

# The Effect of Neighborhood Experiences on Positive Mental Health Among Community-Dwelling Older Adults

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## INTRO

- The neighborhood is an important life space that supports the mental health of older adults. Besides health behaviors (e.g., walking), pathways linking neighborhood environment and mental health are understudied.
- Extant literature highlights the role of social factors (e.g., cohesion). We examine psychosocial behaviors that link neighborhood environment and mental health.

## METHODS

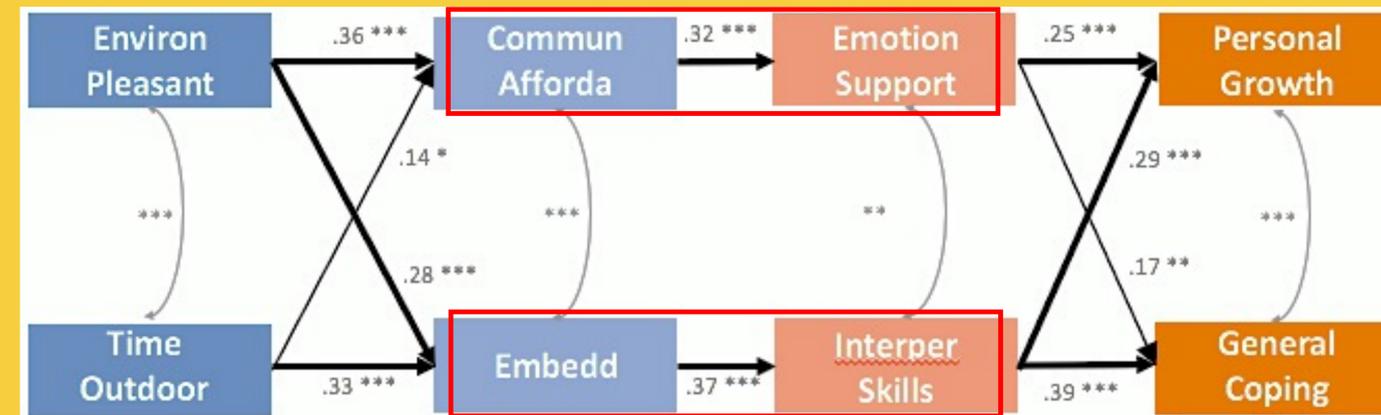
- Participants were 880 community-dwelling Singaporeans aged 50+ who lived in public housing neighborhoods.
  - Neighborhood environment was measured using the neighborhood experience (OpenX) scale. Factors are aesthetics (environment pleasantness), exposure (time outdoors), potential for sense of community (communal affordance), and neighborly friendship (embeddedness).
  - Mental health was measured using 6 or 12 items from the Positive Mental Health Instrument (PMHI). Factors include emotional support, interpersonal skills, personal growth and autonomy, and general coping.
  - Both scales have good psychometric properties and had been validated. Links in inset.
- Path analysis was conducted using Stata 14, with causation theorized from neighborhood environment to psychosocial factors to mental health. Age, education, race and sex were controlled for (not shown in final model).

Neighborhood experiences and positive mental health are strongly associated even after accounting for personal traits (GDS) and demographic variables ( $p < 0.000$ ).

Table 1: Multivariate linear regression (n=602)

Positive Mental Health (RPMHI)	Model 1		Model 2	
	P-value	Standardized Coefficient	P-value	Standardized Coefficient
Neighbourhood Experience	<b>0.000</b>	0.36	<b>0.000</b>	0.27
Age	0.724	-0.01	0.942	-0.00
Education	0.103	0.07	0.248	0.05
Female	0.807	0.01	0.548	0.02
Minority Ethnicity	<b>0.014</b>	0.09	<b>0.004</b>	0.10
Geriatric Depression			<b>0.000</b>	-0.36
Constant	0.000	.	0.000	.
Number of Observations	602		599	
Adjusted R-squared	0.14		0.26	

Figure 1: Path analysis shows processes of communal affordance → emotional support, and embeddedness → interpersonal skills (n=278)



Two distinct neighborhood health processes mediated this association:

- The (potential for) sense of community in a neighborhood increases emotional support, and
- Having better neighborly friendships improves interpersonal skills.



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## DISCUSSION

- Neighbourhood cohesion (sense of community and neighborly friendship) are important factors in neighbourhood health processes.
- Good neighborhood environments provide an avenue to receive emotional support and hone interpersonal skills.
- Future research could examine psychosocial processes in addition to health behaviors (e.g., physical activity).
- Data is cross-sectional. Causality remains to be ascertained.

## STRENGTHS

- Good fit was obtained. Model Chi-Square  $p$ -value=0.12  $> 0.05$ ; TFI=0.95  $\geq 0.95$ ; CFI=0.97  $\geq 0.90$ ; RMSEA=0.04  $< 0.08$ ; SRMR=0.06  $< 0.08$
- Participants reflected Singapore's racial composition. They were randomly selected across Singapore via multistage sampling, and clustered in  $> 30$  neighborhoods.
- Explanatory qualitative studies were conducted in 8 neighbourhoods. See link below.

For more information, please visit:

### Measures

- Neighborhood experiences (OpenX) [Gan, D. R. Y., Fung, J. C., & Cho, I. S. \(2019\). Neighbourhood experiences of people over age 50: Factor structure and validity of a scale. The Gerontologist.](#)

- Positive mental health (PMHI) [Vaingankar, J. A., et al. \(2020\). Development and validation of the Rapid Positive Mental Health Instrument \(R-PMHI\) for measuring mental health outcomes in the population. BMC public health, 20, 1-12.](#)

### Qualitative study

- [Gan, D. R. Y. \(2019\). Pathways between neighbourhood experiences and mental health among community-dwelling older adults: Towards an urban community gerontology \(Doctoral thesis\). ProQuest.](#)

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