

SESSION 07: HEALTHY BUILDINGS

**Design
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Design & Health

13TH WORLD CONGRESS & EXHIBITION

REVITALIZING HEALTH BY SALUTOGENIC DESIGN

Healthy environment | Healthy people

Salutogenic Design and its Role in Enhancing the Sense of Belonging

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Salutogenic Design and its role in
Enhancing the Sense of Belonging among
the Elderly in Long-Term Residential
Communities in an Eastern context:
Case of Hong Kong

Ongoing PhD (part) work
Presented by

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Table of contents

01.

Introduction & Aim

Hong Kong and its *Elderlies*

02.

Research Methods

Mixed-methods strategies

03.

Analyses (part)

Pilot-test and observations

04.

Discussion

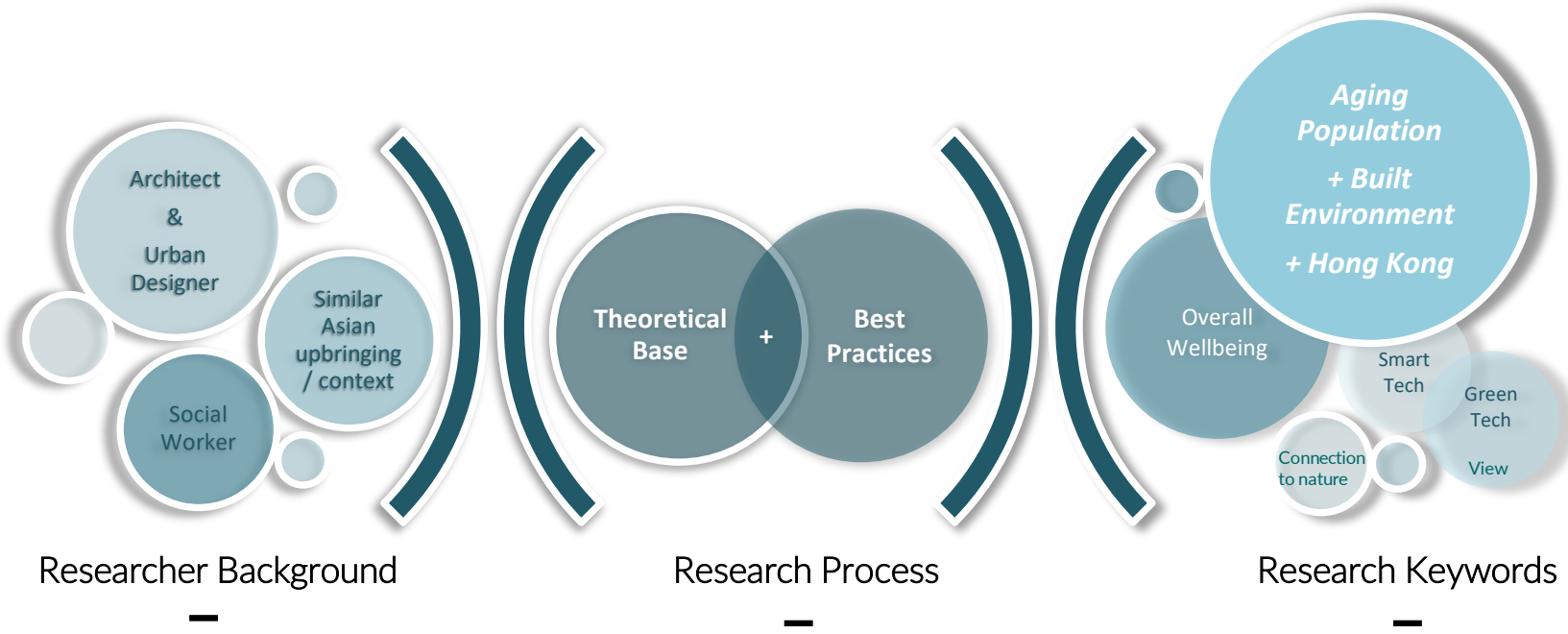
Way forward / steps ahead



01.

Introduction & Aim

Hong Kong and its *Elderlies* . . .

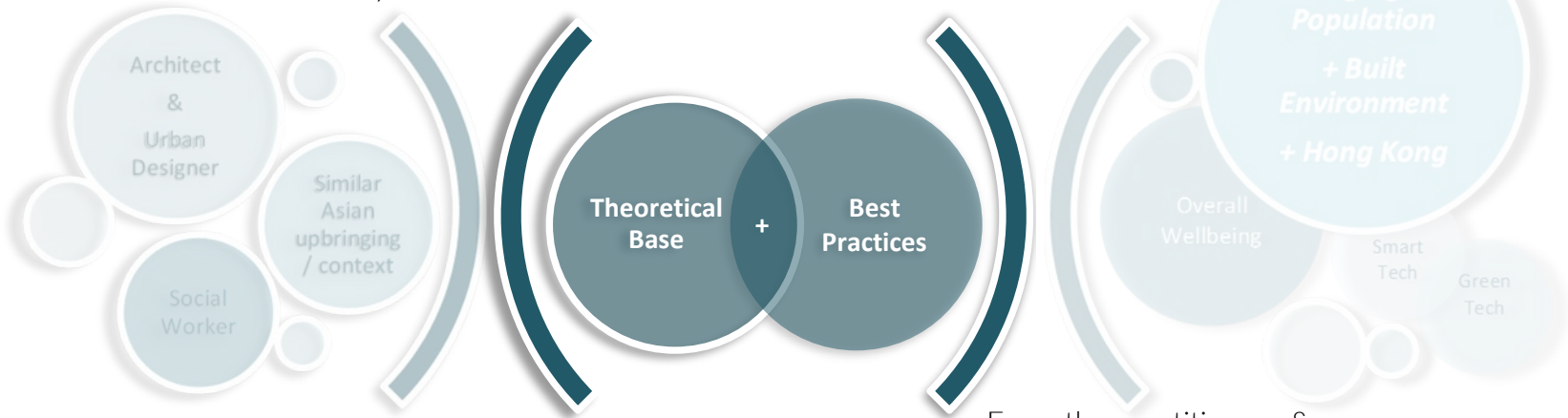


Researcher Background

Research Process

Research Keywords

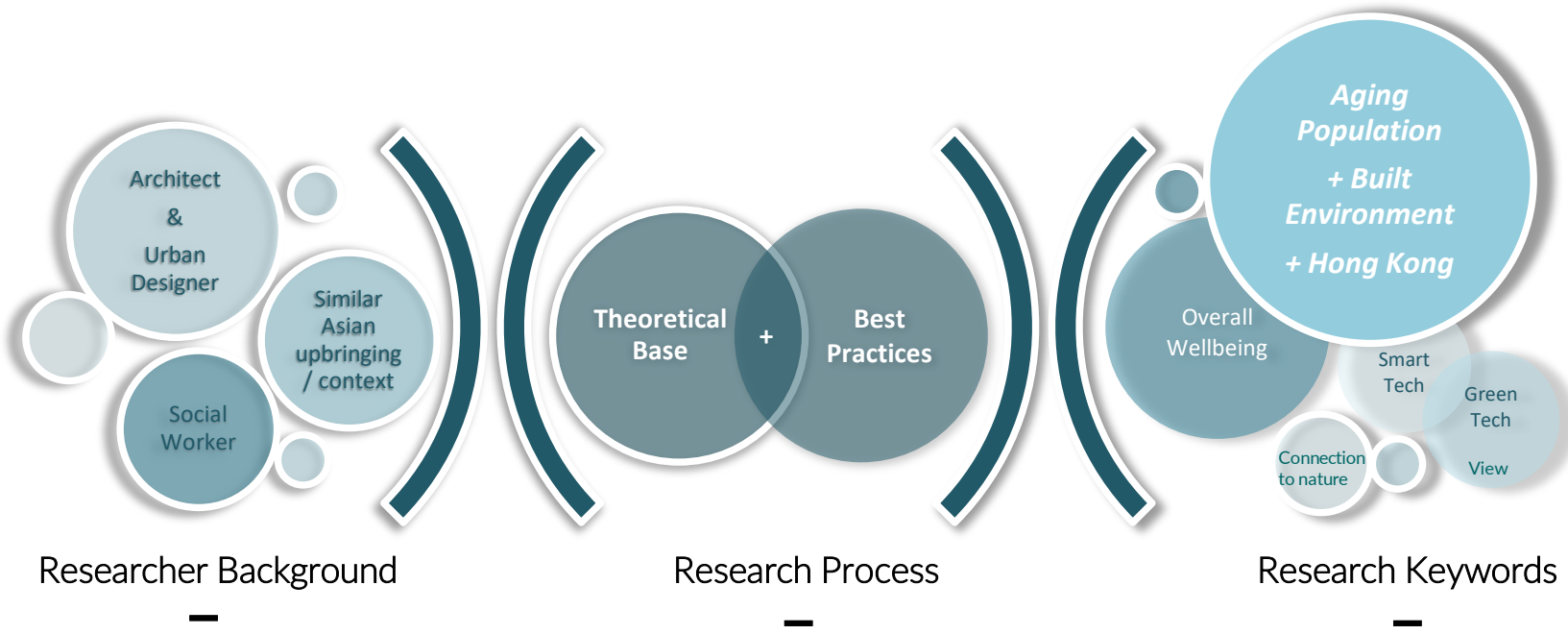
Mostly from the West- Pioneers & Leaders



From the practitioners & users

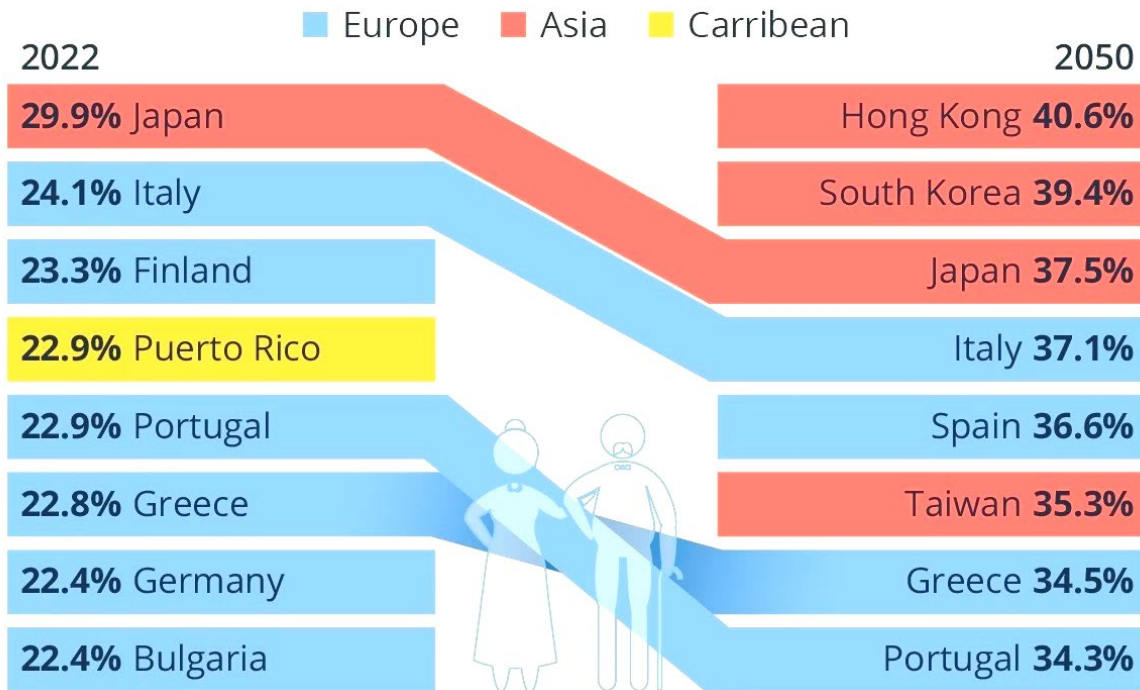
Research Process





The World's Oldest Populations

Countries/territories with the highest share of people aged 65 and older*



Asian countries to face the aging population challenge than the current European scenario – An already aged continent

* only includes countries/territories with a population of more than 1 million people
Source: United Nations Population Division



Hong Kong

I Hong Kong has a population of over 7.60 million with one of the world's highest population densities (6887.95/km²)

Image source: www.unsplash.com





with its rapidly **Aging society**



01 in every **04** Hong Kong residents will be **65** or above.

By 2050, Hong Kong is forecasted by the WHO to rank **5th** in the world for cities with the largest percentage of older adults.

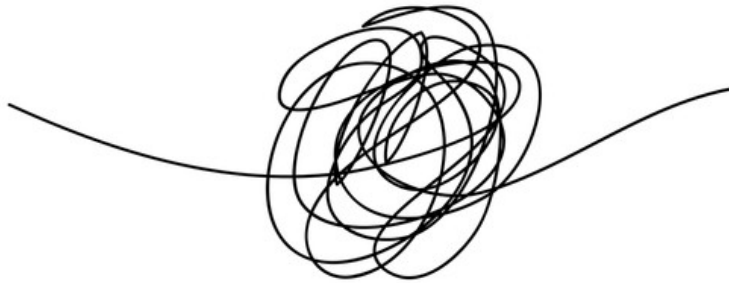
40% of the population in Hong Kong will be 65 or above.

Source: Census and Statistics Department, HKSAR





Then comes COVID-19 ..!



Disproportionately affecting the elderlies and the **children**.





“Age is not lost youth but a new stage of
opportunity and growth.”

— *Betty Friedan*



Aim

I Developing a set of **What ?** **evaluative physical design guidelines and strategies** for achieving improved standards of living for the **Who ?** **aging population** in **Where ?** **residential care homes** that are prepared for the future **post-pandemic world** with a higher quality of life (QOL) in **Context ?** **highly dense and high-rise Asian cities.**

From the literature

Importance of **presence and connection to nature** (Ulrich, Kaplan...)

while

The **high-dense & high-rise** nature of Asian cities like Hong Kong makes
a unique case to study the LTCFs

From the proposed studies in the RCHes

Analyzing the **perception, attitudes and relevance of such features in the indoor environments of the care homes by the older residents**

Its associations on the **subjective wellbeing** of the residents

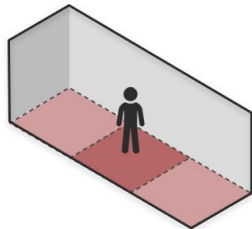
Salutogenesis + Biophilic] design principles



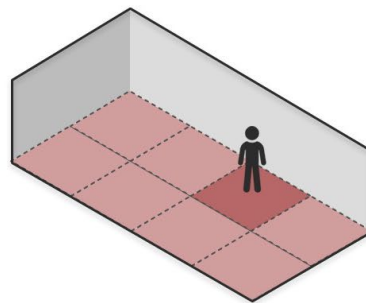
Observations so far ...



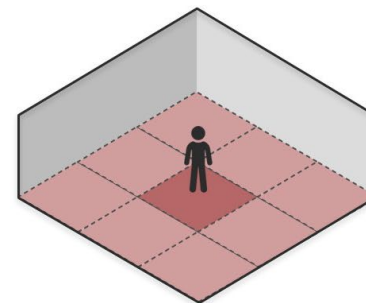
**Hong Kong
subdivided apartment**
48 square feet



**Hong Kong, all
housing**
160 square feet



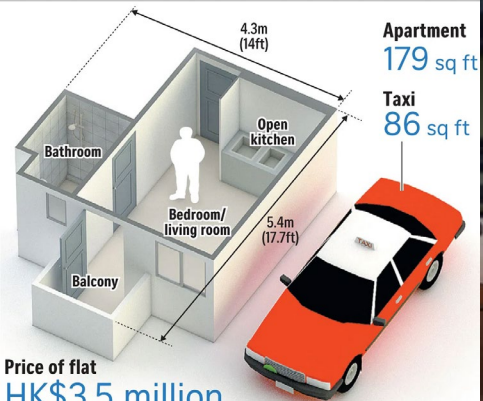
Paris apartment
388 square feet



**New York City
apartment**
414 square feet

Tight living space

Micro-homes in Hong Kong range from 128 sq ft to 200 sq ft in floor area. Here's the floor plan of one such apartment.



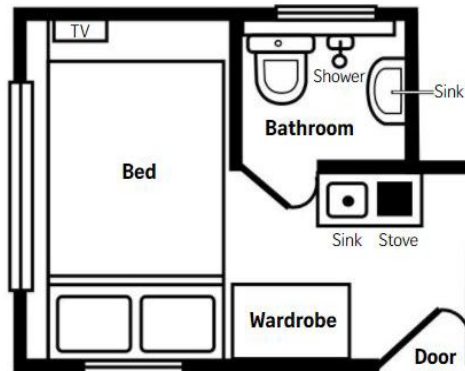
Price of flat
HK\$3.5 million
HK\$19.5k per sq ft

Source: SOUTH CHINA MORNING POST STRAITS TIMES GRAPHICS





Floor plan of their 150 sq ft flat



NOTE: Not drawn to scale.

SUNDAY TIMES GRAPHICS

‘Nano’ flats on the rise in HK



Singaporean couple Lim Wei Wen and Tan Yan Han in their Hong Kong flat which has room for just a bed and a tiny kitchen. The bed frame doubles as an ironing board and dining table. ST PHOTO: JOYCE LIM

Learning to live in a small space

Before moving to Hong Kong, Singaporean couple Lim Wei Wen and Tan Yan Han had heard all about the high property prices in the city and how families are often crammed into small flats.

But, it was only when they moved into one such flat last year that they realised how bad it can get.

For the past eight months, a 150 sq ft flat – one of three subdivided units – in Wan Chai has been home for Mr Lim and his wife, who pay a monthly rent of HK\$6,300 (S\$1,140).

Mr Lim, 25, who works in the financial sector, had wanted to live and work in the city. His main concern was to live affordably in the heart of the city and he did not mind the size of the flat.

The unit is about the size of his bedroom in the condominium in Singapore where he used to live with his parents. But, unlike in his parents’ home, where they could hang out in the living room for instance, the couple have found themselves having to spend most of their time on a super-single-sized bed in their Hong Kong flat.

The bed, which is as wide as two pillows laid side by side, is the largest piece of furniture in the flat. In front of the bed, without a partition, is a kitchen with a small sink and an induction stove.

Given the tiny kitchen, Ms Tan, 25, who works for a food publication, cannot help knocking over plates and bowls sometimes when she whips up dishes such as curry chicken, bak kut teh and laksa.

Without any space for a sofa or chairs, the couple have to eat their meals on their bed.

They keep most of their belongings in a storage compartment under the bed. Lift up the mattress and the bed frame serves as an ironing board, said Mr Lim with a chuckle. “We have learnt to be more innovative after moving to Hong Kong.”

The bed frame also serves as a “dining table” whenever he has guests over for dinner, he said. The couple once shared a meal on their bed with three family members who visited them. Said Ms Tan: “My mum said, ‘Are you crazy? (Are) you sure you want to stay in this room?’”

But, it is Mr Lim’s dream to work overseas and such hardship is nothing compared with the exposure and invaluable experience that he will gain from the stint, he said.

Ms Tan added: “I have no regrets. This place really brings us closer to each other.”

Joyce Lim



Typical Nursing



ments

Overlap???



Typical standard RCHE (HK)

A comparison of elder numbers and residential care service places

	Population aged 65 and above	No. of places
2011	941,400	75,831
2012	979,900	74,915
2013	1,019,900	75,179
2014	1,063,800	73,235
2015	1,114,600	73,372
2016	1,163,200	74,000

Sources: HK Census & Statistics & Social Welfare Department, HKSAR

Consistent demand

Waiting period 22 - 41 months

Aging in place

Community living

Care provision

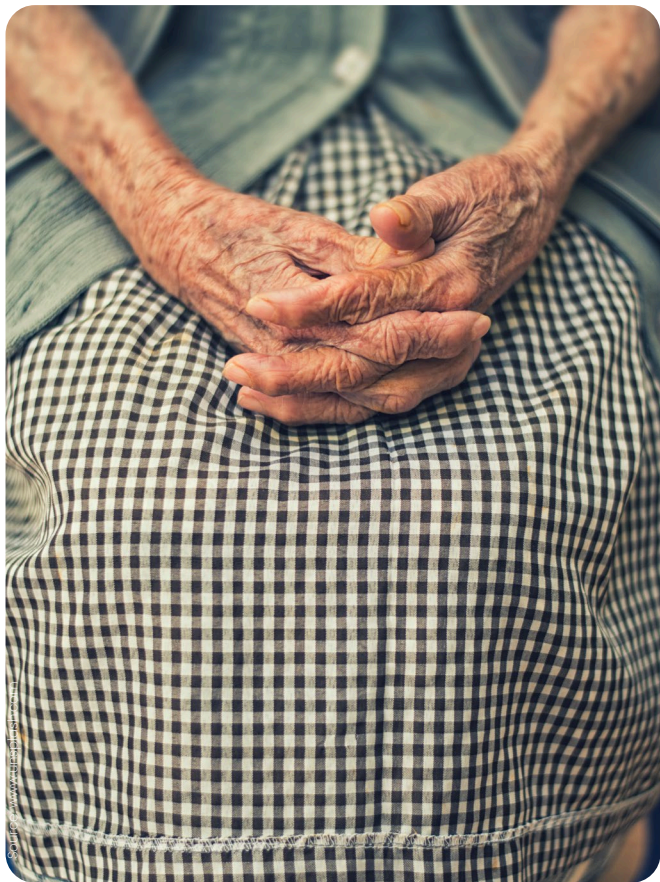


Research Gap

Design Framework for Residential Care Homes for Elderly in a post pandemic era in Hong Kong:

Strategies for the criteria & evaluation of psychosocial well-being based on physical-functional needs.

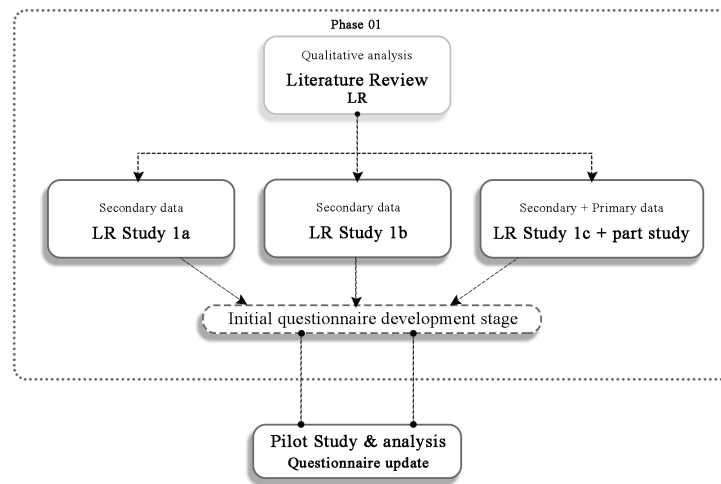
- There is very few emerging literature that is currently available that discusses the post-covid space and living environment requirements of senior people in high-dense local context. The interrelationship between the built environment, urban population density, and overall public health outcomes during emergencies such as the COVID-19 pandemic presents considerable opportunity for research and development in a densely urbanized metropolis. **psychosocial well-being**
QUALITY OF LIFE
- There seem to be no recent evidence-based design standards to ameliorate the living environment for holistic wellbeing of the elderly for the post COVID-19 era in high-dense contexts such as Hong Kong. **physical-functional needs**
- Unexplored (implication of living, spatial characteristics) **SPATIAL CHARACTERISTICS** and its effect on long term care facilities in Hong Kong.
- Perception and acceptability of smart technologies (continuation of wellbeing, enhancement of lifestyle) post COVID-19 experience.
- The pandemic exposed the redundancy of well-planned spaces within the facilities to tackle emergencies and prevent avoidable chaos and eventually loss of lives.



02.

Research Methods

Mixed-methods strategies. . .



— LR Study 1a

Understand the socio-cultural context- Hong Kong, its aging population, policies, ordinances

— LR Study 1b

Understand the concepts and models related to wellbeing, quality of life, assessment tools to analyze impact of built environment on the residents

— LR Study 1c

Understand the associations of smart technology and wellbeing, and its applications in the care facilities.

Qualitative*

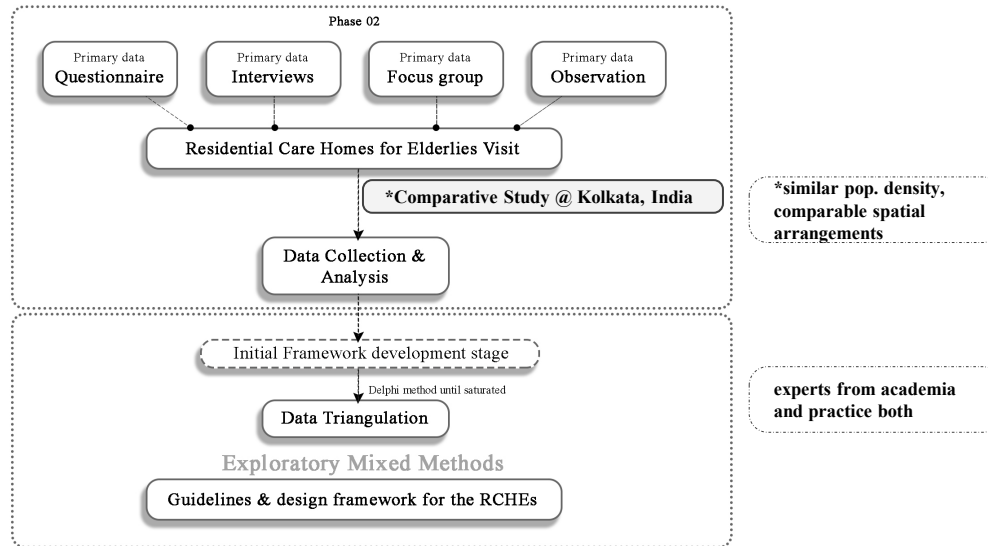
Qualitative

Qualitative+Quantitative*#

Presented and published in 2 international conferences # and 1 conference held in HKU, Q1 journal | Study 1c#- participated and won international competition & awards*



Mixed-Methods approach



- Interviews

With several stakeholders- elderlies, staff, family members, associations, designers, RCHE operators, academic etc.

- Questionnaires and surveys

To run qualitative and quantitative analysis - Hong Kong

- Observations

To observe the activities taking place in the spaces.

- Focus groups#

To understand and generate scenarios& gain insights from different perspectives.

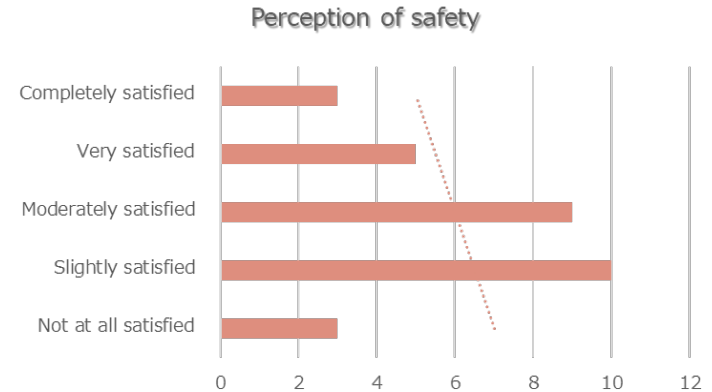
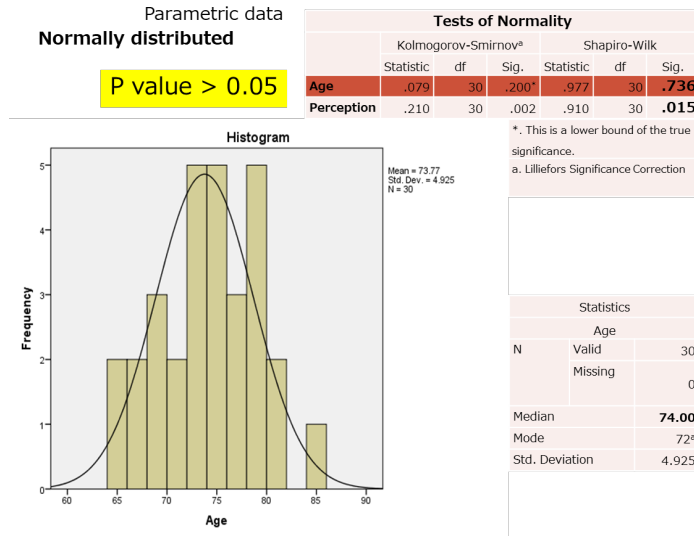


03.

Analyses (part)

Future strategies. . .

Part Analyses



The trend is **negative**.
Emphasizing the overall discontent within the living spaces in the past 2 years.

Several analyses on inter-dependencies of variables like *age*, *perception of safety*, *gender*, *privacy* etc. are analyzed.

| Observations so far ...



Flexibility

- | Certain private homes were able to handle the pandemic better than the subsidized type RCHE's due to availability of multiple flexible open spaces and available options for several indoor activities to keep the elderlies occupied.



Limited space

- | The limited confined spaces within the RCHE's were mostly not sufficient up to satisfaction, often led to depression and other related issues during the prolonged period of pandemic.

Observations so far ...



Resilient

- I Preliminary findings highlight the need to have several open spaces in the RCHE's that can be used according to the need. Given the hard truth that we will see more pandemics in our future, it is more important than ever to create facilities that are flexible and resilient for what might come.



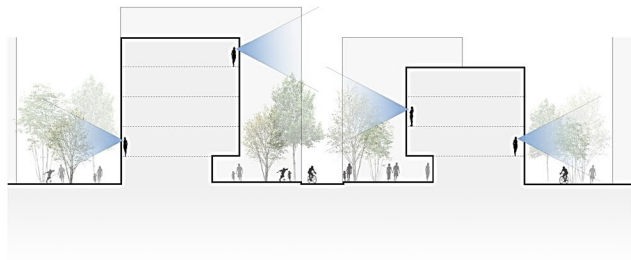
Privacy

- I Single/double rooms are preferred over other arrangements from safety point of view, but due to the unavailability of space there is prevalence of shared rooms among the elderlies.

Spaces need to be
Adaptable | Communicative | Multi-functional

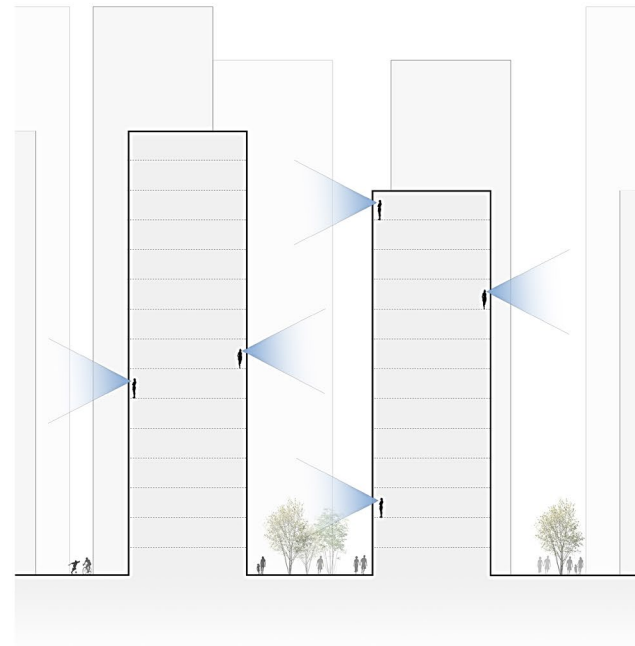


Observations so far ...



European & Other Context

Visual Quality

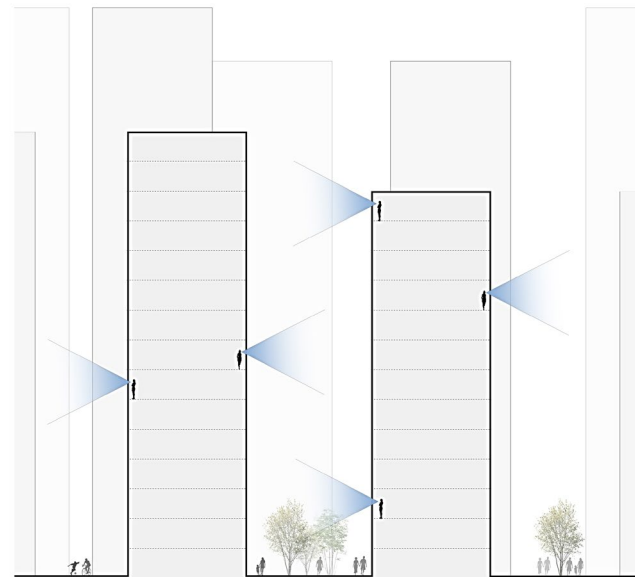


Hong Kong Context



**Manchester
Milan**
view from my window

Visual Quality

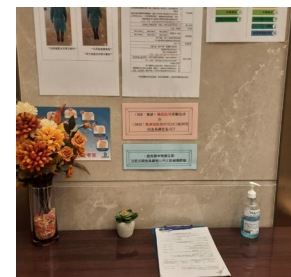
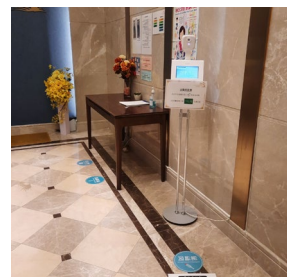
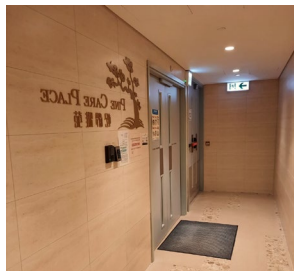
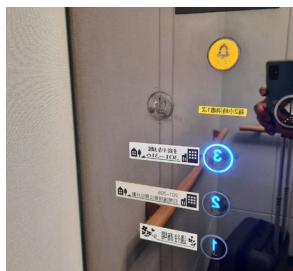


Hong Kong Context



1 Care home study

Case 01 Private home: non-subsidized



Type of Residential Care Home: Private Home (with non-subsidized places only)

Type of Places Based on Care Level: Care and Attention Places Providing a Continuum of Care

Number of Subsidized Places: 0 Number of Non-subsidized Places: 68

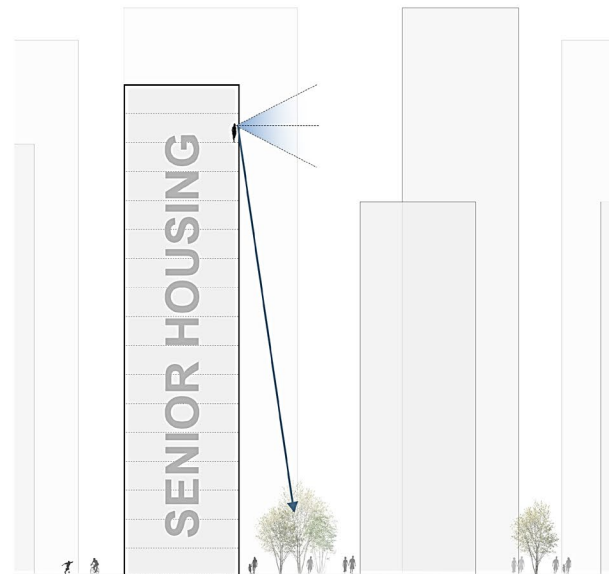
Gender of Service Target: Male & Female

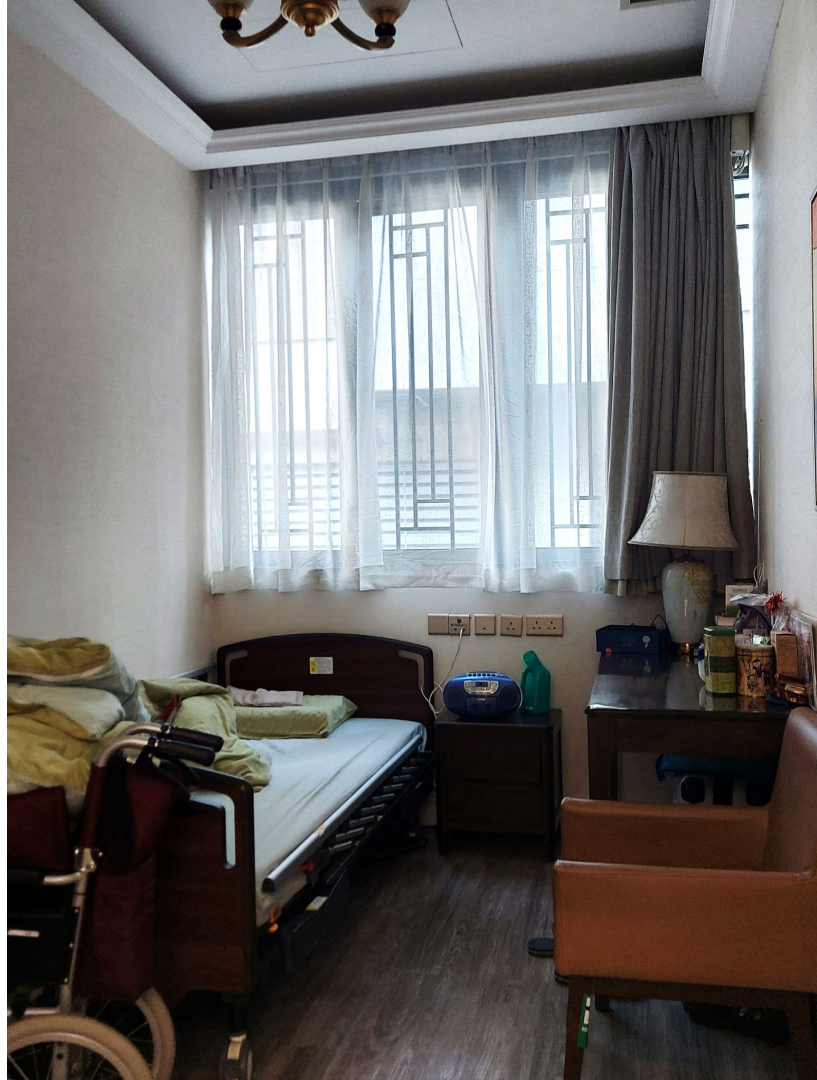
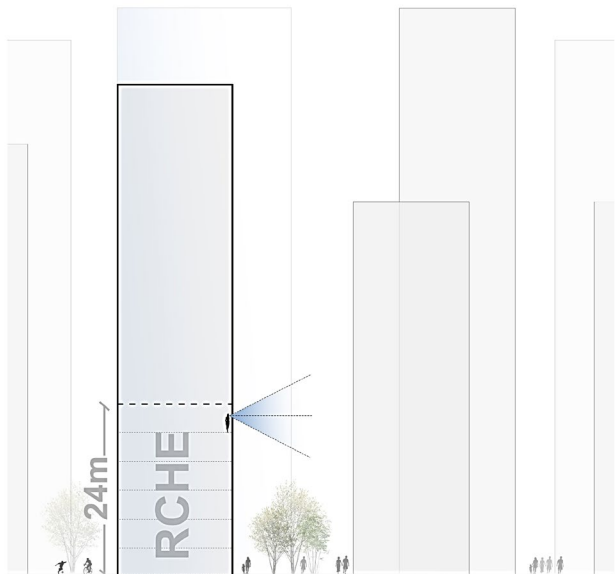
Care home visit

Case 02 C&A Home Providing COC- subsidized



Type of Residential Care Home: **Sub-vented Home** (with subsidized places only)
Type of Places Based on Care Level: **Care and Attention Places Providing a Continuum of Care**
Number of Subsidized Places: **150** Number of Non-subsidized Places: **0**
Gender of Service Target: **Male & Female**







Observations so far ...





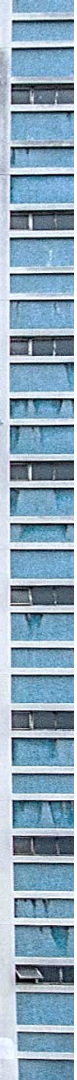
Observations so far ...



Source: <https://doi.org/10.1177/1477885912461659>













04.

Discussion

Way forward / steps ahead . . .

Adding *years to life* is achieved

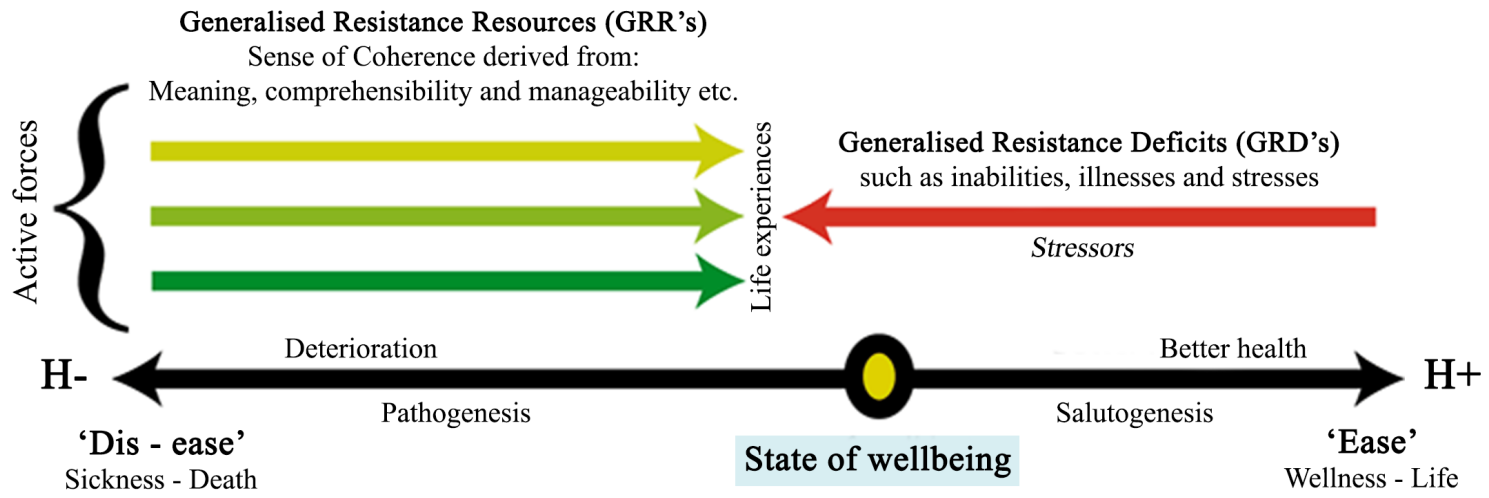
Adding *life to years* is needed...



“psychologists and other social scientists have a significant role to play in the evaluating normative questions as to how people ought to live” (AS Waterman, 2013).

It could be argued that-

architects and interior designers have a similar obligation, or, even better, together with occupants themselves **to create the environment in which they wish to live.**



The Salutogenic Process: health ease-disease continuum



Therapeutic indoor environments and **restorative/healing environments** in general, can improve
sense of personal control, social support, positive distraction,
reduce environmental stressors, connect older residents with nature and
stimulate positive feelings

Salutogenesis: the theory that binds health and design



ACCORDING TO THE MODEL,
THEY SHOULD BE ASLEEP BY NOW



IN THEORY,
PRACTICE IS THE SAME AS THEORY,
BUT NOT IN PRACTICE

Publications so far . . .

Published work from the study-

- **Das, M. (2023)** "From Crisis to Insight: Navigating Public Health Challenges in an Aging Society—Lessons from Hong Kong's COVID-19 Experience." *J Urban Health*, 100, 852–859.
<https://doi.org/10.1007/s11524-023-00760-9>
- **Das M. (2022)** "COVID-19 and the Elderlies: How Safe Are Hong Kong's Care Homes?," *Frontiers in Public Health*, Opinion vol. 10, April-04 2022, doi: 10.3389/fpubh.2022.883472 (Q1)
- **Das M., & Lau N. (2022)** "Applying the resilience perspective to design the future planning strategies as an impact of COVID-19: Case of the Hong Kong elderly care homes.",
ISSN 2398-9467 *AMPS Conference*, UK
- **Das M., Lau N., Kelly C., & Lin Z. (2022)** "Perception of Digital Integration and Companions for Older Communities in China in Light of the COVID-19 Pandemic."
ISSN: 2435-4937 *The European Conference on Aging & Gerontology 2022: Official Conference Proceedings*
<https://doi.org/10.22492/issn.2435-4937.2022.7>

Under Review

- Green and Blue Infrastructure in High-Density Megacities of Global South: A Critical Evaluation of Benefits and Obstacles for Enhancing the Well-being of Hong Kong's Ageing Population



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<https://www.statista.com/topics/8276/impact-of-the-covid-19-pandemic-on-older-adults-in-the-us/#dossierKeyfigures>

Thank you!

Do you have any questions?

Any related information/resources are much appreciated!

Feel like discussing it more? a cup of coffee is always a great idea!!

