changes for their overweight children
- This may be especially important among low SES African American parents

Thank You!!!

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