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Yung, E.H.K. & Chan, E.H.W. (2011) *Quality of life and healthy aging in urban renewal*, CRIOCM International Symposium on Towards sustainable Development of International Metropolis, 23-25 Sep. 2011, Chongqing, China, pp.251-259

Quality of life and healthy aging in urban renewal

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Abstract – Population aging has become a global trend and there will be a paradigm shift among the living style of the older people by the year of 2030. As they would have obtained more education, better health and income, they may have changing needs in the urban environment. In particular, while renewal becomes an emergent trend, the characteristics of urban environment in the older districts play an important role in influencing elderly people's physical and psychological well-being. This paper highlights the need to address the critical factors for enhancing healthy aging and quality of life in urban planning. Through literature review, key concepts for healthy aging are understood and then incorporated into the context of sustainable urban renewal, a preliminary theoretical framework is developed for quality of life for healthy aging in urban renewal projects.

Keywords – *quality of life, aging, urban renewal*

I. INTRODUCTION

Population aging is one of the great demographic transformations in the 21st century in the world. The dramatic increase of senior age groups is not only a part of demographic evolution; it is also an important social, cultural, economical and political change that has consequences for our way of understanding the city and urban planning. In this sense, it is important to consider that aging is a social phenomenon and not a problem, meaning that its consequences for society as a whole must be evaluated. A variety of challenges have emerged in urban contexts that have to do with planning the cities that are integrative of older people, leading to a shift toward new priorities, among them the creation of an urban environment that is propitious and favourable for aging.

Most research mainly has been focusing on the physical urban environment, which promotes barrier free design, universal design and home environments that maximize older people's independence. Very little research has addressed the integrated relationships between the urban environment and the social, economical, environmental and political needs of the older people. Nor the attributes of urban environments relevant to older people's well being and the extent to which they influence quality of life are well understood. While the majority of the elderly prefer to age in place [1], the environmental characteristics that facilitate independence in later life are

not well examined. To improve the urban environment for better quality of life for the older people, a much wider framework should be adopted to achieve the goal of sustainable urban development.

In Hong Kong, like many other compact dense cities, quality of life in urban environment has become increasingly the focus of research. Although the Hong Kong government has started to concern on the aging issues since 1970s, an effective policy framework has yet to be established. In addition, the older districts tend to have a higher proportion of elderly population also need to be addressed. The role of urban renewal and its social, environmental, economical impacts on the quality of life of the elderly people must be carefully examined. More specifically, it is of paramount importance to have an integrated framework incorporating the needs of elderly and the concept of healthy aging into the planning of urban renewal.

Thus, this proposed study focuses on identifying the critical factors for enhancing quality of life for the aging people in the urban environment of the urban renewal projects. It proposes the theoretical framework which considers holistically, the social, economical, environmental and political needs of the elderly in urban renewal. This study contributes in the understanding of the role of urban environment in enhancing the concept of healthy aging and providing specific assessment framework for urban renewal projects.

II. LITERATURE REVIEW

A. Key Concepts in aging

The understanding of the core propositions which support the discourse of 'age-friendly city' are essential. The theoretical bases include, but not limited to, the concept of healthy aging, active aging, independent living, and aging in place.

The World Health Organisation (WHO) defined Health as "a state of complete physical, mental and social well-being, and not merely the absence of disease or handicap" [2]. The International Classification of Functioning, Disability and Health (ICF) provides a scientific foundation for understanding health and health-related domains. It emphasizes that health and social functioning are influenced by complex interactions between environmental factors and body functions and structures, also activities and social participation. Personal

factors include age, gender, race, education, fitness, lifestyle, habits, and coping styles [3]. The ICF addresses functioning at three levels (Fig.1): the body (mental, physiological, or anatomical structures or functions), activities (walking, reading, driving), and social participation (social activities, recreation and leisure, voting, or attending public events).

Active aging is referred to “the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age” [4]. The word ‘active’ refers to continuing participation in social, economic, cultural, spiritual and civic affairs [5].

Independent living refers to the right of each individual to independence that comes from exercising control over his or her life, based on an ability and opportunity to make choices in everyday activities. These activities may include participating in community life; fulfilling social roles such as marriage, parenthood, employment, and citizenship; sustaining self-determination; and minimizing physical or psychological dependence on others [6].

Aging in place is a special need in elderly people which means, as people age, remaining in a familiar home and neighbourhood is becoming more important. These underlying theoretical concepts form the foundations for enhancing healthy aging environment [1].

B. Quality of life for elderly people

Quality of life consists of family, social contacts, health, mobility/ability; material circumstances, activities, happiness, youthfulness and living environment [7]. Bond and Corner (2004)[8] identifies key domains of quality of life of older people. They include 1) subjective satisfaction by individual older person; 2) physical environmental factors (housing quality, access to facilities); 3) social environmental factors (family and social networks and support); 4) socio-economic factors (income and wealth); 5) Cultural factors (age, gender, class, ethnic, and religion); 6) health status factors (physical well-being, functional and mental ability); 7) personality factors (happiness, psychological well-being; morale, life satisfaction); 8) personal autonomy factors (ability to make choices, exercise control and negotiation).

It is well recognized that the built environment, is encountered by people on a daily basis, and the quality of the built environment is found to affect health outcomes [9][10].

C. Needs of the elderly and the urban environment

In order to incorporate the above theoretical bases into healthy aging urban design, the needs of the elderly people must first be understood. Elderly people often have physical needs in hearing, visual capabilities, physical mobility and often suffering from chronic illness and psychological illness. There are suggestions for elderly people’s requirements in public open spaces [11] and streets characteristics and perceived attractiveness for walking [12]. In addition, it is suggested that easy and enjoyable outdoor environment is conducive to a better quality of life for older people, in which they offers physical, sociological and psychological benefits [13].

I’DGO (2007) [14] presents a general framework outlining the different aspects of quality of life that are influenced by the outdoor environment and activities outdoors. It includes perceived safety, comfort, physical health, emotional wellbeing, mobility, sense of community, satisfaction with neighborhood, social interaction, enjoyment and simulation, autonomy and control, care and support. [15] suggest the factors should be considered include 1) physical aspects - housing design to facilitate a safe, comfortable and quality environment; 2) services - accessibility, price and range of services; 3) transportation - accessibility and affordability; and 4) safety and security and community facilities - social centres, clubs, open spaces, meeting spaces and sources of informal support contacts. In other study, it is found that local shopping and services, traffic and pedestrian infrastructure, neighborhood sense of attractiveness and adequate public transportation are the essential neighborhood design features in retaining active aging [16]. Study also indicates that the city’s irregular topography and character as a heritage city affecting the elderly perceive the urban space, creating social networks and a sense of community uniquely their own [17]. On the other hand, environmental barriers reported by the elderly include poor transportation, discontinuous or even side-walks, curbs, noise, and inadequate light and temperature extremes [18][19].

In addition, the role of the surrounding environment also plays a key role in shaping patterns of independence and dependence among older adults. As costs increase, current long term care policies are shifting the care of older adults away from nursing homes and into the home and community setting. While the majority of older adults prefer to age in place, the environmental characteristics that facilitate independence in later life must be carefully designed. Elderly people also have needs in social interaction, social network [20]. It is suggested that good-quality spaces are said to foster social inclusion, socially cohesive behaviour and citizenship [21][22]. Furthermore, economically, social welfare helps to provide financial security and independency for the elderly people. The opportunities to employment do not only provide financial means for living, it also enhances elderly people’s self-worthiness.

In the aspect of political needs, the psychological benefits of political participation is increasingly recognized. It is suggested that people who participate in political activities will be more satisfied with their lives because of the resulting feelings of autonomy, competence and relatedness and contribute to happiness [23-25] and overall quality of life [26][27]. In particular, the extent of a citizen can claim one’s right to the city and the production of that space is very important [28]. However, few studies have empirically addressed the impact of the environment for social participation, which is a key component of overall health and well-being [29].

D. Urban Renewal and aging

Urban renewal is a complex process that has been commonly adopted to cope with changing urban environment, to rectify the problem of urban decay and to meet various socioeconomic objectives. Many studies had

suggested a large set of critical factors attributing to successful sustainable urban renewal. [30-35]. However, these factors need to be revisited and validated for their attribution to healthy aging for older people in the context of urban renewal in a dense urban cities.

Older districts are often area for lower-income groups. It is not uncommon to see that older people and minority seniors, especially those with less financial capability are more likely to live in substandard housing in the older districts. Previous research found that socially disadvantaged older adults are potentially more vulnerable to environmental barriers because of their greater need to access social services [18] and their greater propensity to live alone in socially and economically disadvantaged areas with education or economic resources to negotiate or even improve their environment. Some studies found that neighborhood socioeconomic disadvantage influence mental health outcome [36]. Interestingly, it is found that living in an area with higher proportion of elderly people is correlated with fewer depressive symptoms in later life and better self-rated health [37].

D. Aging and urban renewal in Hong Kong

In Hong Kong, the proportion of the population aged 65 and over has increased. At the mid of 2008, the population of elderly persons aged above 65 is 12.6% (0.88 million) of the total population. It is estimated that in 2016 and 2033, the percentage will increase to 14% and 27% respectively. There will also be a paradigm shift among the living style of the older people by the year of 2030. They would have obtained more education, better health and income, thus, more time to devote to leisure, recreational and learning activities. They would also have changing housing needs, outdoor space, and are more willing to act as volunteer capacity in the community. At the same time, there are also some elderly who are not financial independent, not physically independent and are not 'active'.

The Hong Kong government concern for the aging issues started in the earlier 1970s. Government interest in formulating a policy for the welfare of the elderly in general has progressed intermittently over the subsequent three decades, however, a comprehensive policy is still to emerge. In July 1997, the Elderly Commission (EC) was formed and was charged with the responsibility of advising the Government on policies and services for the elderly. The EC has adopted an integrated approach to the planning and provision of services for the elderly. One of its stated goals is to strengthen the care for the elderly by 1) Improving their quality of life; 2) Stepping up inter-generational communications; and 3) Providing the elderly with a sense of security, a sense of belonging and a feeling of health and worthiness [38]. The government policy address has continuously provided initiatives to promote the care of the elderly since 1997. The major policy instruments cover financial, fiscal, medical, social and economical aspects. It lacks any urban planning and design mechanisms to enhance and incorporate the concept of healthy aging in urban environment. Building matters are narrowly focused on safety and barrier free access. Elderly people's needs have only become one of

the concern groups in the Universal Design and Technical requirements [39] and Barrier-free Access guidelines [40] which both focus on the physical needs of the older people. The role in which the urban environment can significantly sustain healthy aging of the elderly people in terms of their social, environmental, economical and political needs has been overlooked.

The growing elderly population have also evolved due to social, economic, environmental and political transformations. In 1997, the Chief Executive of the HKSAR government had made "Care for the Elderly" a Strategic Policy Objective of the Government. The objective is to improve the quality of life of our elderly population and to provide them with a sense of security, a sense of belonging and a feeling of health and worthiness. Over the years, policy is undoubtedly emerging but the Government tends to focus on health, housing, community development, care services, employment and social welfare and financial security of the older people.

The Urban design guidelines for Hong Kong has only lightly touched on the needs of the elderly and narrowly limited to provide ramps in pedestrian environment [41]. The HK 2030 planning study also shows relatively little emphasis on the role of urban planning to enhance the overall quality of life of elderly people. It has defined some factors for a quality living environment. It includes: a green and clean environment, good aesthetic, efficient movements, sense of space, diversity to provide choice, sense of place, good urban infrastructure, an inclusive and caring society [42]. However, the extent to which these conditions are applicable to the elderly people has yet to be investigated.

The aging phenomenon contains another challenge as the elderly population is unevenly concentrated in some of the older districts in Hong Kong which also faces rapid urban deterioration, and they have instigated urgent need for urban renewal in government policy agenda. The elderly population is found to be unevenly distributed in some of the old districts, such as Wong Tai Sin, Sham Shui Po and Wan Chai, which require revitalization and renewal. Although the HKSAR government has increasingly pressed for urban renewal in older districts, however, the urban renewal projects are often beset with social problems such as destruction of existing social networks, expulsion of vulnerable groups and adverse impacts on living environments. In response to the aging needs, it is recognized that the elders affected should provide with rehousing arrangement in the same district so that they could stay in their familiar community and maintain their social network. It is believed that urban renewal should play a vital role to support the other policy instruments to sustain healthy aging. In broad view, a much broader policy framework for the overall urban design in tackling the needs of the elderly in urban renewal projects is urgently needed.

The Chief Executive has highlighted his commitment to ensuring that all residents can enjoy quality city living by rejuvenating old quarters of the city, while at the same time improving the overall living environment. The recently draft urban renewal strategy review has only lightly addressed the rapidly aging population

phenomenon. It stipulates that special needs of the elderly should be considered in the social impact assessment. It also suggests to provide purpose-built housing for the elderly groups in urban renewal districts, and ensure the compensation to owners, in particular, elderly affected in the urban renewal [43]. What should be the role of the Urban Renewal in enhancing healthy aging environment? How should the elderly people's lives in the affected urban renewal districts be effectively improved?

E. International practices in tackling the issue of aging

The World Health Organization urges policy makers to address the needs of the growing older population through its Age-friendly Cities Guide, which focuses on eight areas of urban life: outdoor spaces and buildings; transportation; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; and community support and health services [5]. A checklist which provides the sub-criteria for each area is also provided. The research protocol was implemented in 33 cities.

Some cities in the world are taking proactive approach in addressing the challenge on aging population growth. In Japan, the Tokyo Plan 2000, which is a strategic plan, proposed measures for supporting independent living of elderly persons, the design of barrier-free housing, provision of special nursing home. Indicators for improving social activities of the elderly were used as standards in measuring the attainment of policy objectives. A study proposes to enhance the quality of life of older people thru incorporating activities zones from home to urban space in the overall urban design [44] cites in [20]. Figure. 2 shows the activities of daily living in the living environment. In Australia, a study on promoting age-friendly built environments provides concrete action plans for the local government to implement [45].

III. THEORETICAL FRAMEWORK

The significant factors highlighted in worldwide literature that can affect the quality of life and healthy aging in urban environment have been shortlisted by the authors. Then the authors have incorporated the previous research findings on sustainable urban renewal and have consolidated the preliminary list of factors which are applicable to the context of urban renewal (Table I).

TABLE I. Aspects of quality of life influenced healthy aging in urban renewal

Aspect of quality of life	Related literature review findings	Key concepts in aging
Perceived safety	Crime	Healthy aging
Safety and comfort	Falling, accidents and safety from traffic	Healthy aging
Physical health	Opportunities for exercise and access to fresh air	Healthy aging
Emotional wellbeing	Mental health and relaxation	Healthy aging
Mobility	Ease of access to facilities, open space, way finding	Active aging
Sense of	Belonging and social	Active aging

community	networks	
Satisfaction with neighbourhood	Attractiveness, cleanliness, lack of noise, security	Healthy aging
Social interaction	Extent of interaction with others	Active aging
Stimulation	Variety, enjoyment	Healthy aging
Autonomy and control	Independence, self-actualisation	Independent living
Care and support	Ease of care-giving	Independent living
Housing	remaining in a familiar home and neighbourhood	Aging in place
opportunities to employment	self-esteem	Active aging
Social participation	extent of a citizen can claim one's right to the planning and design of urban space	Active aging
Transportation and pedestrian system	Availability and ease of transports and pedestrian-oriented streetscapes and street furniture	Independent living and Active aging
Social infrastructure	Public facilities such as elderly academy and medical centers	Independent living and Active aging
Local characteristics and distinctiveness	Preservation of cultural heritage	Healthy aging
Open space	Availability, ease and design of open spaces	Healthy aging and active aging
Land use	Mixed development i.e. various uses within the same building or an area	Independent living and Active aging

IV. CONCLUSION

Although there is evident of previous works on aging and urban environment, a much broader and holistic theoretical framework integrating healthy aging and quality urban planning as a whole has yet to be formulated. In particular, the pressing need in urban renewal in the older districts which often consist of a high proportion of aging population, definitely requires special attention. The above mentioned theoretical framework for aging which addresses the special needs of the elderly people and its relationship with urban environment can be further developed and elaborated. Since there is a need for a comprehensive, holistic, multidisciplinary approach to better understand healthy aging, bringing together health professionals, social workers, and urban planners has the potential to generate initiatives that could minimize negative physical and mental health consequences, and social exclusion, so that they can continue to maximize the health, well-being, and participation within the elderly communities.

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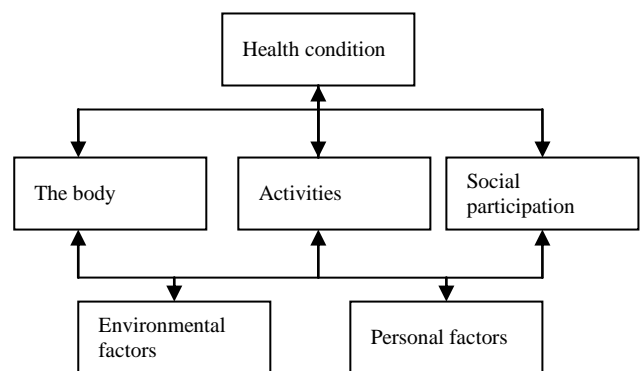
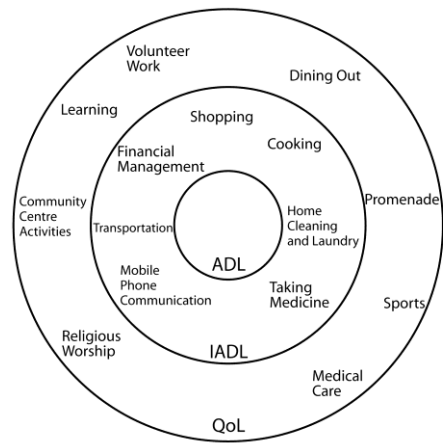


Figure. 1 Interactions between the components of the ICF [3]



Legends
 The Activities of Daily Living (ADLs): Home Environment
 IADL: Home/ outdoor Environment
 QoL: Outdoor environment

Figure 2. Activities zones from home to urban space
 (source: 大阪市立大学大学院生活科学研究科, 2009 cited in Kwok, 2006)