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Special Issue: Successful Aging: Original Article

What Does Successful Aging Mean? Lay Perception of Successful Aging Among Elderly Singaporeans

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Abstract

Objectives: We explore the culturally specific meaning of successful aging in Singapore, an ethnically diverse city–state in Asia. We aim to investigate lay perceptions of successful aging among the elderly individuals in Singapore and further examine variations of these perceptions.

Methods: We applied a mixed-method research design. Firstly, we conducted qualitative interviews with 49 elderly respondents, generating 12 main subjective components of successful aging. Next, we did a national survey with a sample of 1,540 local residents aged 50 to 69 years, in which respondents were asked to evaluate the importance of each subjective component of successful aging. We used the regression models and latent class analysis to analyze the correlatives of successful aging and to classify the elderly individuals by perception types.

Results: Among 12 components of successful aging, those related to self-sufficiency received the highest acknowledgment among the elderly individuals in Singapore. At least half of them simultaneously highlighted independence from family and dependence on family. Malays and Indians in Singapore valued more of the roles of spouse and children in successful aging, as compared with Chinese. The latent class analysis classified four groups of the elderly individuals according to their lay views on successful aging.

Discussion: As compared with the western model of successful aging, the elderly individuals in Singapore perceived successful aging with a strong focus on familism. These lay perceptions also significantly varied among these elderly individuals.

Keywords: Successful aging—Lay perception—Elderly individuals—Singapore—Asia

Successful aging has become one of the core conceptions in gerontology. By distinguishing “successful” aging from “normal” aging, Rowe and Kahn (1987, 1997) divert research attention from pathologically impaired elderly individuals to those with less disease and disability, high level of cognitive and physical function, and active social engagement. Numerous studies have engaged with this seminal work (Depp & Jeste, 2006; Jeste, Depp, & Vahia, 2010; Phelan & Larson, 2002). One persistent criticism of Rowe and Kahn’s model, however, is the lack of emphasis on the lay perception of successful aging (Katz & Calasanti, 2015; Martinson & Berridge, 2015). Many scholars have

thus called for the inclusion of lay perceptions in defining what should count for successful aging (e.g., Glass, 2003; Phelan & Larson, 2002).

Self-evaluated outcomes of successful aging often do not match the professional assessments. Old individuals with disability and disease, who are then unqualified as successful agers by academic criteria, may report a good quality of life and self-identify as successful agers (e.g., Romo et al., 2012); some successful agers classified by Rowe and Kahn’s definition may however report otherwise (e.g., Montross et al., 2006). These incongruities imply that lay perceptions of successful aging may go beyond the indicators

established by the professional model (e.g., Tate, Lah, & Cuddy, 2003). And a recent review on lay perspectives on successful aging (Cosco, Prina, Perales, Stephan, & Brayne, 2013) identified 12 psychosocial components beyond the traditional biomedical dimensions. Moreover, the self-evaluating procedure in the lay perception of successful aging may likely involve weighting over multiple dimensions of later life, reviewing significant events over the life course as well as comparisons with various reference groups (Feng, Son, & Zeng, 2015), and therefore could be more complicated than list checking of a surveyor on the routine index.

More importantly, investigating lay perceptions of successful aging may shed light on cultural variation of successful aging, which has not yet been explored enough in the current literature. Given that “[a] society’s value system predetermines the way in which successful aging is conceptualized” (Tate et al., 2003, p. 473), the meaning of successful aging is culture specific (Lewis, 2011; Moody, 2009). Through this lens, Rowe and Kahn’s model of successful aging corresponds to American values of aging, because notions of self-sufficient and the active self as highlighted in their conception relate to “the postwar American preoccupation with individual adaptability and adjustment in later life” (Katz & Calasanti, 2015, p. 2). The studies on lay perceptions could capture such cultural embeddedness through revealing how different value systems affect the meaning of successful aging. Similarly, regarding healthy ageing, Hung, Kempens, and De Vries (2010) also pointed out that the lay views often go beyond professional definitions, thereby warranting explorations on the cultural diversity of this conception.

Fieldwork research on Asian populations has recognized the cultural specificity of successful aging. Torres (1999) contended that “Americans... associated it primarily with self-sufficiency and the ability to live alone, while those in Hong Kong could not understand why one would want to be self-sufficient in old age. Instead, they viewed their families’ willingness to meet their needs as a sign of successful aging.” (p. 38). Lee (2009) also reported that solo-living elders in Hong Kong tended to highlight filial piety of children in their perceptions of successful aging. Willcox, Willcox, Sokolovsky, and Sakihara (2007) found that Ogimi villagers in Japan considered the traditional weaving as one means toward successful aging among, which is associated with the culture that “one should be socially directed and engaged in activities that are aimed not just at self-cultivation but at the cultivation of society” (p. 157). For lay perceptions of successful aging in India, Lamb (2014) observed “the absence of a dedication to independence and to physical and mental exercise,” (p. 42) which is the major concern of Americans. Besides these qualitative investigations, researchers have also used survey data to capture key elements of Asians’ lay perceptions on successful aging. For instance, Hsu (2007) identified five major factors out of 23 as criteria of successful aging among the elderly individuals in Taiwan, including family and social support, mastery

over life, health, enjoyment of life, and autonomy. Similarly, from a list of 73 factors of successful aging, Chung and Park (2008) extracted three key concerns for low income elderly individuals in South Korea, namely a positive attitude toward life, success of adult children, and relationships with others. It is interesting to note that most of these studies underscored the role of family relationship as a major component of successful aging for elderly Asians.

Despite the arising interest on culturally specific perceptions on successful aging, this field is still over-represented by “North American studies and studies conducted in Caucasian populations” (Cosco et al., 2013, p. 8). This article attempts to address this gap by using the case of Singapore, a modern city-state located in Southeast Asia. Singapore underwent rapid industrialization and modernization as it transformed from a developing economy in the 1960s to a global economic powerhouse by the 1990s. It holds a small population size but has joined other Asian countries which are confronting the challenges of population aging such as Japan and South Korea. Among the current 3.9 million residents of Singapore, about 12% are older than 65 years (Singapore Department of Statistics, 2015). The life expectancy of a Singaporean is currently as high as 84.7 years, which is the same as for Japanese, whereas male Singaporeans live even longer than male Japanese, up to 82.1 years, the highest in the world (He, Goodkind, & Kowal, 2016). Between 2015 and 2030, the number of elderly population (60+) will be almost doubled in Singapore, as compared with an increase of 80% in South Korea in the same period (United Nations, 2015a). The old-age dependency ratio in Singapore, the number of population aged 65 years older per 100 population aged 20–64 years, is 17.6 in 2015 and 39.4 in 2030, higher than the Asian average (12.5 in 2015 and 19.7 in 2030), and comparable with Japan’s 47.0 in 2015 and 57.5 in 2030, and South Korea’s 19.8 in 2015 and 40.4 in 2030 (United Nations, 2015b).

The main aim of this study is to investigate components of lay perception of successful aging among elderly Singaporeans and to compare with the model of Rowe and Kahn. As a geographic hub for world transportation and trade since the 18th century, Singapore is a place where “East meets West.” As the former British colony, Singapore largely adopted British legal and political systems, with English as the main administrative language. However, there exists strong familism in the local culture of aging, which is deeply rooted in the Asian values, especially Confucianism thought: Family is the first line of support for people of old age, children are the major provider of financial resources for elderly parents (Singapore Ministry of Health, 2013), and the elders are expected to stay home for the long-term care (Chin & Phua, 2016). Not only culturally sanctioned, familism is also institutionally enforced in Singapore. Since the late 1990s, the Singapore government proposed the policy rationale of “Many Helping Hands” to emphasize the role of family in elder care. Under this direction,

the Parental Maintenance Act is issued to stipulate the legal obligation of elder care by children, and tax relief and housing subsidies are offered to encourage coresidence of children with old parents (Chan & Matchar, 2015; Teo, Mehta, Thang, & Chan, 2006). Given this distinct context, we propose that Singaporeans may perceive successful aging differently from their western counterparts.

This study further proposes to examine the variation of lay perceptions of successful aging among the elderly Singaporeans. The current residents of Singapore are 74.1% Chinese, 13.4% Malays, 9.2% Indians, and 3.3% others (Singapore Department of Statistics, 2015), and Singapore is well known for its multicultural composition (Chua, 2003; Goh, 2008; Low, 2009). In addition, similar to many other advanced economies, income inequality has risen since the mid-1990s in Singapore. Given these cultural and socioeconomic disparities, it is not appropriate to assume that all Singaporeans would share a same norm of aging. We thus propose that elderly Singaporeans may perceive what constitute a successful later life differently from each other. Along this line, this study aims (i) to explore cultural and socioeconomic correlatives of lay perceptions on successful aging in Singapore and (ii) to further classify local elderly individuals into different perception types. The former goal is to identify the main factors affecting the lay views about successful aging. As specific views on successful aging may cluster for each individual to form certain types of perception, the latter goal is to further describe these lay perceptions through a latent typology. This classification not only assigns a certain type of lay perception for each individual but also illustrates the distribution of these types at the population level, which is valuable for the identification of subpopulations in policy interventions.

Methods

This study adopted a mixed-method research design. We started from qualitative interviews to explore the major components of successful aging as perceived by local elderly persons. This step was to generate a list of subjective components of successful aging and then inform a series of questions in a survey that followed. With the survey questions examining the importance of each subjective component, we could analyze these lay perspectives quantitatively. Such a research design is usually named as the exploratory sequential model (Creswell & Clark, 2011) or the instrumental development model (Bryman, 2006), in which the qualitative research helps with the questionnaire design of a later survey. This research design is appropriate for the current study. Given that there are no prior studies about lay perceptions of successful aging in Singapore, the qualitative investigation is necessary to explore for a list of subjective components. Moreover, as compared with the sole use of qualitative approaches, the mixed-method design incorporated a follow-up survey, which could statistically reveal the distribution and disparity of lay views of successful aging in Singapore.

Qualitative Interview

In total, we interviewed 49 elderly Singaporeans in three languages of English, Malay, and Mandarin. The sampling rationale of these interviewees was to ensure a diversity of views across major social demographic markers in Singapore, such as ethnicity, gender, and socioeconomic status (SES). Among all participants, 26 were interviewed in four focus groups. We organized these groups by different levels of SES with the consideration of proper gender and ethnic composition. In partnership with the Council for Third Age (C3A), a nonprofit organization of Singapore, we had two high-SES groups in which participants lived in private properties and had formal education. With the help of the People's Association (PA) of Singapore in Clementi Community Centre, we organized another two low-SES groups with participants who lived in rented apartments and had minimal or no formal education (for social demographic characteristics of all participants, refer Table A in Supplementary Appendix). In order to ensure data validity, we additionally conducted a purposive sampling, recruiting 23 community-dwelling elders for individual interviews. These individuals were approached through the social network of research team members and selected based on ethnicity, gender, and SES. The final sample of all interviews contains 22 men and 27 women with a mean age of 69.8 years. Regarding ethnicity, we had 34 Chinese, 7 Malays, 7 Indians, and 1 Ceylonese.

In these interviews, we asked respondents about their personal criteria for a successful later life. Whenever they had confusions about the term "successful aging," we did not try to clarify from an academic perspective. Interviews usually lasted between 45 minutes to 2 hours. With the agreement of participants, all interviews were audio recorded with written field notes and later transcribed. Two members of the research team coded the interview data separately and then cross-checked and finalized the data based on discussions. The coding procedure generated 12 categories as subjective components of successful aging (Table B in Supplementary Appendix). In the interviews, elderly Singaporeans frequently highlighted happiness when talking about successful aging. The issue of health was also among the first responses of the elderly individuals when asked about successful aging, whereas these individuals usually mentioned it in relation to mobility and morbidity. As expressed by some respondents, however, health was not the ultimate marker of successful aging, but a condition to accomplish some other goals such as being independent and taking care of others: "when we are healthy, we can care properly those around us" (R5). Concerns on financial security were strong among elderly Singaporeans, particularly the idea of old-age labor force participation. In addition, local elderly persons valued social engagement for successful aging, particularly the importance of having friends. Last, these interviews also articulated the significant role of family, either spouse or children, in the later life, and we specifically separated the care from children and the coresidence with children as two themes.

Survey Research

Next, we conducted a national survey. For each component identified from the qualitative interviews, the surveyor asked respondents to rate the importance, as “very important,” “important,” “not important,” “not important at all,” or “do not know.” That is, respondents evaluated each subjective component of successful aging in the survey. The sampling was based a random list of 2,000 household addresses provided by the Singapore Department of Statistics. In each sampled household, we interviewed one person aged from 50 to 69 years. When the sampled household has no legitimate family member, random replacement was conducted nearby. The final sample consists of 1,540 local elderly respondents, with a response rate of 77%. 49.2% of the survey interviews were administered in English, 46.3% in Mandarin, 1.8% in Malay, 1.6% in Teochew, 0.6% in Tamil, 0.3% in Hokkien, and 0.1% in Cantonese. Based on the age–sex–ethnicity-specific distribution of the Singapore population, we created a weighting variable for the descriptive statistics. As missing values are generally less than 5%, our analysis did not apply imputations.

We examined a series of factors as correlatives of lay perceptions of successful aging. We used ethnicity (Chinese, Malay, India, or Others) to indicate culture and used education (primary or lower, secondary, or tertiary) and life-long major occupation (executive and professional, technician and clerk, service worker and salesperson, manual worker, or homemaker) for socioeconomic status. Age and gender were included as controls and also as correlatives (see Kendig, Browning, Thomas, & Wells, 2014). Regarding health, we included self-reported health (good or very good vs others), independence in daily activity (yes/no), and absence of depressive symptoms in the last week (yes/no). The measurement of depression depended on five symptoms, whether the respondent felt unsatisfied with life, empty, unhappy, helpless, or worse off than most others in the last week. Those with none of these five symptoms were coded as 0, otherwise 1. We additionally incorporated a set of family-related factors, such as being married (yes/no), having children (yes/no), living arrangement (living alone, living with spouse and/or child, or living with others), and satisfaction of family relationship (yes/no). Using Stata 13.1, logistic and multinomial regression models were applied to examine how these factors were associated with lay perceptions of successful aging.

In order to classify local elderly persons into different perception types, which is one of the research goals, we further applied latent class analysis. This approach could develop a latent typology based on the pattern of probability distributions across the 12 categorical items of successful aging. Mplus 6.1 was used for this analysis.

Results

Table 1 describes the sample characteristics. The mean age of the sample was 59 years, and about 62% respondents

Table 1. Sample Description

Variables	
Mean of age (<i>SD</i>)	58.9 (5.5)
Female (%)	61.6
Ethnicity (%)	
Chinese	81.5
Malay	9.0
Indian	7.4
Others	2.1
Education (%)	
Primary or lower	46.6
Secondary	39.5
Tertiary	13.9
Occupation (%)	
Executive and professional	14.2
Technician and clerk	18.1
Service worker and salesperson	17.7
Manual worker	34.3
Homemaker	15.7
Self-reported health as good or very good (%)	85.2
No depressive symptom in the last week (%)	61.3
Independency in daily activity (%)	97.9
Being married (%)	76.7
Having children (%)	89.3
Living arrangement (%)	
Living alone	5.7
Living with spouse and/or child	80.7
Living with others	13.6
Being satisfied on family relationship (%)	96.4
<i>N</i> = 1,540	

were women. The ethnicity distribution, about 82% Chinese, 9% Malays, 7% Indians, and 2% Others, was similar to the general population structure. About half of the sampled elderly individuals had education above the level of primary school, and one third of them were manual workers. The majority of the sample were in good health, were married, had children, and lived with their spouse and/or child.

Table 2 reports the weighted distribution of the 12 components of successful aging as perceived by local elderly individuals. We merged the “very important” into “important,” and “not important at all” into “not important” to highlight the pattern. Although all components received positive responses, they could be roughly classified into three groups based on their distribution pattern. The first group (the top panel) was mainly about self-sufficiency in later life, which consisted of a series of idealized individual characteristics of old age such as “to be happy,” “to be physically mobile,” “to be free of diseases,” “to be financially secure,” and “to be independent in life.” For each item in this group, more than 95% of respondents rated as “important.” In comparison, the second group (the middle panel) received slightly less acknowledgment. This group was basically about the maintenance of social function,

Table 2. Subjective Components of Lay Perception on Successful Aging

Subjective component of successful aging	Important (%)	Not important (%)	Do not know (%)	Total (%)
To be happy	99.1	0.5	0.4	100
To be physically mobile	99.0	0.8	0.2	100
To be free of diseases	98.3	1.3	0.5	100
To be financially secure	97.9	1.5	0.6	100
To be independent in life	95.4	3.2	1.4	100
To be able to take care of other family members	91.8	5.8	2.4	100
To have friends	91.7	7.2	1.0	100
To be able to continue working	83.1	14.8	2.1	100
To engage in social activity	76.3	20.8	2.9	100
To have my spouse with me	81.7	9.6	8.8	100
To have children living together with me	74.5	17.8	7.7	100
To have children taking care of me	62.3	28.0	9.7	100

with items such as “to be able to take care of other family members,” “to have friends,” “to be able to continue working,” and “to engage in social activity.” The last group (the bottom panel) distinctively held relatively high rates for the response of “do not know,” approximately 8%–10%. This group was concerned about availability of family support, with three items as follows: “to have my spouse with me,” “to have children living together with me,” and “to have children taking care of me.”

As items of self-sufficiency received the rating of “important” by more than 95% of respondents, we focused on correlatives for items of social function and family support (for correlatives of items of self-sufficiency, refer Table C of Supplementary Appendix). Table 3 presents odds ratios of logistic regression models for correlatives of the four items of social function, in which “not important” was the reference group to “important.” According to the results, the elderly individuals who were blue collars, had better health status, and had satisfied family relationship cared more “to be able to take care of other family members.” And better education and having children fostered the ideas “to have friends” and “to engage in social activity.”

Table 4 further examines the three items of family support. As this group of subjective components had relatively high proportions for the response of “do not know,” we adopted the multinomial logistic regression models. According to Model I of Table 4 (“not important” as the reference group to “important”), women valued less of their spouses, but more of the care from children; Malays and Indians acknowledged more of the importance of family as compared with Chinese; elderly individuals with lower occupational status preferred “to have children taking care of me”; spouse/children coresidence promoted positive ratings on the role of spouse and children; and spouseless elderly individuals valued more on children whereas childless elderly individuals tended to rely on spouse. Moreover, Model II of Table 4 (“do not know” as the reference group to “important”) revealed that respondents who were uncertain about the role of spouse and children mostly came from those who had no spouse and/or children, those who

did not live with their spouse and/or children, and those who felt unsatisfied with family relationship.

We further applied latent class analysis to group respondents by different perception types (Table 5). Based on the model fit statistics (Table D of Supplementary Appendix), four groups were established, each of which had distinctive views about successful aging. Group 1 had the majority, about 70% of respondents, who acknowledged all 12 subjective components. Groups 2 and 3, about 15% and 7% of total respondents, respectively, relatively devalued the role of children in old age; however, the former tended to consider children as not important whereas the latter felt uncertain about the role of children. The rest, about 9% of all respondents, was in Group 4. Elderly individuals in this group relatively ignored social functions in their perceptions, especially engagement in social activities.

Discussion and Conclusion

The model of successful aging proposed by Rowe and Kahn (1987) is prevailing in Asia (e.g., Cheng, Chi, Fung, Li, & Woo, 2015; Feng, Zhu, Zhen, & Gu, 2015; Ng, Broekman, Niti, Gwee, & Kua, 2009), yet the literature has not fully explored the culturally specific meaning of successful aging in this region, where the aging norms differ from the West. This study revealed the strong presence of familism among elderly Singaporeans in their perceptions about what is a successful later life. Through shedding light on the cultural embeddedness of successful aging using the case of Singapore, our findings reveal a major difference between the cultural contexts of aging in the West and non-West, which has not been fully incorporated in the model of Rowe and Kahn when used in the Asian context.

We found that Rowe and Kahn’s model has captured some major components of successful aging in the lay perceptions of elderly Singaporeans. Good health and economic/social engagement, the two dimensions in Rowe and Kahn’s model, appeared to be essential for the elderly Singaporeans. Items such as “to be physically mobile,” “to be free of diseases,” “to be able to continue working,” and

Table 3. Odds Ratios of Correlatives for Subjective Components of Successful Aging Related to Social Function

	To be able to take care of other family members	To have friends	To be able to continue working	To engage in social activity
Age	0.98	1.02	0.92***	0.97**
Female	1.33	1.50	0.79	1.37*
Ethnicity (ref: Chinese)				
Malay	1.79	1.19	0.75	1.51
Indian	1.28	1.21	1.01	0.98
Others	1.62	2.05	0.45 [†]	1.89
Education (ref: Primary or lower)				
Secondary	1.53	2.26**	1.02	2.21***
Tertiary	1.76	10.89**	0.81	2.77**
Occupation (ref: Executive and professional)				
Technician and clerk	1.75	1.50	1.35	1.37
Service worker and salesperson	2.59 [†]	0.90	1.35	1.17
Manual worker	2.75*	0.98	1.31	0.95
Homemaker	1.07	0.45	0.73	0.83
Self-reported health as good or very good	1.66 [†]	1.77*	1.34	1.31
No depressive symptom in the last week	1.25	2.25	0.81	1.41*
Independency in daily activity	2.94**	1.81	1.45	1.00
Being married	1.31	1.25	1.14	0.86
Having children	1.63	2.53*	1.21	1.84*
Living arrangement (ref: Living alone)				
Living with spouse and/or child	2.59 [†]	0.73	1.39	0.68
Living with others	2.20 [†]	1.04	2.45*	0.92
Being satisfied on family relationship	3.00*	2.29 [†]	0.76	1.45

Note: The result is based on logistic regression models with “not important” as the reference group to “important.”

[†] $p < .1$. * $p < .05$. ** $p < .01$. *** $p < .001$.

“to engage in social activity” all received high acknowledgment both in the qualitative interviews and the importance rating of the subsequent survey. Such an overlap is not surprising, given that Singapore had been heavily influenced by the Western culture in history. However, this study also verified some distinctive characteristics of the aging in the Singapore context regarding what should be counted as a successful later life, namely a strong emphasis on the availability of family support in old age. On average, more than 60% of the local elderly individuals considered that it is important to co-reside with children or receive care from children. The expectation of the elderly individuals on children to be caregivers represents traditional familism in Asian societies (Rigg, 2016) and also echoes well with relevant findings of the previous studies (e.g., Hsu, 2007; Lamb, 2014; Lee, 2009; Torres, 1999).

The similarity and dissimilarity with Rowe and Kahn’s model of successful aging seem to imply an interesting dilemma among elderly Singaporeans. About 95% old Singaporeans took “independence” as important for a successful later life, which appeared much like their western counterparts, but meanwhile about 62% of them valued care by children. Statistically speaking, this means there should be at least half of elderly Singaporeans who simultaneously valued independence and dependence for successful aging. Such ambivalence in perception captures the

complexity of lay views on successful aging in Singapore. The coexistence of two opposite attitudes was indeed not odd, because old Singaporeans expect care from children in old age, but at the same time do not want to become a burden for family. Such a dilemma makes more sense given the current transformation of Asian cultures of aging and elder care. Declining fertility and smaller household size, better education and socioeconomic status of old cohorts, the rise of communication technology, and the more availability of assistive facilities/services in daily living of elderly individuals may all contribute to a trend in Asia, in which individuals of old age expect a more independent life in old age. However, traditional familism still persists across Asian societies, guiding the intergenerational relationship for families and shaping the connotation of a “good” later life in old age (Yeh, Yi, Tsao, & Wan, 2013). In the case of Singapore, for example, although most people no longer value obedience of adult children to their parents, they still consider filial piety as an important principle of family relationships (Mehta & Ko, 2004).

The significant cultural and socioeconomic disparities in Singapore make it a good case to explore the heterogeneity of lay perceptions of successful aging in a single society. We found out that to have a successful later life, local Malays and Indians valued family support more than Chinese. This finding matched with the contrasting household structures

Table 4. Odds Ratios of Correlatives for Subjective Components of Successful Aging Related to Family Support

	To have my spouse with me		To have children living together with me		To have children taking care of me	
	Model I	Model II	Model I	Model II	Model I	Model II
Age	0.97	1.00	0.98	1.02	1.03*	1.04 [†]
Female	0.37***	0.58	0.94	0.75	1.46**	1.61 [†]
Ethnicity (ref: Chinese)						
Malay	2.26*	1.80	1.68 [†]	1.73	3.04***	3.16 [†]
Indian	1.21	0.75	1.69 [†]	2.80	1.86*	2.37
Others	1.33	1.51	0.49 [†]	1.20	0.85	2.56
Education (ref: Primary or lower)						
Secondary	0.60*	0.83	0.90	1.29	0.83	1.34
Tertiary	0.51	0.75	0.62 [†]	1.18	0.78	1.52
Occupation (ref: Executive and professional)						
Technician and clerk	1.48	0.67	1.26	0.73	1.40	1.35
Service worker and salesperson	1.17	0.56	1.54	0.77	1.82*	1.35
Manual worker	1.11	0.71	1.25	0.75	1.79*	1.87
Homemaker	2.13	0.43	0.98	1.46	1.87*	2.30
Self-reported health as good or very good	0.95	1.37	1.58*	1.17	0.82	0.92
No depressive symptom in the last week	1.60*	0.84	0.89	1.08	0.89	1.14
Independency in daily activity	0.80	0.00	0.40	0.00	0.92	0.34
Being married	9.64***	75.83***	0.58*	0.77	0.67 [†]	1.12
Having children	0.51 [†]	7.29***	3.96***	84.70***	2.85**	52.76***
Living arrangement (ref: Living alone)						
Living with spouse and/or child	3.89***	0.82	5.23***	5.81**	3.01**	2.96 [†]
Living with others	1.57	0.84	3.99***	2.50*	2.93**	2.32 [†]
Being satisfied on family relationship	3.16*	7.65***	1.70	3.33*	1.24	2.24

Note: The result is based on multinomial logistic regression models with “not important” as the reference group to “important” (Model I) and “do not know” as reference group to “important” (Model II).

[†] $p < .1$. * $p < .05$. ** $p < .01$. *** $p < .001$.

of the three ethnic groups in Singapore: In 2010, the average household size was 3.4 for Chinese, 3.6 for Indians, and 4.2 for Malays, whereas the proportion of households with more than 6 members was 9.5% for Chinese, 10.5% for Indians, and 23.1% for Malays (Singapore Department of Statistics, 2015). The larger household size of Malays and Indians indicates more intensive intergenerational exchanges. And religion is probably one of the reasons for these ethnic differences. For local Malays, the beliefs, norms, and practices of Islam make up major cultural and religious expectations for children to assume the role of elder care (Kling, 1995). Hinduism, as the major religion for local Indians, is also well known for its emphasis on filial piety. Religiously enforced, traditional family values might be stronger among Malays and Indians than Chinese (Tham, 1993; Suratman, 2001).

The present study also revealed interesting socioeconomic disparities for lay perceptions of successful aging. The elderly Singaporeans with higher socioeconomic status relatively devalued the role of family in regard to taking care of other family members or receiving care from children, but emphasized more on friends and social activities. Although more work is warranted to clarify these associations, it is likely that socioeconomically advantaged elderly

individuals could have alternative means to arrange care needs, so that they may be less involved as a care provider or recipient in family, but more involved in social activities. The strong associations of family structure and relationship to the perceived role of family also deserve attention. Our study suggests that the elderly individuals who deny or cast doubt on the role of family in Singapore are likely those who do not have spouse and/or children in later life or have unpleasant family relationship.

The latent class analysis provided a useful typology of lay views of successful aging in Singapore. As the government of Singapore constantly highlights family as the first line of defense for adversity of old age, it is worth noting that about 15% of local elderly individuals showed no interest to count on children for successful aging (Group 2), and another 7% felt uncertain about the role of their spouse and children (Group 3). More policy attention should therefore be diverted on these elderly individuals to understand their situation and needs. In addition, we also call attentions on those respondents who held little interest in social activity (Group 4). Because social engagement is critical for the quality of later life, these elders are potentially the target for policy interventions.

Table 5. Latent Class Analysis on Lay Perception of Successful Aging

Subjective component of successful aging	Rating	Group 1 (69.4%)	Group 2 (14.9%)	Group 3 (6.9%)	Group 4 (8.8%)
To be happy (%)	Important	1.00	1.00	0.96	0.96
	Not important	0.00	0.00	0.01	0.03
	Do not know	0.00	0.00	0.03	0.01
To be physically mobile (%)	Important	1.00	1.00	0.97	0.94
	Not important	0.00	0.00	0.01	0.05
	Do not know	0.00	0.00	0.02	0.01
To be free of diseases (%)	Important	0.99	1.00	0.96	0.89
	Not important	0.00	0.00	0.02	0.11
	Do not know	0.00	0.00	0.03	0.00
To be financially secure (%)	Important	0.99	1.00	0.95	0.89
	Not important	0.01	0.00	0.01	0.10
	Do not know	0.00	0.00	0.05	0.01
To be independent in life (%)	Important	0.96	0.99	0.91	0.82
	Not important	0.03	0.01	0.00	0.15
	Do not know	0.01	0.00	0.09	0.04
To be able to take care of other family members (%)	Important	0.98	0.90	0.78	0.72
	Not important	0.01	0.10	0.05	0.25
	Do not know	0.01	0.00	0.17	0.03
To have friends (%)	Important	0.97	0.97	0.83	0.61
	Not important	0.03	0.03	0.09	0.36
	Do not know	0.00	0.00	0.08	0.03
To be able to continue working (%)	Important	0.85	0.73	0.86	0.53
	Not important	0.12	0.27	0.09	0.40
	Do not know	0.03	0.00	0.05	0.07
To engage in social activity (%)	Important	0.84	0.88	0.66	0.17
	Not important	0.14	0.12	0.19	0.81
	Do not know	0.02	0.00	0.15	0.01
To have my spouse with me (%)	Important	0.90	0.77	0.28	0.56
	Not important	0.05	0.21	0.04	0.37
	Do not know	0.04	0.02	0.68	0.07
To have children living together with me (%)	Important	0.96	0.32	0.08	0.58
	Not important	0.04	0.68	0.04	0.39
	Do not know	0.01	0.00	0.88	0.03
To have children taking care of me (%)	Important	0.82	0.32	0.01	0.59
	Not important	0.16	0.68	0.02	0.38
	Do not know	0.01	0.00	0.97	0.02

As Successful Aging 2.0 has been recently proposed (Rowe et al., 2010; Rowe and Kahn, 2015), we propose that the society-level evaluation of successful ageing could be better framed with a culture-specific lens. For the case of Singapore, in the late 1990s, the government had made successful aging as the goal of national aging policies. In 2007, the government further developed four specific sub-themes, such as (i) to enhance employability and financial security, (ii) to provide holistic and affordable health care and elder care, (iii) to enable aging-in-place, and (iv) and to promote active aging. All these proposals correspond with the call of Successful Aging 2.0. However, building a society of successful aging still needs to be cautious about the local culture. As the elder care function of family is highly valued by elderly Singaporeans, as revealed by this study, we propose whether family delivers elder care as expected by elderly individuals could be a main marker of the

society-level successful aging in Singapore. Moreover, certain standards in Successful Aging 2.0 such as volunteerism also seem to be western oriented. Most Asian societies do not have a tradition of volunteerism in the Western sense. In Singapore, only about 6% older than 55 years volunteered at least once a year (Singapore Ministry of Health, 2013), significantly lower than the rates in western societies. Although the government is making efforts to promote senior volunteerism, to use volunteerism as an indicator for an Asian society of successful aging may require a more nuanced attention to the cultural context.

The current study has few limitations. First, readers need to be cautious that Singapore is a single case, so findings from our study cannot necessarily be generalized to other nations, even those in Asia, because Asian societies differ widely both in terms of demographic characteristics and lay perceptions of successful aging. Second, the

sample of qualitative interviews was not selected at random but purposively constructed, therefore bias may exist and we may have ignored some subjective components of successful aging for elderly Singaporeans. Given the composition of the focus groups and individual interviews had been carefully designed, we consider the potential bias may not change our major findings, though future studies are definitely warranted. Third, the age range of our survey sample was from 50 to 69 years. As age advancement was associated with the tendency of relying on the care of children and withdrawing from social/economic activities (Tables 3 and 4), the truncated age range might result in an underestimation of the role of familism and meanwhile an overestimation of social/economic engagement in lay perceptions of successful aging. Finally, in the qualitative interviews, we encountered a few cases expressing skepticism and denial of the notion of successful aging, which have not been addressed in the current study. Lamb (2014) also reported similar lay criticisms in India for ignoring unavoidable health decline and mortality. We call for future studies to investigate these interesting lay perceptions.

Supplementary Material

Please visit the article online at <http://psychogerontology.oxfordjournals.org/> to view supplementary material.

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