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Achieving healthy ageing through the perspective of sense of coherence among senior-only households: a qualitative study

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ABSTRACT

Objectives: Explore perceptions towards healthy ageing through the perspective of sense of coherence among older adults residing in senior-only households.

Methods: A qualitative study using focus group interviews was conducted and appreciative inquiry was adopted as a strengths-based interviewing approach. 27 older adults who either live alone or with their spouses only were involved in six focus group discussions at a community centre in Singapore. Data saturation was achieved and thematic analysis was performed to analyse the data.

Results: The four emerging themes were (1) contending evolving vulnerabilities, (2) intrinsic value of health, (3) taking care of oneself is a personal responsibility, and (4) taking one day at a time: outlook towards later part of life. Older adults' underlying pathogenic orientation towards health contributed to their perceived unpredictable confrontations with vicissitudes including illness and death. This played a part to their short outlook towards old age. Consequently, this could limit their will and abilities to seek meaningful pursuits or valued aspirations and movement towards the salutogenic health pole.

Conclusion: By reframing the definition of health to pursuing and fulfilling valued accomplishments, optimal health can be achieved regardless of physical health state. This study suggested that sense of coherence towards the pursuit of healthy ageing can be addressed by reducing the unpredictability of ageing-related processes and vulnerabilities (comprehensibility), supporting active adoption of actions which promotes physical, mental and social health (manageability) and individual reflection in making sense of old age to seek motivation in living each day purposefully (meaningfulness).

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KEYWORDS
Sense of coherence; healthy ageing; salutogenesis; aged care; community health

Background

Ageing is a natural developmental dynamic process of human life and a triumph of accumulated life experiences in an individual (De Juan Pardo, Russo, & Roque Sanchez, 2018). However, risk for diseases, frailty and disability increases with age and more seniors experience multi-morbidity. Instead of approaching ageing from a pathogenic perspective, the World Health Organisation (2015) focused on strengthening the physical and mental capacities of seniors, as well as creating the environment to allow them to achieve their valued goals. It draws on the salutogenic perspective and includes the promotion of psychological resources such as sense of coherence (SoC) to cope with life challenges at old age.

Under the salutogenic model of health, health is a position on the health ease/dis-ease continuum and movement towards the salutogenic or 'ease' end of the continuum focused on factors that create health (Antonovsky, 1987). Based on the fundamental assumption that we live in a chaotic and inevitably stress-rich environment, active adaptation to these stressors can be achieved through mobilisation of SoC via Generalised Resistance Resources (GRRs). GRRs are characteristics of a person, group or environment which aid in managing tension caused by stressors (Antonovsky, 1987). SoC is a coping capacity comprising of three elements: comprehensibility, manageability and meaningfulness. It is the life orientation towards how one perceives a stressful situation as structured, understandable and predictable (comprehensibility), believes that there are available resources to cope with the stressor (manageability) and views the encounter with stressor as worthy of challenge and engagement (meaningfulness) (Antonovsky, 1987). These three elements act on the cognitive, behavioural and motivation dimensions, respectively (Eriksson & Mittelmark, 2017). Thus, a person with strong SoC perceives stressors as comprehensible, manageable and meaningful, copes with them well by being able to mobilise the resources at disposal and thereby move towards the salutogenic end of health continuum (Eriksson & Lindstrom, 2006). The position, and thus concept of health, is dynamic and always in a process of becoming, rather than an end-point or product one can achieve (Lindstrom & Eriksson, 2010; McCuaig, Quennerstedt, & Macdonald, 2013).

Studies have demonstrated the significant role of SoC mediating the effects of bio-psycho-social resources on health outcomes and subjective life satisfaction among seniors (Wiesmann & Hannich, 2010, 2013). Higher SoC was associated with better perceived physical, mental and social health, and quality of life among seniors age $\geq$ 65 years

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(Tan, Vehvilainen-Julkunen, & Chan, 2014). Higher SoC also have protective effects against mortality and functional decline among seniors age ≥ 80 years (Boeckxstaens et al., 2016). Despite the evidence calling out to strengthen SoC among seniors, a deeper understanding on their health orientation is required to identify stressors experienced and their ability to navigate and mobilise resources to cope with them. However, there are few of such studies (Tan et al., 2014). Bryant, Corbett, and Kutner (2001) interviewed seniors with disparate self-reported health status to develop a model of healthy aging, informed by the salutogenic orientation. Naaldenberg, Vaandrager, Koelen, and Leeuwis (2012) focused on how seniors experience healthy aging, particularly in the area of resource mobilisation. Söderhamn, Dale, and Söderhamn (2011) explored the lived experiences of self-care among seniors with high SoC, and characteristics of seniors affecting their self-care. Little is known about the application of SoC, and its components among community-dwelling seniors, which was crucial in understanding SoC enhancing processes to advance healthy ageing.

Singapore is a South-east Asian country with an ageing population of 40.1% of its residents coming to an age of ≥ 60 years old in 2050 (United Nations Department of Economic and Social Affairs, Population Division, 2017). It has a multi-ethnic population of Chinese, Malays and Indians. Among the households with heads 65 years and above in Singapore, there is a notable increase in the number of couple-based households without children from 17, 732 in 2000 to 82, 702 in 2017 and one-person households from 14, 500 in 2000 to 53, 800 in 2017 (Ministry of Social and Family Development, 2019). This accounted for 50% of households with heads aged 65 years and above in 2017 (Department of Statistics Singapore, 2018). These living arrangements trends have implications on caregiving as they grow old.

Generally, Singapore's key aging policies encourage ageing-in-place and provide support for seniors to age actively in their homes, communities and environment they are familiar with. The 'many helping hands' framework is adopted where caregiving responsibilities and support lie firstly on the individual, followed by family, community organisations and lastly the government (Mehta, 2000). Older Singaporeans should assume personal responsibility for their own health and ensure their own financial stability (IMC Workgroup, 1999). Like many Asian countries, familism and filial piety are highly valued in Singapore. Preferences to be cared for by immediate family members such as children, as well as dependence on physical, emotional and financial support from them during old age are prevalent (Ministry of Social and Family Development, 2015). It is also ingrained in the 1995 Maintenance of Parents Act, a filial-support law which establishes care responsibilities of adult children for elderly parents who are unable to subsist on their own (Serrano, Saltman, & Yeh, 2017). Intergenerational transfers of financial and support care resources often exist between elderly parents and children (Gubhaju & Chan, 2016). Not having to live with children or other family members may alter the type of family interaction, care and support provided for seniors residing in senior-only households. They can be perceived to have lesser familial resources, relying on their own or seeking alternative external community aids and government resources for these support (Soon, Tan, Wang, & Lopez, 2015; Tan, He, Chan, & Vehvilainen, 2015; Thang & Lim, 2012; Wong & Verbrugge, 2009). This draws concern to how these seniors are coping with stressors at old age while living independently. Thus, this study was embarked on to explore perceptions towards healthy ageing among this group of seniors and how they use existing resources to promote and maintain their health. Findings reported in this paper addressed the research question on how these seniors perceive health and ageing, in relation to SoC theory.

Methods

Study design and sample

A qualitative study using focus group interviews was adopted. Participants were recruited from a public residential area located in the western part of Singapore. In this highly urbanised city-state, four in five residents live in one-room to five-room high rise public housing managed by the Housing Development Board (HDB) and 90% of residents own their homes (Department of Statistics Singapore, 2018). The selected residential area for this study had higher proportion of senior population and lower socio-economic status, with a greater proportion of residents living in one-, two- and three-room HDB apartments.

The study participants were ≥ 65 years old, lived either alone or with their spouses (≥ 65 years old) only and had no uncontrolled active cognitive or psychiatric conditions. They were purposively selected to ensure varied combinations of participants' characteristics according to their living arrangement (living alone/living with spouse) and gender (male/female). Apart from distributing flyers at public areas and during a seniors' event at a community centre, door-to-door home visits were also conducted to recruit seniors with varying social activity participation levels. Data saturation was used to determine the final sample size.

Development of interview guide

Inspired by the strengths-based approach guided by the salutogenic view (Lewis, 1997), this study sought to investigate what creates health among seniors residing in senior-only households and how this optimal state of health at the salutogenic end of health continuum can be achieved. In addition to the general questions included in the semi-structured interview guide (Table 1), the Appreciative Inquiry (AI) was used. AI affirms observations on 'best of what it is', operating on the notion that people are drawn towards positive images of future and positive actions (Cooperrider, 1990). Exploring what works through stories of success, such as achievements, resources, assets and positive choices, may facilitate positive images and positive health behaviours (Moore & Charvat, 2007). It complements the Salutogenic model on optimisation work in creating positive health (Becker, Glascoff, & Felts, 2010). Although AI stems from organisational change methods and its application extends into participatory research studies (Richer, Ritchie, & Marchionni, 2010), this study used it as a strengths-based data collection approach to obtain responses on how seniors can move towards the salutogenic end of health continuum.

Table 1. Interview guide.

General questions
• *What does health means to you?*
• *What is healthy ageing?*
• *In what way/s are you aging healthily?*
• *What are the good efforts and attempts you have done to achieve healthy ageing?*
• *What do you value most when living alone or with another older person in your later years?*
• *How do you manage your physical health?*
• *How do you manage your mental or emotional health?*
• *How do you manage your social health or relationships with others?*
Questions related to Appreciative Inquiry
• *Can you share a moment when you felt healthiest in your later years?*
• *If you have supernatural powers and all the challenges disappear, what do you envision healthy ageing to be?*
• *What can be done to achieve this vision of ageing healthily?*

Ethics approval

Ethics approval was obtained from Institutional Review Board of National University of Singapore. Informed consent was obtained from all participants prior to data collection. To ensure confidentiality of participants, they were coded with pseudo-names.

Data collection

Small focus groups, which were conducted at a community centre, were used to encourage senior participants who are illiterate or had minimal education to share their personal attitude-related views and experiences comfortably together with their peers (Mehta, 2011). They lasted for an average duration of 114 min (range 89–151 min). Participants were grouped according to their preferred spoken languages. A total of four Mandarin Chinese and two English focus groups were conducted. Instead of being problem-based focused, an appreciative positive approach was adopted by framing the interview questions positively. Participants were also briefed to take on a positive orientation at the beginning of each focus group.

Data analysis

All focus groups were audio-recorded, transcribed verbatim and analysed in their original languages to retain the original meaning of words and expressions used by participants. Data was analysed using six steps of thematic analysis recommended by Braun and Clarke (2006). Two researchers proficient in English and Mandarin immersed self into the data by checking the transcripts against the audio-recordings and reading the transcripts repeatedly. They performed line-by-line coding of textual data which addressed the research question. These codes were extracted, sorted and collated into broader levels of potential themes and sub-themes. This was followed by a review, refinement and reduction of themes according to codes extracted and data set as a whole till they fit together to depict a complete story of data. The eventual themes were defined and named to provide meaningful narratives, followed by the write-up of these themes illustrated with selected vivid extracted data.

While the salutogenic theory, particularly SoC, was used to inform the development of interview guide and interpretation of findings for discussion, it was not used as an analytical framework to categorise themes and sub-themes. As SoC is developed and construed as a global orientation and not based on its explicit components on comprehensibility, manageability and meaningfulness (Antonovsky, 1993), themes that emerged in our findings are presented as an entirety in relation to participants' ageing experiences to elucidate their SoC towards health and ageing.

Rigor

All interviews were conducted by the same bilingual interviewer, with a note-taker present to record key discussion points. Memos were written after each interview to exercise reflexivity. During data analysis, the two researchers generated initial codes independently in the original language of the data before coming together to reach a consensus on the codes, subthemes and themes in English language through extensive discussions. Having more than one researcher to conduct the initial analysis in the original language of verbatim minimised risk for misinterpretation and prevent loss of participants' intended meanings within context (Smith, Chen, & Liu, 2008). The use of purposive sampling according to socio-demographic background and varying recruitment strategies employed ensured representativeness of study population.

Results

There were 27 participants (age ranged 65–79 years old) involved in six focus group discussions. They came from different socio-economic backgrounds with their residence ranging from rental studio apartments to self-owned five-room apartments. Health status varied among the participants too. While three seniors reported having no chronic health conditions, majority had at least one of the 'three-highs diseases' (hypertension, hyperlipidaemia and diabetes) and seven of them also reported having significant health conditions such as heart and lung problems. Further demographic and social background were described in Table 2.

The emerging four themes were (1) contending evolving vulnerabilities, (2) intrinsic value of health, (3) taking care of oneself is a personal responsibility, (4) taking one day at a time: outlook towards later part of life. Refer to Table 3 for presentation of themes and sub-themes.

Contending evolving vulnerabilities

The first theme described how participants come to terms with the physical and psychosocial stressors faced as years advanced, and the circumstances in which they require tangible help while living independently. It gave an insight to what they comprehended about their personal experiences of ageing, the impact of these experiences on their daily living and how they cope when in need of assistance.

Physiological decline

As participants grew old, they recognised the deteriorating age-related physiological changes, such as poorer memory and knee pain, and chronic health conditions experienced. They had to reconcile with themselves to adapt to them.

Table 2. Description of participants' demographic and social background.

Participant (pseudo-names)	Focus group	Age (years), gender, ethnicity	Marital status, living arrangement	Other information and observations
Ah Chye	1	79, Male, Chinese	Married, stay with spouse	Retired hawker, lives in three-room self-purchased HDB flat, has diabetes, lung cancer and heart bypass surgery, has two married children (spouse of Ying Ying)
Ying Ying	1	73, Female, Chinese	Married, stay with spouse	Retired hawker, joyful personality, participates actively in community programs, has hypertension and hyperlipidemia (spouse of Ah Chye)
Wah Lee	1	75, Female, Chinese	Married, stay with spouse	Retired art teacher, live in five-room self-purchased HDB flat, volunteer at a VWO for seniors, swims every other day, has 'three highs' (spouse of Meng Hoe)
Yan Hong	1	71, Female, Chinese	Single, stay alone	Retired florist, Catholic, works part-time at a church, has no chronic diseases, keeps in contact with brother, live in three-room HDB self-purchased flat, rents out a room
Eng Hwa	1	70, Female, Chinese	Single, stay alone	Retired production manager, has multiple co-morbidities, recently underwent bilateral knee replacement, pants easily and has low activity tolerance, uses walking stick
Meng Hoe	2	75, Male, Chinese	Married, stay with spouse	Almost blind due to bilateral glaucoma, does 'furniture walking' and ambulates with walking stick, gave up leisure activities due to poor vision, maintains positivity, has three married children (spouse of Wah Lee)
Nee Mui	2	66, Female, Chinese	Single, stay alone	Volunteer at a VWO for seniors, cheery disposition, active participant in community programs, has hypertension, keeps in contact with brother but not close
Di Meng	2	70, Female, Chinese	Divorced, stay alone	Works part-time in a laundry factory, divorced in her thirties and raised two daughters by herself, has hypertension
Ching Ai	2	75, Female, Chinese	Widowed, stay alone	Husband passed away recently and still in grief, has three children, take up lessons/courses to occupy herself
Siew Yan	3	76, Female, Chinese	Widowed, stay alone	Retired hawker, live with a dog left by her husband, has four children, wants to learn English to visit daughter who is working in United States
Ah Soon	3	75, Male, Chinese	Married, stay with spouse	Retired painter for construction, enjoys karaoke singing at community centres, travels on his own to explore local places, has 'three highs', has a 90+ year-old mother
Mui Tin	3	72, Female, Chinese	Divorced, stay alone	Wants to look for job to keep herself occupied, has strained relationship with her son, has depression, feels lonely, live in self-purchased three-room HDB flat
Ah Eng	3	69, Male, Chinese	Married, stay with spouse	Works full-time as a driver to support himself and his wife, lives in a five-room HDB flat, has no chronic diseases
Ah Leong	3	78, Male, Chinese	Separated, stay alone	Retired hawker, has multiple comorbidities, social service recipient, ambulates with a mobility scooter, lives in a one-room rented flat, not in contact with family for years
Peh Chin	4	75, Male, Chinese	Widowed, stay alone	Unemployed. wife recently passed away and in grief, wants to look for a job to keep himself occupied, feels lonely in his three-room HDB flat, has hypertension
Keng Gim	4	77, Male, Chinese	Divorced, stay alone	Retired factory supervisor, has a son overseas whom he frequently contacts, has hypertension and high cholesterol, lives in a self-purchased three-room HDB flat
Salinah	4	72, Female, Malay	Widowed, stay alone	Retired factory operator, single-mother whom raised two daughters, has multiple co-morbidities, ambulates with a mobility scooter, lives in rented flat
Chew See	5	73, Female, Chinese	Widowed, stay alone	Retiree, lives in five-room HDB flat, rented out her rooms, occasionally stays with her son during weekends, has no chronic diseases
Ting Lay	5	75, Female, Chinese	Married, stay with spouse	Care for husband with moderate dementia, husband visits dementia day care, has high cholesterol, seldom participate in social activities due to caregiving responsibilities
Keng Siew	5	66 Female, Chinese	Married, stay with spouse	Part-time housekeeper, permanently blind in one eye, active participant in community programs, volunteers occasionally, has hypertension (Spouse of Hai Wee)
Hai Wee	5	69, Male, Chinese	Married, stay with spouse	Part-time cleaner, lives in a five-room self-purchased flat, volunteers occasionally for community events, has hypertension (Spouse of Keng Siew)
Kim Meng	5	78, Male, Chinese	Married, stay with spouse	Retired fisherman, has 'three highs', Buddhist, mediates daily, seldom participates in community programs, prefers to keep to self
Lian Lee	5	77, Female, Chinese	Single, stay alone	Fractured both legs during a road traffic accident, ambulates with walking stick and mobility scooter, dress vibrantly with make-up, live in a three-room HDB flat, social service recipient
Kabir	6	70, Male, Indian,	Married, stay with spouse	Works full-time as a machine driver, lives in a three-room flat, has heart disease, diabetes and high cholesterol, wife takes care of grandchildren in the day
Roslan	6	78, Male, Malay	Married, stay with spouse	Retired security manager, has heart problems, diabetes and high cholesterol, has two daughters, live in a three-room HDB flat
Hassan	6	72, Male, Malay	Married, stay with spouse	Retired factory worker, supported his sick adult child financially and took up odd jobs to make ends meet, social service recipient, has diabetes, live in rented flat (spouse of Nadiah)
Nadiah	6	67, Female, Malay	Married, stay with spouse	Retired operator personnel, caregiver for sick adult child whom pass away recently, social service recipient, has hypertension and diabetes, (spouse of Hassan)

HDB - Housing Development Board, VWO - Voluntary Welfare Organisation, 'three-high diseases' - hypertension, hyperlipidaemia and diabetes.

Table 3. Themes and sub-themes.

Themes	Sub-themes
Contending evolving vulnerabilities	Physiological decline
	Dwindling social network
	Circumstances requiring tangible proximal help
Intrinsic value of health	To be disease-free and happy
	Motivation to be healthy
	Having sense of fulfilment and meaningfulness
Taking care of oneself is a personal responsibility	Taking steps towards being physically healthy
	Taking steps towards being psychosocially healthy
Taking one day at a time: outlook towards later part of life	Life encounters cannot be controlled
	Taking each day at a time

These physical changes altered their day-to-day leisure activity participation and social interaction. For example, Wah Lee had to come to acceptance and stop swimming with her husband when his glaucoma worsened.

Dwindling social network

Participants also had to come to terms and adjust to the psychosocial stressors faced, such as children moving out of parental house, death of spouse and taking care of sick spouse. While few of them preferred to live by themselves, others yearned to live with their children. Some had conflicting views regarding living arrangement with their children or in-laws, which '*contributed to (their) stress and health*'. Among participants living with spouses only, strong interdependence existed between each other. However, this posed coping challenges when one of them passed on or became ill and they had to deal with them.

> When my wife was around, I was having a lot until she died … now I don't know how to cook rice … I have to wash my own clothes. (Peh Chin)

> I have someone (husband with dementia) to take care at home … it is stressful. I have to cook, do housework … my husband gives me stress, otherwise I will be very relaxed. (Ting Lay)

Circumstances requiring tangible proximal help

Although participants valued and enjoyed the independence and freedom reaped from living by themselves, their existing living arrangement made them vulnerable when in need of tangible help. Depending on the aid required such as day-to-day household matters, they sought assistance from family members, friends and neighbours in proximity. They were concern about the unavailability and inaccessibility of proximal immediate help when in medical distress, for example, suddenly turn unwell, having falls at home. In anticipating or managing such situations, some participants suggested and devised ways to identify such situations or to prevent it from occurring. Examples included keeping front doors open, installing home cameras, informing family and friends when feeling unwell, carrying mobile phone around when at home, and giving house keys to family members/neighbors to check on them when situation arose. However, there were few participants who lacked contingencies and resigned to them.

> At the very most, when the neighbor(s) get the odor … they will try to knock at my door, call me and if there is no answer … (they) will get the police to break the door down … That's the fact. I don't have anyone here. (Keng Gim)

Intrinsic value of health

The second theme uncovered the motivation and meaning of being healthy. It shed light on the participants' understanding towards the value and salience of health, and how they can potentially move towards salutogenesis.

To be disease-free and happy

Participants expressed that health '*cannot be bought with money*' and ranked health as priority. Some further emphasised on its importance for seniors living alone. On surface, being healthy was understood to be disease-free and happy. Most participants held a pathogenic view towards health and perceived consumption of medicine as an indication of having poorer health.

Motivation to be healthy

Motivation to stay healthy depended on whether they had illnesses. When they were unwell, they wanted to recover because they feared of having debilitating conditions and sufferings. They did not want to be a financial and emotional burden to their families. When participants were well, health was perceived as a means to seek enjoyment and do what one wanted to do. Few said that they wanted to live longer only if they were functionally independent.

> Even if I can live till 100 years old, it does not mean anything. If you cannot walk, what can you do? (Ah Soon)

Having sense of fulfillment and meaningfulness

To the participants, health is considered as a resource. It gave them the physical functional abilities which allow them to pursue their desired activities. Its intrinsic value was further showcased when participants shared stories of their healthiest moments. They narrated personal experiences which gave them the sense of fulfillment and meaningfulness, beyond the realm of absence of diseases and being happy. Health brings about stories of work, family or personal leisure accomplishments. Such moments gave them a positive feeling about self, a deep sense of purpose and worthiness.

> When I was 50 years old, I was still healthy and felt young. Because I can cook for (Malay) wedding banquets, I cook for a hundred or thousand people you know? I feel very healthy at that time … So until now, when my sister does praying (religious events which involve prayers), I am always the leader to do for them. Because I like cooking … I never feel that I cannot do (it). I must do. I (feel) very happy to do it and I can manage … (Nadiah)

Taking care of oneself is a personal responsibility

This theme depicted how participants prize self-care as an individual responsibility and self-commitment to have better health or prevent sickness. To live independently meant that they had to take care of themselves. They comprehended the importance of self-care, especially for

participants who lived alone as they had no one to turn to when ill. Disregarding the efficacy, dose and duration of these behaviours, all participants except one, evinced their pride in partaking health-promoting and self-care actions proactively to keep themselves physically and psychosocially fit.

Taking steps towards being physically healthy

Dietary control, perceived as an integral part of health maintenance, was greatly discussed. Particularly, Ah Eng highlighted, '*Health starts from food*'. However, health knowledge towards healthy eating varied among participants. Most participants articulated their awareness towards consuming food low in sugar, salt and fat. Only few participants were mindful on consuming nutritious food, eating in moderation, healthier food preparation methods and that home-cooked food being healthier than take-away food. Exercising was also identified as an important health behavior. Although the physical exercises they engaged in covered a wide range of activities, including household chores, raising upper and lower limbs, walking around the neighbourhood and Qi Gong, their understanding towards the types, frequency and intensity levels of exercises was limited. Other acts of maintaining physical health as part of manageability included compliance to medication and follow-up consultations to keep chronic diseases under control, abstaining from smoking and drinking, and monitoring own health markers.

Taking steps towards being psychosocially healthy

Compared to physical health, participants were generally less attuned to managing their psychosocial health proactively. Examples of coping actions included avoid overthinking of issues, controlling negative thoughts and emotions, and engaging in cognitive activities. Keeping self-occupied through activity participation or '*doing something*' was the most common adopted coping action. Types of '*doing something*' varied and ranged from housework, leisure gatherings with friends and family, singing, holding a job, volunteering, learning new skills and knowledge, to engaging in spiritual/religious activities. '*Doing something*' helped them to pass time, bring joy, mix around with people and seek solace away from the stressors one experienced. Although the intent of '*doing something*' was primarily to maintain psychological well-being, some of these activities entailed social interaction with others.

> 'My friends and I feel that it is not good to stay at home. When we are out, we go out together … When my friend plays gateball, I will watch her play, after that we go out. Stay at home for what? … although I don't know how to play (gateball), I can watch them play, it makes (me) happy.' (Yanhong)

Taking one day at a time: outlook towards later part of life

This theme overviewed how participants understood, cope with and make sense of old age. It reflected how they live each day at a time by managing significant life events at old age as they happen, and not worry about the future.

Life encounters cannot be controlled

Participants gathered and interpreted that life at old age was uncertain and unpredictable. As death drew near each day, they knew they could 'go anytime' but were unsure when and how. Few participants expressed that death was a natural part of life and they '*just follow it*'. Some used humour to express themselves when discussing about death. Nonetheless, it was an important topic to them. Yet, only few participants such as Ah Leong made plans for his funeral arrangements. Also, some participants reasoned that life encounters at old age, such as sickness, disability and death, were uncontrollable and occurred owing to one's fate and luck. Ting Lay lamented her ill-fated situation of caring for his husband with severe dementia.

Taking each day at a time

To manage and cope with the unpredictability of old age, most participants adopted a short outlook by taking each day at a time and not to struggle with having to live beyond each day. For Ah Chye, '*being able to wake up the next day is each day's earned interest*'. Owing to their short outlook towards old age and disease-orientated understanding towards health, it was challenging for few participants to describe the future of healthy ageing.

> It takes an immortal to achieve this (healthy aging). Everybody is open to get sickness, everybody will die. (Peh Chin)

Other participants even shared that they had no pursuits and '*there is nothing to hope and envision for*'. When probed further, 14 participants yearned for better physical health or to remain free of sickness in future. Inherently, the pathogenic view of health pursuit remained.

> If I have supernatural powers, I will invent a medicine … take one or two tablets that can cure dialysis, stroke, all the sickness. (Roslan)

Other participants shared individual pursuits of what healthy ageing meant to them, such as having the opportunity to dance on stage, living a simple village life and participating in various community activities with friends. Two participants highlighted that the future of healthy ageing lie in the attitude of an individual being contented, positive and youthful at heart. Such perceptual approach influenced the global orientation of how one views health and ageing.

> … hope in future (I) can become youthful in old age … I think mindset is very important … Compare a 60-year-old and another 60-year-old. 'Aiya, I am going to die soon, aiya, my children … ' another 60-year-old says 'my children are not coming back, it is okay. I can participate in senior activities, sing, exercise, dance.' … Despite having the same age, the thinking of the two 60-year-olds are different. (Nee Mui)

Seemingly, there were two ends of a view in which how participants took each day at a time. Participants, such as Nee Mui, with an active lifestyle engaged themselves each day through a mix of meaningful activities, had a purpose or goal as they expressed their individual pursuits and they perceived healthy aging beyond physical health. Contrastingly, participants, such as Ah Leong, who revolved their daily life by fulfilling daily basic living necessities, performing routine activities to get by living each day and wait for 'their time' to come, had challenges in visualising

their future of healthy ageing beyond the pathogenic orientation.

> I don't have anything to do … what else can I do? When it's time, I will eat my medicine, have my meals … give myself injections (insulin) … can't run away from it … … I don't have confidence to participate in social activities, every day I am sick. I can't even take care of myself, still want to participate in them for what … I don't want to go … I am so old already, later (I am) like a failure. (Ah Leong)

Discussion

The findings suggested that with advancing age, seniors residing in senior-only households perceived healthy ageing as a maintenance of physical, psychosocial and functional health through health promoting self-care activities in face of physical, social and situational vulnerabilities. Their underlying pathogenic orientation towards health contributed to their perceived unpredictable confrontations with illness, disability and death, and short outlook towards old age. This could limit their abilities in seeking meaningful valued pursuits and move towards the salutogenic health pole.

Seniors' comprehensibility towards life at old age were portrayed and influenced by their multi-dimensional phenomena of aging as they narrated the enduring impact of these changes on their daily functioning. To them, physical deterioration was normative with increasing chronological age. However, they feared the disabling consequences imposed onto their loved ones and themselves. Range of functional abilities which contributed to their level of independence, influenced their satisfaction levels towards accomplishing valued activities (Bryant et al., 2001). Together with health perceived as a resource and an enabler to achieve desired meaningful pursuits (World Health Organisation, 2015), it provided seniors with the motivation to adopt positive lifestyle behaviours and keep away from diseases. Similarly, manifestations of shrinking social connections required seniors to respond psychosocially and make changes to their day-to-day activities. Such awareness of change and expectations towards these social relationships contributed to their comprehensibility which consequently affects their manageability towards these situations. Thus, the value seniors placed on health and independence gave them meaning to maintain health through self-care in face of physical decline and shrinking social connections.

To be safe and secure in their homes was important to seniors residing in senior-only households (Tan et al., 2015). Risk of not getting help when prompt tangible help is needed gave them feelings of unease, uncertainty and apprehension (Thang, 2014; Verver, Merten, Robben, & Wagner, 2017). Despite having low comprehensibility towards unpredictable occurrences of such health events, some seniors pulled their own resources to manage this stressor. In Singapore, only certain public housing, for example, studio apartments and rental blocks have emergency pull-cords linked to alert systems (Thang, 2014). In time to come, assistive technological devices to detect health events (Ong et al., 2018) and monitor seniors at home (Koh, 2015) can be leveraged on. Additionally, improving understanding towards the occurrence, detection, prevention and management of sudden health events, for example, stroke, heart attack and falls, may strengthen their comprehensibility and manageability. This may help seniors gain confidence in coping with these potential situations, improve their self-care knowledge and encourage health-seeking behaviours whenever feeling unwell.

Self-care activities, when performed effectively, contribute to human structural integrity, functioning and development (Orem, Taylor, & Renpenning, 2001). Self-care actions identified were directed at overall physical, emotional, social, intellectual and spiritual well-being, preventive measures and even to counter ageing effects (Lommi, Matarese, Alvaro, Piredda, & De Marinis, 2015). Among which, the seniors exhibited more interest on exercising and eating healthily, which was also reported previously (Chong, Yow, Loo, & Patrycia, 2015). However, most of them lacked the detailed know-how such as the frequency and intensity of exercises fit for them, types of nutritious food to choose from and portion of food servings to consume. Manageability in adopting self-care actions can be supported by supplementing this know-how information.

Most interviewed seniors have chronic diseases which are progressive and irreversible. Consistent with past studies (Song & Kong, 2015), their view towards health embodied pathogenic orientation related to physical health and medical conditions. Coupled with their heightened awareness that age increases risk for comorbidities, some seniors thus grappled with envisioning a diminishing future of healthy ageing. They could not achieve their desired state of health, remaining stagnant or worse on the health continuum. However, findings showed that having to pursue and accomplish purposeful valued activities brought about the seniors' healthiest and most energised moments, which could potentially move them towards the salutogenic health pole. Similarly, Bryant et al. (2001) reported that seniors need to engage in pursuits that are worthwhile and desirable to them to achieve healthy ageing.

Seniors who perceived their health positively, even in presence of diseases and infirmity, was explained by their subjective definition of health (Song & Kong, 2015). Interpretation of 'healthy', based on individuals' context of aging experience, physical condition and abilities, affects how seniors mobilise supportive resources, which consequently impact their health outcomes (Cline, 2014). Therefore, positive health can be achieved by seniors when meaning of health is construed as pursuing and accomplishing the valued pursuits. It requires a perceptual shift from seniors to see beyond health as a resource or means of pursuing desired activities to the process of becoming. Awareness towards having to do something meaningful serves as a motivation to develop self at old age and counterbalance negative perceptions towards age-related changes (Diehl & Wahl, 2010). This psychological reframing of health definition acts on SoC meaningfulness, and may potentially advance overall SoC among seniors. It brings about the co-existence of both pathogenic and salutogenic perspectives (Bauer, Davies, Pelikan, on behalf of the Euhpid Theory Working and The Euhpid, 2006) in coping with seniors' practical concerns of deteriorating physical health and other stressors. Afterall, seniors' interpretation of health is beyond physical health, but with pathogenic

orientation considerations (Naaldenberg et al., 2012; Song & Kong, 2015).

According to the socioemotional selectivity theory (Carstensen, Isaacowitz, & Charles, 1999), when people are aware of their diminishing remaining time, they focus on the present to manage their emotional experience instead of the future by gaining knowledge and preparing for what lies ahead. Such temporal shift could explain the seniors' present orientation as their way of coping with the uncertainty and fear of possible impending negative events in their later years. Past studies also reported seniors living each day at a time without the thought of future (Reichstadt, Sengupta, Depp, Palinkas, & Jeste, 2010; Soon et al., 2015; Wong & Verbrugge, 2009). However, this short outlook towards late life as a form of psychological coping could be the reason most participants found the interview question on 'future of healthy ageing' challenging. It might also contribute to their general view of healthy ageing – to maintain current health status. As positive coping processes were closely orientated to the future as a way forward to tackle existing problems (Cowley & Billings, 1999), having a short outlook may impede seniors to be progressive and pursue for better health.

The unpredictable and uncontrollable occurrence of future ill-health, disability and death can make seniors perceive life at old age as less comprehensible and less manageable. Nonetheless, they made sense of these occurrences by accepting them as natural processes or attributing them to fate or god's will (Soon et al., 2015). Being aware of their limited lifespan, competing goals arise between satisfying the seniors' emotional needs of valuing their present moment, verses acquiring knowledge to prepare for the future (Carstensen et al., 1999). Thus, the findings also revealed the lack of planning for old age amongst most seniors (Lee & Fan, 2008). Tan et al. (2015) reported that illness and death were managed by planning for dependent care, near end-of-life care and/or post-death arrangements. Similarly, having preparedness by making such plans and being aware of the resources available, for example, advance care planning, will-making, funeral arrangements, could enhance seniors' manageability towards this stressor.

This study observed two ends of a view towards how the seniors took each day at a time, which corresponded with the two ends of health continuum-salutogenesis and pathogenesis. Seniors, such as Ah Leong, whom held on to the pathogenic orientation live day by day to cope with daily living basic needs and resigned themselves to old age. They were confined within their own perceptual understanding that their health state and/or living circumstance could not get any better, and the lack of purpose in their later life restricted them to manage daily activities suffice in fulfilling their basic survival needs till death approaches. Contrarily, active seniors, such as Nee Mui, who engaged in meaningful valued activities live purposefully each day and held broader positive views towards aging, beyond the pathogenic orientation. They perceived health and life in their later years larger than their physical state of self, portraying perceptual openness and contentment in seeking and experiencing meaningful activities, driven by their inner sense of purpose, self and hope. This was similarly reported previously (Bryant et al., 2001). Seniors with lower self-rated health associated physical health with well-being of a person, and they succumbed to limitations of ageing. Contrastingly, seniors with higher self-rated health took a global perspective towards well-being that embodied 'doing things and being with people', and they displayed the purposefulness in continuing to do things and being in charge of their lives. Seemingly, how older adults rated themselves as healthy was determined by their way of coping (Tkatch et al., 2017). While the number of seniors with pathogenic and salutogenic health perceptions in this study was small, the observations were contrasting and prominent. However, these perceptual orientations might span across a spectrum as the remaining seniors expressed unclear or mixed perceptual stance towards their health orientation (not presented in the findings). It might be a heterogeneous portrayal along Antonovsky's health ease/dis-ease continuum. Nonetheless, Bryant et al. (2001) and this study did not assess SoC of these seniors, particularly those with contrasting pathogenic and salutogenic health views. Although strong SoC is related to better self-rated health (Eriksson & Lindstrom, 2006), it is unclear if the above described characteristics exhibited are linked to characteristics of seniors with weak or strong SoC levels. On side note, seniors with strong SoC reported having similar characteristics: being engaged in valued activities physically and mentally, having social contacts with others and, being positive and forward-looking (Söderhamn et al., 2011). Future research could include and contrast the perceptions of deviant cases (Antonovsky, 1987), by selecting seniors with strong, 'moderate' and weak SoC to explore the characteristics of seniors with strong and weak SoC.

The findings shed light on how SoC, as a psychological resource, can be enhanced among the older adults residing in senior-only households to promote healthy ageing. Most of these seniors had minimal education, worked hard to make a living for self and their families during post world war two and/or Singapore's nation-building times and they picked up essential survival and street-smart skills. They developed their individual life and health orientations through the socio-cultural exchanges of vicissitudes in life, shaped by their limited pre-understandings of health knowledge and ageing process, as well as their personal competence on the utilisation of surrounding resources to address these life encounters. They are thus independent community dwellers who had lesser familial resources, took pride in taking care of themselves and acknowledged that they are vulnerable at times. As the vicissitudes of growing old independently strike them, ageing experiences become unpredictable, unexpected and less comprehensible for them. The knowledge and competence for self-care, beyond their survival and street-smart skills, require greater support among the seniors in adopting positive health actions to improve their manageability. Lastly, seeking motivation and making sense of ageing experiences introspectively could bring about perceptual development and refinement towards life and health orientations, and drive meaningful pursuits of everyday life.

This study had several limitations. Owning to the limited bilingual abilities of the researchers, seniors conversant in languages or dialects other than English and Mandarin Chinese were excluded. Although our study included

seniors with mobility disabilities who used mobility scooters, it excluded those who were home-bound or have difficulties getting out of their houses independently. This study also did not capture views of seniors $\geq$ 80 years old who may encounter different daily living stressors and develop different perspectives towards their ageing experiences. Additionally, findings of this study might be cultural-specific and might not be generalisable to other elderly populations.

Conclusion

This is one of the few qualitative studies which provided an insight to how seniors residing in senior-only households perceive health and ageing in relation to the salutogenic model of health and SoC. Based on accounts of the seniors' healthiest moments, positive health or salutogenesis can be achieved by pursuing and fulfilling valued accomplishments. This was evident among the active seniors who lived each day purposefully by engaging in meaningful valued activities, despite their short outlook towards life at old age. Findings suggested that SoC towards pursuit of healthy ageing can be addressed by reducing the unpredictability of ageing-related processes and vulnerabilities (comprehensibility), supporting active adoption of actions which promotes biopsychosocial health (manageability) and individual reflection in making sense of old age to seek motivation in living each day purposefully (meaningfulness). It is crucial to begin discussions in advancing the understanding and application of SoC to promote healthy ageing through the development of interventions which strengthen SoC.

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