A Dual-Factor Model of Chinese American Adolescents’ Mental Health
and its Associations with School Climate, Student Engagement, and Social Emotional Competencies

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Since the outbreak of COVID-19, Chinese American adolescents (CAAs) have reported experiencing unique vulnerabilities because of the anti-Asian racism and violence (Cheah et al., 2021).

Due to the increased discrimination against CAAs, they have experienced negative interactions with their peers from other racial/ethnic groups as well as mental health problems such as anxiety, depression, hyperactivity, and conduct problems (Cheah et al., 2020; Zong et al., 2021).
However, researchers have focused only on CAA’s increased psychopathological symptoms, which may disrupt a complete understanding of their overall mental health functioning.

Too much emphasis on psychological problems is not desirable because it can perpetuate the deficit view that CAAs are mentally dysfunctional (Bourke et al., 2010). This view could contribute to defining CAAs as individuals who need to be remediated and transformed to fit into the American school system (Cruz et al., 2021).
Youths’ mental health encompasses **the presence of psychological strengths as well as the absence of mental illness** (Antaramian et al., 2010).

Psychological distress (i.e., psychopathology) and strengths (i.e., subjective well-being) are intercorrelated but distinct from each other (Greeonsppoon & Saklofske, 2001).

The separation of adolescents in terms of both psychological distress and strengths could successfully predict their **attendance, academic performance, and social-emotional functioning** (Suldo et al., 2011; Suldo & Doll, 2021).
A Dual-Factor Model of Youth Mental Health

Higher Wellbeing

Quadrant 2
‘Symptomatic but Content’

Quadrant 1
‘Complete Mental Health’

Higher Psychopathology

Quadrant 4
‘Troubled’

Quadrant 3
‘Vulnerable’

Lower Wellbeing

Lower Psychopathology
Study Aims

● The current study investigates CAAs’ mental health profiles based on the dual-factor model (i.e., using both psychopathology and subjective well-being as indicators of the latent profile analysis).

● To suggest practical implications for each identified profile, this study examines how those profiles are related to students’ perceptions on school climate, student engagement, and social emotional competencies.
Methods

- Sample: 206 CAAs (online survey conducted in the spring of 2020)

- Measures
  - Indicators
    - Psychopathologies: Externalizing Problems (Youth Externalizing Problem Screener; Renshaw & Cook, 2019) and Internalizing Problems (Youth Internalizing Problem Screener; Renshaw & Cook, 2018)
    - Subjective Well-Being: Engaged Living & Belief-in-others (Social and Emotional Health Survey for Secondary School Students; Furlong et al., 2014)
  - Outcomes
    - School Climate, Student Engagement, and Social Emotional Competencies (Delaware School Climate Survey; Bear et al., 2014)
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Methods

- **Analytical Strategies**
  - The decision of the optimal number of latent profiles: utilization of fit statistics such as AIC, BIC, saBIC, entropy, and p-values of aLMR and BLRT
  - Conducted multinomial logistic regression analyses to investigate predictory similarities across different latent profiles (covariates: school level, gender)
  - Investigated explanatory similarities across different profiles by using 3-step approaches
    - School climate: teacher-student relationship, student-student relationship, clarity of expectations, and fairness of rules
    - Student Engagement (revised version for the distance learning)
    - Social emotional competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making
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## Results

<table>
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<tr>
<th>Number of profiles</th>
<th>LL</th>
<th>FM</th>
<th>AIC</th>
<th>BIC</th>
<th>saBIC</th>
<th>Entropy</th>
<th>aLMR</th>
<th>BLRT</th>
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</table>

![Graph showing AIC, BIC, and saBIC values for different numbers of profiles.](#)
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Results

Psychopathology       Subjective Well-Being

-2  -1.5  -1   -0.5   0    0.5   1    1.5    2    2.5
CO HI DEP ANX SS FS PS OPT GRA ZES

Higher Wellbeing

Quadrant 2
‘Symptomatic but Content’
8.10%

Quadrant 1
‘Complete Mental Health’
20.49%

Quadrant 4
‘Troubled’
29.05%

Quadrant 3
‘Vulnerable’
42.36%

Lower Wellbeing
The profile decision was not relevant to the school levels and student gender.

<table>
<thead>
<tr>
<th></th>
<th>Complete vs. Troubled</th>
<th>Symptomatic vs. Troubled</th>
<th>Vulnerable vs. Troubled</th>
<th>Complete vs. Vulnerable</th>
<th>Symptomatic vs. Vulnerable</th>
<th>Complete vs. Symptomatic</th>
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<td></td>
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<td>OR</td>
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<td>.561</td>
<td>-.288</td>
<td>.750</td>
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</table>
Results

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[Bar chart showing results for different categories]

- School Climate (composite)
- Teacher-Student Relationship
- Student Relationship
- Clarity of Rules
- Fairness of Rules
- Student Engagement

Legend:
- Complete
- Symptomatic
- Vulnerable
- Troubled
Results

[SASP Student Research Forum 2023]

[Bar chart showing the comparison of different competencies: Social Emotional Competencies, Self-Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible Decision-Making. The chart is divided into four categories: Complete, Symptomatic, Vulnerable, and Troubled.]
Implications

- The dual-factor model of youth mental health was supported by the CAA sample during COVID-19.

- The complete mental health promises a more positive perception of school climate, a higher student engagement, and higher social emotional competencies.

- **High subjective well-being** leads to more positive perceptions of school climate and social emotional competencies. **High psychopathology** leads to lower student engagement.

- The absence of subjective well-being is as important as the presence of psychopathology when screening CAAs with mental health issues.
Limitations and Future Directions

- The data was collected during the COVID-19 pandemic. The results may not reflect CAAs’ mental health in the post-pandemic era. Follow-up studies are required.

- Four mental health profiles do not perfectly match the original dual-factor model of youth mental health (e.g., troubled mental health group showed moderate levels in some of subjective well-being indicators). Future studies may devise better approaches to identify subgroups based on the dual-factor model.

- All responses were collected from adolescents’ self-report. Results might be different if some variables were reported by parents or teachers.
Thank you!
Comments and Questions?

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