Living Alone but Not Lonely: An Ageing-in-Networks Perspective

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The number of older adults **aged 65 and above** living alone has risen markedly—from 47,000 in 2016 to 58,000 in 2018, reaching 79,000 by 2022. This figure is projected to climb further to **83,000 by 2030** (Ministry of Health, 2023).

The **growth of single-person households**, also observed across parts of Asia and elsewhere (Yeung and Cheung, 2015; Snell, 2017), raises pressing questions about social isolation and the role of relational support.

In this context, **Singapore offers a valuable site for investigating how ageing in networks might mitigate the vulnerabilities associated with living alone in later life.**

- Dominant paradigms often **conflate living alone with being alone**, casting solo living in later life as inherently undesirable or isolating.
- **Media portrayals** reinforce this narrative, presenting **solitude as a problem** rather than a preference (Rodriguez et al., 2025).
- **Moral panics over older adults "dying alone"** (Heng, 2015; Lee, 2016) reinforce the belief that independence equates to abandonment.
- **Within this discourse, PLACE becomes the presumed origin from which social consequences flow.**

But does living alone necessarily mean being lonely? And is social connection always rooted in physical proximity?

Living alone need not imply social isolation. Research shows that older adults' experiences of solo living vary depending on expectations, cultural context, and network composition (Cornwell and Waite, 2009; Linton et al., 2018; Rodriguez et al., 2025). **The key distinction lies between *structural isolation* (being physically alone) and *perceived isolation* (feeling lonely). Acknowledging this nuance is vital to understanding the diversity of ageing experiences.**

Indeed, many older adults who live alone remain deeply connected. As "connected seniors" (Quan-Haase et al., 2017, 2018), they sustain relationships across distance through digital media, shared routines, and reciprocal care (Davey, 2007). These ties include both strong connections (e.g. family) and weak ones (e.g. neighbours, friends, former colleagues) (Rainie and Wellman, 2012). Crucially, networks are not static—they are actively assembled, adjusted, and maintained over time, especially in response to life transitions and disruptions (Marcus and Saka, 2006; Ang and Suen, 2023). **They may live alone, but it doesn't mean they are ageing alone. Ageing in networks provides the lens by which to see this (as possibility).**

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• ***Ageing in place*** has become a dominant refrain in policy and academic discourse (Cutchin and Rowles, 2024:4). **It centres on helping older adults remain in their homes and communities, promoting independence and familiarity as the cornerstones of well-being** (Cagney and Cornwell, 2018). **At its heart is the ideal of continuity—staying put in a known environment (Johansson et al., 2013), with home imagined as a stabilising anchor in later life (McFarlane, 2010; Rowles and Bernard, 2013:11).** This aligns with environmental gerontology's emphasis on 'person–environment fit'—how well older adults' needs match their surroundings (Cutchin, 2003; Andrews et al., 2007).

AIP =

I want to age “here”, **not** “there”…

Table 4. Negative Stereotypes Associated with Older People.

Asexual	Lonely
Boring	Low energy
Bothersome	Mentally inflexible
Cautious	Mentally slower
Costly to employ	Needy
Declining physical and cognitive health	Passive
Dependent	Physically weak
Depressed	Poor adaptability
Depressing	Poor health
Difficult	Poor IT skills
Disabled	Poor performance
Easily confused	Religious
Feeble	Resistant to change
Forgetful	Rigid
Forgettable	Sad
Frail	Senile
Frustrating	Shorter job tenure
Grumpy	Sickly
Ill	Slow
Ill-natured	Slow learners
Inactive	Socially isolated
Incompetent	Ugly
Inflexible	Unable to learn new skills
Irritable	Unattractive
Less engaged	Unimaginative
Less motivated	Unproductive
Less trusting	Weak
Less willing to change	Worried

Source: Abrams, Swift, & Drury, 2016; Abrams et al., 2015, Bai, 2014; Bugental & Hehman, 2007; Chrisler et al., 2016; Cuddy et al., 2005; Harper et al., 2010; Kesby, 2017; Kite et al., 2005; Kydd & Fleming, 2015; Levy, 2009; Levy & Macdonald, 2016; Loretto, 2010; Marcus et al., 2016; Milner et al., 2012; Montepare et al., 2014; Nelson, 2005; Ng & Feldman, 2012; Nussbaum et al., 2005; Posthuma & Campion, 2009; Rozanova, 2010; Swift et al., 2017; Taylor & Earl, 2015; Walker, 2008.

Ageing-in-place connotes ageing "in-situ"

Spatial conceptualisations of community such as **"ageing-in-place"** portray older people as place-bound, "inactive", "sedentary" (Hummert 1994).

Older people have often been described by stereotypes such as "declining physical and cognitive health", "dependent or helpless", "depressed", "disabled", "frail or to be pitied", **"inactive", "less engaged", "lonely", "low energy", "needy", "passive", "socially isolated", "poor IT skills", "weak", "sickly", "slow", "unproductive"** (Swift and Steeden 2020).

Such stereotypes can be persistent, "consistent across varied cultures" (Cuddy, Norton and Fiske 2005:267)

2

- In response, scholars have advanced ***ageing and place***, a broader frame that accounts for mobility and multiplicity (Cutchin and Rowles, 2024).
- **Older adults do not only inhabit one place**—they move through many: cafés, parks, churches, libraries, clubs, coffee shops, and hair salons (Oldenburg, 1989; Finlay et al., 2024). These **'activity spaces'** shape daily life and social exposure (Cagney et al., 2013), stretching attachment across multiple locales (Andrews et al., 2013; Skinner and Winterton, 2018).
- Crucially, **older adults are mobile**. They **cross neighbourhoods, even regions, to stay socially and practically engaged** (Cagney and Cornwell, 2018).
- They 'let go' of old places and form new attachments of 'their own' (Gustafson, 2001:13; Andrews et al., 2013:1350; Degnen, 2016; Andrews and Duff, 2022). **This demands a relational view of place—as fluid, dynamic, and shaped by movement.** *Ageing and place* improves on *ageing in place* by **embracing mobility and diversity of exposure.**

A&P =

I want to age “here”, **AND** “there”…

3

- A&P is an improvement. **But it still leaves a gap.**
- A&P focuses on *where* older adults are and *where* they go—**but not *with whom*.**
- To fill this gap, we propose ***ageing in networks***. This framework adds a missing dimension: the **social infrastructure of ageing**.
- ***AIP* values rootedness; *A&P* emphasises mobility; *ageing in networks (AIN)* focuses on the social ties that make both possible.** It asks how relationships shape movement, attachment, and care.
- **Communities, after all, are not just spatial**—they are built *through* networks, both local and far-flung (Yarker et al., 2024; Cutchin and Rowles, 2024).
- **What sets *ageing in networks* apart is its focus on *with whom***. Social ties guide how people use space. **Places are not just backdrops—they are destinations because someone is there.**

AIN =

I want to age “here”, **AND** “there”…

with **my social connections**…

AIP =

I want to age “here”, **not** “there”…

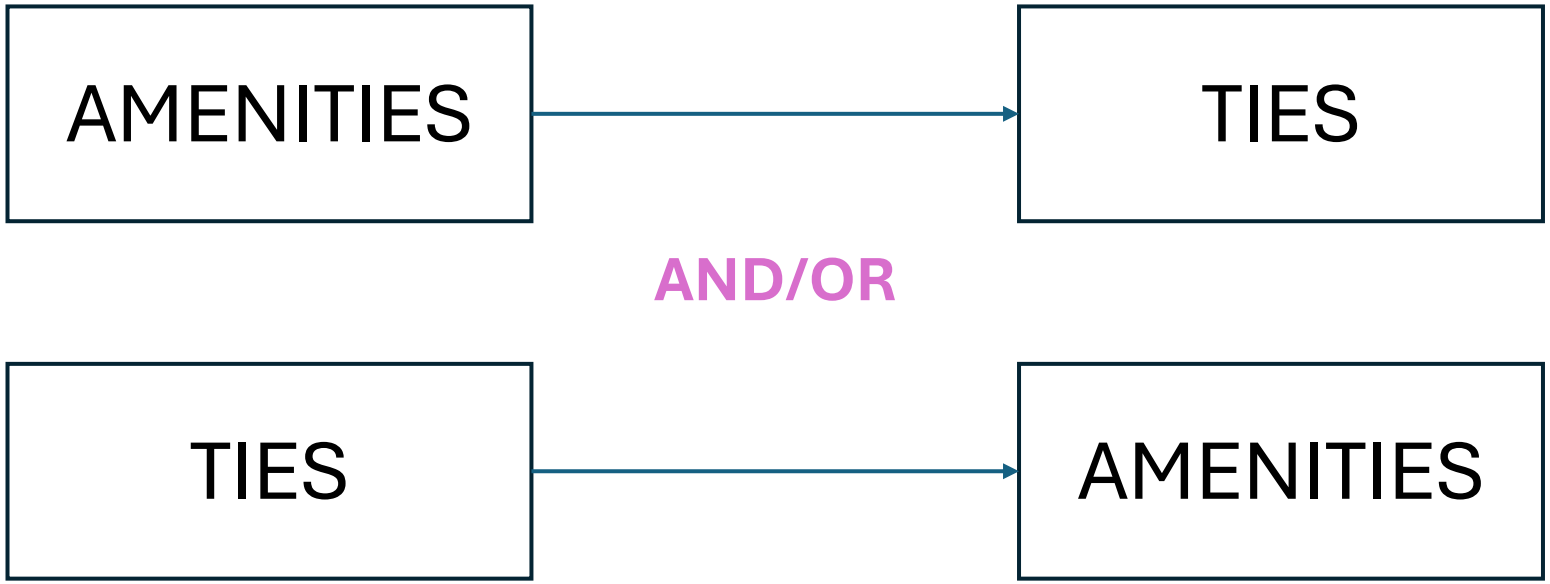
A&P =

I want to age “here”, **AND** “there”…

AIN =

I want to age “here”, **AND** “there”…

with **my social relationships**…


AMENITIES
TIES
AND/OR
TIES
AMENITIES

We offer *ageing in networks* as a **conceptual *complement* to, rather than a substitute for, *ageing in place*.**

Where ***ageing in place*** focuses on where one resides, and ***ageing and place*** on how and where one moves, ***ageing in networks*** asks: *with whom* do these practices unfold?

It emphasises the **relational foundations of ageing**. Movement is not merely about navigating urban space—it is about **maintaining ties**, honouring obligations, and accessing support.

These frameworks are **not mutually exclusive but complementary**. Together, they position ageing within a **relational triad**: ***where one lives, how one moves, and with whom one is connected.***

Ageing and Social Networks: Mapping the Life-worlds of Older Singaporeans

Funded by the Social Science Research Council (SSRC)
2021-2024

Principal Investigator (PI): Elaine Ho (NUS Geography & ARI)
Co-PI: Vincent Chua (NUS Sociology & Anthropology)
Co-PI: Feng Chen-Chieh (NUS Geography)
Postdoctoral Fellows: Gao Siyao & Samantha Lim
Research Assistant: Chia Xin Yi

Research methods: data collection

Survey collected in Y2021

- **N=552 in Taman Jurong, N=648 in Hougang (total: 1,199)**
- 45-60mins long
- Standard demographic questions
- Mapping of personal networks, measuring 'network connectedness'
- Measure 'group connectedness'- other forms of social connectedness e.g., participation in group activities

Qualitative GIS (Subset of survey)

- N=25 per site completed all 3-stages
- Opening interview
- Go-Along interview & 7-days GPS tracking (mobile app)
- Closing interview
- 60-90 mins for interviews (go-alongs are longer)
- Transcribed and coded interviews using Atlas-Ti (predeveloped & emergent codes)

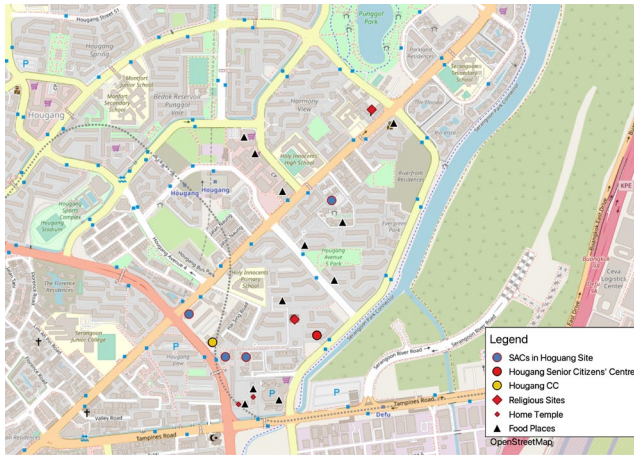
***1200 older adults recruited; 1 withdrew subsequently**

2 Neighbourhoods:
Taman Jurong & Hougang

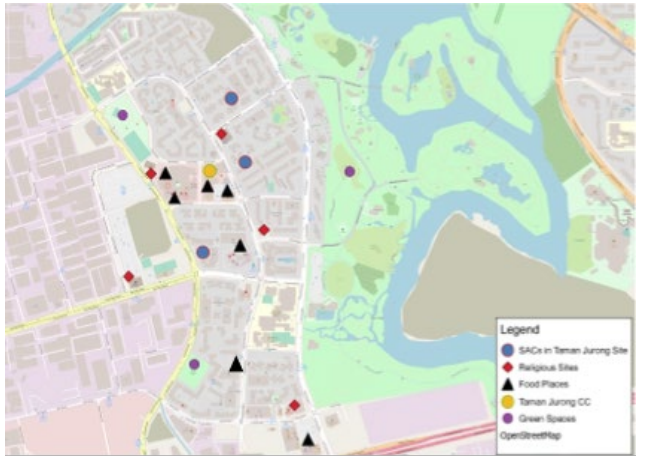
Participants' Age:
60-92

Conducted in:

- English
- Mandarin
- Malay
- Tamil



HOUGANG



TAMAN JURONG

Singapore is ageing. Yet it is also an unusually well-connected society. Its physical infrastructure—spanning an efficient network of roads, rail lines, and pedestrian pathways—is tightly integrated across a compact urban territory of just 710 square kilometres.

High rates of digital connectivity and widespread internet access further enhance the ease with which individuals can stay socially and informationally linked.

Although centred around a dense urban core, Singapore extends into suburban "heartland" neighbourhoods, each with its own distinctive local character, yet closely interlinked with the rest of the city-state. In this sense, **Singapore is both a dense, compact city and a polycentric one, with multiple nodes of activity and community life. These qualities make it particularly well-suited for studying how older adults navigate social networks that span beyond immediate households or neighbourhoods.**

FINDINGS

Table 1: Sample characteristics

	Hougang (HG)	Taman Jurong (TJ)	Diff. significance
Age (in years)	69	69	NS
% Male	46	47	NS
% Female	54	53	NS
% Chinese	87	67	***
% Malay	5	21	***
% Indian	7	10	NS
% Others	1	2	NS
% Single	11	6	**
% Married	63	64	NS
% Separated/Divorced	8	9	NS
% Widowed	18	21	NS
% Public housing	83	92	***
% Private housing	17	8	***
% No formal education	15	20	*
% Primary education	29	32	NS
% Secondary education	35	29	*
% ITE and above	21	18	NS
% Employed	36	41	NS
% Unemployed	2	3	NS
% Retired	42	35	*
% Homemaker	20	21	NS
Among employed, % PMET (Professional, Managerial, Executive and Technical occupations)	28	27	NS
Residential tenure (in years)	22	19	***
% Own smartphone	80	79	NS
% Living alone	17	15	NS
n	647	552	

*P<.05, **P<.01, ***P<.001

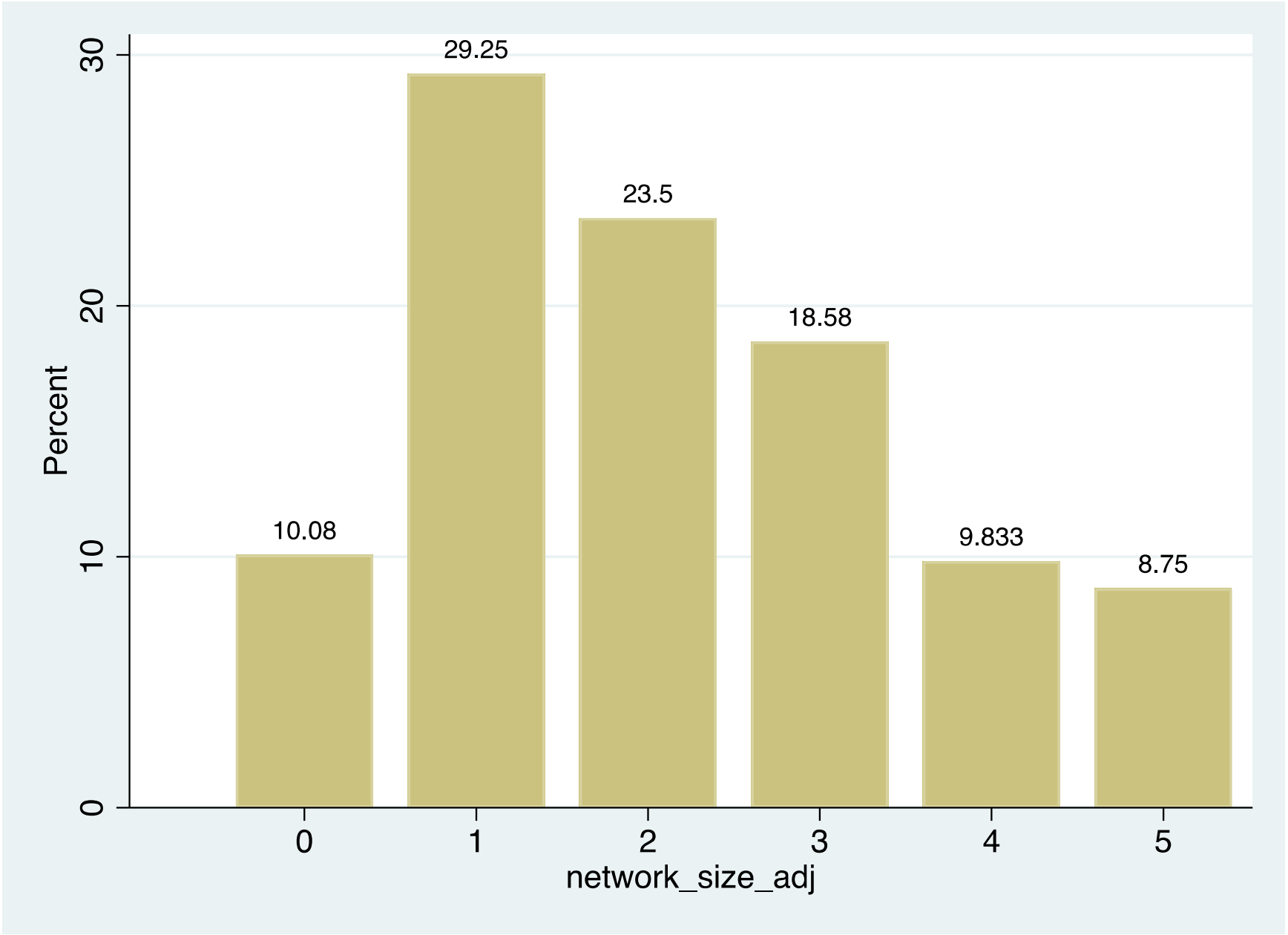
Total n = 1,199

"From time to time, most people discuss things that are important to them with others. For example, these may include events in your life (good or bad), problems you have had, or important concerns (e.g., COVID-19, health matters and others). **Looking back over the last 12 months, who were the people with whom you most often discussed things that were important to you?** Please list these people."

- **Enter up to 5 names** in the order in which they are identified by respondent

- ***Followed up with name interpreters, including <u>where</u> they met their contacts (which we geocoded)***

- **1,199 respondents gave 2,581 names**
- 120 respondents didn't give any names (i.e., network size = 0)


30
20
10
0
Percent
29.25
23.5
18.58
10.08
9.833
8.75
0
1
2
3
4
5
network_size_adj

DISTRIBUTION OF ROLE RELATIONSHIPS

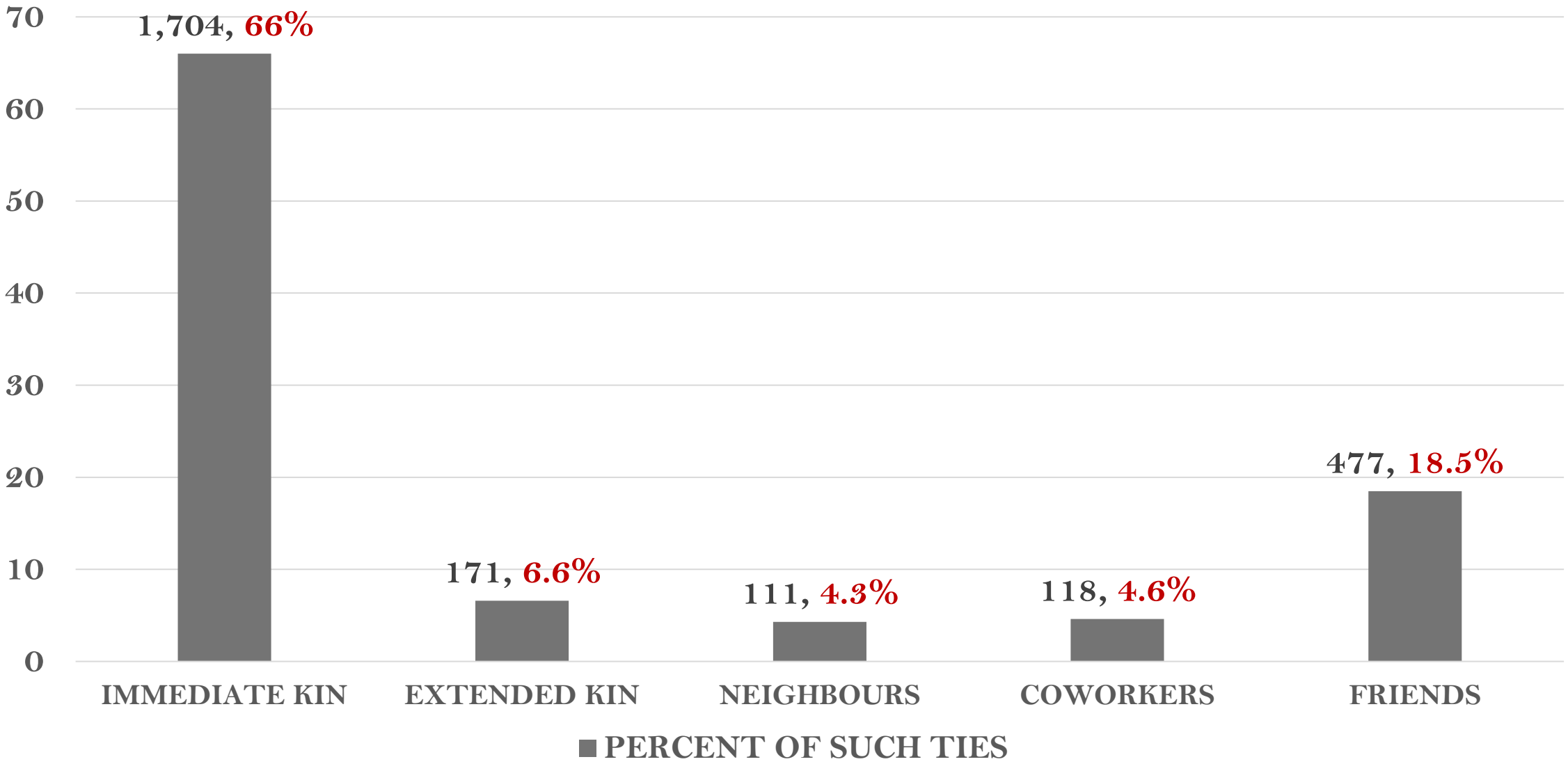


Table 2: Role relationships by person (Hougang and Taman Jurong)

	First person		*Second person*		*Third person*		*Fourth person*		*Fifth person*	
	HG	TJ	HG	TJ	HG	TJ	HG	TJ	HG	TJ
% Immediate kin	75	76	65	61	58	64	45	54	32	55
% Extended kin	5	4	6	9	8	8	10	8	12.5	8
% Neighbour	3	4	4	6	3	6	3	6	11	6
% Work tie	2	4	5	5	5	6	10	8	7	4
% Friends and others	14	11	20	18	27	17	32	24	38	27

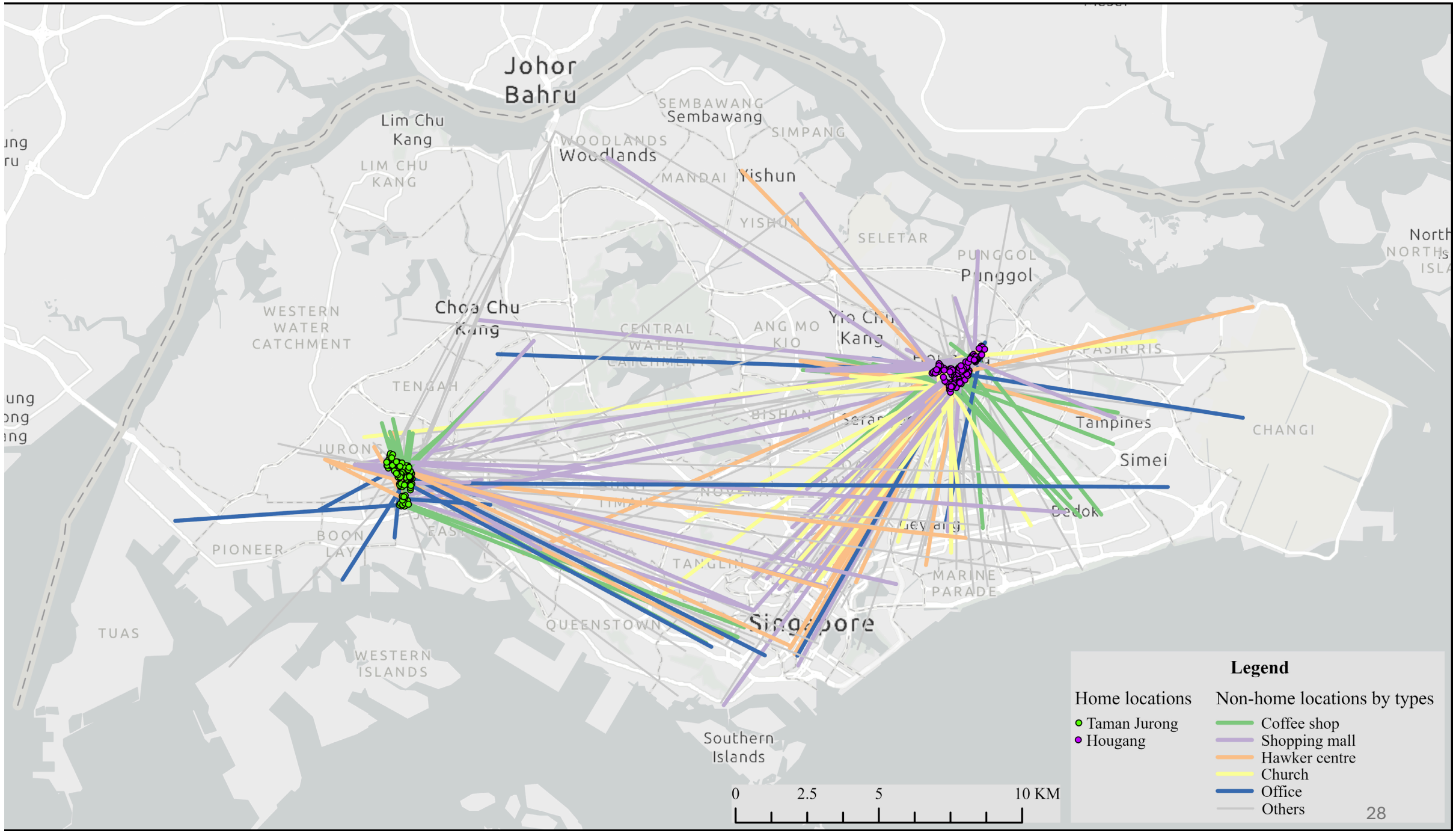
Immediate kin comprise child, parent, spouse, and sibling.

In both neighbourhoods, immediate kin tend to be named first.
Followed by friends, colleagues, and others.
Neighbours are named later.

Table 3: Role relationships and their characteristics (Hougang and Taman Jurong)

	% Often F2F		*% Often digitally*		*% Live within 20 min walk*		*% Strong ties*		*% Weak ties*	
	HG	TJ	HG	TJ	HG	TJ	HG	TJ	HG	TJ
Immediate kin	79	77	69	72	61	56	76	72	24	28
Extended kin	58	54	54	62	36	38	64	63	36	37
Neighbour	70	86	32	22	100	100	23	22	77	78
Co-worker	67	74	75	47	22	16	22	14	78	86
Friends and others	59	55	63	58	29	39	30	30	70	70

Strong ties are to family; weaker ties are to neighbours, co-workers and friends.
Older adults are connecting F2F as well as digitally (simultaneously).
Immediate kin and neighbours are spatially nearby.
Extended kin, co-workers, and friends are farther spatially.


Johor Bahru
Lim Chu Kang
LIM CHU KANG
SEMBAWANG
Sembawang
SIMPANG
WOODLANDS
Woodlands
MANDAI
Yishun
YISHUN
SELETAR
PUNGGOL
Punggol
North
NORTH
ISLA
WESTERN WATER CATCHMENT
Choa Chu Kang
CENTRAL WATER CATCHMENT
ANG MO KIO
Yio Chu Kang
PASIR RIS
TENGAH
BISHAN
Tampines
CHANGI
Simei
Bedok
PIONEER
BOON LAY
TANGLIN
MARINE PARADE
Singapore
QUEENSTOWN
TUAS
WESTERN ISLANDS
Southern Islands
0
2.5
5
10 KM
Legend
Home locations
Taman Jurong
Hougang
Non-home locations by types
Coffee shop
Shopping mall
Hawker centre
Church
Office
Others

With 0s

Mean contact distances (median) (max):

- 2,043 metres (0 metres) (21,855 metres) (HG)
- 1,771 metres (0 metres) (26,523 metres) (TJ)

*Tie to a household member equates to 0 metres

Exclude 0s (household members)

Mean contact distances (median):

- 4,163 metres (3,372 metres) (21,855 metres) (HG)
- 4,377 metres (1,644 metres) (26,523 metres) (TJ)

Table 4: Predictors of ties to immediate kin, extended kin, neighbours, co-workers and friends (Hougang and Taman Jurong)

VARIABLES	(M1: Ties to immediate kin) HG	TJ	(M2: Ties to extended kin) HG	TJ	(M3: Ties to neighbors) HG	TJ	(M4: Ties to co-workers) HG	TJ	(M5: Ties to friends/others) HG	TJ
Age (in years)	-0.00	-0.07*	0.01	0.06*	0.04	0.03	-0.01	-0.03	0.02	-0.02
Female (Male=0)	0.56	-0.04	0.600	0.90*	0.23	0.60	-0.16	0.73	0.02	-0.08
Chinese (Minorities=0)	-0.23	-0.80*	-0.27	-0.81*	-0.72	0.46	0.41	1.04	0.14	0.18
Educ: Primary	0.62	-0.50	0.31	0.09	-0.44	-0.32	-0.94	2.13	-0.54	0.16
Educ: Secondary	1.22*	-0.50	0.06	-0.83	-1.11	-0.12	-0.18	1.46	-0.37	0.95*
Educ: > Sec (No formal=0)	1.22*	-0.69	0.04	-0.41	-0.02	-0.48	-0.72	2.16	0.66	0.46
Private housing (Public=0)	-0.43	1.47	0.02	0.20	-0.85	-1.46	-0.17	-0.61	-0.30	-0.02
Employed (not employed)	0.03	0.18	-0.14	0.32	0.14	-0.85	1.49***	2.72***	0.69*	-0.32
Married (not married)	0.44	0.38	-1.21***	-0.61	-0.36	0.46	0.35	0.89	-0.32	-0.46
Children (yes)	1.22**	0.48	-0.45	-0.65	1.62	-0.98	-0.34	1.55	-0.77	-0.42
Live alone	0.72	-0.39	-0.49	-0.41	0.83	0.45	-0.27	1.14	-0.85	0.06
Functional health	0.75**	-0.29	0.09	-0.08	-0.91**	-0.08	11.82	-0.75	-0.37	0.82
Smartphone (=1)	-0.77	-0.14	-0.28	0.12	-0.07	-0.56	0.55	0.19	1.03*	0.17
Residential tenure (in yrs)					-0.00	0.03				
Network density (extent to which network members know each other)	1.20*	1.36**	0.93	-0.86	-2.65***	-0.81	-2.32***	-3.73***	-3.37***	-2.71***
Constant	-0.74	5.75*	-2.02	-4.23	-3.68	-3.19	-3.03	-4.06	0.86	3.28
Observations	391	337	391	337	391	337	391	337	391	337
Pseudo R2	0.10	0.11	0.095	0.11	0.21	0.13	0.24	0.33	0.20	0.15

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Abbreviations
HG=Hougang, TJ=Taman Jurong

Table 5: Predictors of depression and PMET, by neighbourhood

VARIABLES	(1) HG Depression	(2) TJ Depression	(3) HG PMET	(4) TJ PMET
Age (in years)	-0.03	-0.07	-0.12*	-0.08
Female (Male = 0)	2.39***	2.74***	-0.81	0.12
Malay	-1.36	-2.24**	0.54	-1.34*
Indian	1.38	-1.62	-0.03	-0.82
Others (Chinese = 0)	-5.11	-4.90*	-1.03	
Educ: Primary	0.04	-1.23		
Educ: Secondary	-0.65	-2.38*		
Educ: > Sec (No formal = 0 / else)	-0.24	-1.97	1.72***	2.27***
Private housing (Public = 0)	0.09	-1.25	2.76***	0.69
Unemployed	0.96	3.67*		
Retired	0.92	2.05**		
Homemaker (Employed = 0)	1.60	0.38		
Married	1.46	1.57	0.73	0.21
Separated/Divorced	1.94	1.09	-0.31	0.54
Widowed (Single = 0)	-0.01	0.76	0.54	-0.03
Children (No = 0)	1.10	0.96	-0.59	-0.23
Live alone	1.83	1.36	0.74	-1.43
Functional health	-2.11***	-1.06**	-0.70	0.59
Smartphone (No = 0)	0.60	-1.31		
Number of strong ties	-1.37***	-0.80**	0.14	0.41*
Number of weak ties	-0.13	-0.20	0.41*	0.42*
Constant	20.66***	26.06***	5.37	2.89
Observations	570	509	199	204
R-squared	0.14	0.17		
Pseudo R2			0.35	0.30

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Abbreviations
HG=Hougang, TJ=Taman Jurong
PMET = occupations in the professional, managerial, executive, and technical fields

Table 6a: Association between number of various amenities (within a 20-min walk) and number of strong ties and number of weak ties, by neighbourhood

VARIABLES	(1) HG #strong ties	(2) TJ #strong ties	(3) HG #weak ties	(4) TJ #weak ties
Clinic 20min walk	-0.01	-0.07**	-0.01	-0.02
CC 20min walk	-0.01	0.29	-0.21	0.22
Coffeeshop 20min walk	0.03	0.12	0.11*	-0.14
RC 20min walk	0.04	0.07	-0.00	0.11
SAC 20min walk	-0.05	0.26*	-0.15*	0.31
Constant	0.11	-0.18	-0.25	-0.35
Observations	546	509	546	509
Pseudo R2	0.004	0.006	0.005	0.008

Table 6b: Association between number of various amenities (within a 15-min transit) and number of strong ties and number of weak ties, by neighbourhood

VARIABLES	(1) HG #strong ties	(2) TJ #strong ties	(3) HG #weak ties	(4) TJ #weak ties
Clinic 15min transit	-0.02*	0.05*	-0.01	-0.05
CC 15min transit	-0.02	-0.24*	0.01	-0.18
Coffeeshop 15min transit	0.02	-0.01	0.01	0.08
RC 15min transit	0.01	0.06*	0.02	0.03
SAC 15min transit	0.07	-0.44	0.07	0.16
Constant	0.44**	-0.24	-0.38	0.09
Observations	533	509	533	509
Pseudo R2	0.006	0.011	0.003	0.004

Table 6c: Association between number of various amenities (within a 7-min drive) and number of strong ties and number of weak ties, by neighbourhood

VARIABLES	(1) HG #strong ties	(2) TJ #strong ties	(3) HG #weak ties	(4) TJ #weak ties
Clinic 7min drive	0.03*	-0.07*	0.03	-0.09
CC 7min drive	-0.00	0.05	-0.01	0.12
Coffeeshop 7min drive	-0.08*	0.18**	-0.09	0.08
RC 7min drive	0.00	-0.00	0.00	0.06
SAC 7min drive	-0.04	-0.03	-0.00	-0.01
Constant	0.71*	-0.28	0.31	-0.12
Observations	546	509	546	509
Pseudo R2	0.005	0.010	0.003	0.006

*** p<0.001, ** p<0.01, * p<0.05

Abbreviations

CC=Community club

RC=Resident committee

SAC=Senior activity centre

HG=Hougang, TJ=Taman Jurong

Table 6d: Association between use of various amenities (within a 20-min walk) and number of strong ties and number of weak ties, by neighbourhood

VARIABLES	(1) HG #strong ties	(2) TJ #strong ties	(3) HG #weak ties	(4) TJ #weak ties
Use clinic	-0.02	0.24**	0.04	-0.02
Use CC/RC/SAC	-0.02	0.10	0.13	0.01
Use coffeeshop etc.	0.21*	0.09	0.25	0.18
Constant	0.24**	0.11	-0.36**	-0.18
Observations	570	509	570	509
Pseudo R2	0.003	0.009	0.004	0.001

Table 6e: Association between use of various amenities (beyond a 20-min walk) and number of strong ties and number of weak ties, by neighbourhood

VARIABLES	(1) HG #strong ties	(2) TJ #strong ties	(3) HG #weak ties	(4) TJ #weak ties
Use clinic	-0.03	-0.17	0.01	0.25
Use CC/RC/SAC	-0.14	-0.01	0.35*	-0.11
Use of coffeeshop etc.	0.27***	0.16	0.18	0.26*
Constant	0.26***	0.35***	-0.26**	-0.39**
Observations	570	509	570	509
Pseudo R2	0.007	0.004	0.007	0.007

*** p<0.001, ** p<0.01, * p<0.05

Further analyses show that the **number of different addresses in a respondent's network is positively associated with network diversity along several dimensions. Specifically, it correlates strongly with the number of weak ties ($r = .40$, $p < .001$), tie strength diversity—i.e. networks that include both strong and weak ties ($r = .25$, $p < .001$), racial diversity ($r = .14$, $p < .01$), and educational diversity ($r = .21$, $p < .001$).**

These findings suggest that mobility and social network diversity are intertwined: individuals who maintain ties across multiple locations tend also to have more heterogeneous networks. **In turn, this spatial reach reflects and reinforces the varied social capital they are able to access through everyday movement and interaction.**

Table 7: Contact types by living alone versus living with someone

Hougang	*Live alone*	*Live with someone*	*Difference*
Number of kin	1.4	1.8	-.4**
Number of non-kin	.8	.7	.1 (ns)
Number of strong ties	1.1	1.5	-.4**
Number of weak ties	1.0	.9	.1 (ns)
Number of "high" digitality ties	1.4	1.6	-.2 (ns)
Number of "low" digitality ties	.8	.8	0 (ns)
Number of "far" ties (beyond 20 min walk of the home)	1.4	1	.4**
Number of "near" ties (within 20 min walk of the home)	.7	1.4	-.7***
Taman Jurong			
Number of kin	1.4	1.8	-.4*
Number of non-kin	.8	.6	.2 (ns)
Number of strong ties	1.2	1.4	-.2 (ns)
Number of weak ties	1.1	1.0	.1 (ns)
Number of "high" digitality ties	1.5	1.6	-.1 (ns)
Number of "low" digitality ties	.8	.8	0 (ns)
Number of "far" ties (beyond 20 min walk of the home)	1.5	1	.5**
Number of "near" ties (within 20 min walk of the home)	.7	1.3	-.6***

**P<.01, *P<.05

Table 8: How contacts modify the impact of living alone on feeling lonely

	M1	M2	M3	M4	M5	M6
Interaction terms	HG	TJ	HG	TJ	HG	TJ
Live alone x (number of contacts with whom the respondent has "high" digital contact (at least once a week))	-.53 (.29)	-.75** (.27)				
Live alone x (number of contacts with whom the respondent has "low" digital contact (less than once a week))	-.24 (.35)	-.52 (.35)				
Live alone x (number of contacts who live "far" from the respondent (beyond a 20 min walk))			-.67* (.33)	-.59* (.26)		
Live alone x (number of contacts who live "near" to the respondent (within a 20 min walk))			-.66 (.40)	-.58 (.38)		
Live alone x (number of "weak" ties (to whom the respondent feels "less than very close"))					-.36 (.30)	-.70* (.31)
Live alone x (number of "strong" ties (to whom the respondent feels "very close"))					-.55 (.33)	-.68* (.29)
Controls	Y	Y	Y	Y	Y	Y
n	570	509	570	509	570	509

Controls included: age, gender, race, education, housing, marital status, functional health (coefficients available on request).
*P<.05, **P<.01, ***P<.001
Standard errors in parentheses
HJ = Hougang, TJ = Taman Jurong
The subsamples (570 + 509 = 1,079) do not add to the original sample of n=1,119 because 120 respondents gave no names in response to the name generator question.

A **key limitation** of this study is its cross-sectional design, which restricts our ability to make strong causal claims. While we argue that ties often drive amenity use (ties → amenities), it is also likely that the reverse relationship holds (amenities → ties). Longitudinal data would help clarify how networks and place-making influence one another over time.

Future research should examine **how network quality evolves** and **how different types of ties—strong or weak, online or offline—serve as buffers against loneliness, stress, and decline.**

Comparative research across cultures and contexts will also be critical. While we believe ageing in networks is a widespread phenomenon, its form and function will differ by infrastructural context, technological access, and cultural norms. A compact and digitally connected society like Singapore provides a unique vantage point—but comparative studies could deepen our understanding of variation and universality.

Beyond academic contribution, our findings have practical implications. **Ageing in networks calls for policy approaches that recognise the mobility, connectivity, and social autonomy of older adults.**

First, while maintaining elder-friendly amenities in residential neighbourhoods remains important, **it is equally vital to support older adults' ability to travel—both within and beyond their neighbourhoods (Gimie et al., 2022).** Transport connectivity, walkability, and affordability—what Harada et al. (2023) term "mobility justice"—must be central to planning age-friendly cities.

Second, digital literacy must be seen not as a luxury but a necessity. As older adults increasingly rely on technology to maintain ties and schedule meet-ups, policies that promote digital access, skills training, and user-friendly design will become indispensable (Hargittai et al., 2019).

Third, policy should also support the formation and sustainability of social networks that are not bound by geography. **Community programmes should aim to bring together older adults not just by residential proximity, but by shared interests, values, or life experiences—thus creating opportunities for connection beyond the neighbourhood.**

Traditional service models must evolve to better support dispersed networks, for instance, through **telehealth, interest-based virtual communities, or cross-neighbourhood events** (Hamilton et al., 2020).

THANK YOU AND FURTHER DISCUSSION IS WELCOMED!

Our published papers can be found here:

Social infrastructures

Ageing in networks (QualiGIS)

Ageing in networks (Conceptual)

A splatial approach (GIS)

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