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Assessing Resilience as a Mediator in the Association between Positive Childhood Experiences and Psychological Distress among Health Professions Students

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Introduction

•Studies in recent years widely suggest that adverse childhood experiences (ACEs) may have a detrimental impact on the health of individuals.

- Less is known about this association among health professions students in particular.

- One recent study showed that ACEs may be associated with engaging in risk behaviors among medical students (Sciolla et al., 2019).

•In contrast, fewer studies have examined **positive childhood experiences (PCEs)** as a possible protective factor with respect to health outcomes such as **psychological distress**.

•Furthermore, research on the mechanisms that link PCEs to outcomes among professional health students is scant, although studies have suggested that **resilience** may also protect professional health students from experiencing psychological distress (Bacchi et al., 2017; Clark et al., 2023).

Objectives

- To examine the associations between positive childhood experiences, resilience, and psychological distress among professional health students.
- To assess resilience as a mediator in the association between positive childhood experiences and psychological distress among professional health students.

Hypotheses

- Positive childhood experiences and resilience will have negative associations with psychological distress.
- Resilience mediates the relationship between positive childhood experiences and psychological distress.

Design/Sample

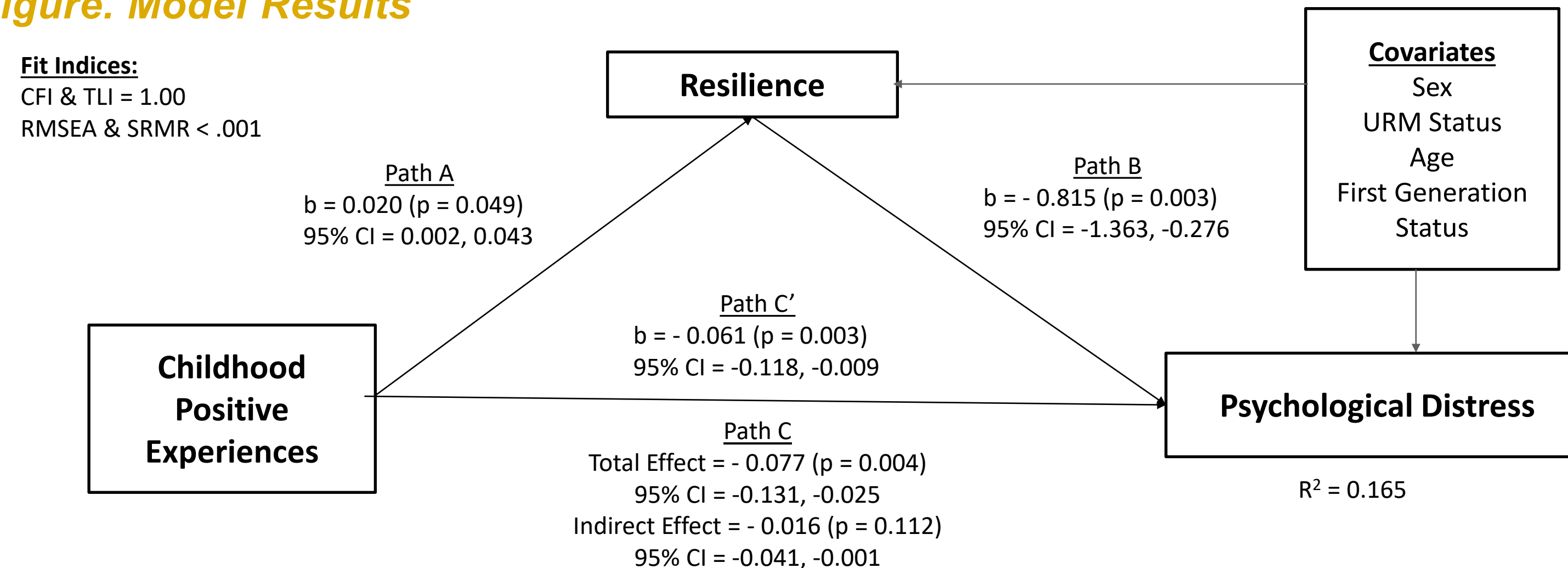
- Cross-sectional data from a four-year longitudinal well-being study of medical, nursing, and veterinary students enrolled at a single university were analyzed (n = 240).
- Measures included the Brief Resilience Scale, the Positive Childhood Experiences Score (Bethell et al, 2029), and the Medical Student Wellbeing Index (**Psychological Distress**).
- A mediation analysis with cross-sectional Wave 3 data was conducted using structural equation modeling.
 - Analyses adjusted for age, gender, underrepresented in medicine status, and first-generation status.
 - Total and indirect pathways were tested using bootstrap confidence intervals.

Results

Table. Sample Characteristics

	Mean (SD) or n (%)
Mean Positive Childhood Experiences Score (out of 35)	26.5 (5.2)
Mean Resilience Score (out of 5)	3.5 (0.6)
Mean Psychological Distress Score (out of 7)	3.7 (2.0)
Female	115 (80.4)
Underrepresented in Medicine (Not White/Asian)	30 (21.9)
Mean Age (Years)	24.8 (4.8)
First Generation Student	32 (22.4)

Figure. Model Results



- The path model demonstrated an excellent fit with the data.
- PCEs were positively associated with resilience (path A).
- Resilience was negatively associated with psychological distress (path B).
- PCEs were negatively associated with psychological distress (path C'), representing the direct effect.
- Whereas the total effect (path C = A*B + C') was significant, the indirect path (A*B) between PCEs and psychological distress was not significant, indicating no mediation.

Discussion

- Resilience was not found to mediate the association between positive childhood experiences and psychological distress among professional health students.
- Nevertheless, professional health students with more PCEs had greater levels of resilience and lower levels of psychological distress. Meanwhile, greater levels of resilience were also associated with lower levels of psychological distress.

Conclusions

- Health professional schools should implement trauma-informed approaches to education and strengths-based academic and psychological support resources, which should leverage students' exposure to positive childhood experiences
- Healthy coping skills (eg., resilience) may play a key role in protecting professional health students from experiencing psychological distress.

Future Research

- Develop and evaluate curricular interventions and institutional resources to foster resilience in professional health students.
- Qualitative research across multiple institutions to gain insight into stressors experienced by professional health students as well as potential sources of support.
- Research involving students in other health professional schools to determine generalizability.

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