Variations in Perceived Sources and Reasons for Discrimination: A Cluster Analysis

Christy M. Byrd & Dorinda Carter Andrews
Michigan State University
Overview

• Background
• Research Questions
• Method
• Results
• Conclusions
Background

- School Climate
- School Racial Climate
  - Interpersonal interactions
  - School racial socialization
- Discrimination
  - Social identity-based
- Intersectionality
Research Questions

• Question 1: What clusters of discrimination experiences exist in the data?
• Question 2: How do clusters differ by background variables?
• Question 3: How do clusters differ in outcomes?
Participants

- Central Michigan school district
- 1,468 7th through 12th grade
- 51.6% White/Caucasian
- 15.4% African American/Black
- 13.6% Multiracial
- 16.9% Other
Measures

- Demographics
  - Race/ethnicity
  - Grade
  - Gender
  - Special Education status
  - Individualized Education Plan (IEP) status
  - Resident status
  - Parent’s primary language
  - Number of books in home
  - Number of computers at home

- Outcomes
  - Frequency of discrimination
  - School climate
  - Engagement
  - Relationships with teachers
  - Good school
Discrimination

• **Sources**
  – Peers, Teachers, Administrators, Front Office Personnel, Counselors/Social Workers, Others, No Discrimination

• **Attributions**
  – My race/ethnicity, My gender, My religion, My social class/family's financial status, My sexual orientation, My disability, Other attribution

• **Forms**
  – I don’t get called on in class by the teacher
  – I experience name-calling
  – I have fewer opportunities to access people in the school that can help me succeed
  – I am excluded from certain social groups
  – I am excluded from academic opportunities
  – I am excluded from social opportunities
  – I get punished more than other students
  – Other form
Sources of Discrimination

No discrimination: 53.60%
A bar chart showing the percentages attributed to various factors:

- My race/ethnicity: 18.00%
- My gender: 6.00%
- My religion: 6.00%
- My social class/family's financial status: 8.00%
- My sexual orientation: 4.00%
- My disability: 4.00%
- Other attribution: 12.00%
Forms

- Not called on: 6.00%
- Name-calling: 16.00%
- Less help: 6.00%
- Social group exclusion: 12.00%
- Academic exclusion: 4.00%
- Social opportunity exclusion: 8.00%
- Punished more: 10.00%
- Other form: 10.00%
Cluster Analysis

- Latent profile analysis
- poLCA in R
- Modeled 2 to 7 clusters
  - Source
  - Attribution
  - Form
- Model selected based on Bayesian Information Criterion
Cluster Distribution

- Adult: 20.00%
- Identity: 10.00%
- Peer: 20.00%
- No Discrimination: 60.00%
Clusters by Source

- Peers
- Teachers
- Administrators
- Front Office Personnel
- Counselors
- Others

- Peer
- Identity
- Adult
Clusters by Attribution

- Race/ethnicity
- Gender
- Religion
- Social Class
- Sexual Orientation
- Disability
- Other

- Identity
- Adult
- Peer
Clusters by Form

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Identity</th>
<th>Adult</th>
<th>Peer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not called on</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Name-calling</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Less help</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Social group exclusion</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Academic exclusion</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Social opportunity exclusion</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Punished more</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Other form</td>
<td>60%</td>
<td>10%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Cluster Differences

• **Significant differences:**
  – School level
  – Race/ethnicity
  – IEP
  – Outside of district
  – Parent language
  – Computers at home
  – Books at home

• **No differences:**
  – Gender
  – Special education status
Individualized Education Plans

No IEP

- Identity
- Peer
- No Discrimination
- Adult

Has IEP

- Identity
- Peer
- No Discrimination
- Adult
## Outcome Differences

<table>
<thead>
<tr>
<th></th>
<th>Adult</th>
<th>Identity</th>
<th>Peer</th>
<th>No Discrimination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discrimination Frequency</strong></td>
<td>Mean</td>
<td>2.90</td>
<td>3.81</td>
<td>3.13</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>1.72</td>
<td>1.27</td>
<td>1.54</td>
</tr>
<tr>
<td><strong>School Climate</strong></td>
<td>Mean</td>
<td>3.31</td>
<td>2.92</td>
<td>3.49</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.76</td>
<td>0.76</td>
<td>0.65</td>
</tr>
<tr>
<td><strong>Engagement</strong></td>
<td>Mean</td>
<td>-0.11</td>
<td>-0.25</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.49</td>
<td>0.52</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Teacher Relationship</strong></td>
<td>Mean</td>
<td>2.67</td>
<td>2.36</td>
<td>2.84</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.88</td>
<td>0.92</td>
<td>0.86</td>
</tr>
<tr>
<td><strong>Good School</strong></td>
<td>Mean</td>
<td>3.67</td>
<td>3.37</td>
<td>3.87</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>1.20</td>
<td>1.34</td>
<td>1.07</td>
</tr>
</tbody>
</table>
School Climate

![Bar chart showing the school climate scores for Adult, Identity, Peer, and No Discrimination.]
______ is a good school

- Adult: 4
- Identity: 3.7
- Peer: 3.8
- No Discrimination: 4.5

**Statistical Significance:**
- Adult and Identity: b
- Peer and No Discrimination: c
Conclusions

• Different sources of discrimination
• Social identity-based discrimination
• Professional development
• School climate improvement