

**FACTORS AFFECTING ELDERLY PEOPLE TO PERFORM  
PHYSICAL ACTIVITIES AT PUBLIC PARKS IN BANGKOK**



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**FACTORS AFFECTING ELDERLY PEOPLE TO PERFORM  
PHYSICAL ACTIVITIES AT PUBLIC PARKS IN BANGKOK**

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## **FACTORS AFFECTING ELDERLY PEOPLE TO PERFORM PHYSICAL ACTIVITIES AT PUBLIC PARKS IN BANGKOK**

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### **ABSTRACT**

The age structure of Thailand's population is shifting from an aging-society to an aged-society. It is estimated that by the year 2025 there will be a complete transformation. An increasing elderly population will affect not only the families of the elderly but also the nation as a whole. The promotion of a healthy life-style can play a major part in motivating senior citizens to indulge in outdoor exercise so that a healthier way of living can be maintained. Well preserved parks can contribute to the population's wellbeing, productivity and independence.

The following research aims to explore the contributing factors of the selection process with regards to elderly people when choosing a park to exercise or perform physical activities. Thirty in-depth interviews were conducted by way of open-ended questionnaires at Lumpini park, Benchakitti park and Benchasiri park on January to March 2016.

The research will show that one of the main reasons for elderly people choosing to visit a public park for exercise or to perform their physical activities is because they want to be healthy, live longer and get fresh air while doing so. Factors affecting elderly people to perform physical activities at the parks including health concerns, psychological concerns, location, accompany and activities. Popular activities that elderly people like to partake in include walking, jogging and running. Consequently, the provided recommendations and suggestions were developed to possibly assist the Bangkok Metropolitan Administration, Department of Environment with additional information which may lead to the improvement of services.

**KEY WORDS:** Thai Elderly People/ Physical Activity/ Public Parks

49 pages

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## CHAPTER I

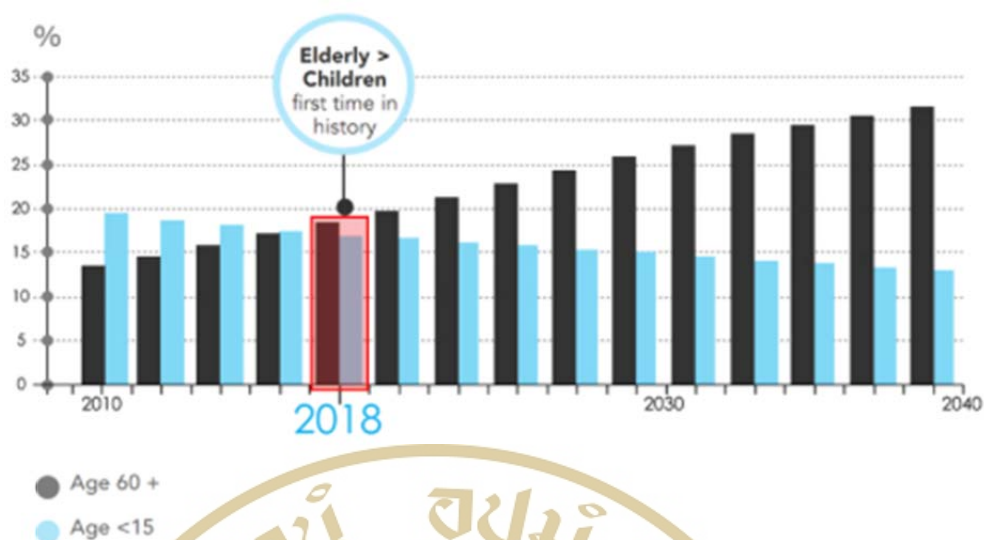
### INTRODUCTION

This chapter provides background, the rationales of study, objectives of the study, the scope of the study, and significance of the study. The next chapter provides a review of the literature.

As stated in WHO 2015, by 2020, it will be the first time in history that number of people aged 60 years and older will be outnumber children younger than five years. By 2050, the world's population aged 60 years and older is expected to total 2 billion up from 841 million. Eighty percent of these people will live in what are now low-income or middle-income countries. Presently, Thailand is one of the upper-middle-income country (World Bank list of Economies, July 2016).

Over 10 percent of the Thai populations in 2015 were 65 years old or older, which reports to more than 7 million people. It is forecasted that by 2040, 17 million Thais above the age of 65 years will make up for more than a quarter of the population. In parallel with China, Thailand already has a higher than average share of elderly people than any developing country in East Asia and Pacific. This is expected to increase even more by 2040 (World Bank, 2016).

Thailand is in the transition from an aging society to aged society. According to the United Nations World Population Ageing, it is found that after 2009, it will outnumber the working-age population. By 2018 will be the first time in history that the population young people is outnumber the elderly people. This situation is due to the rapid decline in fertility. And the continued decline in the mortality rate of the population. The number and proportion of the elderly population in Thailand has been rising rapidly (FOPDEV, 2015).



**Figure 1.1 Proportion of the population under age 15 and 60 years or over: 2010-2040**

Source: Foundation for Older Person's Development (FOVDEV), Thailand, 2015

Physical activity includes exercise which emphasizes bodily movement as a part of playing games, working, active transportation, house chores and recreational activities (WHO, 2017). Exercise, is a subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. Unfortunately, many older adults remain physically inactive (U.S. Department of Health and Human Services, 1996).

Public parks provide places for people to experience nature, engage in physical activities, and relax. Nowadays, elderly in Bangkok, Thailand, concern of living longer and feeling better. Public parks in Bangkok are relative to the up-keeping of elderly health. Public parks provide a peaceful atmosphere for exercise and relaxation which attracts the elderly to improve their health and psychological well-being situation. Also, the shortage of other facilities and options for the elderly to access with regards to improving their health is a considerable factor when opting to use public parks. Many public parks come out with activities focusing on elderly persons where easy to access by public transportation and provide more attractive activities.

Factors of elderly persons to choose to visit the parks are varies. Some elderly people come and exercise at the public park regularly but some never. In the same time public parks should provide special facilities for elderly persons in order to support activities in the parks. This is not only government's responsibility but private sectors are important to promote elderly persons to exercise in public parks as well. In Thailand, many organizations such as Ministry of Public Health (MoPH) and Thai Health Promotion Foundation (ThaiHealth) are major department of elderly persons.

### **1.1 Statement of Problem**

Thailand's deficiency in the area of healthcare professionals has developed into a major problem. That being said, an aged-society will be more evident within the next 10 to 15 years. Naturally, as people get old they also become sick, which makes exercising an easy and enjoyable way to stay healthy. The Bangkok Metropolitan Administration in Environment Department has provided 34 public parks and facilities within the Bangkok province. Unfortunately, some of these parks are not used by elderly people for exercise.

One of the main focuses of public parks is to help maintain a healthy lifestyle and prevent certain illnesses which accompany the elderly. Most common illnesses associated with the elderly are diabetes, high blood pressure, arthritis and obesity. Activities in public parks help to address these problems in a positive way.

### **1.2 Research Questions**

Two main research questions for this study:

1. What factors affecting elderly to exercise in public parks in Bangkok?
2. What factors interrupting elderly to exercise in public parks in Bangkok?
3. What are attractive activities in public park for elderly persons to practice?
4. What are unattractive activities in public park for elderly persons to practice?

### **1.3 Objectives of the Study**

The study aims to achieve the following objectives:

1. To identify factors affecting elderly persons to exercise in public parks in Bangkok
2. To identify factors interrupting elderly persons to exercise in public parks in Bangkok
3. To identify attractive and unattractive activities in public park for elderly persons to practice

### **1.4 Scope of the Study**

This study focuses on population of the elderly who use service of selected public parks in Bangkok for physical activity or exercising. This research focuses on three popular parks in downtown Bangkok: Lumpini Park, Benchakitti Park and Benchasiri Park.

### **1.5 Significance of the Study**

This study is currently considered to be the first available research about ageing problem in Thailand and relation to exercise in public parks.

1. To analyze the factors of elderly who exercise in public park, Bangkok
2. To promote and recommend of improvement of the service of the parks in elderly perception after the result of the study.



## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Theoretical Foundation**

##### **2.1.1 Elderly People**

The United Nations defines that the country has the population aged 60 years and over accounted for over 10 percent of the country's population or aged 65 years over 7 percent of the country's population. Considers that the country has entered the aging society. It will be aged society when the proportion of the population aged 60 years up to 20% increased and aged over 65 years is 14 percent of the country's population. Thailand has entered an aging society since 2005 is that the population aged 60 years and up 10.5 percent. In 2016 Thailand's elderly population reached 11% (World bank, 2016). Estimating from 2000 to 2030, the population of Thailand is expected to increase to 15.7 percent in the year 2030. The population children (0-14 years) are likely to decline sharply from 24.6 percent in 2000 to 11.2 percent in 2030 while the elderly have increased steadily. According to this aging society, it is to have a better understanding of the transition to the elderly. The preparation is prior to the elderly so that they can live and coexist with others (National Statistical Office of Thailand, 2001). Report on the 2007, survey of the elderly persons in Thailand, has showed that the aging population, the number and proportion of elderly people increased steadily. A survey last year found that seniors in 2007, up 10.7 percent (National Office of Thailand, 2007)



**Table 2.1 Timeline of activities concerning aging population in Thailand, in relation to UN activities**

Thailand activities	United Nations activities
1982—First Elderly Council in Thailand	1982—World Conference of Aged Populations
1982—First National Plan for Older Persons 1982–2001	1991—UN Assembly Recognized Elderly Rights
1997—New Constitution of Kingdom of Thailand, with two sections devoted to elderly	
1999—National Committee of Senior Citizens	
1999—Declaration of Thai Senior Citizens	1999—UN International Elderly Year
2002—Second National Plan for Older Persons 2001–2021	2002—UN Second World Assembly on Aging; led to Madrid International Plan for Action on Aging.
2003—Elderly Act	
2005—Healthy Thailand; one component focused on promoting health of the elderly	

Source: Ageing Int (2009)

According to figure 2.1, a timeline of major events in Thailand and United Nation has shown. In 1982, UN started international action plan to respect the elderly and Thailand has established the first National Elderly Council. Implementation of the Second National Plan for Older Persons, 2002-2021, has been monitored and evaluated every 5 years. Ensuring the quality of life the elderly, including independent living, health and well-being has concerned. “Healthy Thailand” was announced as a national agenda. It prescribes that Thais of all ages fully develop their potential in the physical, mental, social or spiritual areas. With respect to older persons, Healthy Thailand promotes that the elderly achieve a peaceful and happy life with their family members, access due care, practice health strengthening activities (i.e., exercise), participate in their community’s activities, and join in elderly representative clubs in their communities.

The public health burden increase in tandem with population aging; by 2050 the worldwide proportion of people aged 60-plus is expected to more than double from 2000, rising from 12.2 to 17.6 million (MIAH – Merck Institute on Ageing and Health. The state on ageing and health in the America’s 2004. Washington, 2004.

*“Population ageing is first and foremost a success story for public health policies as well as social and economic development.” Gro Harlem Brundtland, Director-General, World Health Organization, 1999*

### **2.1.2 History and Background of the Elderly People**

In 1982, the United Nations General Assembly has set the world on Aging in Vienna, Australia. The meaning of the term "elderly" as follows: Elderly individuals, both males and females aged 60 years and older are considered key points on three main areas of development, humanitarian and educational.

In addition, the World Health Organization Has designated the year 2525 as the year campaign to promote healthy aging by that motto Add life to years to various countries. Help promote healthy aging and the Board of Directors of the World Health Day.

Ministry of Health Has approved the use Thailand's motto is "Let love Health Protection. Elderly longevity." The government at that time (Maj. Prem Tinsulanonda) has recognized the importance of the elderly. And issues Potential Cabinet resolved on December 14, 1982 to approve the April 13th of each year as seniors and select "Daklmdwn" a symbol of the elderly. Why choose this flower Since early Duan is a perennial that is a lot. In HRH the Princess Royal Mother minister. The trees provide shade Stems longevity with evergreen leaves shady and fragrant flower petals are bright, hard not to fall.

## **2.2 Physical Activities**

Physical Activity (PA) is defined as any bodily movement produced by skeletal muscles that require energy expenditure. Regular moderate intensity physical activity –such as walking, cycling, or participating in sports – has significant benefits for health. For instance, it can reduce the risk of cardiovascular diseases, diabetes, colon and breast cancer, and depression. Moreover adequate levels of physical activity will decrease the risk of a hip or vertebral fracture and help control weight (WHO, 2017).

As defined by WHO, physical inactivity (lack of physical activity) has been identified as the fourth leading risk factor for global mortality (6% of deaths globally). Moreover, physical inactivity is estimated to be the main cause for approximately 21–

25% of breast and colon cancers, 27% of diabetes and approximately 30% of ischemic heart disease burden. The term "physical activity" should not be mistaken with "exercise". Exercise, is a subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. Physical activity includes exercise as well as other activities that involve bodily movement and are done as part of playing, working, active transportation, house chores and recreational activities. Increasing physical activity is a societal, not just an individual problem. Therefore it demands a population-based, multi-sectorial, multi-disciplinary, and culturally relevant approach.

## **2.3 Elderly People and Physical Activities**

ThaiHealth is an autonomous state agency established by Health Promotion Foundation Act (2001). It acts as an innovative enabler with the mission to inspire, motivate, coordinate, and empower individuals and organizations in all sectors for the enhancement of health primitive capability as well as healthy society and environment.

### **2.3.1 Physical Activity and Older Adults (WHO, 2015)**

Recommended levels of physical activity for adults aged 65 and above. In adults aged 65 years and above, physical activity includes leisure time physical activity (for example: walking, dancing, gardening, hiking, swimming), transportation (e.g. walking or cycling), occupational (if the individual is still engaged in work), household chores, play, games, sports or planned exercise, in the context of daily, family, and community activities.

### **2.3.2 Public Parks**

Physical activity can be conducted in a variety of community environments, such as local parks, which are often accessible to citizens at low or no cost (Bedimo-Rung et al, 2005).

In the U.S., health costs have become the biggest single expenditure in U.S. society, the central importance of physical activity in preventing and improving a wide variety of health problems is now well understood. As this has happened, public park

and recreation services central role in promoting and providing physical activity has been increasingly documented by scientific research. Public park and recreation services are becoming part of the healthcare system of the United States and are now recognized as such (Geoffrey Godbey and Andrew Mowen, 2010).

In this study, three popular parks in downtown Bangkok has been chosen to study are as follows: Lumpini park, Benchakitti park and Benchasiri park. Whereas, location, environment and accessibility are similar but size (Urban Parks in Downtown Bangkok and the Elderly, 2011)

In Trip Advisor's 2014 Traveller's Choice Awards for Attractions, Lumpini park was named one of Asia's top five parks, alongside Singapore Botanic Gardens in Singapore, Hiroshima Peace Memorial Park in Japan, Nan Lian Garden in Hong Kong and Kenrokuen Garden in Japan (Bangkok101, 2014).

Thailand, Bangkok Metropolitan Administration (BMA) provides 35 public parks in Bangkok as shown in Table 2.2. The first public park is "Lumpini park" where located in Pathumwan, Bangkok since 1925. It is a "multi-purpose park" offered for the public for various recreational activities including associations and clubs. Lumpini park has large old trees and artificial lake where visitors can rent a variety of boats. Paths around the park approximately 2.5 kilometers are a popular area for evening joggers (Bangkok Metropolitan Administration, 2007).

**Table 2.2 Public parks in Bangkok, location, size of park and park hours (alphabetical order)**

Park's Name	Location	Size (Rai)	Park Hours
1. Benchakitti Park	Klong Toey	130-0-0	04:30 – 21:00
2. Benchasiri Park	Klong Toey	29-0-0	05:00 – 21:00
3. Bueng Nongbon Park	Pra Wet	644-1-37.50	06:00 – 18:30
4. Chaloeprakiat Kiakkai Park	Dusit	10-0-0	05:00 – 21:00
5. Chalunphirom Park	Bang Plad	3-1-93	05:00 – 21:00
6. Chatuchak Park	Chatuchak	155-0-56.6	04:30 – 21:00
7. Her Majesty the Queen's 60 <sup>th</sup> Birthday Park	Lat Krabung	52-1-69	05:00 – 21:00



**Table 2.2 Public parks in Bangkok, location, size of park and park hours (alphabetical order) (cont.)**

<b>Park's Name</b>	<b>Location</b>	<b>Size (Rai)</b>	<b>Park Hours</b>
8. His Majesty the King's 80 <sup>th</sup> Birthday Park	Bangkok Noi	21-3-42	05:00 – 21:00
9. His Majesty the King's 80 <sup>th</sup> Birthday Park	Sathon	17-2-58	05:00 – 21:00
10. Latphroa Swamp Park	Latphroa	21-0-68	05:00 – 21:00
11. Lumpini Park	Phatumwan	360-0-0	04:30 – 21:00
12. Mahachakri Sirindhorn's 50 <sup>th</sup> Birthday Park	Prawet	20-0-49	05:00 – 21:00
13. Nakraphirom Park	Pra Nakhon	3-3-69.9	05:00 – 21:00
14. Nawaminphirom Park	Bueng Kum	76-0-39.9	05:00 – 21:00
15. Nong Chok Park	Nong Chok	35-2-0	05:00 – 20:00
16. Pranakhon Park	Lat Krabung	50-0-0	05:00 – 20:00
17. Phraphirom Park	Huay Kwang	14-0-0	05:00 – 21:00
18. Public Park in Commemoration of H.M. the King's 6 <sup>th</sup> Cycle Birthday Park	Bang Ko Lem	29-0-0	05:00 – 21:00
19. Queen Sirikit Park	Chatuchak	196-3-65	05:00 – 19:00
20. Ram Indra Sports Park	Bang Khen	59-0-36	05:00 – 21:00
21. Rommaninat Park	Pra Nakhon	29-3-72	05:00 – 21:00
22. Rommani Thungsikan Park	Don Muang	15-2-74	05:00 – 21:00
23. Santi Chai Pra Kan Park	Pra Nakhon	8-2-0	05:00 – 21:00
23. Santi Chai Pra Kan Park	Pra Nakhon	8-2-0	05:00 – 21:00
24. Santiphap Park	Ratchathewi	20-0-80	05:00 – 21:00
25. Saranrom Park	Pra Nakhon	23-0-0	05:00 – 21:00
26. Seri Thai Park	Bueng Kum	350-0-0	05:00 – 21:00
27. Siritharaprueksapun	Bangkok Noi	3-0-16	05:00 – 21:00
28. Suan Luang Rama VIII Park	Bang Plad	24-0-0	05:00 – 21:00
29. Suan Luang Rama IX Park	Pra Wet	500-0-0	05:00 – 21:00

**Table 2.2 Public parks in Bangkok, location, size of park and park hours (alphabetical order) (cont.)**

Park' s Name	Location	Size (Rai)	Park Hours
30. Thawiwannarom Park	Thawi Wattana	51-0-0	05:00 – 21:00
31. Thonburirom Park	Thung Kru	63-1-20	05:00 – 20:00
32. Vareephirom Park	Klong Samwa	122-3-38	05:00 – 21:00
33. Wachirabenchatat Park	Pra Wet	375-0-0	04:30 – 21:00
34. Wanadharm Park	Pra Wet	38-3-46	05:00 – 21:00
35. Watcharaphirom Park	Bang Khen	34-0-0	07:00 – 20:00

Source: Bangkok Metropolitan Administration in department of environment, 2017

Parks facilities and services offer various opportunities to fulfill individual, social, economic, and environmental benefits. The health benefits that are obtained via physical activity in parks, other important benefits of park use must be acknowledged (Bedimo-Rung et al, 2005).

## **2.4 Factors Affecting Aging Persons Decide to Exercise in Public Parks**

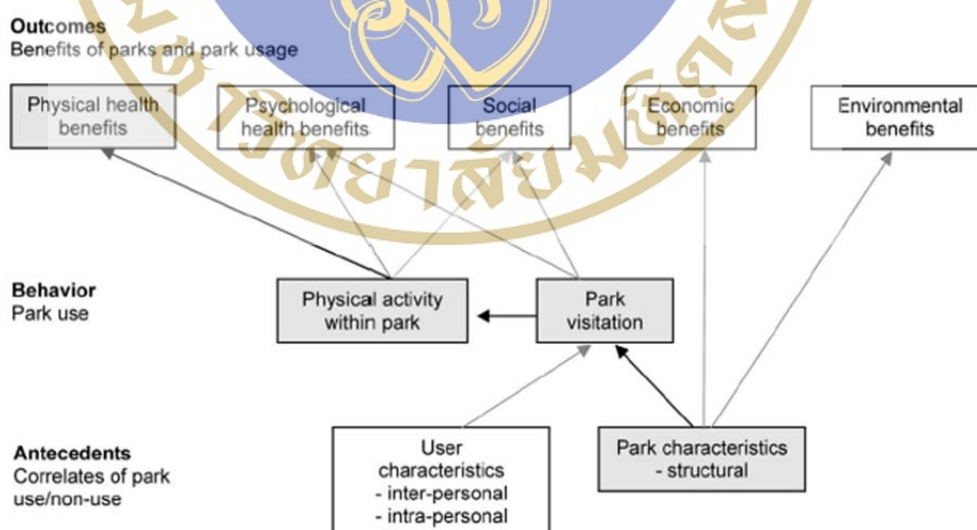
### **2.4.1 Being healthy/physical benefits**

Parks are an important community resource that can help people improve their health. According to figure 2.2, highlights the potential relationships among park environmental characteristics, park visitation, physical activity within parks, and physical health benefits (see shaded boxes of the model). The lower section of the model shows antecedents, or correlates of park use (the factors that influence frequency of use and nonuse). At the most basic level these correlates can be grouped into two broad categories: the characteristics of potential park users and the environmental characteristics of parks themselves. The environmental characteristics of parks are presented in further detail below. The middle section of the model illustrates the extent and nature of park use. Park visitation considers individuals who visit the park, regardless of the type of



activity they pursue once there. Once individuals are in the park, the “physical activity within park” box then describes the level of activity they engage in, be it sedentary, moderate, or vigorous. Finally, the top section of the model illustrates the various types of outcomes (or benefits) resulting from parks and park usage. These include physical health benefits from physical activity such as a lower risk of obesity, heart disease, and diabetes; psychological health benefits such as stress reduction; social benefits such as increased social capital; as well as economic and environmental benefits that may accrue to society resulting simply from the existence of the park in a community (Bedimo-Rung et al, 2000).

Neighborhood outdoor environment such as parks are public facilities that have the potential to offer diverse benefits for local residents. Neighborhood open spaces have been shown to promote people’s health by supporting physical activity such as walking (Pikora et al., 2002). Benefits may be particularly important for an ageing population characterized by decreasing levels of mobility and cognitive functioning. The presence of nearby outdoor spaces is known to be associated with more walking by older people (Li et al., 2005), and walking has significant health benefits for older people (Hakim et al., 1999; Manson et al., 2001), as for other age groups.



**Figure 2.1 The relationship between parks and physical activity. Note: Darker arrows and shaded boxes indicate the main connections covered in this paper**

Source: Bedimo-Rung et al, 2005

### 2.4.2 Psychological Benefits

Physical activity has been linked to improved health and decreased stress (Suregeon General's Report, 1996). Leisure behavior, one type of physical activity, is increasingly being linked with its role in reducing stress and improving mental and physical health. Park-based leisure participation provides opportunities to reduce stress and its negative health consequences (Orsega-Smith E et al., 2004).

Natural park environments are important in promoting the well-being of citizens because they provide opportunities for restorative exercise in which one reports that being in nature facilitates a "clearing of the mind" and/or "clearing the head and reenergizing" in a way that enables self-restoration (Kaplan & Kaplan, 1989). Godbey and Blazey (1983) explored the leisure behavior of older adults (55 and above) who primarily participated in light to moderate physical activity in urban parks. Approximately, they were in a better mood after visiting the park

**Table 2.3 Articles reporting benefit associations between parks and physical activity**

<b>Benefits for Elderly to Exercise in Public Park</b>	Bedimo-Rung, et al., 2005	Godbey G., et al., 2010	Mowen A. et al., 2007	Orsega-Smith E., et al., 2004	Tinsley, H., et al., 2002
Being healthy/physical benefits	✓	✓	✓	✓	✓
Social relationships/psychological benefits	✓	✓	✓	✓	✓

Source: Bedimo-Rung et al. (2005); Godbey G., et al., 2010, Retting et al. (2003);

Mowen A. et al. (2007); Orsega-Smith E et al., 2004; and Tinsley, H., et al., 2002.

## **2.5 Factors Interrupting Elderly People to Exercise in Public Park**

### **2.5.1 Transportation**

Inconvenient transport was the most important factor inhibiting the elderly from participating in society. Barriers were present even within the community (Lin 2008; Chen et al. 2009), and even greater barriers existed for activities outside of the community. Boulton-Lewis et al. (2006) found that in Australia health transportation, cultural traditions and prior learning experience influence elderly people's learning of new things.

Accessibility constraints including do not have transportation, cannot afford (financial issue) or transportation takes time are factors of older adults to commute and participated in physical activity outside their place. Also, difficulty driving cars and moving in crowded cities have limited resources (Alexandris K., et al., 2003).

### **2.5.2 Location**

The barriers can include location ability to get to a park or lack of knowledge about where parks are located and what activities park offer (Payne, Mowen, and Orsega-Smith, 2002; Solop, Hagen, and Ostergren, 2003; Tinsley, Tinsley, and Croskeys, 2002)

According to Mowen A. et al., 2007 research, park proximity was directly related to the frequency of park visitation. The elderly who lived within walking distance to a park were more likely to be frequent park visitors and joined park-base leisure activity and perceived health.

### **2.5.3 Individual factors**

Older individuals reported individual/psychological problems, including feeling tired, not confident about skills, afraid of getting hurt and not fit, as the most important constraints for their participation in physical activity in the park. Subsequently, older individuals should originally be introduced to light forms of exercise such as walking to improve their perceived and wellness level (Alexandris K., et al., 2003).

#### **2.5.4 Companion**

Asian elderly park users tended to visit the park with much larger immediate and extended family groups, and with much larger groups of friends than African-American and Caucasian park users; they were least likely to visit park alone (Tinsley, H., et al., 2002).

Married elderly may be more likely to use parks because they have an available companion to visit with as compared to individuals who are not married. In fact, over two-thirds of married park users visited with a family member. Almost 48% of park users visited parks with family, going alone (21%), going with friends (18.4%) and 8.5% visited with a combination of friends and family. Obviously, the elderly comes with their companion and spent time in the park. Walking was frequently cited as a common park activity (Payne, L. et al., 2005).

#### **2.5.5 Facilities**

Facilities, including restroom and cafes availability, make the parks attractive to elderly people. The amount of time elderly people spent outdoors either walking or performing other activities (Aspinall P. et al., 2010). Importance of appropriate facilities, such as benches and pavement, shows to the elderly convenient to use park service regularly to enhance health being (Lockett et al., 2005).

Using of outdoor fitness equipment contributes older persons perceptions of promoting health by providing not only physical but also social and psychological benefits. The most popular machine was the arm stretch machine. Weather condition, such as rain and humidity, can quickly rust if not regularly maintained (Chow H-W, 2013).

**Table 2.4 Articles reporting Factors Preventing Aging Persons Decide to Exercise in Public Parks**

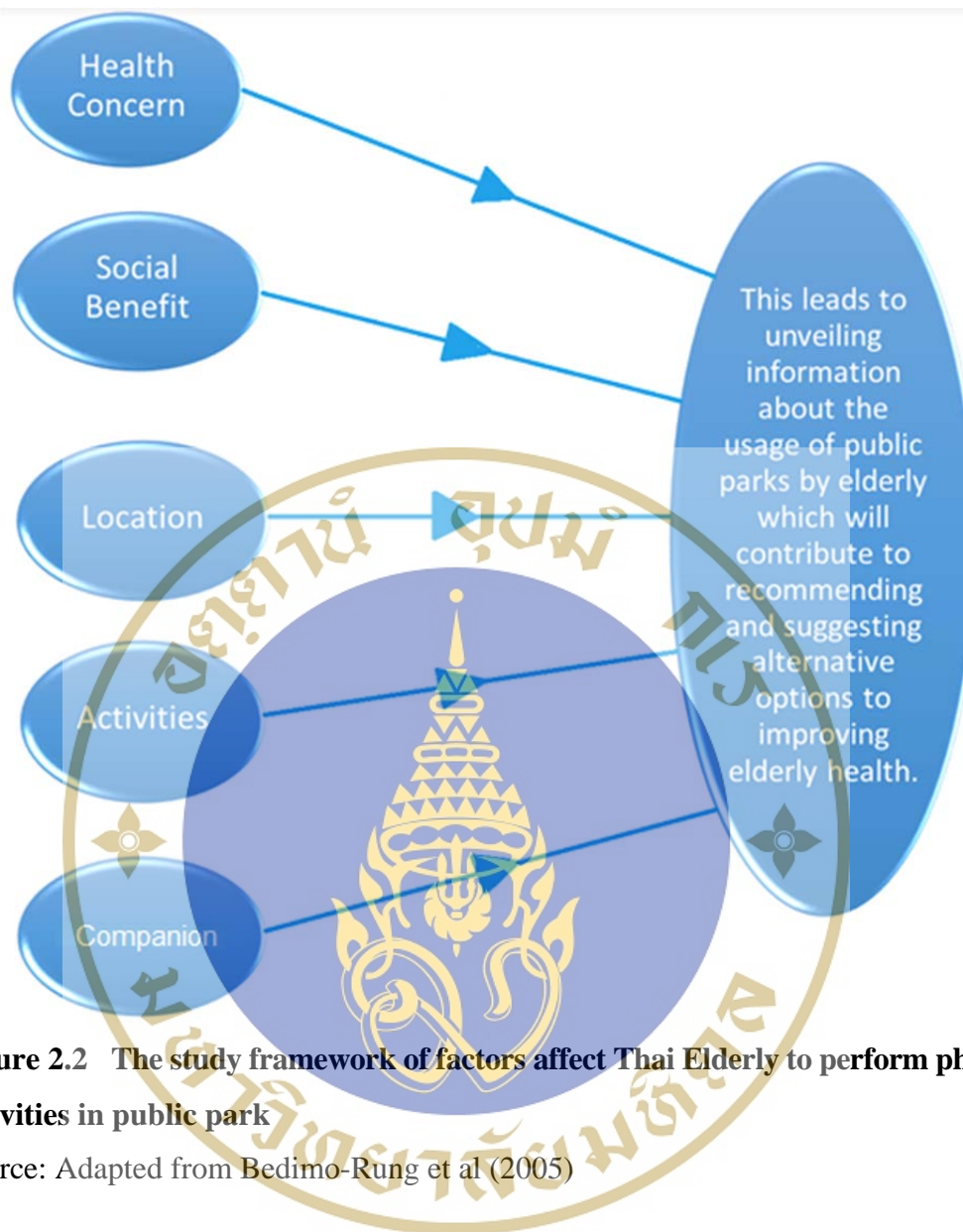
<b>Factors Preventing Elderly to Exercise in Public Parks</b>	<b>Alexandris K., et al., 2003</b>	<b>Aspinall P., et al., 2010</b>	<b>Chow H-W, 2013</b>	<b>Mowen A. et al., 2007</b>	<b>Payne, L. et al., 2005</b>
Transportation	✓	✓		✓	✓
Location				✓	✓
Individual factors	✓				
Companion	✓			✓	
Facilities	✓	✓	✓		

Source: Alexandris et al., 2003; Aspinall P., et al., 2010; Chow H-W, 2013; Mowen A. et al., 2007; and Payne, L. et al., 2005.

## 2.6 Framework of Study

The framework for this study is adapted from the model of relationship between parks and physical activity (Bedimo-Rung et al, 2005). The framework focus on 5 factors which leads to improvements in the usage of public parks by elderly persons. It shows factors from previous research on how to unveil information about the usage of public parks by elderly which will contribute to recommending and suggesting alternative options to improving elderly health.





**Figure 2.2** The study framework of factors affect Thai Elderly to perform physical activities in public park

Source: Adapted from Bedimo-Rung et al (2005)



## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Approach and Design**

In order to answer the qualitative research, researcher conducted 30 of in-depth interview to gather data from people who age 60 and over. Elderly males and females at the public parks were randomly selected for the interviewing method to be handed out to 30 individuals. Result collected from ten interviewees at Lumpini Park, ten interviewees at Benchakitti Park and ten interviewees at Benchasiri Park.

According to McDaniel and Gates (2013) individual in-depth interview was described as the one-to-one interviews that probe and elicit detailed answers to questions, often used for uncover hidden motivations. Open-ended questions were used to interview which gave the interviewees the chance to be able to express their answer in a wider range. The used of open-ended questions and probing technique will give participants opportunity to respond in their own word, rather than forcing them to choose the fixed response. (Mark et al 2006)

The qualitative research interview seeks to describe and the meanings of central themes in the life world of the subjects. The main task in interviewing is to understand the meaning of what the interviewees say. (Kvale, 1966)

Interviews are particularly useful for getting the story behind a participant's experiences. The interviewer can pursue in-depth information around the topic. Interviews may be useful as follow-up to certain respondents to questionnaires, e.g., to further investigate their responses. (McNamara, 1999)

#### **3.2 Data Collection**

In-depth interviews used for data collection are separated into three sections in the questionnaire. First section is demographic information. It includes sex, age, marital status, education, occupation/income and health conditions. Second section, it

is about park use and factors effecting physical activities behavior. This part provides open-ended question in order to let elderly explain in their own way. Closed-ended question is set for scoring the activities in order to get exactly outcome about what is the most attractive and unattractive activities. Lastly, the third part is for interviewee express their feeling for the park and recommendation. Questions were developed according to assumption on literature review in (Bedimo-Rung et al, The Significance of Parks to Physical Activity and Public Health).

### Open-ended interview questions

The questionnaires are categorized into 4 parts consist of 22 questions in total as follow:

Part 1: Demographic, which include information about sex, age, martial status, education, occupation and health conditions.

Part 2: Park Visitation, include information about the elderly and park use.

Questions in part 2 are as follow:

1. How do you usually get to the public park?
2. How far from your place to the public park?
3. How often do you come to the public park per week?
4. What time do you usually visit the public park?
5. What date do you usually visit the public park?
6. Do you come alone or come with friends?
7. Who invited you to visit the park?
8. What is your major reason to visit the park?

Part 3: Physical Activities Within Park, include information about favorite activities. Likert scale was used for rating favorite activities. Though, questions in part 3 are as follows:

1. What are your favorite activities? Why?

Please rate your favorite activities from 5 (most attractive) to 1 (most unattractive).

- Jogging/Walking/Running\_\_\_\_\_
- Bicycling\_\_\_\_\_
- Aerobic dance\_\_\_\_\_

- Tai Chi \_\_\_\_\_
- Indoor activities: ballroom dancing, playing chess etc. \_\_\_\_\_
- Meditation/Napping \_\_\_\_\_
- Resting (sitting) \_\_\_\_\_
- Working out with exercise machine \_\_\_\_\_
- Pedal boats \_\_\_\_\_
- Meeting/gathering \_\_\_\_\_

To find the answer of most attractive activity for elderly people, Likert scale was used for this question. Scoring for Attractiveness was used in Table 4 for interviewees to score their attitude for each activity.

Rate	Verbal Interpretation	Range
5	Extremely attractive	4.50 – 5.00
4	Very attractive	3.50 – 4.49
3	Moderately attractive	2.50 – 3.49
2	Slightly attractive	1.50 – 2.49
1	Not at all attractive	1.00 – 1.49

2. What are the reasons not to visit the park?

3. What do you dislike about this public park?

4. What do you think about the facilities around the park such as toilet, drinking water, light, safety, cleanliness, park hours and etc.?

5. In which you exercise in the public park, do you expect to make you healthy or not? Why?

6. What do you think about the other people why they visit the park?

Part 4: Suggestions, include opinion from the interviewee to suggest about the park



IPSR-Institutional Review Board (IPSR-IRB)

*Established 1985*

COA. No. 2015/1-1-151

### Certificate of Ethical Approval

Title of Project: *Study of the Elderly to Perform Physical Activities in Public Parks in Bangkok, Thailand*

Duration of Project: *2 months (December 2015 - January 2016)*

Principal Investigator (PI): *Ms. Pattamaporn Suwannawong*

PI's Institutional Affiliation: *College of Management, Mahidol University*

Approval includes:

- 1) Submission form*
- 2) Research proposal*
- 3) Interview guideline*
- 4) Participant information sheet*

IPSR-Institutional Review Board (IPSR-IRB) met on 24<sup>th</sup> December 2015 to review the above project. After reviewing the research proposal and other documents, the IPSR-IRB did not see any issues that may violate research ethics.

Signature

(Professor Pramote Prasartkul)

Chairman, IPSR-IRB

Date: ... December 24, 2015 ....

IORG Number: IORG0002101; FWA Number: FWA00002882; IRB Number: IRB0001007

Office of the IPSR- IRB, Institute for Population and Social Research, Mahidol University, Phuttamonthon 4 Rd., Salaya, Phuttamonthon district, Nakhon Pathom 73170. Tel (662) 441 0201-4 ext. 228, 518

**Figure 3.1 Certificate of Ethical Approval**

Certificate of Ethical Approval, IPSR-Institutional Review Board (IPSR-IRB),  
COA. No. 2015/1-1-151.

### 3.3 Data Procedure

The Likert-type 5-point scale has been used by persuasion researchers for over three decades. The original scale of this type was developed by Rensis Likert and is explained in his article, "A Technique for the Measurement of Attitudes," in *Achievements of Psychology* (1932).

Weighted mean was used to measure the general response of the survey samples, whether they agree to a given statement or not.

The formula in computing weighted mean is as follows:

Where

$\bar{x}$  - Mean

f – weight given to each respondent

x – number of respondents

n – total number of respondents

Mean

$$\bar{x} = \frac{\sum fx}{n}$$

Percentage

$$P = \frac{x}{n} \times 100$$

Since the original transcripts are in Thai, the quotes presented are the result of translations into English translated by reporter. Furthermore, the audio recording of interviews was used as an tool to help for the interview. It gives an accurate summary of the interview, as all the answers captured during the interview.



## CHAPTER IV

### DATA ANALYSIS AND FINDINGS

This chapter presents the analyzed data and findings from the results. The collected data were based according to the research question indicated in chapter two.

#### 4.1 Demographic Data Analysis

As shown in Table 4.1, the response rate of the total 30 in-depth interview is 100%. The interview has set at three selected parks; Lumpini, Benchakitti and Benchasiri. Ten respondents from each park has recorded. 70 percent of respondents are male. Majority of the group are between 60-69 years of age (70%), age 70-79 (26.67%) and age over 80 (3.33%).

Most respondents are married and live with their spouse up to 60%. Meanwhile 30% are divorced whose spouse passed away, 6.67% are separated and 1% is single who never get married.

Half of the group has completed a university education in bachelor's degree. Most of people who come to parks are aware of the benefits due to their academic background. Over 96 percent of group study has health condition. Eight of them who completed high school also show good awareness of the health benefits provided by park. Whereas, the 20% with below high school education were six of interviewees.

Largest source of income for respondents is from their family (spouse and/or children). Most of the elderly are not working or retired.

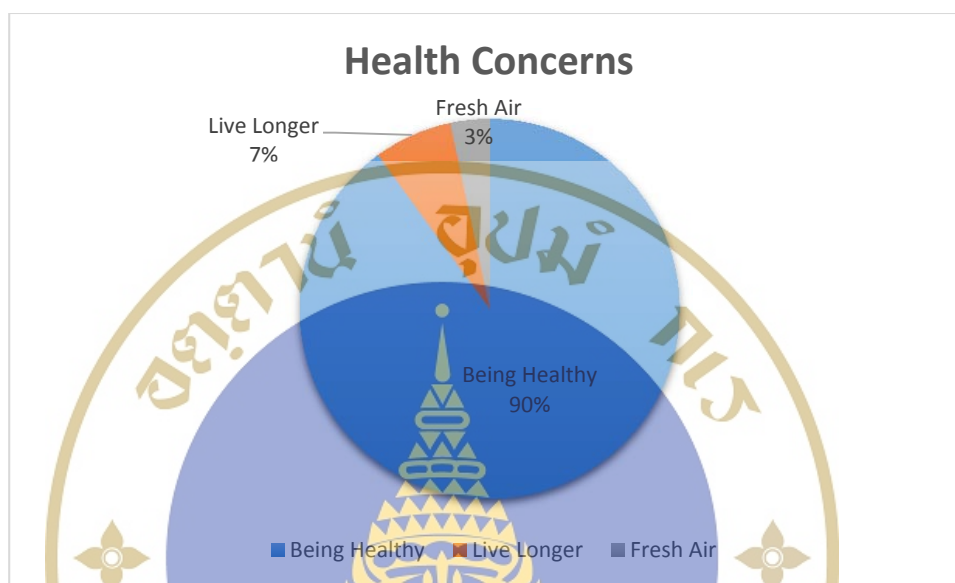
Obviously, health conditions, chronic illnesses (non-infectious disease) are at large showing a direct relation to the elderly up to 96.67% of respondents. Most of the common chronic illnesses that occur are hypertension, diabetes, and arthritis. Respondents who has health conditions facing more than one disease and visit hospital regularly.

**Table 4.1 Demographic information of 30 respondents in the public parks.**

<b>Demographic Information</b>	<b>No. of Respondent</b>	<b>Percentage</b>
<b>Sex</b>		
Male	21	70
Female	9	30
<b>Age</b>		
Age 60-69 years	21	70
Age 70-79 years	8	26.67
Age over 80 years	1	3.33
<b>Marital Status</b>		
Married	18	60
Divorced	9	30
Separated	2	6.67
Single	1	3.33
<b>Education</b>		
Above Bachelor's Degree	1	3.33
Bachelor's Degree	15	50
High School	8	26.67
Below High School	6	20
<b>Major Source of Income</b>		
Family	17	56.67
Pensions	2	6.68
Business (owner)	5	16.66
Part-time Employee	1	3.33
Others (Saving money)	5	16.66
<b>Health Conditions</b>		
Yes	29	96.67
No	1	3.33

## 4.2 Factors Affecting Elderly People to Perform Physical Activities in Public Park

### 4.2.1 Health concerns



**Figure 4.1** Percentage of elderly people health concerns of visiting the public park, 2016.

Primary reasons of performing physical activity in the public park are health benefit (physically health). Majority of respondents at 90%, staying healthy dominates the elderly motivation when it comes to exercising while only 7% intend to prolong life and will take measures to reach that goal. Just one person stated that coming to park to get some fresh air, sit and relax.

*“I feel healthier, more energetic and stronger when starts come to the park for exercise. A male respondents stated at Lumpini park.*

*“I like to see people active even I don’t exercise. It’s lively and the air is cleaner than my place. I live close to Silom street. I feel I get air pollution everyday.” One of interviewee stated at Lumpini park.*

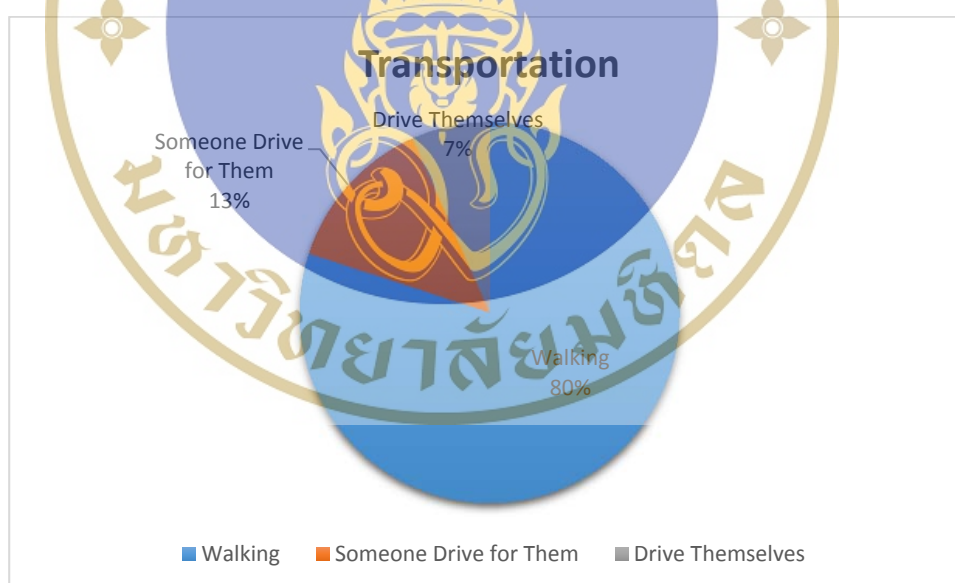
### 4.2.2 Psychological benefits

Simultaneously, all interviewees mentioned additional advantage of visiting the park is to gather with friends, share experiences and stressful relieved by seeing people around (Sa-Bay-Jai). Coming out to the park, they have activities to do such as walking around the park with friends, having fun, improve interpersonal relationships, and social interaction. Reducing symptoms of depression and anxiety were repeatedly stated from the elderly respondents.

*“Staying home is boring. I rather come out to the park to have a walk with my friends. Sometimes I bring my grandson to the park and we exercise and picnic together. It’s good bonding time with him”* One of interviewee stated.

*“I feel happier after exercising and seeing friends here.”* Respondent stated.

### 4.2.3 Location



**Figure 4.2 Percentage of how elderly people get to visiting the public park, 2016.**

According to figure 4.2, All respondents live close to the park and 80 percent of elderly respondents live within walking distance of a park in neighborhoods where three selected parks locate in downtown area of Bangkok. By walking, it regularly takes 15-30 minutes from their place to the park.

No respondent use public transportation to go to public park. Most of them expressed that Bangkok public transportation is not yet safe to commute by themselves.

*“I live in the condo, next to the park. It’s very convenience to walk here. It’s good exercise and no cost. I don’t go the gym because we already have park that much better than gym. I think people should get benefit from public park.” One interviewee stated.*

#### 4.2.4 Companion



**Figure 4.3 Percentage of elderly people needed companion when visit the public park, 2016.**

Up to 27 park users (90%) stated that they are usually come with their friends or sometimes with their family. If they have to come alone, they prefer not to come due to lonely feeling and unsafe. Companions plays in major role to increase persuading of the elderly for coming out from their resident to the public parks.

*“I won’t come if my friends are not here. I feel happy to see them, exercise together, laugh together and update the daily life. It’s safe to have friends around”. The respondent from Benchakitti stated.*

*“Every six p.m., I come to the park for group exercise but I do for only 30 minutes. And I sit and relax after that. I feel I exercised already.” The respondent from Benchasiri stated.*



*“What if I have a stroke, at least my friend can call the hospital for me. Also, I don’t want to be alone in the park and exercise. Normally, they are here anyway.” One interviewees stated.*

On the contrary, three of them said they do not need no company. They are independent and work out on their own. There are security guard around the park and many young people all around. It is safe enough. Park users stated.

#### **4.2.5 Activities**

According to Table 4.5, Thai elderly favorite activities are walking, jogging and running as much as 93%. The major reasons the elderly likely to walk in public park because the public park provide large space and good environment while walking or performing other activities. The main reasons of walking are an easy sport, allow legs and arms movement and no equipment required. Slightly, with more energy, respondents go for jogging and running depend on body strength.

*“I walk around the park as my physical activity. I come here on weekday, morning time. During weekend or the end of the day, it’s a lot of people in the park. Lumpini park has been provided such a long walkway. When I feel tired, I will sit on a bench around the park.” Lumpini respondent stated.*

*“I come to park for a walk. If I don’t come, it means, I skip my exercise that day.” Respondent stated.*

### **4.3 Factors Interrupting Elderly People to Perform Physical Activities in Public Park**

#### **4.3.1 Individual health problem**

As shown in Table 4.2, health problem is the most influential reason for elderly perceived constraints on physical activities at public park in Bangkok. Majority of respondents are having health conditon. They absolutely skip activities or exercise once personal health being unwell. These include, knee or joint pain, headaches, flu, fever and body weakness.

*“If I have knee pain, I will not come to exercise at the park. It bothers me when I walk. And I will come back when I feel better.” One interviewees stated.*

**Table 4.2 Reasons and number of respondents not come to exercise in the public park, 2016**

Reasons not to exercise in public park	No. of Respondents
Health problem	30
Individual reasons	29
Weather	26
No accompany	14
No transportation/access	10
Unpleasant facilities	6

#### 4.3.2 Individual reasons

As in table 4.2 showed that individual reasons include busyness, laziness, feeling tired, lack of time, or other personal reasons. It can be barrier for elderly to exercise at the public park as regular routine.

*“Sometimes, I’m not available. I will not be able to exercise here. So I will send message to my Line group and let everyone knows.” One interviewees stated.*

*“If I have to do something. Then, I don’t have time to come. I won’t” 5 respondents stated.*

**Table 4.3 Dislike reasons and number of respondents dislike in the public park, 2016**

Dislike the public park	No. of Respondent
Dirtiness	9
Unsafe	5
Unfriendly staff	1
No apt equipment for exercise	6
Too many people	8

*“They need to clean restroom more often. It’s smell and dirty. Other than that, everything here is fine.” One man at Lumpini park stated.*

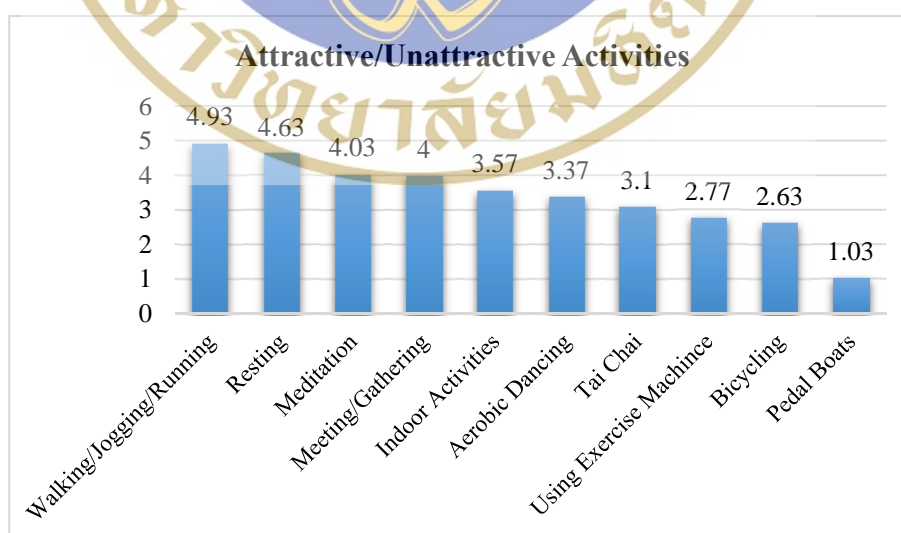
*“If I come at evening, it will be a lot of people. They run fast. I have to be more careful. Moreover, it’s hard to see pave walk because the light is not enough. Some pave walk get slope. I’m fear of falling.” The lady at Benchasiri park stated.*

### 4.3.3 Weather

For the weather, raining is uncontrollable factor that elderly people fend off showing up in the public park. When it rains, the water on a road causes slippery. It can be risk of falling and dangerous. Respondents commented that they can work out indoor physical activity at their place such as cleaning house etc. In the summer, park users are able to reach the park and exercise regularly with no excuses.

*“I’m not going to come if it rains. I don’t want to catch the flu.” Many elderlies stated.*

## 4.4 Attractive and Unattractive Activities in Public Park for Elderly Persons



**Figure 4.4** Average of attractive and unattractive activities rated by elderly people from 1 to 5 (most attractive to most unattractive activities) at the public park, 2016

Walking/jogging/running are the favored forms of physical activities across the interviewed age groups. Twenty-eight interviewees rated 5 out of 5 for walking around the park is good physical activity. It is a light exercise and easy to do. No need to be trained. They just wear sneaker and bring a bottle of water then go to the park. In the same time, many elderly visits the public park for resting and meditation. This is mostly due to the minimum exertion of energy creating maximum benefit. As for the twenty interviewees who rated to rest is the extremely attractive activity, it is mostly because they are already tired from the walk to get to the park and then they chose to enjoy the fresh air and socialize. Fifteen interviewees rated meditate find it a peaceful place to do so because of the trees and open air.

Meanwhile, most unattractive activities include pedal boats, bicycling and Tai chi are rated high. This is mostly due to the large amount of energy spent which makes people tired. Also safety concerns come in to play, these activities increase the risk of some kind of equipment malfunction which could cause injury. With the joints and bodily functions of the elderly not being so strong, it causes caution so they do not partake in such strenuous activities. Finally many elderly have lost the capability to swim, so pedal boats is not an option for them.

*“I do not pedal boat nor ride a bicycle because my knee joint will get severe pain. I’m already old. I rather do only light exercise such as walking. This is enough for my routine exercise. I also do some stretching before and after I go for a walk to avoid cramps.” Female elderly stated.*

**Table 4.4 Number of elderly people rating on attractive activities in public park**

Activities	Extremely attractive	Very attractive	Moderately attractive	Slightly attractive	Not at all attractive
<b>Scores</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1. Jogging/Walking/Running	28	2	0	0	0
2. Bicycling	0	1	20	6	3
3. Aerobic dancing	7	8	8	6	1
4. Tai Chai	3	10	10	5	2
5. Indoor activity: ballroom dancing, playing chess	12	9	4	2	3
6. Meditation	15	6	9	0	0

**Table 4.4 Number of elderly people rating on attractive activities in public park (cont.)**

Activities	Extremely attractive	Very attractive	Moderately attractive	Slightly attractive	Not at all attractive
7. Resting	20	10	0	0	0
8. Working out	4	3	17	5	1
9. Pedal boats	0	0	0	3	27
10. Meeting/Gathering	3	24	3	0	0

**Table 4.5 Average, standard deviation and attractive level of each activity**

Activities	Average ( $\bar{x}$ )	S.D.	Attractive Level
1. Jogging/Walking/Running	4.93	0.25	Extremely attractive
2. Bicycling	2.63	0.72	Moderately attractive
3. Aerobic dancing	3.37	1.16	Very attractive
4. Tai Chai	3.10	1.09	Very attractive
5. Indoor activity such as ballroom dancing, playing chess etc.	3.57	1.38	Very attractive
6. Meditation	4.03	0.96	Very attractive
7. Resting	4.63	0.49	Extremely attractive
8. Using exercise machine	2.77	0.97	Moderately attractive
9. Pedal boats	1.03	0.18	Not at all attractive
10. Meeting/Gathering	4.00	0.45	Very attractive
<b>Overall Attractive Activities Level</b>	<b>3.41</b>	<b>0.60</b>	<b>Moderately attractive</b>

The above table shows that the overall attractive level of activities is considered moderately attractive (borderline very attractive). This shows that partaking in activities at the open-air park is popular amongst the elderly. From the statistic, it is clearly to summarize that most of elderly people like to visit park for jogging, walking or running and resting. In the same time, they rated pedal boating is not at all attractive activity. According to one-on-one interview, most of the reason that they do not like pedal boat because of the knees pain and some of them cannot swim.



According to interview, all interviewees believe that to exercise or performing physical activities in park will help them get healthy. The peaceful and clean atmosphere is appealing to elderly people to get more enjoyable exercise.

The interviews also revealed recommendation from interviewees.

*“I drive to the park. There are two parking areas. One are charged ten baht per hour. But on the other side of park is free of charge. The one that charged, the parking closes to BTS and MRT. It is not fair for the one who come and use the park. They must solve the problem. I do not want to pay. They are better find the solution for it.”* Another respondent who use Lumpini Park stated.

*“In every public park, restroom must be clean. Cleaner should keep cleaning. Exercise equipment must be in good condition at all time, suitable for elderly person and sufficient.”* Respondent who use Benchakitti Park stated,

*“I always come here and walk around the park. I’ve seen a lot of young people come and exercise more than before. It’s a good sign that they’re taking care of their health. So when they’re old, I believe elderly people will be in shape in next generation.”* Female interviewee from Benchasiri Park said.

#### **4.5 Discussions**

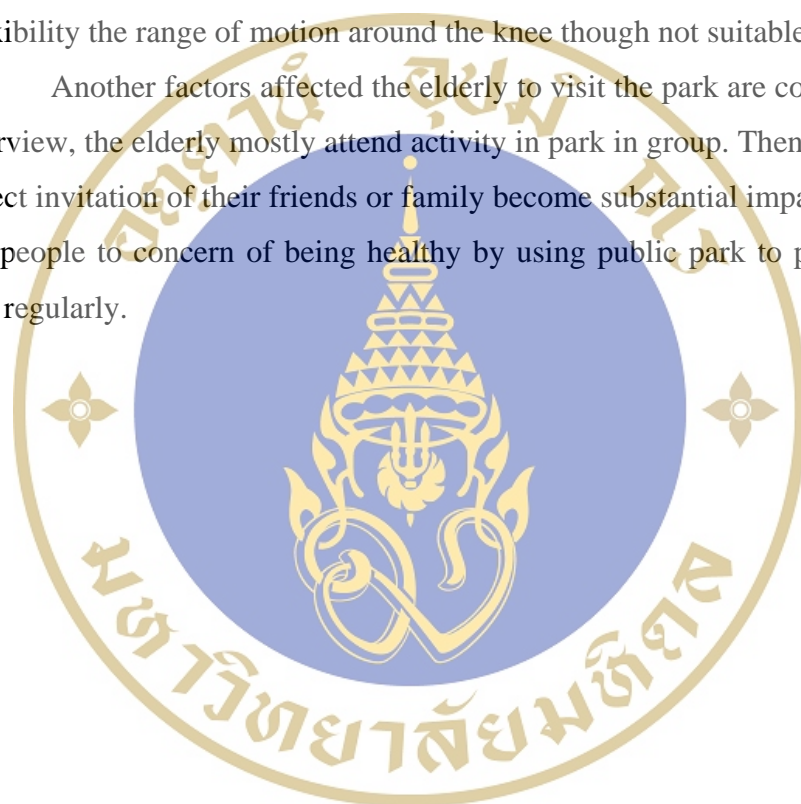
The data was collected through in-depth interview. The total sample size in this study is 30 which 70% male and 30% female, and age 60 -69 years or older (70%). Majority of respondents are married and living their spouse (60%). More than half of respondents are educated in bachelor’s degree. Most of respondents have health conditions (96.67%). According to the interview, majority of respondents are educated and aware of health concern. They perceive physical activity helps to improve health physically and psychologically way of park use. This result can lead to promote health and wellness education in school for future health benefits.

According to figure 2.3 framework of the study, factors affects elderly to perform physical activities in public park has been unveiled. Likewise, results of this study and previous research approved that staying active, being healthy and psychological benefit attract the elderly to come to park for physical activity. Findings related to park proximity support a direct relationship between proximity and visitation. The elderly

who reside closer to parks are more likely to use park on a more frequent basis. Also, most of respondents mentioned they feel safe and enjoy along with their friends, acquaintances and family members when they visit the park.

Attractive activities like walking, jogging and running are the most common physical activity in the parks which is these three parks provide walkway, running track and bicycle track. These activities support the literature review. For the least attractive activity is pedal boat. Most of respondent stated that joint pain occurs if they pedal boat and also is in the water, fear of sinking. Pedal boat and bicycle require a lot of energy and flexibility the range of motion around the knee though not suitable for the elderly.

Another factors affected the elderly to visit the park are companions. From the interview, the elderly mostly attend activity in park in group. Then, word-of-mouth and direct invitation of their friends or family become substantial impact to bring more elderly people to concern of being healthy by using public park to perform physical activity regularly.



## CHAPTER V

### CONCLUSION AND RECOMMENDATIONS

#### 5.1 Conclusion

The significance of parks to physical activity and public health has been linked. Input is people who go to park. Process is people exercise or have activity in the park regularly. Then, outputs are people health benefits, psychological health benefits, social benefits, economic benefits and environmental benefits (Bedimo-Rung et al, 2000). The findings demonstrated the importance of awareness of the elderly to perform physical activity by using public park. The result from this study indicates main factors, including health concerns (i.e. exercise and expecting to be healthy), social benefit (i.e. meeting with friends), location of the parks “walkability”, activities (i.e. walking or jogging) and accompany (i.e. coming with family), affect the elderly to perform physical activity or exercise. Overall, the result of factors affecting elderly are consistent with those of other studies of to previous literature in chapter two.

The most impact factors preventing elderly to perform physical activity in public park are including individual health problem, individual issues and weather. Many activities in parks are offered in the public parks. Obviously, walking is the most attractive activity to magnet the elderly to use running track park for exercise.

The main contributing factor towards interrupting elderly people to exercise or perform physical activity in public parks in Bangkok is park distance. They are all live near by the park so it is easy for them to walk and reach their destination. Lack of awareness of local park opportunities is a reason that older adults not utilizing the services. Opportunities is a reason that older adults not utilizing the services.

To identify attractive activities and unattractive in public park for elderly persons, data from table 4 (in Chapter IV) can be used to find average, standard deviation and lead to summarize attractive level for each activity. The most attractive activities for elderly people are jogging, walking, running. The average score of these activity is 4.03 and standard deviation as low as 0.25. Unfortunately, pedal boats are not at all

attractive elderly. The average score is 1.03 and standard deviation is 0.18. From interview, some of them has knees or legs problem.

## 5.2 Recommendation

Overall, urban Bangkok activities in public park is moderately attractive especially jogging, walking and running and the elderly who reside to the park normally comes. Lack of awareness of local park opportunities is a reason that older adults not utilizing the services. Supporting from government, prestigious and well-funded business are needed to convey a unified health and active-living message stating that public park are ideal places to be physically active across the life span. These finding may be used to assist planning and designing parks as well as research to improve park-based activities for older adults. This report benefit directly to park manager, park management and as well as supporting policy nation plan.

The evidence connecting the parks and physical activity enhance the elderly health. Although, there are barriers for the elderly to use of parks for physical activity, including personal health and individual problem, weather and issues around accessibility, there are also advantage opportunities for park managers to enhance the potential for health promotion and therapeutic use of parks. Despite increasing urbanization and technological advancements, parks continue as significant health promotion settings. In additional, public park can be used for rehabilitation for the elderly who need to work out on exercise regularly if public park has been setting for the elderly.

## 5.3 Limitation

There are some limitations of this study data analysis. In-depth interviews were selected through convenience sampling in urban Bangkok. Most participants were relatively aged over 60, look healthy, and actively exercise in the parks. There were no disabled or frail participants. However, it might not be possible to generalize the findings described here to all Thai elderly people.



## REFERENCES

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- 1.5 Occupation/Income     No job / identify your income \_\_\_\_\_
- Employee / income \_\_\_\_\_
- Pensions/income \_\_\_\_\_
- Business owner / income \_\_\_\_\_
- Others/ income \_\_\_\_\_
- 1.6 Health conditions     No
- Yes/ please specify \_\_\_\_\_

Part 2: Park Visitation

- 2.1 How do you usually get to the public park? \_\_\_\_\_
- 2.2 How far from your place to the public park? \_\_\_\_\_
- 2.3 How often do you come to the public park per week? \_\_\_\_\_
- 2.4 What time do you usually visit the public park? \_\_\_\_\_
- 2.5 What date do you usually visit the public park? \_\_\_\_\_
- 2.6 Do you come alone or come with friends? \_\_\_\_\_
- 2.7 Who invited you to visit the park?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- 2.8 What is your major reason to visit the park?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Part 3: Physical Activities Within Park

3.1 What are your favorite activities? Why?

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3.2 Please rate your favorite activities from 5 (most attractive) to 1 (most unattractive).

- Jogging/Walking/Running \_\_\_\_\_
- Bicycling \_\_\_\_\_
- Aerobic dance \_\_\_\_\_
- Tai Chi \_\_\_\_\_
- Indoor activities: ballroom dancing, playing chess etc. \_\_\_\_\_
- Meditation/Napping \_\_\_\_\_
- Resting (sitting) \_\_\_\_\_
- Working out with exercise machine \_\_\_\_\_
- Pedal boats \_\_\_\_\_
- Meeting/gathering \_\_\_\_\_

3.3 What are the reasons not to visit the park?

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3.4 What do you dislike about this public park?

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3.5 What do you think about the facilities around the park such as toilet, drinking water, light, safety, cleanliness, park hours and etc.?

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3.6 In which you exercise in the public park, do you expect to make you healthy or not? Why?

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3.7 What do you think about the other people why they visit the park?

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Part 4: Suggestions

4.1 Is there anything you would like to suggest about the park?

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Thank you for your time.

## Appendix B: Questionnaire (Thai)



### วิทยาลัยการจัดการ มหาวิทยาลัยมหิดล

#### แบบสัมภาษณ์

**ชื่อโครงการวิจัย:** การศึกษาการออกกำลังกายของผู้สูงอายุในสวนสาธารณะ ในเขตกรุงเทพมหานคร วัตถุประสงค์ของการศึกษานี้เพื่อนำข้อมูลผู้สูงอายุเกิน 60 ที่มีกิจกรรมการออกกำลังกายในสวนสาธารณะในเขตกรุงเทพมหานครมีผลต่อเลือกมาออกกำลังกายในสวนสาธารณะ การศึกษาครั้งนี้เป็นส่วนหนึ่งการวิจัยของ นางสาวปัทมาภรณ์ สุวรรณวงศ์ นักศึกษาปริญญาโท หลักสูตรการจัดการสุขภาพแบบองค์รวม คำถามจะเกี่ยวกับความคิดเห็นส่วนบุคคล ที่เลือกออกกำลังกายในสวนสาธารณะ การตอบแบบสอบถามนี้ ผู้สัมภาษณ์มีความสมัครใจในการให้สัมภาษณ์ การสัมภาษณ์ครั้งนี้ จะมีการบันทึกเสียงบทสนทนาเพื่อวัตถุประสงค์ของการศึกษา อย่างไรก็ตาม ข้อมูลของท่านจะเป็นความลับ และ จะไม่ เกี่ยวข้อง โดยตรงกับชื่อของคุณ หากมีคำถามที่คุณไม่ยินดีจะตอบ โปรดแจ้งผู้สัมภาษณ์ เพื่อข้ามคำถามผู้ขอตัดไป ขอขอบคุณที่คุณให้ความร่วมมือมา ณ ที่นี้ค่ะ

วันที่สัมภาษณ์ วัน/เดือน/ปี) \_\_\_\_\_ เวลา \_\_\_\_\_ สถานที่ \_\_\_\_\_

#### ส่วนที่ 1: ข้อมูลทั่วไป

- 1.1 เพศ  ชาย  หญิง
- 1.2 อายุ  60-69 ปี  70-79 ปี  80 ปีขึ้นไป
- 1.3 สถานภาพสมรส  โสด  สมรส  หม้าย/หย่าร้าง  แยกกันอยู่
- 1.ระดับการศึกษา 4  ไม่ได้เรียน  ประถมศึกษา  มัธยมต้น
- ปวช.  มัธยมปลาย  ปวส./อนุปริญญา
- ปริญญาตรี  สูงกว่าปริญญาตรี  อื่นๆ ระบุ \_\_\_\_\_

- 1.5 อาชีพ / รายได้  ไม่ได้ทำงาน/ระบุที่มาของรายได้ในการครองชีพ \_\_\_\_\_ บาท  
 รับจ้างทั่วไป/รายได้ต่อเดือน \_\_\_\_\_ บาท  
 ข้าราชการ, รัฐวิสาหกิจ (บำเหน็จ, บำนาญ) / รายได้ต่อเดือน \_\_\_\_\_ บาท  
 ธุรกิจส่วนตัว / รายได้ต่อเดือน \_\_\_\_\_ บาท  
 อื่นๆ ระบุ \_\_\_\_\_ รายได้ต่อเดือน \_\_\_\_\_ บาท

- 1.6 ท่านมีโรคประจำตัวหรือไม่  ไม่มี  
 มี โปรดระบุ \_\_\_\_\_

ส่วนที่ 2: พฤติกรรมการเข้ามาใช้บริการสวนสาธารณะ

- 2.1 ส่วนมากคุณเดินทางมาอย่างไร \_\_\_\_\_  
 2.2 คุณใช้เวลาเดินทางจากที่พักของคุณถึงสวนสาธารณะนานเท่าไร \_\_\_\_\_  
 2.3 คุณมาสวนสาธารณะบ่อยแค่ไหน \_\_\_\_\_  
 2.4 โดยปกติ คุณมาสวนสาธารณะตอนกี่โมงและใช้เวลาอยู่ที่นั่นนานเท่าไร \_\_\_\_\_  
 2.5 โดยปกติ คุณมาสวนสาธารณะวันไหนบ้าง \_\_\_\_\_  
 2.6 ส่วนมากคุณมากับใคร \_\_\_\_\_  
 2.7 ใครเป็นคนแนะนำหรือชักชวน ซึ่งทำให้คุณตัดสินใจมาสวนสาธารณะ \_\_\_\_\_  
 2.8 จุดประสงค์หลักในการมาสวนสาธารณะ เพื่อทำอะไร \_\_\_\_\_

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### ส่วนที่ 3: ความคิดเห็นกับกิจกรรมในสวนสาธารณะ

3.1 กิจกรรมที่คุณชื่นชอบเวลาที่คุณมาทำที่สวนสาธารณะ ทำไมถึงชอบ

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3.2 ให้คะแนนจากกิจกรรมที่คุณชอบมากที่สุด (5 คะแนน) ไปถึงน้อยสุด (1 คะแนน)

วิ่ง/เดินออกกำลังกาย \_\_\_\_\_ นั่งพักผ่อน \_\_\_\_\_

ปั่นจักรยาน \_\_\_\_\_ ใช้ฐานออกกำลังกาย \_\_\_\_\_

เดินแอโรบิก \_\_\_\_\_ ไร่ไทเก๊ก \_\_\_\_\_

กิจกรรมในชมรม เช่น กีฬา, หมากรุก \_\_\_\_\_ พายเรือ/ถีบเรือ \_\_\_\_\_

นั่งสมาธิ/หลับพักผ่อน \_\_\_\_\_ เปิดอง \_\_\_\_\_

นวดผ่อนคลาย \_\_\_\_\_ พบปะพูดคุย \_\_\_\_\_

3.3 คุณคิดว่า อะไรจะเป็นสาเหตุหรืออุปสรรคที่ทำให้คุณไม่มาสวนสาธารณะ

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3.4 อะไรที่สิ่งที่คุณไม่ชอบในสวนสาธารณะนี้

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3.5 อุปกรณ์และสิ่งอำนวยความสะดวกภายในสวนสาธารณะแห่งนี้ คุณคิดว่าเพียงพอต่อการใช้งานหรือไม่ และมีสิ่งไหนที่ควรมีเพิ่มเติมหรือปรับปรุงบ้าง เช่น ห้องน้ำ, จุดบริการน้ำดื่ม, แสงสว่าง, ความปลอดภัย, ความสะอาด, เวลาเปิด-ปิดบริการ เป็นต้น



3.6 ในการที่คุณมาออกกำลังกายที่สวนสาธารณะ คุณคาดหวังว่าจะทำให้คุณมีสุขภาพแข็งแรงขึ้นหรือไม่ อย่างไร



