

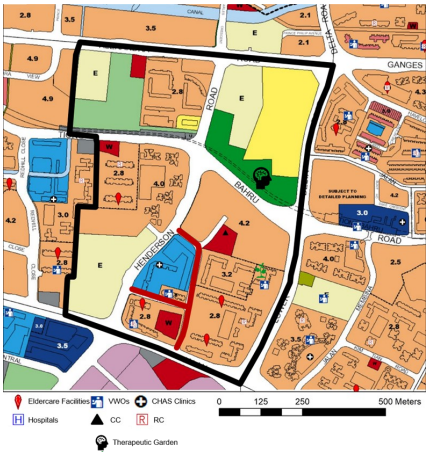
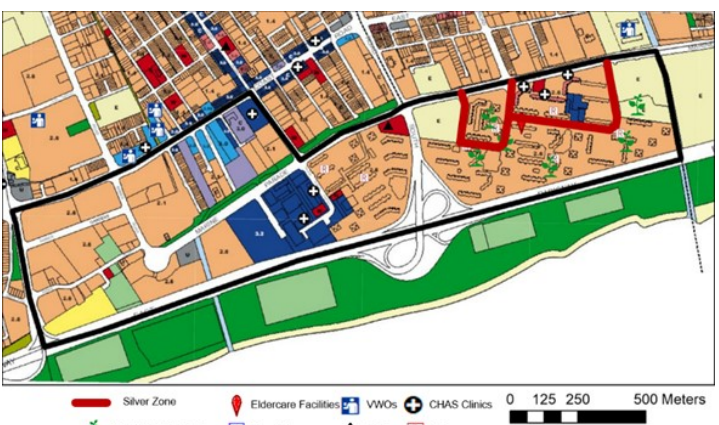
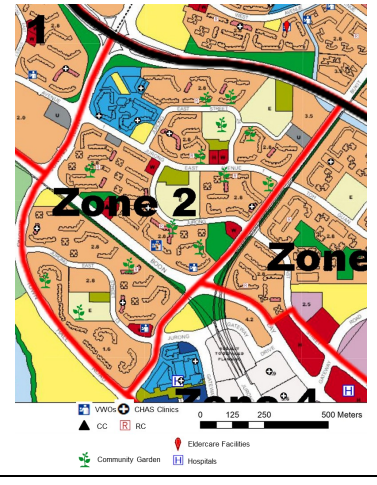


Introduction

This study is to explore the impact of perceived and objectively-assessed neighbourhood built environment of community-based care facilities on seniors' neighbourhood satisfaction in Singapore. This research suggests two hypotheses. One is that seniors' perceived neighbourhood built environment of community-based care facilities is differentiated from the one objectively-assessed. The other one is that seniors' perceived neighbourhood built environment of community-based care facilities mainly influence seniors' neighbourhood satisfaction.

Methods

Cases

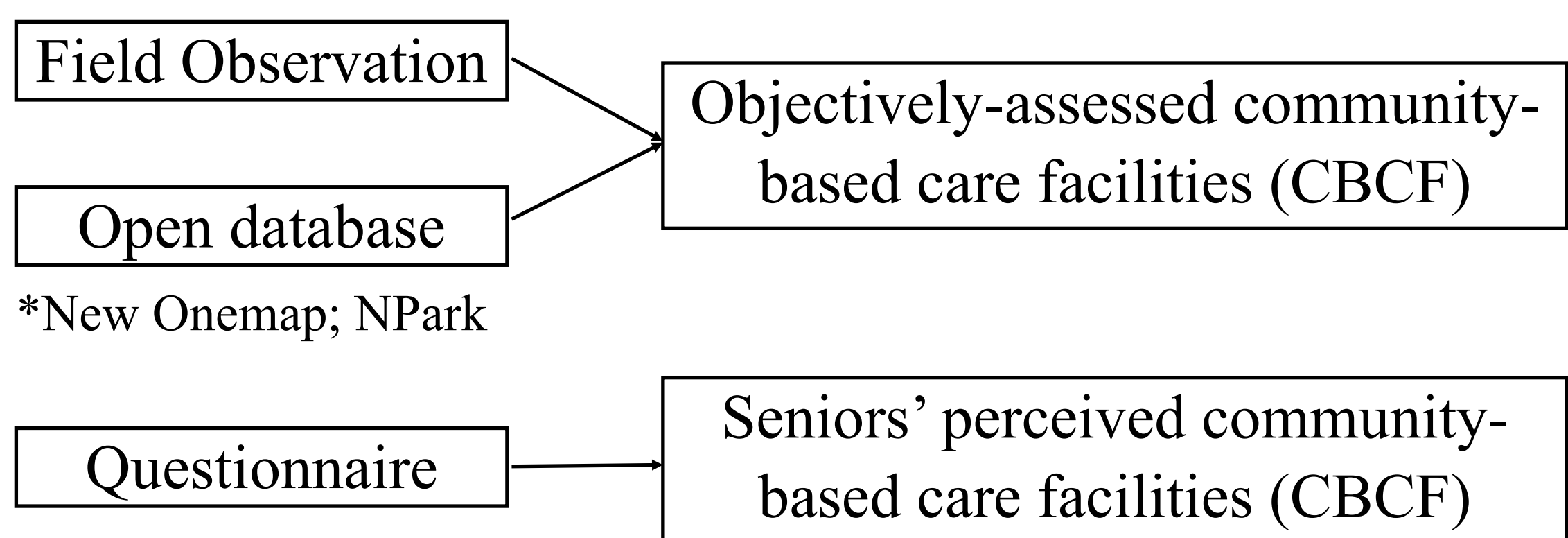
Five subzones of public housing neighbourhoods, Henderson Hill, Marine Parade, Yuhua East, Woodlands East, Waterway East with different neighbourhood built environment typologies were chosen as the case studies. (Data resource: Population Trends (DOS 2016); Singapore Residents by Subzone and Type of Dwelling, June 2016 (Data.gov.sg))

	Neighbourhood 1-Henderson Hill Area: 59.54ha Population: 11,870 population 65+(%): 2,710(22.83%)
	Neighbourhood 2-Marine Parade Area: 116ha Population: 28080 population 65+(%): 5,660(20.16%)
	Neighbourhood 3-Yuhua East Area: 92.48ha Population: 26330 population 65+(%): 4,320(16.41%)
	Neighbourhood 4-Woodlands East Area: 92.48ha Population: 26330 population 65+(%): 6,160 (6.60%)
	Neighbourhood 5-Waterway East Area: 148.92ha Population: 35,8760 population 65+(%): 2,090(5.83%)

Participants

25 elderly participants (**over 55**) were selected using a convenience sampling method in each neighbourhood (**n=125**).

Data Collection



Data Analysis

Quantitative analysis with **SPSS Statistics 21** was used to explore the differences between perceived and objectively-assessed neighbourhood built environment of community-based care facilities and their influences on neighbourhood satisfaction.

Results

Population characteristics

		Sample Size	Percentage
Overall Questionnaires		125	
Effective Questionnaires		123	100.00%
Gender	Male	82	66.67%
	Female	41	33.33%
Neighbourhood	Henderson Hill	25	20.33%
	Marine Parade	24	19.51%
	Yuhua East	24	19.51%
	Woodlands East	25	20.33%
	Punggol Waterway East	25	20.33%
Age Group	55-64	43	34.96%
	65-74	46	37.40%
	75-84	29	23.58%
	85 and over	5	4.07%
Race	Chinese	117	95.12%
	Malaysia	1	0.81%
	Indian	1	0.81%
	Others	4	3.25%

Correlation between objective-assessed and perceived CBCF

The objectively-assessed (OA) attributes of CBCF refer to the average numbers of ten kinds of public spaces or facilities within the area of 500 meters radius in each neighbourhood. The seniors' perceived CBCF were evaluated via their voting scores (VS) of the numbers or size of the spaces or facilities in 5 Likert-scale, namely strongly dissatisfied (-2), somewhat dissatisfied (-1), neutral (0), somewhat satisfied (1), strongly satisfied (2). Pearson correlation was conducted and the results are as follows.

	Parks and water bodies		Parks and water bodies (size:m2)		Transportation stops		Supermarkets		Hawker centers	
	OA	VS	OA	VS	OA	VS	OA	VS	OA	VS
N1-HH	0.13	0.4	3904.43	0.5	1.85	1.6	0.13	0.9	0.13	1.0
N2-MP	0.07	0.5	1004.53	0.4	1.29	1.3	0.47	0.6	0.14	0.6
N3-YE	0.25	0.9	2254.58	0.9	1.44	1.4	0.17	1.0	0.08	1.2
N4-WE	0.12	0.5	6845.13	0.5	1.41	1.4	0.25	1.0	0.03	0.8
N5-WE	0.37	1.4	5556.73	1.4	1.21	1.2	0.32	1.2	0.00	0.9
Pearson	0.952*		0.292		0.949*		-0.435		-0.169	

	Residential buildings with commercial at 1/F		Residents' committees		Community gardens		Elderly care facilities		CHAS Clinics	
	OA	VS	OA	VS	OA	VS	OA	VS	OA	VS
N1-HH	2.51	0.3	0.26	0.4	0.13	-1.0	0.92	0.7	0.13	0.3
N2-MP	2.10	0.5	0.47	0.1	0.41	-0.7	0.34	0.5	0.41	0.9
N3-YE	4.16	1.0	0.51	0.5	1.10	0.4	0.42	0.0	0.68	0.4
N4-WE	2.89	0.6	0.40	0.8	0.18	-0.5	0.12	0.2	0.22	0.7
N5-WE	2.64	0.6	0.21	0.8	0.05	0.0	0.11	-0.2	0.26	0.6
Pearson	0.855		-0.457		0.628		0.753		-0.043	

Correlation between perceived CBCF and overall satisfaction

Parameters	Parks and water bodies	Parks and water bodies (size:m2)	Transportation stops	Supermarkets	Hawker centers
Pearson correlation	0.39**	0.399**	0.188*	0.442**	0.26**
Parameters	Residential buildings with commercial at 1/F	Residents' committees	Community gardens	Elderly care facilities	CHAS Clinics
Pearson correlation	0.304**	0.162	0.098	0.198**	0.309**

Correlation is significant at the 0.05 level (2-tailed). * ; Correlation is significant at the 0.01 level (2-tailed). **.

The results show that seniors' perceived neighbourhood built environment of CBCF is largely different from the one objectively-assessed. Besides, seniors' perceived neighbourhood built environment of CBCF mainly influence overall seniors' neighbourhood satisfaction.

Conclusion

This study suggests that seniors' perceived neighbourhood built environment of community-based care facilities is important to the community-based care delivery for the elderly ageing in place.