A QUALITATIVE STUDY ON ACTIVE AGEING AND DEVELOPMENT OF ACTIVE AGEING QUESTIONNAIRE AMONG THE ELDERLY IN MALAYSIA

by

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THESIS OUTPUT

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2. E. Wafaak *et al.* (2018). Active Ageing in Malaysia: What Matters to Our Elderly? **Oral Presentation** at 1st Technical Meetings (Family Health Development), Kelantan Health State Department at Tumpat, Kelantan.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

AAQ	Active Ageing Questionnaire
CVI	Content Validation Index
FVI	Face Validation Index
I-CVI	Content Validation Index at Item Level
I-FVI	Face Validation Index at Item Level
S-CVI	Content Validation Index at Scale Level
QOL	Quality of Life
WHO	World Health Organisation
WHOQOL	World Health Organization Quality of Life

ABSTRAK

KAJIAN KUALITATIF PENUAAN AKTIF DAN PEMBENTUKAN BORANG KAJI SELIDIK PENUAAN AKTIF DI KALANGAN WARGA EMAS DI MALAYSIA

Latar Belakang: Penuaan aktif adalah pemahaman konseptual tentang penuaan yang baik dan memberi kesan kualiti kehidupan. Oleh itu pengukuran penuaan aktif yang tepat adalah penting dalam kesihatan warga emas.

Objektif: Meneroka persepsi, penentu, dan membentuk dan mengesahkan bahan pengukuran tahap penuaan aktif di kalangan warga emas di Malaysia.

Kaedah:

Fasa 1: Kajian kualitatif dengan menggunakan tradisi fenomenologi telah dilaksanakan di semua lima wilayah di Malaysia. Persampelan bertujuan telah digunakan di kalangan anggota Persatuan Pesara Kerajaan dan Kelab Warga Emas. Data dikumpulkan melalui sembilan perbincangan kumpulan fokus dan 19 temubual mendalam. Analisa tema telah dijalankan.

Fasa 2: Hasil dari fasa 1 digunakan untuk pembentukan Soalan Kaji Selidik Penuaan Aktif . Tiga domain dengan 82 item telah dibentuk dan melalui pengesahan kandungan dan muka. Pengesahan konstruk, kriteria dan ujian kebolehpercayaan telah dijalankan kepada 302 warga emas. Pensampelan mudah digunakan di kalangan anggota organisasi yang sama. *World Health Organization Quality of Life Assessment Brief Version* dalam Bahasa Melayu juga digunakan untuk pengesahan kriteria. Indeks pengesahan

kandungan, indeks pengesahan muka, analisa penerokaan faktor, korelasi Pearson dan analisa Cronbach's Alpha telah dijalankan.

Keputusan: Peserta adalah campuran pelbagai kaum, jantina dan berumur antara 60 hingga 80 tahun. Tiga kemunculan tema bagi penuaan aktif adalah berdikari, penyertaan dan memberi kesan emosi yang positif. Di Malaysia, penuaan aktif adalah proses melakukan aktiviti secara berdikari, sebagai kesinambungan dan pengoptimuman hidup melalui penyertaan yang memberi manfaat kepada diri sendiri, keluarga dan komuniti, dan menghasilkan kesan emosi positif kepada kehidupan. Ini memberi makluman kepada pembentukan Soalan Kaji Selidik Penuaan Aktif yang mempunyai indeks pengesahan kandungan dan muka yang sangat baik. Tiga faktor iaitu berdikari, penyertaan dan kepuasan, diekstrak dengan 20 item masing-masing. Terdapat hubungan positif yang kuat dan signifikan antara Soalan Kaji Selidik Penuaan Aktif dan *World Health Organization Quality of Life Assessment Brief Version*. Nilai keseluruhan Cronbach's Alpha adalah 0.96; bagi domain berdikari, penyertaan dan kepuasan masing-masing adalah 0.95, 0.93 dan 0.92.

Kesimpulan: Kefahaman konseptual bagi penuaan aktif yang di kalangan warga emas di Malaysia adalah multidimensional dan menyerupai model seperti yang digambarkan oleh *World Health Organization*. Terdapat interaksi kompleks antara badan dan persekitaran. Soalan Kaji Selidik Penuaan Aktif menunjukkan kesahihan dan kebolehpercayaan yang baik untuk mengukur tahap penuaan aktif di kalangan warga tua di Malaysia. Ini akan membolehkan pengukuran penuaan aktif bagi makluman perkembangan dasar.
Kata kunci: Warga Emas, Penuaan Aktif, Persepsi, Penentu, Pembentukan Skala

ABSTRACT

A QUALITATIVE STUDY ON ACTIVE AGEING AND DEVELOPMENT OF ACTIVE AGEING QUESTIONNAIRE AMONG THE ELDERLY IN MALAYSIA

Background: Active ageing is a conceptual understanding of ageing well and may affect on the quality of life. Therefore accurate measurement of active ageing is important in health of the elderly.

Objective: To explore the perception, determinants, and to develop and validate an instrument measuring level of active ageing among the elderly in Malaysia.

Method:

Phase 1: A qualitative study using phenomenology tradition was carried out in all five regions of Malaysia. A purposive sampling was applied among the members of *Persatuan Pesara Kerajaan* and *Kelab Warga Emas*. Data was collected through nine focus group discussions and 19 in-depth interviews. Thematic analysis was carried out.

Phase 2: Result from phase 1 informed development of the scale, Active Ageing Questionnaire. Three domains with 82 items were developed and went through content and face validation. Construct, criterion validation and reliability test were carried out on 302 elderly. Convenient sampling was applied among members of same organisations. World Health Organization Quality of Life Assessment Brief Version in Malay language was also used for criterion validation. Content validation index, face validation index, exploratory factor analysis, Pearson Correlation and Cronbach's Alpha analysis were carried out.

Results: The participants were mixture of multiracial, gender and between 60 to 80 years old. Three emergent themes of active ageing were independence, participation and positive emotion effect. In Malaysia, active ageing is a process of doing activity independently, as a continuity and optimisation of life through participation which bring benefit to the self, family and community, and resulting in a positive emotional effect to life. These informed the Active Ageing Questionnaire development which showed an excellent content and face validation index. Three factors, independent, participation and satisfaction, were extracted with 20 items each. There were significant positive strong correlations between Active Ageing Questionnaire score and World Health Organization Quality of Life Assessment Brief Version score. The Cronbach's Alpha value was 0.96 for overall value; for independence, participation and satisfaction domain these were 0.95, 0.93 and 0.92 respectively.

Conclusion: The conceptual active ageing understanding among Malaysia's elderly is multidimensional and has similarities to the model by World Health Organization. There is a complex interaction between body and environment. The Active Ageing Questionnaire showed a good validity and reliability for measuring active ageing level among elderly in Malaysia. This will allow measurement of active ageing to inform policy development.

Keywords: Elderly, Active Ageing, Perception, Determinant, Scale Development

CHAPTER 1

INTRODUCTION

1.1 Introduction

Population ageing is taking place in globally including Malaysia. The population ageing process worldwide is inevitable and the trend will continue. Some of the contributory factors that lead to the increased in life expectancy are the improvement of social conditions such as good sanitation, proper housing condition, clean water supply and healthy food; and advancement of medicine resulting in increase in life expectancy. According to the World Health Organization (2016), the average life expectancy for a female infant in 2015 was approximately 73.7 years and for a male infant, it was approximately 69.1 years. This was six years longer than the average global life expectancy for an infant born in 1990. The life expectancy at birth in Malaysia has also increased from 72.1 years in 2011 to 72.7 years in 2017 for males, and 76.8 years to 77.4 years for females (Department of Statistics Malaysia, 2017). However, healthy life expectancy at birth for Malaysian was expected at 66.5 years which was six to ten years earlier than life expectancy at birth (World Health Organization, 2016).

According to the World Population Ageing Report 2013 and 2017, the global elderly population had increased from 9.2% in 1990 to 11.7% in 2013, and will continue to increase to 21.1% by 2050. The oldest old, defined as those aged 80 years old and above, is projected to increase threefold between 2017 and 2050. It is estimated that nearly eight

in ten of world's elderly would be living in developing country. In 2030, the elderly population is projected to exceed the children's population who are under ten years old, and projected to become more than adolescent and youth population ages 10-24 by 2050 (United Nations, 2017).

To date, the trend of ageing in Southeast Asia appears to be consistently upsurge in the proportion of elderly population in this region and it is expected to happen from 2015 onwards (W.Jones, 2014). The elderly population in Malaysia is following the same trend. In 2010, approximately 5.0% of Malaysia's population were 65 years and above, and projected to increase around three folds n 2040 as shown in Figure 1.1 (Department of Statistics Malaysia, 2012; Department of Statistics Malaysia, 2016). In 2015, the proportion of older men were lower than older women with ratio of 1:1.2 (Department of Statistics Malaysia, 2018). Specifically, the older women population start to grow bigger in proportion at age 70 years and above. For ethnicity, the ratio of elderly among Bumiputra, Chinese and Indian was 8:5:1 in 2015 (Department of Statistics Malaysia, 2018)

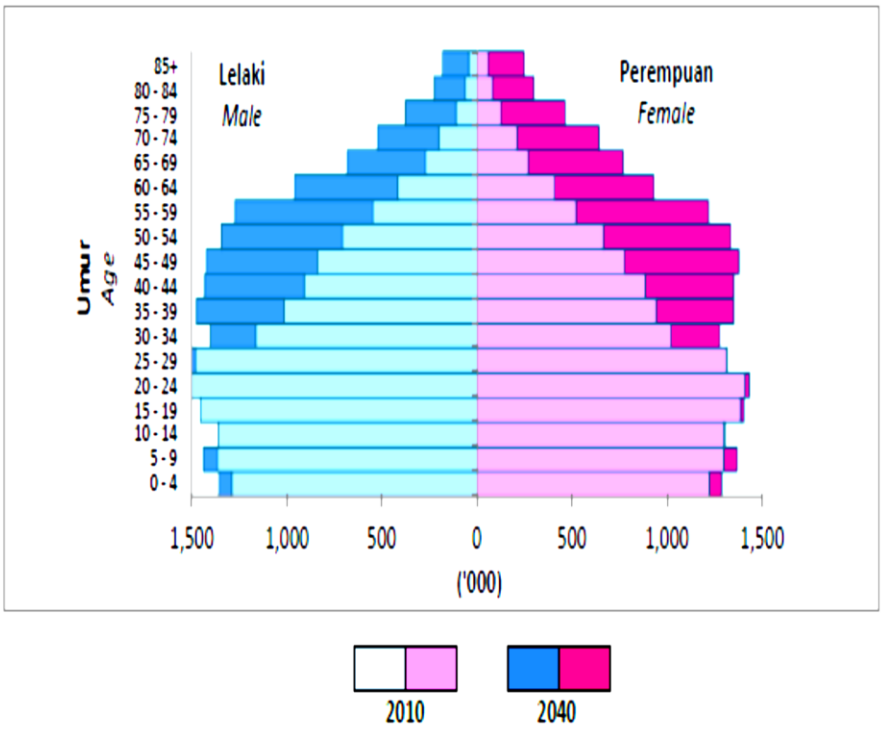

Figure 1.1: Malaysia population pyramid, 2010 and 2040 (Adapted from Population Projection of Malaysia 2010-2040, Department of Statistic, Malaysia, 2012, page 9, chart 2)

Malaysia is expected to have an ageing population by 2020 when the population who aged 60 years and over reach 7.2% of the population (Department of Statistics Malaysia, 2016). The expectation of ageing population became ahead compared to projection being made in 2012, which ageing population were expected to be in 2021 with 7.1% of the population age 60 years and above (Department of Statistics Malaysia, 2012). This suggests an accelerated population ageing than projected. By year 2040, the elderly population with age of 65 years and above is projected to be 14.5% which is threefold from the same age group population in 2010 (Department of Statistic, 2017).

An ageing population affects health, social and economic aspect of the individual, society and country. First, from the perspective of health, there would be increased of prevalence of morbidity among the elderly. The pattern of morbidity can be divided into three categories: i) progressive illness such as cancer and Alzheimer, ii) catastrophic event such as hip fracture and stroke and, iii) minor changes in activity of daily living due to acute minor illness and stress such as restricted movement (Vellas *et al.*, 1992). In Malaysia, the prevalence of metabolic diseases such as Diabetes Mellitus and Hypertension were higher among the elderly as compared to the younger age groups (Institute for Public Health, 2015). These burdens of excess disability and chroni diseases among elderly would affect the health system in which it has to provide more health and caring services to the elderly. This scenario might overburden the health services and programs (Cloos *et al.*, 2010; Tohit *et al.*, 2012). For instance, almost half of patients who visit a Tertiary Hospital in Kuala Lumpur were elderly (Poi *et al.*, 2004).

Second, ageing population would also affect the socio-economy. As compared to developed country, socio-economic development in developing countries such as Malaysia are often not kept with the rapid speed of population ageing and citizens are expected to get old before a substantial increase in wealth occurs (World Health Organization, 2002). Old age dependency ratio is increasing by years as most of the elderly are unemployed in which sometimes this is known as ‘old age crisis’ (Walker and Kyōkai, 2001; World Health Organization, 2002). In Malaysia, the increase in the total dependency ratio from 47.8 in 2010 to 49.5 in 2040 is due to an increase in the old age dependency ratio, almost a three-fold increase from 7.4 in 2010 to 21.7 in 2040

(Department of Statistics Malaysia, 2016). It will be worsen in elderly with more advance age because it rise the probability to become disability and few income-earning opportunities (Cloos *et al.*, 2010). Thus, it would burden the family especially the sandwich generation who has to take care of the children and parents at the same time. The scenario of rapid ageing population would also lead to dramatic changes in family structures and roles (Walker and Kyōkai, 2001; World Health Organization, 2002). Urbanization, break-up of extensive family into smaller family and more women entering workforce would lead to fewer people available to take care of elderly when in need.

Impact of ageing can be positive if longer life accompanied by optimizing opportunities for health, participation and security. WHO introduces active ageing concept to express the process for achieving good quality of life by allowing elderly to realize their potential for health, while providing them with adequate protection, security and assistance. (World Health Organization, 2002). This concept could be applied both at individual and population level.

This concept could also be applied as a policy framework for the elderly. Effectiveness of active ageing policy depends on lay perception and local culture because it gives significance socially (Bowling, 2008; Stenner *et al.*, 2011). Besides, addressing the determinants of active ageing is important to ensure the policy is workable (Boudiny, 2013; Cloos *et al.*, 2010). Measuring the level of active ageing at individual or population level is important for policy development and evaluation. It could provide information to policymaker and to develop more effective programs for the elderly.

There were several instruments in measuring active ageing such as Active Ageing Index. Active ageing index is one of the instruments to measure active ageing level at macro or population level in Europe (Zaidi *et al.,* 2013). These tools were also being used by other studies in measuring active ageing at macro level. Other researcher had found a missing component of spiritual in the measurement and was added in order to improve the predictive value of active ageing (Lim and Thompson, 2015). There were other instruments used in measuring active ageing elsewhere and were used either at population or individual level (Bowling, 2008; Bowling, 2009; Fernández-Mayoralas *et al.*, 2015; Tareque *et al.*, 2014; Thanakwang and Soonthorndhada, 2006). However the construct and dimension varied and a limited number of studies in Malaysia which may provide inadequate construct of active ageing at local context.

1.2 Problem Statement

Malaysia acknowledges the right and need of their elderly citizens in order for them to experience a comfortable and a respected life by having a National Policy for Older Person which focused on them. As the policy was based on international context, the effectiveness of the policy could be improved by understanding the active ageing experience in the older person's own words, in local context and to consider a wide spectrum of factors. However, the concept of active ageing among Malaysian's elderly is still less understood. The determinants of active ageing is still unknown even though there are several studies in Malaysia looking at determinants of other ageing well

concepts such as healthy ageing and successful ageing (Hamid *et al.*, 2012; Poi *et al.*, 2004; Tohit *et al.*, 2012).

As Malaysia strive to include elements of active ageing in its policy, measuring the level of active ageing is crucial because it indicates the level of effectiveness of programs or policy. Although there were several instruments available used in other countries to measure active ageing (Arifin *et al.*, 2012; Bowling, 2008; Fernández-Mayoralas *et al.*, 2015; Tareque *et al.*, 2014; Thanakwang and Soonthorndhada, 2006; Zaidi *et al.*, 2013), there were variety of dimension and indicator used by these authors, which lead to uncertainty of the best indicator for measurement of active ageing in Malaysia. In addition, the measurement should have local social and cultural context (Bowling, 2008; Bowling, 2009; Cloos *et al.*, 2010; World Health Organization, 2002). Thus, there is no suitable tool available which could be used to measure active ageing in Malaysia.

1.3 Rationale

Thus, an exploratory study is much needed which may inform the lay's perceptions of active ageing and its determinants according to the local contexts. This is important for the policymaker and to develop and ensure the effectiveness of the policy or programs. The information could also be used for development of construct in measuring active ageing level at individual level and local contexts. The tools could also be used in the future by other researchers to provide evidences of effectiveness of programs for the elderly in Malaysia.

1.4 Research Questions

1. What is the perception of active ageing among the elderly in Malaysia?
2. What are the determinants of active ageing among the elderly in Malaysia?
3. How to measure the level of active ageing and its determinants among the elderly in Malaysia?

1.5 Objectives

1.5.1 General Objective

To explore perception and determinant of active ageing among the elderly in Malaysia, and the development of a measurement tool for the level of active ageing among the elderly in Malaysia.

1.5.2 Specific Objectives

1. To explore the perception of active ageing among the elderly in Malaysia.
2. To explore the determinants of active ageing among the elderly in Malaysia.
3. To develop a valid instrument measuring level of active ageing among the elderly in Malaysia.
4. To assess the reliability of instrument measuring level of active ageing among the elderly in Malaysia.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

Research, policy and theoretical literatures regarding active ageing and its related concepts were reviewed to address the objective of this study. The review begins with the ageing theory which is concerned to health and social among the elderly. Then, this is followed by the review in literature related to active ageing and its determinants. Some reviews on scale development were also done as it will be discussed at the end of this study.

The sources of the literature reviews were taken from National Library of Medicine (PubMed), SCOPUS and Google Scholar. The main search terms used to identify relevant literature were: ageing, ageing theory, ageing well, active ageing, qualitative study, scale development, validity and reliability of questionnaire. Abstracts were scanned and the full texts were retrieved if the articles were found to be relevant with the research objective. Related study in the reference list of certain articles were scanned, identified and retrieved accordingly.

2.2 Theory of Ageing

Many questions are often asked by the mankind in the past couple of hundred years about ageing. Thus, many theories have being developed to answer the questions. Generally, the theories can be divided into two big categories: 1) answer the question "Why do we age?" and 2) address the question "How do we age?"

Biological theories have been developed to explain process of ageing in molecular biology and genetics aspect. These modern biological theories of ageing in human can be divided into two main mechanisms which are programmed theories and damage or error theories (Jin, 2010). The programmed theory has three categories: 1) Programmed Longevity, 2) Endocrine Theory and 3) Immunological Theory. The term of 'senescence' which has been defined as time when age associated deficits are manifested and used in describing the programmed longevity theory. Genetic instability is causing aging and influencing the dynamic for the process (Davidovic *et al*., 2010). Biological clocks which act through hormones play a role in human longevity. Previous study has confirmed this endocrine theory when they found insulin/IGF-1 signaling (IIS) pathway role in the hormonal regulation of aging (van Heemst, 2010). In immunological theory, ageing and death in human is due to the increase in vulnerability to infectious diseases as the immune system has declined by time. The antibodies loss their effectiveness as human grows older. Thus, only few diseases can be controlled by the body and may lead to cellular stress and eventually death (Cornelius, 1972).

For damage or error theory, it has five categories: 1) Wear and tear theory, 2) Rate of living theory 3) Cross-linking theory 4) Free radicals theory and 5) Somatic DNA damage theory. Wear and tear theory which was introduced in 1882 sounds more logical and reasonable because it happens to most things around us (Jin, 2010). It explains how cells and tissues damage resulting from repeated use. Based on the rate of living theory which has been proposed a century ago, the greater the rate of oxygen basal metabolism, the shorter its life span. Recently, this theory has also been supported by a finding from a previous study which has proved the connection of different membrane fatty acid composition and susceptibility to peroxidation process between species (Hulbert *et al*., 2007). Cross-linking theory introduced in 1942 has explained about the declining of body processes due to the damages of tissue and cells by crosslinking reaction in protein. The explanation is also supported by study which found cross-linking reactions that are associated with age related changes (Bjorksten and Tenhu, 1990). In 1954, free radicals theory was introduced. It proposes that superoxide and other free radicals such as carbon monoxides and radiations can cause damage to macromolecular components of cell. Recently, this theory is still being used in explanation of diseases or disability related with aged such as atherosclerosis (Salvayre *et al*., 2016). In somatic DNA damage theory, it links with genetic mutations and malfunction in human which occur and accumulate as human is ageing. This process will lead to deterioration and dysfunction of cell DNA. Therefore, damage in genetic integrity of a cell will lead to ageing (Jin, 2010).

Although ageing is a biological process and may explain by several biological ageing theories as mentioned above as it does not occur in a social vacuum (Collins, 2014).

However, ageing in sociological aspect can be understood as a social experience. The social theories of ageing have been introduced since 1950s (Collins, 2014). There were several theories which can be categorised as the base on generations (first, second and third generation) or base on social levels (micro, micro-macro and macro level) (Bengtson et al., 1997). Several theories are discussed below as they may relate to 'active ageing' concept.

During the 1950s, functionalism is the earliest social theory of ageing (Carroll Estes *et al.*, 2003). It explains how the elderly adjusted to change their social roles and how those roles provide benefit to the society. The elderly is believed to bring along both physical and psychological declines. Thus, they need to change their roles as they take this decline into account. Failure to find roles as required by the society will lead to being alienated from the society and become discouraged. As a result from society disengages the elderly, disengagement theory gives an idea that people will be removed from their positions of responsibility as they became old. This happens due to the physical decline and death which can disturb a society process. Disengagement is related to reduce the satisfaction and meaningless in elder's life. Retirement is the most common example of disengagement which have been experienced by the elderly. Therefore, activity theory has developed from symbolic-interaction approach which gives an idea that satisfaction in the elderly can be achieved through a high level of activity. The elderly need to find new roles or activities to replace what they have left behind. The activities and roles are various depending on their goals, interests, needs and abilities.

Gerotranscendence theory is commonly used to explain about changes and redefining of goals and perspectives among the elderly (Tornstam, 1994). It is a natural process among the elderly to shift from materialistic and rational view to more cosmic and transcendental which always accompanied by increasing their life satisfactions. However, it may accelerate or obstructe by culture and life events.

Exchange behaviour (received and given) among the elderly is explained through the social exchange theory. This exchange behaviour is different between individual with different age because there is a shift in skill, roles, and resources as they are ageing. The resources for exchanges should not be material only, but can be in power and support (Bengtson *et al*., 1997). Socio-emotional Selectivity Theory which is adapted from selective optimisation with compensation model (life-span theory), is a recent idea of social exchange theory that applied to micro-social phenomena of social ageing. This idea is focusing on the elderly and interaction and exchange between them (rather than explanation regarding exchange between the young and the elderly) which depend on their needs and resources.

Life span theory provides an explanation for understanding human ageing. Theory of 'selective, optimisation with compensation' (SOC) is one of the examples of recent life-span theory that had being used in ageing study (Baltes and Baltes, 1990). It is a meta-theory of adaptation and regulation processes which have been adapted by individual during the life-course with respect to the goals (Boker, 2013). It may explain about the elderly's experiences based on continuous and systematic interaction between internal

state, capacity of the elderly and surrounding environment opportunistic or demand (Baltes *et al*., 1999). Selective is a process of choosing goals among the elderly which can be divided into elective or loss-based selection. Optimisation applies a method or strategy to achieve goal which could be an intention or conscious or non-intention or non-conscious. Compensation is applying alternative method when previous preferred method is unavailable. The SOC theory can be applied at individual, behaviour or societal level.

Ageing is a biological process and may involve with physical and mental deterioration as described by several biological theories. These gave effect to elderly's experience as a consequence of biological changes. Social theories of ageing described how the elderly being disengaged or accepted in the society and also change in life expectation. These biological theories are relevant to active ageing in understanding the natural process of biological deterioration and in same time they need to optimise their health especially physical and mental in order to have good quality of life. The social theories of ageing also described the experiences of the elderly in participating in the society which is one of the pillar of active ageing.

2.3 Active Ageing

The concept of active ageing has been introduced by World Health Organization who defined it as 'process of optimising opportunities for health, participation and security in order to enhance the quality of life as people age' (World Health Organization, 2002). It expresses the process of having a good health, good relationships with others by

participation and secure in terms of safety and financial. It has started with a discussion about active ageing concept among the elderly who involved in labour which was then raised at the G-8 Summit in Denver in June 1997. At the same time, a new concept of active ageing began to emerge in 1990s under the influence of WHO who emphasised the vital connection between health and activity among the elderly (Walker, 2002).

Longer life should accompany with positive experience to improve the quality of life as people age. This is meant to convey a more inclusive message than healthy ageing and to recognise the factors and in addition to health care that may affect how individuals and populations age. In this formulation, the word 'ageing' refers to the entire life course and the word 'active' refers to an ongoing involvement in routine activities of daily living (Walker, 2006) . The active refers not only to the ability to be physically active in routine activity, but also at a higher level to continue participating in social, economic, cultural, spiritual, and civic affairs (World Health Organization, 2002). The concept encompasses not only multiple dimensions of health – the physical, mental and social – but also promotes the full participation of elders in societies and their social integration as citizens (Cloos *et al*., 2010). It is not fair for an elderly being label as un-well ageing just by judging on one criteria only; health. If elder people are actively participating with their families, colleagues, communities and even national affairs, they are actively ageing, regardless of whether they are chronically ill or physical disabled.

Elder people's understandings of ageing must be situated in relation to the broader social and political backgrounds of the population. Several studies have been conducted which

explore the perception of active ageing among the elderly. However, most of them were conducted at western countries (Bowling, 2008; Bowling, 2009; Cloos *et al*., 2010; Stenner *et al*., 2011).

The elderly who participated in a study conducted by Bowling (2008) have defined active ageing as continuation and participation in physical, mental and social activity. They also mentioned about having good financial status and being independent to involve in the activities. For them, active ageing is where great efforts are taken to achieve their goals of life as compared to successful ageing which is an existence of state or end point. However, psychological element in the perception was not prominent compared to minority ethnic and older age groups (Bowling, 2009; Stenner *et al*., 2011)

Bowling (2009) found the different perceptions of active ageing between minority ethnic and whole population even in the same country. The whole population in Britain has emphasised more on physical activities such as walking and gardening when compared to the minority ethnic group who put the emphasis more on activities with psychological effects such as Yoga and meditation. Most of elderly in minority ethnic group are from Asian countries where the element of spirituality is prominent. This might be also due to elderly in minority ethnic group as less healthy which prevent them from involving in physical activities compared to the whole population. This is supported when few of them have rated themselves as having very good health. In relation to that, they also stress on the response or coping mechanism when facing challenges as the health deteriorated such as seeking help and using aids. The presence of this positive psychological attitude is

recognised as one of elements in active ageing. This element is also prominent in a study among older age group by Stenner *et al*. (2011).

Active ageing is also about how the elderly respond to the challenges as they aged such as ‘the body does not want to let you do the thing they want’ (Stenner *et al*., 2011). This perception is obvious among the elder group because they experience more health deterioration compared to younger group. They try to adapt and take alternative ways including using aids or seeking help from others in order to perform a task. This effort is intended to optimise their functions which seem active. It is not only about being independent in daily life, but also becoming more autonomous by having a pleasant sense of own powers and develop own norms. This will let them feeling young despite their chronological ages. They also concern for not being ‘dependent burden’ which risk for isolation. (Stenner *et al.*, 2011).

Besides, environment does play an important role in facilitating them for being active such as health services, social services and physical facilities (Bowling, 2009). It is not only about physical environment and services, social situation such as family support and intergeneration relationship are included too in the perception of active ageing (Cloos *et al*., 2010).

Based on a study among several Caribbean countries which explore more on the determinants of active ageing, the researchers also found various perceptions and determinants of active ageing among the elderly in the countries (Cloos *et al*., 2010). The

perception and expectation were found to be different between the countries based on their socioeconomic backgrounds.

Bowling (2008) then found the differences between lay perception and theoretical model. There were missing elements in productivity, dignity, empowerment and human's right in layman perception. However, the element of dignity and empowerment were described in layman with older age (Stenner *et al*., 2011). Productivity and human's right element were also did not emerge in other studies (Bowling, 2009; Cloos *et al*., 2010; Stenner *et al*., 2011).

2.4 Determinant of Active Ageing

Active ageing is depending on the variation of influences that surround an individual, family, community and nation. Most of the dimensions of 'active ageing' are equivalent to the social determinants of health which comprise of health, social services, social and economic environment (Cloos *et al*., 2010). By understanding the evidence of determinants of active ageing, it will help in designing programmes and policies that work (World Health Organization, 2002). Based on WHO's policy framework of active ageing, the determinants are health and social services, behaviour, personal, physical environment, social and economy. The cross-cutting determinants within the framework are culture and gender (World Health Organization, 2002). The barrier and motivating factor in each determinant are the predictors of how well both individuals and populations age.

2.4.1 Health and Social Services

There is a great variation among the population in availability of, access to, use of and satisfaction with health and social services. There are also large differences between urban and rural areas. The disparities between public and private sectors were also reported. The availability of public services especially in rural area and its free of charge were the motivators to the elderly to seek for health services in public (Cloos *et al*., 2010). However, the negative stigmas of public clinics including unfriendly medical staff and longer waiting times have been identified as the barriers for the elderly to seek for those services (Cloos *et al*., 2010). Public systems in most countries have delivered treatment or care as biomedical problems, but not focusing on patient as a whole person who may also have other issues related to ageing. The limited facilities and aids such as special transport, wheelchair or walking rail in public clinics have made them to look like unfriendly spaces for the elderly (Cloos *et al.*, 2010; Venn and Arber, 2011). However, with several limitations in the public health services, most elderly still used the services because they are the only available and most affordable health facility.

Health promotion interventions in later life require a different focus than those at younger ages, with an emphasis on reducing age-associated morbidity, disability and the effects of multi-morbidity (World Health Organization, 2004). Well-developed primary care is able to address the health needs among the elderly and promotes good health seeking behaviour. Besides, health providers who are trained in geriatric assessments and

medicine, or having good collaboration with geriatricians are also favourable among the elderly. In some developed countries, the important paradigm shift in health care has taken place. Autonomy and decision making by patients have replaced the earlier obedient and passive patient role (World Health Organization, 2004). To some extent, primary care, home care and institutional care, such as nursing homes, are providing an activity that should consist of all meaningful pursuits which contribute to the well-being of an individual, family and local community; and should encompass all older people, even those who are, to some extent, frail and dependent (Walker, 2015).

2.4.2 Behaviour Determinant

Healthy lifestyle is important at all stages of life course (McNaughton *et al.*, 2012). It is a myth if someone thinks that it is too late to adopt a healthy lifestyle such as being physically active, healthy diet, quit smoking and stop taking alcohol in the later years. Healthy behaviour at older age may still prevent diseases, extend longevity and enhance the quality of life (Dale *et al.*, 2013; World Health Organization, 2002). Participating in health promotion programmes and involvement in disease or disability prevention programmes including health talk and quit smoking services are regarded as the motivators to change towards a healthier behaviour (McNaughton *et al.*, 2012; Peel *et al.*, 2005).

Attitudes and beliefs on favourable health behaviour were the important motivators which enable someone to keep practising the healthy lifestyle. Based on a previous study,

the researcher had found five dimensions of ageing related to healthy lifestyle which were ‘physical activity and a healthy diet are essential to fitness and health for older people’, ‘withdrawal and keeping a low profile are appropriate behaviour in old age’, ‘physical deterioration and dependence are a fact of life in old age’, ‘physical fitness is compatible with old age’ and ‘attractiveness is compatible with old age’(Huy *et al.*, 2010). Thus, individual perceptions of ageing are an important starting point when designing a promotion and prevention programmes for the elderly.

Involving with cultural related activity such as Yoga are potentially good practice in health improvement (Depp *et al.*, 2014). It also can be tailored to ability level and suitable for those with limited mobility. Although Yoga is considered as ethnic practices, it can also be practised by other ethnics. There are also similar practices which based on meditations such as Tai Chi and Qi Gong which can also be practised elsewhere.

Cognitively-stimulating activity such as reading, practising crossword-puzzle and playing cards games may delay future decline among the elderly (Depp *et al.*, 2014). More frequent engagements in cognitively stimulating activities at least six hours per week may reduce the risk of dementia. It is also beneficial for those with mild cognitive impairment by preventing further declining of cognitive function. Not practising these activities could be the barrier of active ageing.

Moreover, sleeping habit and quality has been established as the factor of ageing as well. A study showed that the satisfaction and good quality of sleep influence a better quality

of life among the elderly (Rashid *et al.*, 2012). Sleep influences the restoration and healing process of body tissue such as in endocrine and immune system. It also helps in maintaining leisure and domestic activities in later life (Venn and Arber, 2011). Good night sleep will enable their ability to function the following days. Day-time sleep or napping also may help them to get sufficient energy to continue daily activity. However, if too much sleep are found to be inappropriate too because wasting potential time by preventing performing other activities.

2.4.3 Personal Determinant

Biology, physical and psychological status of an elderly does play an important factor in active ageing. Ageing is a normal condition which resulting in reduced physical and physiological functions in a man. Multi-morbidity is a complex phenomenon with an almost endless number of possible disease combinations with a large variety of implications. In general, multi-morbidity is associated with poor quality of life, physical disability, high healthcare utilisation, hospitalisation and high healthcare costs and mortality (World Health Organization, 2004). In addition, morbidity years have increased the risk of failure in ageing well especially stroke, diabetes and cancer (Hsu, 2011). This is because it had been associated with depression and isolation. Hence, it was unable to maintain high function and the effect of life quality (Dale *et al.*, 2013).

Frailty which is closely related with older age, also leads to a higher risk of falls, loss of mobility, functional decline, recurrent hospitalisation, institutionalisation and death

(World Health Organization, 2004). The consequences of frail such as falls are an emerging public health problem and a barrier to active ageing (Dsouza *et al.,* 2014).

In Asia, the role of spirituality has been increasingly recognised as a factor of well ageing (Chong *et al.*, 2006; Hsu, 2007; Tohit *et al.*, 2012). The spiritual well-being is a diverse set of expressions about the ideal living style and spiritual matters. It is supported by the evidence which showed the spirituality as having positive association with social well-being among the elderly in Malaysia. However, further analysis had also showed this as only significant among Malays compared to other races (Teh *et al.*, 2014). This is because most Malays are Muslims who religiosity is projected with subjective well-being among them (Tohit *et al.*, 2012).

By considering the ethnic perspective, study in Malaysia have found that being the Chinese experienced more well ageing than the other ethnic groups. This is also related to the lifestyle during younger age and culture. Chinese elderly found to be less likely to be lonely compared to Malays and indigenous groups (Teh *et al.*, 2014). Nevertheless, the ethnic comparison is not deficit with limited numbers of Indian and deviate from actual ethnic proportions of elderly in Malaysia.

Perceptions and attitudes towards ageing among the elderly are also the factors contributing to health and well-being. Elderly with positive perception and attitude of ageing showed significant better health behaviour than those who have convention perception of ageing (Huy *et al.*, 2010; McNaughton *et al.*, 2012). This perception and

attitudes are developed based on how they are brought up and experienced since young. Positive perception on ageing are described as an inappropriate to be withdrawal and keeping low profile. They believe physical and social deficits as not the necessary part of ageing. Elderly with conventional perception tend to be passive and withdraw from social life because they accept physical deficit as necessary. However, there were some of this age groups who were unwilling to accept physical deficits but did not place a strong emphasis on top physical performance in old age (Huy *et al.*, 2010).

2.4.4 Physical Environment

Physical environments including natural and man-made elements that are age friendly are particularly important for the elderly and has been identified as an important influence on the health and wellbeing of elderly (Annear *et al.*, 2014; McNaughton *et al.*, 2012; Ng *et al.*, 2009; World Health Organization, 2002). Safe and adequate housing and neighbourhoods are essential to wellbeing for all age group of people. Living in urban setting is the motivator of active ageing. Urban areas are closely related to good socio-economic status and higher opportunities for engaging regular organised social events (Cloos *et al.*, 2010).

Recreational and high-quality facilities (social and leisure facilities, age-appropriate facilities), peacefulness, cleanliness, safety of public areas and street crossings, frequent rubbish collection, access to health services, transport availability, closeness to shops and places for walking, living in a retirement village, living in a hillside area, living in an area