School Climate and Indicators of Emotional Distress

Presented By:
Sabena Thomas, MA, Shay M. Daily, MPH, MCHES, Alfgeir L. Kristjansson, PhD., Megan Smith, PhD., & Michael J. Mann, PhD.
Introduction

School Climate (SC): quality and consistency of school life that may impact students’ social cognitive and behavioral development. This includes the social and physical aspects of the school environment.¹

Student Wellbeing: “a sustainable state of positive mood and attitude, resilience, and satisfaction with self, relationships and experiences at school.”²
Introduction

A positive SC is positively associated with academic achievement, motivation to learn, psychological well-being and inversely related to absenteeism, and problem behaviors in school.

However, an unanswered question is “what specific aspects of school climate is related to mental health outcomes?”
Thus, the aim of this study is to assess the relationship between a 10 sub-dimensional SC measure and self reported levels of **anxiety**, **depression**, **conduct disorder** and **perceived stress** in middle and high school students.
Measures: Independent Variable

School Climate

School Climate Measure 10^8

SC1: Student-Teacher Relationships (8-items, α = .93)
SC2: Order and Safety (6-items, α = .89)
SC3: Student Engagement (6-items, α = .88)
SC4: Physical Environment (4-items, α = .95)
SC5: Academic Support (4-items, α = .84)
SC6: Parental Involvement (3-items, α = .90)
SC7: School Connectedness (3-items, α = .84)
SC8: Perceived Exclusion/Privilege (3-items, α = .90)
SC9: Social Environment (2-items, α = .88)
SC10: Academic Satisfaction (2-items, α = .74)
School Climate Measure 10^8

SC1: Student-Teacher Relationships: Teachers understand my problems.
SC2: Order and Safety: The rules of the school are fair.
SC3: Student Engagement: Females and males are treated as equals at school.
SC4: Physical Environment: My school is neat and clean.
SC5: Academic Support: I feel that I can do well in this school.
SC6: Parental Involvement: My parents/caregivers are involved in school activities.
SC7: School Connectedness: My schoolwork is exciting.
SC8: Perceived Exclusion/Privilege: At my school, the same person always gets to help the teacher.
SC9: Social Environment: I am happy with the kinds of students who go to my school.
SC10: Academic Satisfaction: I am happy about the amount of homework I have.
Student Well-being

**Anxiety (3 – items)**
- 4-Point Likert Style Scale (*Never to Often*)
- **Ex:** How often did you feel any of the following mental or physical discomforts in the past week? Sudden fear for no apparent reason

**Depression (10 – items)**
- 4-Point Likert Style Scale (*Never to Often*)
- **Ex:** How often did you feel any of the following mental or physical discomforts in the past week? I felt sad or blue
Measures

Conduct Disorder (5 – items)  
- 4-Point Likert Style Scale (*Never to Almost all the time/All the time*)
  - **Ex:** How often during the past 12 months have you done any of the following? Got into fights

Perceived stress (10 – items)  
- 4-Point Likert Style Scale (*Never to Very Often*)
  - **Ex:** In the last month, how often have you felt that you were on top of things?
Sample, Procedures and Analyses

Middle Schools Total: 15
- 6,472 surveyed
- Response rate: 84.2%
- Boys: 50.7%  Girls: 49.3%
- Caucasian: 76.5%  Black/AA: 13%  Other: 10.5%

High Schools Total: 9
- 7,379 surveyed
- Response rate: 74%
- Boys: 49.5%  Girls: 50.5%
- White/Caucasian: 76.5%  Black/AA: 13%  Other: 10.5%
Sample, Procedures and Analyses

- Students completed a survey developed for PROJECT AWARE during Fall 2016.
- Survey items included questions regarding socio-demographic factors, school climate and levels of general emotional and psychological well-being.
- Design: School Based Population Survey

**Statistical Analysis**
- Multiple Linear Regression to analyze the associations between variables.
## Findings

### Middle School Students

<table>
<thead>
<tr>
<th>SC1: Teacher Relationships</th>
<th>Depressed mood (β)</th>
<th>Anxiety (β)</th>
<th>Conduct Disorder (β)</th>
<th>Perceived Stress (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.12**</td>
<td>-.06*</td>
<td>-.13**</td>
<td>-.11**</td>
</tr>
<tr>
<td>SC2: Order &amp; Discipline</td>
<td>.10*</td>
<td>.08**</td>
<td>-.05*</td>
<td>.07**</td>
</tr>
<tr>
<td>SC3: Student Engagement</td>
<td>-.09**</td>
<td>-.07**</td>
<td>-.04</td>
<td>-.11**</td>
</tr>
<tr>
<td>SC4: Physical Environment</td>
<td>.07**</td>
<td>.09**</td>
<td>.05**</td>
<td>.04*</td>
</tr>
<tr>
<td>SC5: Academic Support</td>
<td>-.09**</td>
<td>-.07**</td>
<td>.11**</td>
<td>-.12**</td>
</tr>
<tr>
<td>SC6: Parental Involvement</td>
<td>-.16**</td>
<td>-.12**</td>
<td>-.10**</td>
<td>-.17**</td>
</tr>
<tr>
<td>SC7: School Connectedness</td>
<td>-.06**</td>
<td>.02</td>
<td>.03</td>
<td>.07**</td>
</tr>
<tr>
<td>SC8: Exclusion/Privilege</td>
<td>-.11**</td>
<td>-.11**</td>
<td>-.05*</td>
<td>-.16**</td>
</tr>
<tr>
<td>SC9: Social Environment</td>
<td>-.13**</td>
<td>-.12**</td>
<td>-.01</td>
<td>-.11**</td>
</tr>
<tr>
<td>SC10: Academic Satisfaction</td>
<td>-.01</td>
<td>.00</td>
<td>-.04*</td>
<td>-.01</td>
</tr>
<tr>
<td><strong>R^2</strong></td>
<td>.16</td>
<td>.12</td>
<td>.14</td>
<td>.22</td>
</tr>
</tbody>
</table>

**p < .01, * p < .05**
## Findings – Middle school students

<table>
<thead>
<tr>
<th>Middle schools - variance explained</th>
<th>Middle schools – standardized $\beta$ ($p &lt; .05$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Depressed mood: 16%</td>
<td>• Parental involvement: .10 to .17 - all outcomes</td>
</tr>
<tr>
<td>• Anxiety: 12%</td>
<td>• Teacher relationships: .06 to .13 – all outcomes</td>
</tr>
<tr>
<td>• Conduct Disorder: 14%</td>
<td>• Perceived exclusion/privilege: .05 to .16 - all outcomes</td>
</tr>
<tr>
<td>• Perceived Stress: 22%</td>
<td></td>
</tr>
</tbody>
</table>
Findings

### High School Students

<table>
<thead>
<tr>
<th></th>
<th>Depressed mood (β)</th>
<th>Anxiety (β)</th>
<th>Conduct Disorder (β)</th>
<th>Perceived Stress(β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1: Teacher Relationships</td>
<td>-.05**</td>
<td>-.04*</td>
<td>-.08**</td>
<td>-.05**</td>
</tr>
<tr>
<td>SC2: Order &amp; Discipline</td>
<td>.01</td>
<td>.02</td>
<td>-.07**</td>
<td>.03</td>
</tr>
<tr>
<td>SC3: Student Engagement</td>
<td>-.06**</td>
<td>-.05*</td>
<td>-.03</td>
<td>-.09**</td>
</tr>
<tr>
<td>SC4: Physical Environment</td>
<td>.04*</td>
<td>.04*</td>
<td>.02</td>
<td>.04*</td>
</tr>
<tr>
<td>SC5: Academic Support</td>
<td>.02</td>
<td>-.08**</td>
<td>-.05**</td>
<td>-.05**</td>
</tr>
<tr>
<td>SC6: Parental Involvement</td>
<td>-.13**</td>
<td>-.10**</td>
<td>-.08**</td>
<td>-.12**</td>
</tr>
<tr>
<td>SC7: School Connectedness</td>
<td>-.01</td>
<td>-.03</td>
<td>.01</td>
<td>-.00</td>
</tr>
<tr>
<td>SC8: Exclusion/Privilege</td>
<td>-.12**</td>
<td>-.10**</td>
<td>-.03*</td>
<td>-.15**</td>
</tr>
<tr>
<td>SC9: Social Environment</td>
<td>-.12**</td>
<td>-.12**</td>
<td>-.01</td>
<td>-.11**</td>
</tr>
<tr>
<td>SC10: Academic Satisfaction</td>
<td>-.02</td>
<td>-.03</td>
<td>-.04**</td>
<td>-.06**</td>
</tr>
<tr>
<td>R²</td>
<td>.17</td>
<td>.15</td>
<td>.08</td>
<td>.20</td>
</tr>
</tbody>
</table>

** p < .01, * p < .05
Findings – High school students

High schools - variance explained

- Depressed mood: 17%,
- Anxiety: 15%,
- Conduct Disorder: 8%
- Perceived Stress: 20%

High schools – standardized β (p < .05)

- Parental involvement: .08 to .13 - all outcomes
- Teacher relationships: .04 to .08 - all outcomes
- Perceived exclusion/privilege: .03 to .15 - all outcomes
- Social environment: .01 to .12 - all outcomes
Discussion

• The SC domains of parental involvement, teacher relationships, perceived exclusion/privilege had the highest associations.

• These analysis suggest a positive SC is likely to decrease certain mental health outcomes namely: depression, anxiety, behavioral problems and perceived stress.

• Overall, we conclude that a positive SC may act as a protective factor for mental health.
Implications

Findings suggest that SC is an important indicator for mental health outcomes.

This study underscores the importance of developing and maintaining a positive SC as this could be beneficial in the development and maintenance of positive psychological outcomes particularly in schools where mental health is a problem.

The study further supports the idea of developing academic and population level support for mental health through a positive SC.
Project AWARE 2016-2021 is funded by the Substance Abuse Mental Health Administration (SAMSA) and the West Virginia Department of Education. The authors would like to extend our gratitude to the fund for its generous support.
References


