



Resilience as mediator: Investigate the interplay between depressive symptoms, psychosocial health, and resilience in school-aged children with autism in inclusive education



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INTRODUCTION

Despite community narratives on students' well-being in Hong Kong [1-3], emphasizing academic achievement, uncertainties persist for children with autism spectrum disorder (ASD) in inclusive education [4], given their vulnerability associated with autistic traits [5].

Nearly 1 in 4 Hong Kong children, adolescents had mental disorder in past year, 8% of secondary school pupils thought of suicide, study finds

- Chinese University study finds 24.4 per cent of children and adolescents aged six to 17 had experienced at least one mental health issue in the past year
- "We are worried. Compared to the global trend, we are on the higher end," academic says



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Releases Main Study Results of Child Health Behavior Hong Kong Students Are Below International Health Standards

Results show that Hong Kong students are lower in life satisfaction and self-rated health compared to international standards, and their psychological symptoms are more severe than physical symptoms."



Why it's time schools taught children mental resilience to cope with life's challenges

- Huge global mental health issue among teenagers has been ignored for too long, says Mark Steed, principal of Hong Kong's Kellett School
- Positively Kellett, British international schools' bespoke programme, prepares young people for stresses and strains at work and wider world

AIMS

To provide insight into the interplay between depressive symptoms, psychosocial health, and resilience in school-aged children with ASD in inclusive education, identifying potential mediators to enhance their psychosocial health.

METHODS

A cross-sectional study was undertaken from July 2023 to January 2024. Children (7-12 years old) attending mainstream schools were invited to complete a self-report questionnaire assessing depressive symptoms, quality of life (QoL), resilience, and demographic information.

RESULTS

- 120 children with ASD (35% female, mean age 9.2 years) & 120 neurotypical children (46% female, mean age 9.7 years).
- Children with ASD had significantly higher levels of depressive symptoms, lower QoL (physical functioning & psychosocial health), and lower resilience (all p-value < .001).
- Resilience was a significant mediator between depressive symptoms and psychosocial health in school-aged children with ASD, with indirect effect of -0.211 with a bootstrap 95% confidence interval (-0.433 to -0.006), accounting for 14% of the total effect.



Autism is not a disability but a Different Ability.

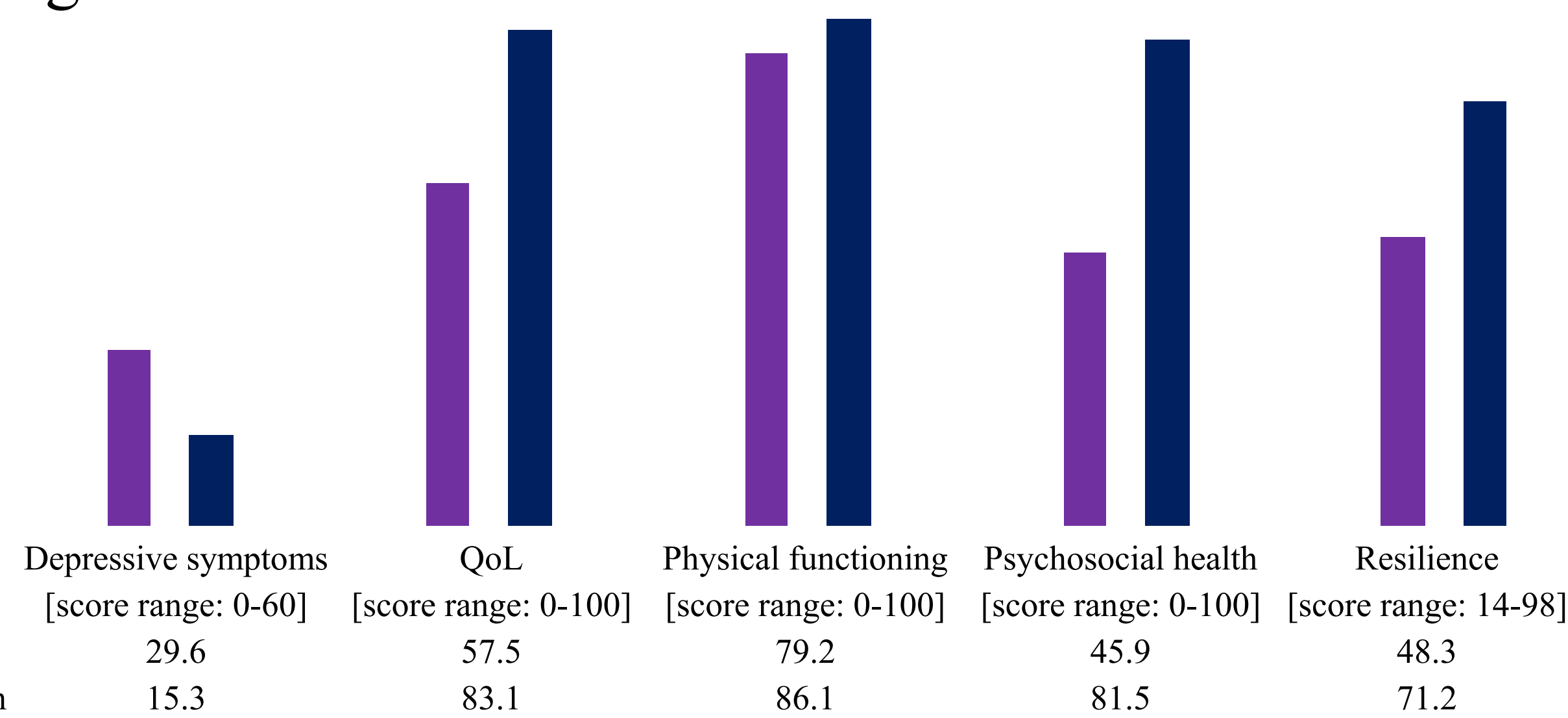


Table: Depressive symptoms, QoL (physical functioning & psychosocial health), and resilience outcomes between children with ASD and neurotypical children

Baron and Kenny's 4-step approach	B (95% CI)	p-value
Step 1 (Path C: Depressive symptoms → Psychosocial health)		
Association between Depressive symptoms and Psychosocial health (DV: PHS score; IV: CES_DC total score) #	-1.480 (-1.781, -1.179)	<.001
Step 2 (Path A: Depressive symptoms → Resilience)		
Association between Depressive symptoms and the mediator (Resilience) (DV: RS-14 total score; IV: CES-DC total score) #	-0.892 (-1.173, -0.612)	<.001
Step 3 (Path B1: Resilience → Psychosocial health)		
Association between the mediator (Resilience) and psychosocial health with adjustment for the Depressive symptoms (DV: PHS score; IV: RS-14 total score) #	0.237 (0.040, 0.433)	.019
Step 4 (Path C*: Depressive symptoms → Psychosocial health)		
Association between Depressive symptoms and Psychosocial health with adjustment for the mediator (Resilience) (DV: PHS score; IV: CES_DC total score) #	-1.269 (-1.612, -0.926)	<.001
Indirect effects		
Indirect effect of Depressive symptoms on Psychosocial health through Resilience	-0.211 (-0.433, -0.006)*	

Table: Regression analyses examining the mediating effect of resilience on the association between depressive symptoms and psychosocial health in school-aged children with ASD

RS-14: The Resilience Scale-14;
 CES_DC: Center for Epidemiologic Studies Depression Scale for Children;
 PedsQL: Pediatric Quality-of-Life Inventory 4.0 Generic Core Scale.
 # All the regression analyses were further adjusted for children's age, sex, presence of sibling, and their parents' highest education attainment.
 DV: Dependent variable of the underlying regression model
 IV: Independent variable of the underlying regression model
 B: Regression coefficient
 CI: Confidence interval
 *Bootstrapped 95% confidence interval

SIGNIFICANCE OF STUDY

Contrary to existing evidence [6], our study suggests that inclusion alone in education may not adequately promote the well-being of children with ASD, an aspect often overlooked by health and education professionals during early development [7]. Despite the importance of upholding their inclusive education rights while embracing the **uniqueness** of each child on the spectrum, our pioneering study highlights the potential of **resilience-focused** interventions in enhancing their psychosocial health.

CONCLUSION

This study validates community anecdotes by demonstrating **higher levels of depressive symptoms, lower QoL, and lower resilience** in school-aged children with ASD. Our findings emphasize the need to address the observed phenomenon and indicate the potential of **resilience-focused interventions** to enhance the psychosocial health of **school-aged children with ASD in inclusive education**.

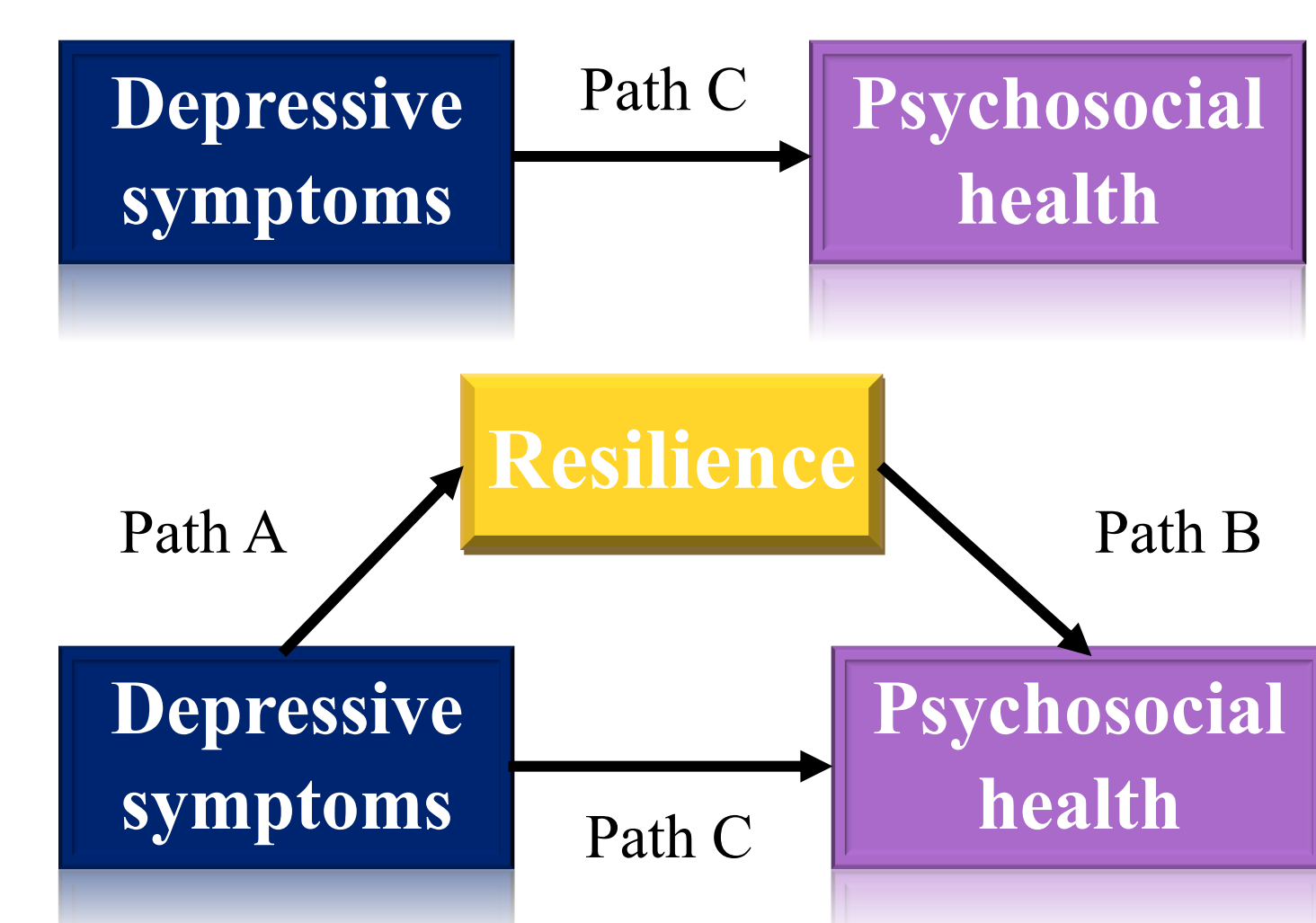


Figure: Baron and Kenny's 4-step approach for examining the mediation role of resilience on the association between depressive symptoms and psychosocial health in school-aged children with ASD



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