Examining Health Inequalities

A mixed-methods study in Boon Lay, Singapore

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HEALTH BEHAVIOURS, Q-METHODOLOGY, SOCIOECONOMIC STATUS

BACKGROUND

- Studies in low-income and high-income neighbourhoods worldwide have found that health behaviours and health outcomes vary by neighbourhood characteristics and socioeconomic status (SES).
- However, little is known about the influence of individual socioeconomic position and neighbourhood environment on the health behaviours of people living in mixed-income, high density neighbourhoods in Southeast Asia.

Therefore, to understand health inequalities within a mixed-income residential neighbourhood in Boon Lay, Singapore, we:

- Examined the perceptions of health behaviours and neighbourhood characteristics,
- Investigated their impact on the person-environment relationships
- Identified individual/environmental facilitators and barriers of health behaviours among residents from different SES.

MIXED-METHODS

Participatory Asset mapping

Q-Methodology

Capability Opportunity Motivation Behavioural Change (COM-B) model

Participants (N=222)

Renters

(residents living in one and two-room rental units)

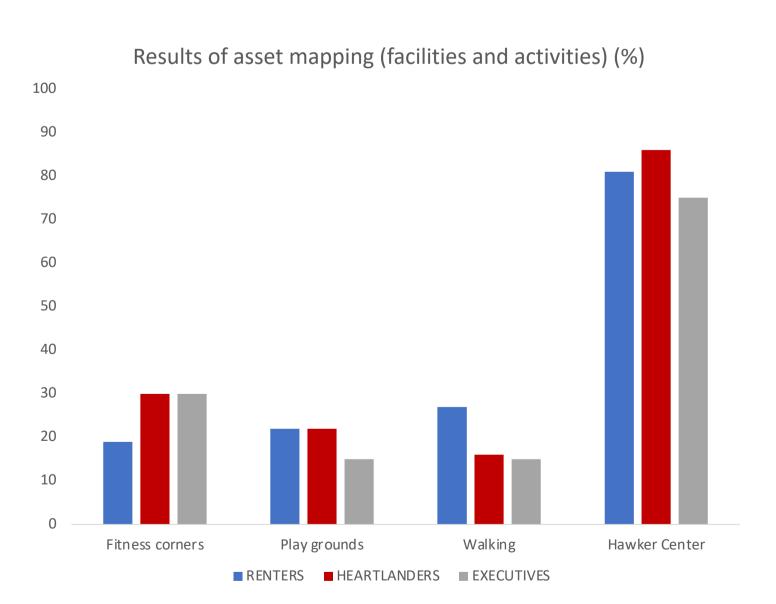
Heartlanders

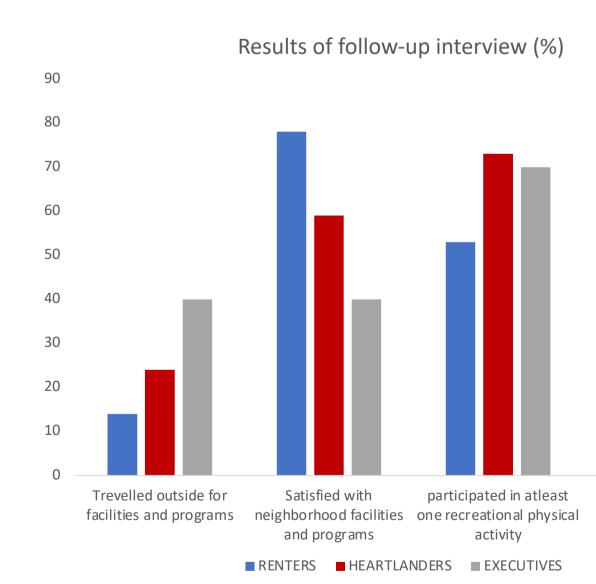
(residents living in three and four-room apartments)

Executives

(residents living in five-room, and private condominiums)

FINDINGS





RENTERS	HEARTLANDERS	EXECUTIVES
RF1: Convenience over health	HF1: Intention equals action	EF1: Intrinsically motivated
Convenience and time determine their physical activity and meal choices.	Proponents of healthy living, they eat home cooked food, engage in light to moderate utilitarian physical activity.	Regular physical activity within and outside neighborhood along with adequate sleep for healthy living.
LACK/REDUCED PHYSICAL AND PSYCHOLOGICAL CAPABILITIES	PHYSICAL AND PSYCHOLOGICAL CAPABILITY HF2: Sleep is key	AUTOMATIC MOTIVATION, PHYSICAL AND SOCIAL OPPORTUNITY
RF2: Lack of time	Sleep and rest takes precedence over regular physical activity.	EF2: Lack of time
Work and family takes precedence over recreational physical activity and rest.	LACK OF AUTOMATIC AND REFLECTIVE MOTIVATION	Work and family takes precedence over recreational physical activity and rest.
LACK OF PHYSICAL OPPORTUNITY	HF3: Intrinsically motivated	LACK OF PHYSICAL OPPORTUNITY
RF3: Lack of motivation and self-discipline	Highly motivated, they engage in regular walking and light exercising within the neighborhood with family and friends.	EF3: Exercise over diet
These residents are less motivated to exercise or to eat healthy.	SOCIAL AND PHYSICAL OPPORTUNITY, AUTOMATIC MOTIVATION	Due to their regular exercise routine, they do not follow any dietary restrictions.
LACK OF AUTOMATIC AND REFLECTIVE MOTIVATION	HF4: Lack of time	LACK OF PSYCHOLOGICAL CAPABILITY
	Work and family takes precedence over recreational physical	EF4: Lack of motivation and self-discipline

Participant factor loadings on statements Statements Executives Renters Heartlanders D1: Healthy food is not tasty and does not look attractive. I don't want to compromise so I rather go for tasty food. D2: As long as I exercise enough, I can eat whatever I want. D3: I know what healthy food is. But for convenience, I'll just eat something outside, like standard hawker food D4: I'm body image-conscious, so I'll try to eat whatever's D5: I like to cook at home so I can control the quality and D6: I want to cook healthy food at home, but I do not have the D7: What I consume matters, I only opt for organic produce. The price of healthy food does not faze my consumption patterns. D8: My family and I enjoy eating healthy food at home. D9: It's difficult to cook a healthy meal that suits only me, the rest of my family won't eat. So, I just eat everything. D10: I like to stay up to date with trends. I will adopt whatever diet is currently popular. P1: I only go out and walk for food, or to buy groceries. Walking RF3: Lack of motivation and self-HF3: Intrinsically motivated EF3: Exercise over die to the coffee shop is a form of exercise for me. P2: I want to achieve my daily goals. I feel better if I exercise; If not, I'll feel tired and lazy. P3: I don't really exercise as I'm lazy. P4: I only exercise when there are incentives available lumihealth challenge, national steps challenge, etc) P5: I have no time to exercise due to work/ family/ other P6: I do a lot of household chores. So, I don't need to exercise P7: I follow my friends and we come together to exercise/ participate in exercise programs together. P8: I'm not as active, but normally I will walk with my children/ family around the garden. P9: I'll go somewhere further to exercise/ explore, like if there's a new park. P10: My neighborhood is well equipped with exercise facilities (fitness corner) and I use these facilities at least once a week. R1: After watching dramas or surfing on my phone, I end up sleeping late. R2: I must sleep early. If I sleep late, the next day I will feel groggy and the whole day will be affected. R3: Sleeping is good but not so important, I just need a few R4: I don't have enough rest because of various family R5: Parks are great spaces for relaxation; they allow me to leave my problems behind temporarily and immerse in complete rest and relaxation.

KEY DISCUSSION POINTS

Despite living in the same neighbourhood, having equal access to high quality infrastructure and amenities, the association between the physical environment, neighbourhood perception and health behaviours was:

- Weakest among the Renters Many prioritized work and family commitments over their own health, mistakenly considering physical and mental exhaustion from work as sufficient physical activity.
- Strongest among the Heartlanders- They actively utilized the available amenities, driven by their consistent physical and social activity routines within the neighborhood.
- Moderate among the Executives Despite their regular usage, they were less affected by its inadequacy as they had the resources to compensate, i.e., time and money to travel outside the neighbourhood to upkeep their healthy lifestyle.

CONCLUSION

- Residents' perception of health behaviours and neighbourhood environment varied significantly with respect to their SES.
- Planners and policy makers should go beyond providing equal access to facilities and amenities, prioritizing equity of access by considering targeted interventions for different socioeconomic groups.

activity and rest.

effective form of exercise

LACK OF PHYSICAL OPPORTUNITY

HF5: Household chores equals exercise

LACK OF PSYCHOLOGICAL CAPABILITY

They hold the belief that household chores suffice as an



and/or lack of interest.

Despite knowing the benefits of healthy lifestyle and

resources, they refrain from exercise due to laziness

LACK OF AUTOMATIC AND REFLECTIVE MOTIVATION

SOULab

Social Urban Lab





