MEANING OF PHYSICAL ACTIVITIES FOR THE ELDERLY

A LITERATURE RESEARCH REVIEW

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DEGREE THESIS

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ABSTRACT:

The aim of this thesis is to address the motivation of the elderly people to engage in physical exercise. It is part of the study guide on geriatric rehabilitation in the Self-Directed Physiatrist Education Program for health care practitioners and trainees in physical medicine and geriatric medicine. This thesis specifically focuses on the health benefits of exercise, which describes the theoretical model for assessment and improvement of an individual´s motivation to engage or pursue physical exercise, details the particular challenges the elderly faces in engaging and adhering to an exercise program, and outlines professional interventions to address these obstacles. The frail elderly people is a clinical syndrome which comprises of unintentional body weight loss, muscle weakness, slow walking, self-reported exhaustion and low level of physical activity among the elderly people who are over the age of 65.

Overall of the thesis objective: To explore the particular challenges the elderly people face in motivation to exercise and to create or develop a systematic approach for counseling the elderly people towards greater activity. This ongoing project work and study review for Kustaankartano, Elderly home care services

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Tiivistelmä:

Tämän opinnäytetyön tavoitteena on osoittaa vanhusten motivaatio sitoutua liikuntaharjoitteisiin. Se on osa opinto-opasta geriatrien kuntoutukseen, joka on tarkoitettu terveysalan työntekijöille ja fysikaalisen ja geriatrisen lääketieteen harjoittelijoille. Tässä opinnäytetyössä keskitytään erityisesti harjoitusten terveyshyötyihin, jotka kuvaavat teoreettisen mallin jota voidaan käyttää arvioimaan ja kehittämään yksilön motivaatiota sitoutua liikuntaharjoitteisiin. Opinnäytetyössä tarkennetaan erityisiä haasteita, joita ikäihmiset kohtaavat sitoutuessaan ja harjoittaessaan kunto-ohjelmaa, ja hahmotellaan ammatillisia interventiota poistamaan nämä esteet. Haurausraihnaus (vanhuudenheikkous) on oireyhtymä, johon kuuluu tahaton painonpudotus, lihasheikkous, hidas kävely, itse ilmoitettu uupumus ja vähäisen liikunnan määrä yli 65-vuotiaiden ikäihmisten joukossa.

Työn tavoitteena on tutkia erityisiä haasteita, joita ikäihmiset kohtaavat saadakseen motivaatiota liikuntaan, sekä luoda tai kehittää systemaattinen lähestymistapa neuvomaan ikäihmisiä kohti suurempaa aktiivisuutta. Tämä on meneillään oleveva projektityö ja tutkimuskatselmus Kustaankartanolle, vanhusten kotihoidon palveluille.

Avainsanat:	Vanhukset, liikunta, kuntoutus, motivaatio, fyysinen, geriatrian.
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FORWARD

I dedicate this thesis to my “JEHOVAH GOD ALMIGHTY” and to my LORD and SAVIOR “JESUS CHRIST”. Realistically, it would have been impossible to complete this project without the grace and promises of God in my life. To my mother and siblings, Mrs. Victoria Oshevire, although you cannot be here to witness the hard work and happiness that went into completing my degree, also this dedication goes to my late father Mr. PA. Oshevire A.J. I know you are always with me and may your soul rest in perfect peace. Yours, Mama´s and my sibling’s encouragement, prayers, love led me to more than I ever hoped for. I pray that God will continue to strengthen my mama and siblings and provide you all with long life, peace joy and happiness, also that you will enjoy the fruit of your labor of your children and that God promises in our lives come to pass. Lest I forget, to my loving and caring girlfriend Iida Sivula, whom has supported, encouraged, and been there when things were rough for me and she played a big role for to me complete this achievement. There is not a day that goes by that I don’t stop and think of you all. Your love and support are what carried me through and helped me to believe in myself.

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1 INTRODUCTION

Kruk J. (2009) say World Health Organization (2003), found that scientific evidence indicated that regular physical activity, fitness and exercise are a key determinant of health. Recommended dose of regular physical activity and participation in sports provides female and male of all ages, including those with disability, with physical and mental health benefits, as well as with social relationships. Physical activity is cheap and it is a strong means of prevention of diseases, improvement of health and well-being, and it also promotes integration and social interaction.

The result of different studies have shown that regular physical activities is widely seen as means of preventing the occurrence of many chronic diseases and the reduced risk of all cause of mortality. Blair et al. (1995); Lee et al. (1995); America College, (1998); Hulens et al. (2002); WHO, (2002); Lebrun et al, (2006)

According to Bauman, (2004) in Kruk, J 2007) says that research has shown that physical activities help to reduced risk of cardiovascular and heart diseases, type 2 diabetes, some types of cancer, osteoporosis, fall-related injuries, depression, and obesity. For this particular reasons, it has been known that a worldwide increase in health enhancing physical activity interest among researchers. Despite the importance of physical activities for health, most people have a sedentary lifestyle. Also, according to the recent "World Health Report" from the World Health Organization (2003, p.2) states that more than 60% of adults can be classified as inactive in worldwide.

Kruk Joanna (2007) says that Colditz, (1999); Bricker et al. (2001); Stephenson et al. (2000), found a very interesting data analyses of different research studies that quantified the impact of physical inactivity on the incidence of disease and estimated its direct cost. These studies had reported relative risks for inactive people versus active for conditions attributable to physical inactivity.

According to Khan et al. (2002); and Ruszkowka-Majzl et al. (2005) says that that the Promotion of increased physical activity is an increasingly important public health pri-

ority. International physical activity campaigns have been organized in other to increase the level of physical activity through education diverse media, classroom-based health education, community events, creation of working trails, sports events. Thus, it is very important for regular updates the evidence of health benefits from a regular physical activity and sport participation since there are new studies each year that identify strong consistent association. The purpose of the study was to cover research findings on the meaning of (outdoor) physical activities for the elderly. This report will provide the public health recommended levels of physical activity, the prevalence and costs of physical inactivity, and the health benefits of regular physical activity. (Kruk.J.2007) p.1

1.1 QUALITY OF LIFE AND BARRIERS IN URBAN OUTDOOR ENVIRONMENT IN ELDERLY PEOPLE

Quality of life

According to World Health Organization (1995) says that quality of life is defined as how individual´s perceive the position of their life in the context of the culture and value of the system in which they live. Recent literature reviews on quality of life has described it as multidimensional evaluation which includes domain such as health and symptoms, mood, functioning, life satisfaction and participation. Rantakokko Merja et al. (2010) says that Lawton MP. (1973) found that one of the influential conceptualization of quality of life is that of the multidimensional evaluation of human behavior and well-being of the person environment system and of an individual time past, current and anticipated. It is not yet widely studies but there is acknowledgment of the importance of environment for quality of life. Several studies have been limited to comparing the differences in quality of life according to types of housing facilities, such as elderly institutions and in the elderly community dwellings. These studies have shown lower quality of life scores for participants who are living in assisted living facilities or nursing homes than for those who are living in the community dwellings. Rantakokko Merja (2010) p.1

Levasseur Melanie et al. (2008) also says fougeyrollas P et al. (1998) found that participation and environment can also be very important modifiable variables that can influ-

ence community living and targeted by health intervention among the elderly people. According to the World Health Organization on the (International Classification of Function) it stated that activity level are one of the components of the (ICF) shown in (figure1), that the environmental factors include the physical, social and attitudinal environment in which the elderly people live and conduct their lives. Participating in activities is the outcomes of interaction between the individual elderly health and contextual factors that include both personal and environmental factors. Levasseur Melanie et al. (2008) p. 2

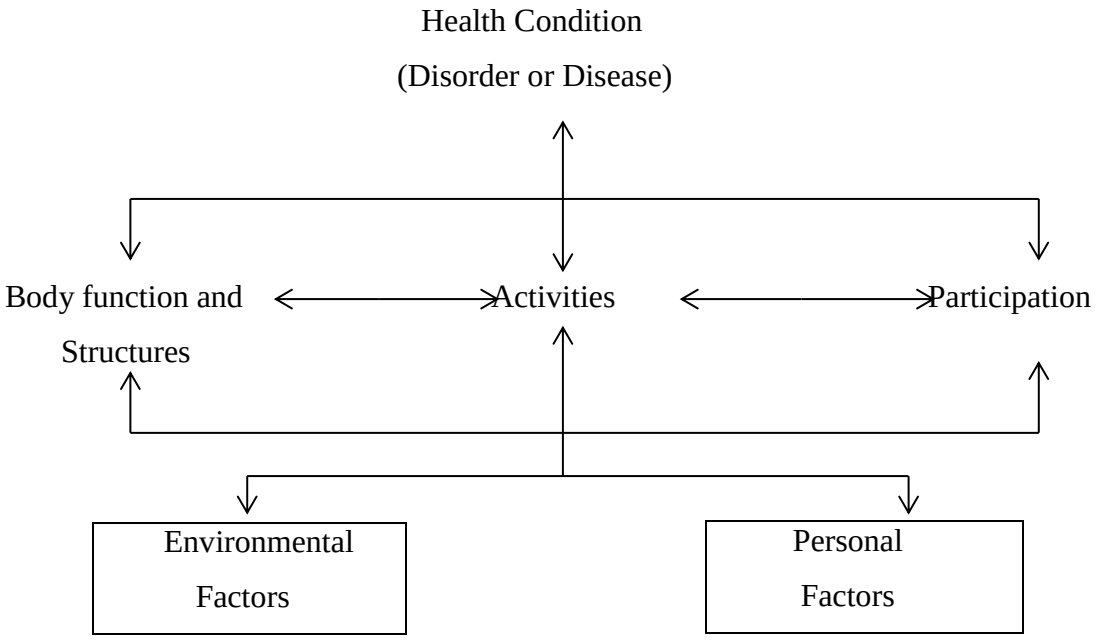


Figure 1: International Classification of Functioning, disability and health (ICF) model. From: World Health Organization (WHO) (2001). International Classification of Functioning, disability and health. Geneva, Switzerland: WHO

1.2 Quality of life measurement and models

A. Dimensions

- Objective is the basis of observation and external to the individuals is seen as the standard of living, income, education, and longevity and health status. Netuveli Gopalakrishnan et al. (2008) says that, Erikson R. (1993) defined the objective dimension of quality as the individual´s command over resources in the form of money, possessions, knowledge, mental and physical energy, social relations, security etc., in which the individual can control and consciously direct their living conditions.
- Subjective, is the psychological responses by the individual such as how they are satisfied with life, happiness and self-ratings. Netuveli Gopalakrishnan et al. (2008) says that, World Health Organization, quality of life group (1993) defined the subjective dimension of quality of life as how individual´s perceive their position in life through the context of culture and value system in which they live and in relation to their targeted goals, expectations, standards and concerns. This is a wide range concept in a complex way by which the individual´s physical health, psychological state, level of independence, social relationships and their individual relationship to salient features of their environment.

B. Domains

- General physical health for example self-rated health or specific disease like asthma
- Psychological aspect such as subject well-being, happiness, satisfaction of life
- Social aspect such as social relationship and networks. Netuveli Gopalakrishnan et al. (2008) says Testa MA, et al. (1996) found that in the context of medicine, a conceptual framework to access the quality of life that combines the objective and dimensions and the three domains as a third dimension had been suggested. Other research theory approaches the human needs and their satisfaction and environmental well-being.

C. Instruments

- Generic are used here to refer to the instrument which are common to all individuals whose quality of life is been measured, as opposed to
- The idiopathic that are tailored for individual participants.

1.3 The perception of quality of life of elderly people

The most quality of life measurements are not well developed in the elderly population, although the elderly people are capable of thinking and talking about their quality of life. Gopalakrishnan et al. (2008) says Farquhar M. (1995) found in a survey that was carried out on the elderly aged 65 years and more, that the elderly responds were familiar with the idea and term of quality of life and talked about it positively and negatively. According to the survey, two thirds of the whole sample described their quality of life as positive. The elderly people evaluated themselves by comparing their quality of life with others based on social contacts especially with family and children, health material circumstances and activities. While stressing on the negative aspect of the evaluation, it focuses on dependency and functional limitations, unhappiness and reduced social contacts through death of friends and family members. The elderly thought that the factors of what give them quality of life are family, activities and social contacts and different kinds of losses such as ill health and functional limitations were seen as making their quality of life worse.

According to Gabriel Z. et al. (2004) the factors which enhance the quality of life among the elderly people were to having a good social relationship with children, family, friends and neighbors. Neighborhood social capitals are represented by good relationships with neighbors, nice and enjoyable neighborhood, comfortable houses and good public services such as:

- free transport and accessible facilities
- psychological factors such as optimism and positive attitudes
- contentment
- looking forward to things

- acceptance

Other coping strategies to engaged in social activities include the following

- attending educational classes and volunteering
- good health
- Financial security which can bring enjoyment as well as empowerment and not depending on others. Gopalakrishnan et al. (2004). P. 5

1.3.1 Quality of life and ageing well

The main concept of quality of life and ageing well is seen as been active, successful or healthy used with ageing but the successful ageing is mostly and frequently used term. Gopalakrishnan et al. (2008) says Rowe JW. Et al. (1998) found that the widely accepted definition of successful ageing contains three components which are:

- Low risk of disease and disability
- High mental and physical function
- Active engagement with life

According to Depp CA. et al. (2006) found that been successful ageing can varies with operational definition used and this review also found 29 different definitions from 28 studies with an average prevalence around 36% and as the definitions become more stringent in excluding functional limitations, the prevalence declined.

Bryant LL. et al. (2004) identified the distinction between successful ageing and quality of life as in the emphasis on physical health for defining successful ageing. However, the well-being is often incorporated in the concept of successful ageing and ageing well adds to the quality of life. It is also possible that there are definitions of health which are related to that of quality of life, for example, health as going and doing something meaningful. Gopalakrishnan et al. (2008) p 6

1.3.2 Adaptation and resilience of quality of life

The adaptation can be seen as way to describe maintenance of good quality of life in old age. According to the Berlin Ageing Study, it is seen as a term of selection, compensa-

tion and optimization. It stated in the Berlin theory on (selection) that old age better quality of life could be achievable by trimming down activities, goals or domains of functioning which most salient to the life of the elderly; (compensation) is by replacing losses with an alternatives to achieve goals, and (optimizing) is to maximize how the elderly can select resources. Gopalakrishnan et al. (2008) says Spranger MAG et al. (1999) found that, adaptation can also be describe as a process to response to shift, in which an elderly person can change their internal standards, values and conceptualizations of quality of live to accept or accommodate some hardship and negative circumstances. According to Bartley M. (2006) stated that as a result of response shift, that the meaning of one´s self evaluation of quality of life will change and that a close allied to adaptation is resilience, which is the phenomenon of the elderly people to beat the odds and doing well against expectation. Gopalakrishnan Netuveli et al. (2008) p 7

1.3.3 Psycho-social factors of quality of life

The comparison of psycho-social factors plays a big role in preservation of quality of life of the elderly people´s as health and other circumstances deteriorate and according to Beaumont JG. et al. (2004) stated that this is a strategy that is often used by elderly people and this may be upward or downward contrast or identification and combinations thereof. The influence of this strategy is downward contrast and those who employ it feel grateful or happy that they are able to do well relative to others who are not fortunate. High quality relations add to the quality of life in the elderly people. Gopalakrishnan Netuveli et al (2008) says Reinhardt JP et al (2006) found that social support can influence quality of life but sometimes in different ways, while the emotional support can associate in positive way with quality of life, receiving instrumental support can reduce well-being by emphasizing the dependence that resulted in the need for such type of support. Gopalakrishnan Netuveli et al. (2008) p 8

1.3.4 Health related quality of life

According to Patric D. et al. (1993), the definition of health related quality of life is the value assigned to duration of life as modified by

- Impairments
- Functional states
- Perceptions and social opportunities that are influenced by disease
- Injuries
- Treatments
- Policy

Gopalakrishnan Netuveli et al. (2008) say Wilson IB et al. (1995), found that the health related quality of life constitutes the highest level of health outcomes that start with biological and physiological factors and proceed through symptoms, functional states and general health perceptions. The phrase (the value assigned to the duration of life) reflects the narrow scope of health related quality of life as the valued end point in which time and or incremental quality to that time. Hickey A. et al. (2005) reviewed the health related quality of life in the elderly patients and found that both generic and specific measurement instruments were used for the purpose to measure health related quality of life. Among the generic measures various forms of Medical Outcome Study health surveys such as (SF-36, short form of community tools that is commonly used to measures health status and health economics as variable in the quality adjusted life calculation to determine the cost effectiveness of a health treatment) were predominant. Generally there is more than one measurement used of the generic health related quality of life. Trief PM. et al. (2003) compared in one of the studies of the health related quality of life of elderly people who are (64 years) and younger (30-64) insulin-treated diabetes patients. To develop the quality of life instruments (one generic SF36 and three diabetic-specific), the participant mean were within 28-58 years of age. Though as was expected, the older groups of the participant were fared badly on the physical component but were doing better on the mental component of the generic measure. The elderly participant had a greater satisfaction, lower impact on emotions and better coping abilities in the disease specific measures. Hickey A. et al. (2005), also reviews these findings for the elderly patients with cardiovascular neurological and mental health problems.

1.3.5 Quality of life in dementia and depression

The assessment of quality of life in dementia raises the important issues about how it is assessed. Most of the definition of quality of life has explained that individual elderly people to make and assess their quality of life but the question is that, if elderly persons with dementia are capable of making such complex evaluation of their quality of life. When cognitive impairment judgment is compromise then how could it be trust worthy on self-reports on one´s affective state. Wong JGWS. et al. (2005) developed a screening instrument (the capacity to report subjective quality of life inventory) that was used to assess the ability to report self-rated quality of life in young mental patients and this assessment tool, identified five points and it can also be used for the elderly people as well and these five points include the following

- Acquiescence (tendency to agree to whatever the question is)
- Consistency in answers
- Understanding of response format
- Understanding of the domains in the quality of life assessment tools
- Ability to evaluate and to compare one´s situation

In addition, there might be changes in important aspect of life when dementia progresses. An attempt to overcome the limitation of self-reports include using proxy respondents; however, there are minimal agreements between self-evaluation and proxy evaluation. Gopalakrishnan Netuveli et al. (2008) found that Mckee KJ. et al. (2002) found that in the frail elderly people observational schedules were found to perform better than self-reports. The generic measurement of quality of life might be able to lack content validity in respect to dementia. Specific measurement on dementia gives primary importance to affect as a domain and in addition this might include one or more of other domains such as

- Self-esteem
- Enjoyment
- Social interaction

However, the early stage of dementia shows that self-evaluation of quality of life was good and satisfaction with life was high. According to Shear K. et al. (2005) stated that been old is a phase in life in which there are greater probabilities of social disruptions as bereavement, social isolation, physical disability and cognitive decline, in which they all contribute to depression. Depression reduces quality of life and in the clinical settings

shows that depression proved similar profile as measures of well-being, so much to make a separate measurement of well-being redundant. Gopalakrishnan Netuveli et al. (2008) pp. 10, 11

2 THEORETICAL FRAMEWORK

The theoretical framework chosen for this thesis is the sense of coherence theory. According to Antonovsky Aaron (1987) theory, it focuses on the argument called salutogenesis. This suggested that we need to look at those who stay well despite being on high risk factors, for example. What is the different about them? How are they able to cope? Why do some people cope better than others do? What helps the person to cope? The Salutogenic orientation sees health as a continuum for example (we are all terminal cases) and we are all, as far as there is a breath of life in us, in some measure healthy. According Antonovsky theory of health on salutogenic, starts from the assumption that the human and living systems are subject to unavoidable entropic processes (the damage and deterioration caused by life and ageing), and unavoidable death. By reading the work of Antonovsky (1987) theory, you will be able to find a metaphor of health that is based on the idea of a river. Contemporary western medicine is likened to a well-organized heroic, technologically sophisticated effort to pull drowning people out of a raging river. But Antonovsky questions the accuracy of the metaphor and redefines the river as the (stream of life). He also argued that no one walk the shore of river safely, so the nature of one´s river and things that shape one´s ability to swim must all be considered. Therefore, the object is to be able to study the river and find out what facilitate the capacity to joyfully swim for some, while for others to stay afloat is very difficult. So therefore we are in the dangerous river of life. The most question that interest Antonovsky was why some of us are able to do better in the river of life? And why people are able to survive despite being so high on risk factors?

Antonovsky (1987) argued that:

- We need to understand the movement of people towards health
- This movement to health cannot be explain by simply being low on risk factors
- It is impossible to identify or equate a rich, complex human being with a particular pathology, disability, characteristic, or a particular set of risk factors
- Pathogenic narrowness is simply poor care

Antonovsky identified from his research a range of factors that seems to play a role in helping the people cope and survive. He called the these generalized resistive resources (GRRs) which referred as the properties of person, (or collective) which have facilitated successful coping with the inherent stressors of human existence.

What all the (GRRs) seemed to have in common was that they contributed to or created something he termed a sense of coherence (SOC). He argued that the (GRRs) he identified in his research all fostered repeated life experiences which helped someone to see the world as making sense cognitively, instrumentally or emotionally. Antonovsky began using the term in (1979) but was able to refined it in later years to mean, a global orientation which expresses the extent in which one has pervasive, enduring though dynamic, feeling of confidence that one´s internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected. He also argued that this making sense was a significant factor in the movement towards health. Someone (or some collective) with a strong SOC will:

- Believe that the resources to cope are available (manageability)
- Believe that challenge is understood (comprehensibility)
- Wish to and be motivated to cope (meaningfulness)

Manageability

Antonovsky (1987) says a person with high SOC has the view that there was a high probability that things will work out as well as can be reasonably expected. People have low SOC see themselves as the ones that things always happen to. And this point of view is defined by Antonovsky as being linked to the extent in which someone perceives that the resources at their disposal are adequate to meet the demands posed by the life events that are bombarding them. Again this is not mere perception. People´s lives simply may not contain adequate resources given on the scale of what has to be managed.

Comprehensibility

This shows that a person who has a high SOC is able to see confronting events as making sense of what they will expect. If the event is unexpected they will be ordered or explicable. This is not a matter that an individual perception or delusion. Some people´s lives are neither ordered nor explicable due to the social circumstances they live within.

Meaningfulness

Antonovski (1987) says that people who have a strong SOC are able to speak of the areas of their life in which are important to them, that they very cared much about and that made sense to them. People with weak SOC (gave little indication that anything in life seemed to matter particularly to them) again, this can clearly have a social origin in which people can be forced through a life of serial meaninglessness by the societal conditions in which they live. This ability to believe that the best possible outcome will occur helps on through bad periods of life. Again this is not just a matter of individual resources. As well as individual factors, our ability to stay afloat and thrive in the river of life depends on its turbulence, its hidden rocks and the support we get from those around us.

2.1 AIM AND RESEARCH QUESTIONS

The aim of this thesis is to describe and analyze the information services for caregivers on the meaning of outdoor physical activities for the elderly. Studies used in the literature review of this thesis include older people health, the importance of been active and the cost of inactivity among the elderly people.

The writer clarify the career's and institutions role on how to engage the elderly in physical activity and the role of the public infrastructure such as the recreational areas where the elderly are free to engage in outdoor exercise.

In addition, the writer interest and goal of this thesis is to advance and create full awareness about the present situation of knowledge on the career´s and institutions. The writer narrows the research questions, and the result of the literature review will answer the questions which lead to research findings and conclusions

Research question 1

What are the benefits of physical activities for the elderly?

Research question 2

What is the impact of physical activity on health promotion, quality of life, and mental health?

Research question 3

How can the elderly be motivated to engage in outdoor physical activity?

2.2 METHODS AND MATERIAL

The use material for this thesis was neither a questionnaire nor interviews, because of time, process and limited resources. Literature review method was chosen which is very good way to get an overview of information and educational awareness services offered for caregivers in elderly home or institutional settings and which ways can information and educational services on the meaning of outdoor physical activities for the elderly people. The writer is interested to first analyze what has been concluded by other researchers on the chosen topic.

A literature review is a guideline of the topic information in a particular topic area. A literature search was made that determine what has been done and synthesize or pull together those elements which are similar or most pertinent to this thesis topic. This literature review will provide a solid overview of the chosen research topic. Literature reviews are often of critical sections of scholarly research materials, and are sometimes material on their own. Literature reviews are most often written by researchers in the sciences and social sciences who report on lab or empirical research. Aveyard, H. (2007) p 6

2.3 Problem encountered in the study

The problems encountered in the study were the process and challenges of gathering the data analysis. The combination of the deductive and inductive coding logic approaches. Also it difficult to acquired recent books or articles that have discussed content analysis in depth. Though there were lots of materials concerning this work and one of the major problems faced in the initial stage of this study was that the materials used were very old below the year 2000 but then the writer has to start all over again with recent materials above the year 2000. This makes it more difficult but however, there were several book and articles that have discussed the method briefly, then from there; the writer was able to get a general overview of the basis in content analysis.

2.3.1 Data collection and sample process

The search strategy included the term of physical activities and health, green exercises, outdoor activities, the influence of a green environment, participation in physical activities amongst older people, motivating the elderly people to maintain exercises, exercise program for the elderly, influence of nature on people, nature and health, mental health promotion, quality of life and elderly, outdoor recreation, etc.

At the beginning of the literature review, the chosen articles were searched from at least 2000-2012. Sources of the literature search were found through database EBSCO host. The main following search subjects that were used was "outdoor physical activities and elderly" with 11 results, "Nature and elderly" with 8 results, "types of physical activities and the elderly" with 7 results, "participating in outdoor physical activities and elderly" with 9 results, " looking into the influence of nature and elderly" with 42 results.

The author then conducted another search in Google Scholar host database, though many of the documents in this database, need to be purchase but the author was able to manage to get some important relevant materials. The subjects terms that were used were: "mental health and health promotion and elderly" with 103,000 results, "motivating elderly to maintain exercise" with 50, 000 results, "green exercise and elderly" 17,800 results, "quality of life and elderly" (2007-2012) with 694 results. After all this, the search results were then limited to be able to get the ones with full text materials because the author was interested getting recent articles available for this thesis work.

2.3.2 Ethical consideration

The writer was able to read through and understand the Declaration of Helsinki World Medical Association (WMA) as a statement of the Ethical Principles which provide guidance for Medical Research Involving Human Subjects concerning writing the report. The research article and materials used as the basis of this study were reported in truth throughout the study. The quotations that used from the books and articles for this study have been quoted and also written in italics format. The writer has also documented fully, words, sources and ideas used in the study properly.

2.3.3 Content analysis

The word content analysis is a research method used as a systematic and objective process of describing and qualifying phenomena, also it can be seen as a method of analyzing documents. Sandeloswski (1995)

Content analysis is a process which allows the author to test theoretical issues to enhance understanding of the data. Through content analysis, it is possible extract words into fewer content related categories. It is assume that when they are classified into the same categories, then, words, phrases and the like are able to have the same meaning. Cavanagh (1997),

Krippendorff (1980) one of the most research method is for making a replicable and valid inferences from document to their context, with the aim of providing new insights, representation of facts, knowledge and a practical guide action.

The aim of the writer is to attain a condensed and broad description of the outcome of the analysis of describing the phenomenon by going through the materials that was selected, and choosing the relevant research articles and findings which are connected to "the meaning of outdoor physical activities for the elderly" this study. The findings were appropriate and it corresponds to the research questions which are already grouped into different categories, as stated in the methodological part of the thesis work. The categories were named according to the subject that the different categories were focused on.

2.3.4 Inductive content analysis

According to Burnard (1991, 1996) and Hsieh & Shannon (2005) says that if the researcher has chosen to use inductive content analysis, the following step is to organize the qualitative data. The following process will includes creating categories, abstraction and coding. The open coding is a means that notes the headings and are written in the text while reading it. The writing material is read through again, and as many headings as necessary are written down in the margins to describe all aspects of the content. Also, (Burnard (1991) McCain (1988), Downe Wamboldt (1992) and Dey (1993) mentioned

that after this open coding, the lists of categories are grouped under higher order headings. The aim of grouping data was to reduce the number of categories by collapsing those that are similar or dissimilar into broader higher order categories.

2.3.5 Summary of the selected articles for the study includes total numbers of 13 articles used for this thesis project

Authors/ source	Title	Year of publication	Aim of the article	Results
Joanna Kruk Google Scholar	Physical activity and health/ and in prevention of most frequent chronic diseases	2007 and 2009	To update the evidence that physical activity/exercise is important for reducing the chronic diseases (cardiovascular and heart, diabetes, cancer, obesity, osteoporosis, and fall-related injuries, depression and emotional stress) and for mechanisms that may operate in relation between physical activity and a disease risk.	The results shows majority of epidemiologic studies found an inverse association between physical activity and cancer risk.
Melanie et al., Merja et al., and Gopalakrishnana et al.	Health and quality of life outcomes. / Quality of life	2008 / 2010 and 2008	Do quality of life, participation and environment of older adults differ	Quality of life and satisfaction with participation were

EBSCO academic search elite.	and barriers in the urban outdoor environment in old age, and quality of life in old ages.		according to level of activity? Quality of life; outdoor environment; outdoor mobility.	greater with a higher activity level. Quality of life was worse among those who reported more barriers in their outdoor environment, experienced fear of moving outdoors.
Aaron Antonovsky	The salutogenic model as theory to guide health promotion.	1996	Health promotion; salutogenic model; theory.	
Hovbrandt et al., American Journal of Occupational Therapy	Very old people´s experience of occupational performance outside the home: possibilities and limitations. / Occupational Therapy Services in the Promotion of	2007 and 2008	Environment design, frail elderly, mobility limitation, occupational therapy, phenomenography, usability.	The participants experienced a variety of aspects that facilitated and hindered their occupational performance outside the home.

	Health and the Prevention of Disease and Disability.			
Edward EM, et al.	Motivating elders to initiate and maintain exercise.	2004	To explore the particular challenges elders face in motivation to exercise and to develop a systematic approach for counseling elders towards greater activity.	To overcome the common obstacles to initiate exercise, it is incumbent on careers to counsel their elderly patient to exercise.
Maller et al.	Healthy nature healthy people: "contact with nature" as an upstream health promotion intervention for populations	2005	Nature, health promotion, mental health, ecological health	Nature plays a role in human health and well-being, and that park and nature reserves play a significant role by providing access to nature for individuals.
Geoffrey Godbey	Outdoor recreation health and wellness.	2009	Outdoor recreation, public health, physical activity.	It considers how being outside in natural surroundings may improve health

				and how outdoor physical activities befits participants.
Mima Cartan et al./ Resnick Barbara/and Michelle Funk	Mental health promotion. / Health promotion practices of older adults: model testing. / And Advocacy for mental health: roles for consumer and family organizations and government.	2006 / 2003 / and 2005	To help develop an understanding of mental health and to sort through some of the claim and argument that have been made. / Health promotion, primary and secondary prevention, geriatrics. / user organization, family organizations advocacy, mental health	Shows that been engage in activities helps to promote mental health and well-being.

3 PHYSICAL ACTIVITY AND INACTIVITY

First of all, what is physical activity? The term physical can be seen as a process of body movement produced by skeletal muscles that result in energy expenditure above resting level cited in (Kruk J. 2009, Caspersan et al. 1985). This definition includes all types of activities such as household and outdoor chores, the activity held outside the home (occupational activity) like walking, cycling, shopping, sports, gardening, international exercises, and other activities of daily living or other recreational exercise activities. In turn, exercise is vigorous activity, planned, and structured, designed specifically to benefit and improve fitness and health, e.g. example brisk walking, competitive

sports, cycling, aerobic. Physical fitness can be seen as a set of attributes as stamina, mobility, and strength which are connected with ability to perform physical activity. Fitness mainly results from levels of physical activity, although it also depends on genetic factors. The effect of genetic factors is noticeable especially when it comes to the competitive type of sport such distance running of weight lifting. Kruk J. 2009 P. 1

3.1 Physical Inactivity

While physical inactivity is seen as a state of no marked increase in the normal energy expenditure above resting level. Kruk J 2009) says EUPHIX, (2008) Warburton et al. 2007, that it responds to usual daily leisure time energy expenditure of lesser than 1.5 kcal per kilogram per day Physical activities performed regularly as part of a subject´s daily routine such as dressing, bathing, climbing, flight of stairs, walking are called usual activities. In turn, international activities are those that are performed in addition to the usual activities. These activities are planned and often done at leisure time. Complete assessment of physical activity irrespective of its kind such as (household, occupational, recreational which is also called leisure-time activity, transportation-walking, bicycling for a purpose of going somewhere) three of its component includes are the frequency, duration and intensity (AICR, 2005).

- Frequency is seen as the number of times that the activity is undertaken within a fixed period e.g. two times per week.
- Duration can be seen as the time spent during the period of the activity e.g. 20 min per week.
- Intensity explains the amount energy expenditure by a person during the activity.

Research on physical activity and health has pointed clearly the regular activity has important health benefits. Although the optimal dose (frequency x duration x intensity of activity) which are need to be healthy remains very unclear. Recommendations for public health on the sufficient of intentional physical activity that are developed by different national and international agencies and organizations have changed with evidence on dose accumulation in the epidemiologic literature (AICR, 2005; Warburton et al. 2007). Kruk J.82009) p.2

3.2 Types of physical activities

The regular types and important of physical activity are aerobic and muscle-strength activities that are most essential for the health and well-being of the elderly. This preventive recommendation shows and specifies how important risk of chronic disease, premature mortality, functional limitations and disability can be reduced when the elderly people are able to engage in each of the recommended type of physical activity.

- *Aerobic activity*. To maintain and promote health, the elderly people need moderate intensity aerobic physical activity for a minimum of 30 minutes in five days per week or vigorous intensity aerobic activity for the minimum of 20 minutes in three days per week. Also, combination of moderate and vigorous intensity activity can be performed to meet this recommendation level. Moderate intensity aerobic activity can involve a moderate level of effort related to an individual's aerobic fitness. For example, given the heterogeneity of fitness level in the elderly people, to some elderly people a moderate intensity walk is a slow walk, while for others it is a brisk walk. This recommendation of the aerobic activity can be seen as to a routine activities of daily living of low intensity (e.g. self-care, casual walking or shopping, ma (e.g. king food) while the moderate intensity activities are (e.g. walking around the home, walking from the park).
- *Muscle strengthening activity*. To maintain and promote health and physical independence, the elderly will benefit from performing activities which will maintain or increase their muscle strength and endurance for minimum of two days per week. The elderly people are recommended to perform exercises in two or more times nonconsecutive days per week by using the major muscle groups. To maximize the strength development, the resistance (weight) should be used which allow from 10-15 repetitions for each exercise. Muscle strengthening activities include the progressive weight training program, weight bearing calisthenics and similar resistance exercises that can use the major muscle groups.
- *Flexibility activity*. To maintain flexibility which is very necessary for regular physical activity and daily life, the elderly people should perform activities

which will maintain or increase flexibility in at least two days each week for at least 10 minutes per day.

- *Balance activity*. To reduce the common risk of injury from falls among the elderly people, community dwelling elderly people with substantial risk of fall (e.g. with frequent falls or mobility problem) should perform exercises that will maintain and improve balance. Duncan and W. Pamela in James O. Judge (2007) p.4

3.3 Cost of physical inactivity

The health cost of physical inactivity appears to be very high. (WHO, 2002 in Kruk J. 2009) says that physical inactivity causes the total amount of 1.9 million deaths annually and the loss of 19 million disability adjusted life globally. Physical inactivity has been estimated to cause 10-16 percent of all cases of breast, colon and rectal cancer and diabetes mellitus worldwide, and about also about 22 percent of ischemic heart disease. (WHO) also estimated that physical inactivity is one of the ten largest risk factors of premature death in the developed countries, and that 80 percent of heart and cardiovascular diseases, 90 percent of non-insulin dependent diabetes and 30 percent of all cancer can be prevented merely by a change of lifestyle. This would include the bad eating habits, participating in desired amount of physical activity, quitting smoking habits. Despite the mostly favorable development of health in the population, there are some diseases which are on the increases, such as obesity and the connected metabolic syndrome, type2 diabetes of which, both can contribute to cardiovascular disease. (Kruk J. 2009) p4

Health costs:

➢ Overweight and obesity
➢ Ischemic heart disease
➢ Stroke
➢ Diabetes, type2
➢ Hypertension
➢ High blood cholesterol levels
➢ Osteoporosis and related fractures

➢ Cancer (colon, breast, bowel)
➢ Muscular disorders (arthritis, backache)
➢ Neurological disorders (carpal tunnel syndrome)
➢ Mental health disorders (anxiety, depression)

Other costs

➢ Pain, disability
➢ Longer rehabilitation times
➢ Reduction in quality of life
➢ Impact on workforce participation (absenteeism)
➢ Premature deaths
➢ Economic costs

Table 2: Costs of physical inactivity

3.3.1 Benefit of physical activity

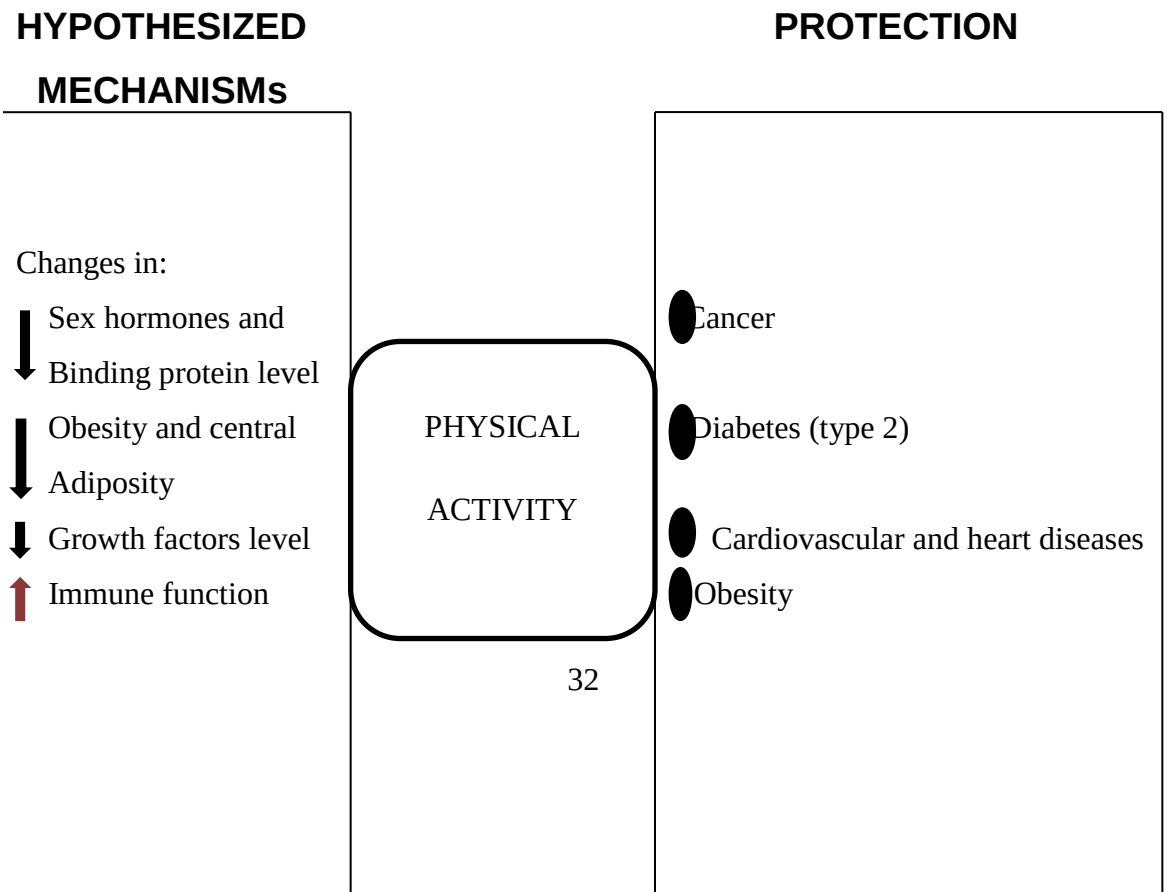
(WHO, 2003 in Kruk J. 2009) says that physical activity has both preventive and therapeutic effects on many aspects of health and reduces the risk of several diseases. Other benefits of physical activity include the reduction of risk of mortality of non-communicable diseases. The benefits of physical activity are especially important for the elderly people in view of the high likelihood to develop chronic diseases. The elderly people are more likely to have arthritis which can limit their functional ability. They are more sensitive to an effect on moderate intensity physical activities such as stretching, swimming, brisk walking or water exercises. The elderly can experience improved balance, flexibility, coordination, endurance mental health cognitive function. The experienced improvement of balance, flexibility, and muscle tone protect against falls. However, physical activity is effective in treating several diseases like coronary heart disease which remains the leading cause of death in Europe. Maintaining an active lifestyle, and at least a moderately high level of aerobic fitness, halves the chance of either dying from or contacting serious heart disease. (e.g. Bauman, 2004; Katzmarzyk et al. 2004; Fagard and Cornelissen, 2007 in Kruk J. 2009) P.4

Table 3 Health gain and economic and social benefits obtained through participation in physical activity

➢ Reduces the risk of overweight and obesity irrespective of age
➢ Reduces the risk of cardiovascular disease (coronary heart disease, stroke, disorders of blood vessels)
➢ Reduces the risk of developing diabetes
➢ Reduces the risk of developing high blood pressure
➢ Lower blood pressure in persons who suffer from hypertension
➢ Reduces the risk of some cancer (colon, breast, bowel, endometrial, lung, prostate)
➢ Helps to maintain or increase muscle mass and strength
➢ Prevent osteoporosis, bone loss and fracture
➢ It improves function in persons with arthritis
➢ It improves mental health
➢ It improves quality of life and functioning irrespective of age
➢ It reduces the risk of dying prematurely
➢ It reduces the risk of fall and injury
➢ It improves the quality of sleep
➢ It reduces the feelings of depression and anxiety
➢ It can help the elderly adult maintain their independence longer
➢ It promotes psychological well-being
➢ Decrease industry lost production costs
➢ It promotes social interaction and integration
➢ It helps to reduce violence

Source: WHO (2003), BHF (2006), Warburton et al. (2006); (2007) in Kruk J. (2009) p.4

In continuation on the benefit of physical activity, Kruk Joanna (2009) says Portegijs et al. (2007) found that recent study on mortality of 558 community dwellers of the elderly age between 75 to and 80 years old, residents of Finland, found that a high level of physical activity may decrease the risk of mortality in people with low muscle strength. Previous research meta-analysis has showed that high and moderate intensity of physical activity were linked to 37 percent and 10 percent reduction of mortality from coronary heart disease (Berlin and Colditz, 1990 in Kruk J. (2009) respectively. In turn, 9 and 21 percent risk reductions of incidence and mortality ischemic stroke were reported in a research meta-analysis for moderate and vigorous intensity of activity, compared with low activity. (Kruk J-2009) p.4



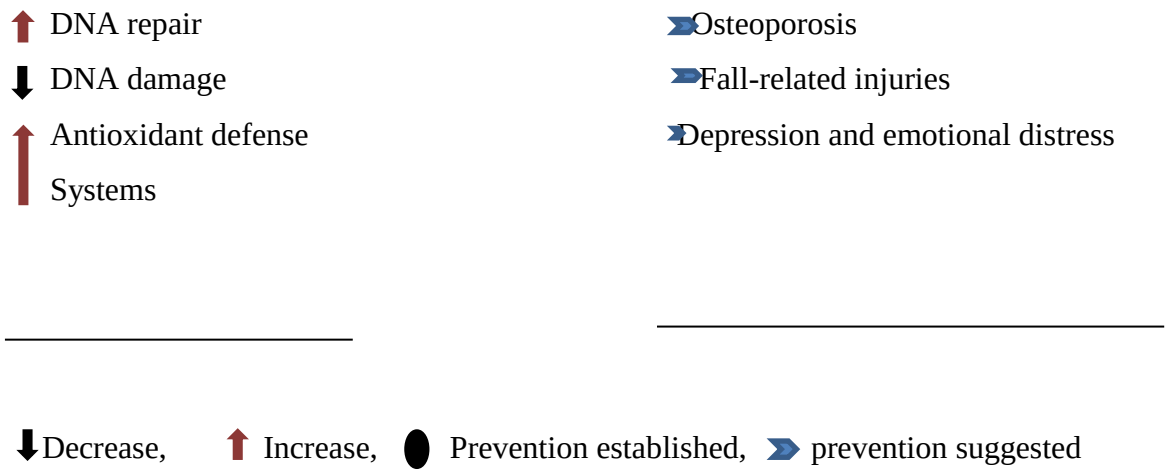


Figure 2: Protective Effects of Physical Activity on Chronic Diseases and Hypothesized Biological Mechanisms for its Health Benefits

3.3.2 Differences between the elderly and adult recommended activity

Aerobic intensity activity is defined as the terms, for example the moderate intensity comprises 3.0 to 6.0 metabolic equivalents of task activities. Another form of definition of aerobic intensity is appropriate for the elderly people, because their fitness levels can be low. For example, the process of performing 3.0 to 6.0 metabolic equivalents of task activities either requires relatively the vigorous effort or it can be impossible for the elderly with very low fitness. Aerobic intensity for the elderly people recommendation is relatively about their fitness to perform in the prescribed exercise. (Judge O. James 2007) says that Franklin et al. (2000) found that according (to the American College of Sports Medicine), the recommended target of intensity exercise for the elderly is about 50-85% of oxygen uptake reserve, a range which includes both the moderate and vigorous exercise. When the oxygen that is reserve is measured on a 10 points scale, then the

moderate intensity will begins at around 5 (50%) and then the range of the vigorous intensity does not quite reach the range of 9 (90%). By telling or suggesting to the elderly people that their perceived effort during activity should be 5-6 or 7-8, on a 10 point scale may not achieve the desired level of effort but not linearly (Borg, G 1982). When there are concerns that the elderly will not have the motive to engage in activity at the desired intensity, a period of which supervised exercise can help the elderly learn the desired and recommended level of effort. James O. Judge-2007 p- 6, 7

3.3.3 Muscle strengthening activities

The specific purpose and recommendation of intensity (level of effort) activities is to maintain and increase the muscle strength. James O. Judge (2007) says that the American College of Sports Medicine (ACSM) recommended a general resistance training of moderate intensity for the elderly. The high resistance training is an option for the elderly to take part in but elderly with sufficient fitness, experience, and knowledge of the resistance exercise can take part in the high intensity training with supervised settings. Historically, people have increased and maintained their strength through the usual physical activity, such as the manual labor in garden or farm. In the modern world, the elderly people will commonly have to engage in the muscle strengthening recommendation through the exercise programs which are weigh bearing calisthenics or the progressive weigh training. America College of Sports Medicine recommended performing resistance exercise for at least one set of repetitions for about 8-10 exercise which is focused on the major muscle groups and this exercise should occur on two or three non-consecutive days each week on each muscle groups. Other research expert recommend between 10-15 (as opposed to 8-12) repetitions per set for the elderly. James Judge (2007) p.6

3.3.4 Flexibility activities

Flexibility activity is vital and required to maintain the range of motion which is important and necessary for daily activity and physical activity. James O. Judge (2007) says that Thacker et al. (2004) the specific health benefits of flexibility activities are very unclear compare to aerobic and muscle strengthening activities. For example, re-

search has not shown if flexibility activities could or can reduce risk of exercise related injury. In addition, James Judge (2007) says that King et al. (2000) found that only few research studies have documented the age related loss of range of motion in health of the elderly people, but however, research has proved that flexibility exercises is beneficial in at least one randomized trial and it is recommended in the management of several common diseases in the elderly people **(table 4)**. It is recommended that at least 10 minutes for flexibility activities which is based upon the time required for a general stretch routine that involved the major muscle and tendon groups with 10-30 s for a static stretching and about 3-4 receptions for each stretch. Preferable, to be performed at same days that aerobic or muscle strengthening activity is performed. James O.Judge (2007) p 6, 7

3.3.5 Balance exercise

James judge (2007) says that the American Geriatrics Society (2001) found that the recommendation for balance exercise is consistent with a clinical practice guideline that is published in 2001. The elderly at risk of fall in the community living (e.g. example, with frequent falls or mobility problems); there are multi component interventions which include regular physical activity that are effective in preventing falls. Regular physical activity can or may reduce falls and fall injuries as much as 35-54%, because most research has recommended and concentrated on balance exercise rather than balance activity (e.g. dancing). The most preferred types, frequency, and duration of balance training are very unclear and they are not specified in the clinical guideline. James 0.Judge (2007) says Robert M. (2002) that, balance exercise three times a week is one option, as this approach was effective in a numbers of four fall prevention studies. The recommendation for balance exercises applies only within the community dwelling of the elderly people because of insufficient data in long term care settings and hospital settings. According to the guideline for prevention of falls, , there are no any specification of an age cutoff, but there are few data on the effects of physical activity on falls in the elderly people less than 65 years old.

3.3.5.1 Occupational therapy

The enablement of human occupation is fundamental in occupational therapy performance because it contributes to the opportunities in which to control over daily life and

experiences of health. Pia Hovbrandt (2007) says (EE Tonsend and Franson-Thomson T. et al. 2002) found that the elderly people´s daily occupations are in a very complex process, and in order to investigate and understand the everyday life, occupational performance is defined in the term of occupational therapy as a transactional relationships between the elderly person, the environment and occupation. One necessity for occupation is that the environment can be used, for example that an elderly person can be able to move around, be in, be able to have access and use the environment on equal terms like every other people. The need of usability is the extent of human needs and this is based on individual or group preferences, which can fulfilled in terms of occupational engagement in the target environment. It is well known that the age related functional limitations among the elderly can cause barriers in occupational performance, at home and outside the home. Occupation for the elderly, such as meeting family members and friends, walking and cultural activities, are very important for the elderly people but the elderly people are restricted to perform occupation due to the presence of environmental barriers and in their functional capacity. In accordance, the elderly people cannot participate on equal terms with other citizens. Also, Horgas Al et al. (1998) found that occupation among the elderly was most time spent in the home and that significant less time was spent outdoors with each successive age decade. This may be that the elderly people choose to do this occupation at home themselves, maybe because they might have been restricted by environmental barriers or functional limitations. According to recent research, it has been proven that personal and environmental factors deterring the elderly people from taking part in physical activities but the relationship between other preferred occupations outside home, environmental factors, and personal capacity should be more evident. Pia Hovbrandt p. 1, 2

3.3.5.2 Occupational therapy and health promotion

Occupational therapy has a huge opportunity to complement existing health promotion efforts by adding to programs that has been developed by experts in health education, nutrition, exercise and so forth. For example the occupational therapist may focus on the occupation of meal preparation, using foods and the methods of preparation that are recommended in the nutritionist health promotion program for the elderly people with a lower extremity amputation due to diabetes. This will enable the achievement of occu-

pational therapy goal of functional independence in the kitchen and to reinforce their very importance of getting proper nutrition for prevention of further disability.

American journal for occupational therapy (2008) says law (1991) and Wilcock (2006) found that for this to be achieved; health promotion efforts cannot only focus on the intervention at the individual level, because of the inextricable and reciprocal links between the elderly people and their environments. Larger groups, organizations, communities, populations and government policy makers must also be considered for intervention.

3.3.5.3 Need for an activity plan

The plan for an activity will be able to identify the recommended levels of physical activities for a specific elderly person and will be able to show how the elderly person intends to meet the plans. The elderly people with chronic conditions are recommended to develop an activity plans in consultation with a health care provider to enable the plans to be taken into account of therapeutic and risk management issues which are related to chronic conditions. The activity plans for an elderly should be focused according to chronic conditions and the types of activity limitations such as, risk for falls, individual abilities and fitness, strategies for minimizing risks of activity, strategies for increasing activity gradually over time (if the elderly person is not active at the recommended levels), behavioral strategies for adhering to regular physical activity, and individual preferences. The healthy, asymptomatic elderly people who has no chronic conditions can also be able to develop an activity plans, preferably in consulting with health care provider or fitness professional, as to use the advantage of expertise and resources on physical activity and injury prevention. This recommendation level reframes the common advice to consult a health care provider before starting to increase physical activity. Physical activities should occur for the elderly regardless if the elderly should consult with health care provider to increase physical activity plans, as it is part of the ongoing process of promoting physical activity that should occur in geriatric medicine. According to (national committee for quality assurance (2006), this recommendation consistent with a recently developed quality of care measure for elderly people that measures whether the elderly people discuss physical activity with health care provider at least once in a year.

4 MOTIVATING THE ELDERLY TO INITIATE AND MAINTAIN EXERCISE

Motivation can be defined as a force which acts on or within a person to initiate a behavior. This definition was able to show the framework that includes both intrinsic and extrinsic factors. To understand the motivation is more than a resistance of an individual´s personality that may help care providers efforts to encourage and motivate their elderly clients and also to provide the elderly people with the tools to empower themselves to become self-directed about exercise participation. According to Sallis et al. (1999) stated that there are multiple models of motivation that have been developed in the literature, based on the complexity of the task of motivating the elderly people to exercise. But research has suggests motivational factors that are amenable to intervention, no consensus has emerged regarding a theoretical framework for activity promotion research or practice. Edward et al. (2004) S52

4.1 Understanding the motivation equation

Geelen et al. (1996) adapted the following equation in (fig-) which encompasses four subjective factors. According to Fogel et al. (1969), which the subjective natures are very important because an accurate perceived prognosis by the individual is the best way to predict success. But each of these factors are modifiable and may be able to influenced through education, experience and coaching to improve motivation to adopt and maintain exercise.

$$\text{Motivation} = \frac{\text{Perceived Chance of success X Perceived Importance of the Goal}}{\text{Perceived Cost X Inclination to Remain Sedentary}}$$

Fig. 5, Motivation equation

The first factor, perceived chance of success is the most critical and it encompasses interrelated factors which are:

- How strongly does the elderly person believe that one determines one´s own destiny, specifically on one´s own health?
- How confidence does the elderly person feel regarding physical activity?
- What can the elderly person learn from the past experience?

Despite that the elderly value and clearly understand the importance and benefit of activity, but those who believe that they will fail are unlikely to initiate any exercise program. Perceived importance of the goals is also very important, which can be seen as:

- How can achieving the goal change their life?
- What are the values of the changes to them?

The denominator of the motivation equation includes the perceived costs of attempting exercises. The cost could be risk of failure, pain, and fatigue, loss of time or energy. This could also include the inclinations to remain sedentary, which are the perceived benefits and the value of avoiding activity. Elderly people decide if to adopt or reject behaviors based on the balance of their appraisal of these four factors.

4.2 Obstacles of motivation

According to the four element of the motivation equation, it is very helpful to organize the obstacles of motivating the elderly people to engage in exercise: the odds of success, importance of goal, cost, and inclination to remain sedentary.

4.3 Perceived Chance of Success

According Tinetti et al. (1993), Self-efficacy is a perceived capability and confidence, specific to a particular domain of behavior. In the elderly, self-efficacy was able to predict exercise adherence such as fear of falls, physical functioning, social decline, and survival. The elderly people are able to exhibit less exercise self-efficacy than other age groups. Ash D. (1997) and McAuley et al. (1999) mentioned that exercise with an appropriate coaching could bolster the elder's self-efficacy furthermore, elders could benefit mostly from age matched behavioral model, for example, coaching from other older adults who has participated successfully in exercises. There are three major focus of ob-

stacle under the perceived chance of success which includes: perceived control over one´s health, comorbidities and behavioral factors.

Perceived control over one´s health: This is similar to self-efficacy, locus of control could be refers to as the sense of how much controls can the elderly person has relative to their external environment. Although there are no research that has found a uniform change in perceived control of health with ageing, environmental and social factors are able to affect one´s sense of control over one´s own health. Incompetence, frailty, senility, disability, inactivity and decline are all detrimental to the elderly people´s sense of control and controls enhancing the interventions have resulted in the improvement of alertness, mood, memory, energy and self-reported satisfaction.

Comorbidities: There are many common medical illnesses among the elderly people which often affect their perceived health and chance of success. The symptoms that discourage the elderly from physical activities include stiffness, pains, and shortness of breath, fatigues, weakness and numbness. An elderly person who suffers from cardiac, rheumatologic problem, pulmonary is always advice as prescription for inactivity. According Bean et al. (2004), the reality is that very few people are prohibited from participating in physical activity and the vast majority would be able to benefit from a greater activity, despite their medical conditions.

Behavioral factors: Edward et al. (2004) say that, Tinetti et al. (1993) and Ash D. (1997) found that positive experiences could improve perceived control and self-efficacy and can reduce perceived barriers, therefore motivating the elderly to engage in exercise. Beginning with the challenges but the achievable short-term goals, then progress gradually, to maximizes one´s chance of been success. Sustained exercise helps to improve perceived efficacy. The past experience of failures and obstacles as well as been successful can also influence activity preferences and this should be part of an activity assessment. Edward et al. (2004) S53

4.3.1 Perceived Importance of Goal

Beliefs and education: The elderly person has developed a set of beliefs which is based on their educational background, believes and life experience that is totally different from the rest of the population. According to Schuster et al. (1995) found that the

elderly experienced on health care system is totally different from the system of today and that the system they have encountered was focused mostly or curing and less prevention, more paternalistic and driven by an outdated understanding of pathophysiology and the benefits of activity. Throughout their lives, the elderly were counseled that appropriate treatment of illness necessitated physical activity. The elderly people could also hold outdated conceptions of activity itself. For example, they may believe that beneficial physical activity consist just running or by lifting weights at the gym and does not include carrying groceries or walking dog. Another misconception of the elderly people may involve viewing activity goals in absolute or rigid terms that exaggerate the cost of activity. Some of the elderly people believe that if they cannot take a long walk for about an hour then they cannot obtain any health benefit. This kind of thinking can hamper the development of any achievable, acceptable and graduated activity program. Edward et al. (2004) SS 53 54

Importance of health: The relative importance of the elderly people who are attached to their own health affects their perceived importance of activity. According Scharff et al. (1999) found that the elderly people are more concerned of health their values and the elderly people were more health conscious than younger people. Generally, the prevalence of health promotion behaviors increases with age, with the exception of physical activity. Public Health (1996) reported that generally the elderly people are able to increase their participation in physical activity faster rate than any other adult age group.

Definition of health: Clark DO (1999) mentioned that the definition of physical fitness and health varies among people and in particular between clinicians and their elderly clients. The elderly people usually deemphasized disease. Rather, the concentrate of function, maintaining roles, comfort and independence.

4.3.2 Perceived Costs

Perceive barriers. This is very power and could be negative predictor of physical activity. Although, the overall obstacles to physical activity could change with age and it seem to increase for many elderly people. Edward et al. (2004) say Stephen et al. (1990) found that the availability of having an exercise partner, injury, illness, and fear

of becoming injured became more prominent concern. Intrinsic barriers include fear of falls, injuries, crime falls, pain, body weight, illness, body image, skills, discipline, lack of pleasure, knowledge, and overestimation of time and effort needed for physical activity. While, O´Brien GP (1991), Tinetti et al. (1993), Conn VS (1998), Clark DO (1999), Barzargan (1994) and Peterson et al. (2000) all found that extrinsic barriers include, the limitation of money, weather, peer exercise group, parking, transportation, free exercise partners, exercise facilities, accessible exercise routines and instruction.

Access: According to Young et al. (1994) says that the lack of accessible physical environment is factors which could affect the elderly people´s perceived cost. Such factors are refreshments, transportation, disabled access are all elements of an ideal settings for physical activity, floor surfaces, ventilation, lighting, changing and toilets facilities, location etc. furthermore, the presentation on the issue of physical activity instruction for the elderly may require audible and clear information.

Demographics: According to Schaie et al. (1992) mentioned that generally as a group, women exercise less than men. In another survey by, Clark DO (1999) found that female gender was the strongest negative predictor of self-rated activity. Edward et al. (2004) say Hurd LC (1999) found that the reported perceived barriers include the following: depression, body image, poverty, stress, urinary incontinence and spousal care. Despite been less in activity, greater longevity and more physical disability, the elderly women still has to gain from increased activity than men. The demographic factors are hugely incapable and people are widely varied, considering individual assessment. Nevertheless, having understanding of demographic issues could help clinicians to access and to tailor activity programs. It could also help to identify those who are at high risk for increased barriers and inadequate exercise. Edward et al. (2004) S 54

4.3.3 Inclination to Remain Sedentary

Habit and prior experience: It is very easy for one to remain active so the person has already developed the habit of regular physical activity, but the elderly people are in disadvantage position because very few of them grew up with a habit of being physical active. For example, gyms and clubs were less developed during their childhood and health benefits of exercise were not well established.

Psychological issues: The elderly are mostly affected by depression compare to the general population. Depression can cause lack of interest or pleasure in which could affect their ability to initiate and engage in physical activity. Also the elderly people suffers more personal loss than the remainder of the population, such as the loss of family members, spouse, friends in which these contribute to the inclination to remain in sedentary. These loses does not only has a direct psychological impact on the elderly people but these could also affects their social support structure.

Environment: The physical environment is an important area that affects the inclination to remain sedentary. For example, sunlight, space, air quality and the weather are very important contribution to motivate the elderly to participate in activities. Many of the elderly people move to a warmer climate for the winter or they permanently relocate to improve their physical environment as process of quality of life improvement.

5 NATURE, OUTDOOR RECREATION HEALTH AND WELL-BEING IN THE FRAMEWORK OF HEALTH PROMOTION

Nature is defined as an organic environment where you can find all or majority of ecosystem processes are present, for example like birth, reproduction, relationship between species, death. This includes the spectrum of gardens and farms. Nature can also be refers to collective to the geological, evolutionary, biophysical and biochemical processes which has occurred throughout time to form the earth the way it is today. And also nature can be seen as a single element of the natural environment, for example, plants, animals, soil, water or air, and includes domestic and companion animals as well as cultivated pot plants. Naturally, parks are spaces reserved for natural environment and cultural qualities and it´s usually controlled and manage by public institutions. Parks are used for many reasons such as conservation, recreation and for education. In the urban settings, parks are used to provide the most ready access to nature for many elderly people. This thesis work focuses on the benefits of outdoor activities with the elderly and the importance contact with natural environments for urban-dwelling elderly people and to explore the potential of contact with nature for the promotion of health for the elderly populations. Maller C. (2005) P.46

5.1 Outdoor recreation

The definition of outdoor recreation activities can be seen as the types of activities which guarantee outside the confines of building (for example, in the outdoors) which do not involve any organized competition or any for rules (such as sport activities); that can be guarantee without the existence of any built facility or infrastructure and the may require the following: large areas of land, air and / or water, also it may require outdoor areas of predominantly unmodified natural landscapes. Facilities, site modification or infrastructure which may be provided to manage the impacts generated by the activities, nevertheless, most outdoor recreation activities could be guarantee without them. Codell et al. (1998)

5.2 Contact with nature promotes health and well-being

According to key green exercise researcher, there are three proposed levels of the elderly engaging with nature.

1. Viewing natural scenes
2. Being in the presence of natural environment
3. Active participation and involvement with nature

5.3 Viewing nature

It has been proven that of residents of various low rise apartments provided evidence that there are benefits of individual well-being of having a view of nature. Maller C. (2005) says Ulrich, et al. (1991), that viewing natural land scape images compare to urban images was found to increase positive effect such as friendliness and reduces fear arousal and decrease sadness. Generally, having contact with nature tends to be positively associated with psychological well-being of the elderly.

5.3.1 Being in the presence of natural environment

has a strong positive effect on mental health and the presence of greenness in the immediate surroundings was connected with walking social cohesion, local social interaction and walking for recreation and this suggest that these three behaviors occur usually

when people perceive that there are more natural elements. Several researchers have found incidental exposure to nature while engaging in some kind of physical activity generally reduces stress and increases health benefits. Maller C. (2005) p.49

5.3.2 Active participation and involvement with nature

Outdoor programs have become widespread as process to cope with nature and for people to challenge oneself achieve more than usual. Such outdoor programs have be found to increase participant´s self-esteem and contract harmful dependencies on alcohol and any substance while promoting helpful dependencies on the self and others. In another study, the randomly assigned natural environment group reported a high overall happiness and positive affect, while at the same time reporting lower anger or aggression scores. According to research, gardening, for example was psychological beneficial, in which it serves as a restorative source and as a means of helping to cope with stress. From the process of viewing nature, presence of nature and being actively involved in it, nature seems to provide psychological benefits. Maller C. (2005) p.47

5.3.3 Natural health

It is understood that natural environment has developed and that the massive destruction human activities can have on the natural systems which has been observed, Maller C. (2005) says that Driver et al. (1996) found that more research enlightened view has emerged which recognizes that plants and animals, including humans do not exist as independent entities in a general of human thought, but instead, it is seen as part of complex and interconnected ecosystems in which there are entirely dependent, and fundamentally a part of. Also according to Suzuki (1990) in Maller C. (2005) says that the ecosystem is the fundamental capital on which all life is dependent.

It is very obvious that nature and natural environments communicate to improve human health and well-being. Most importantly, is to consider the environmental sustainability to avoid any potential devastating consequences for the health and well-being of the elderly and general populations. Maller C. (2005) says that Kickbusch, (1989b) found that, what is required is a focus on the social equity, social investment and social inno-

vation in health and environmental policy. It is also stated that natural environment are an ideal settings for the integration of the environment, society and health by promoting a socio-ecological approach to the health and well-being of the elderly in contact with nature.

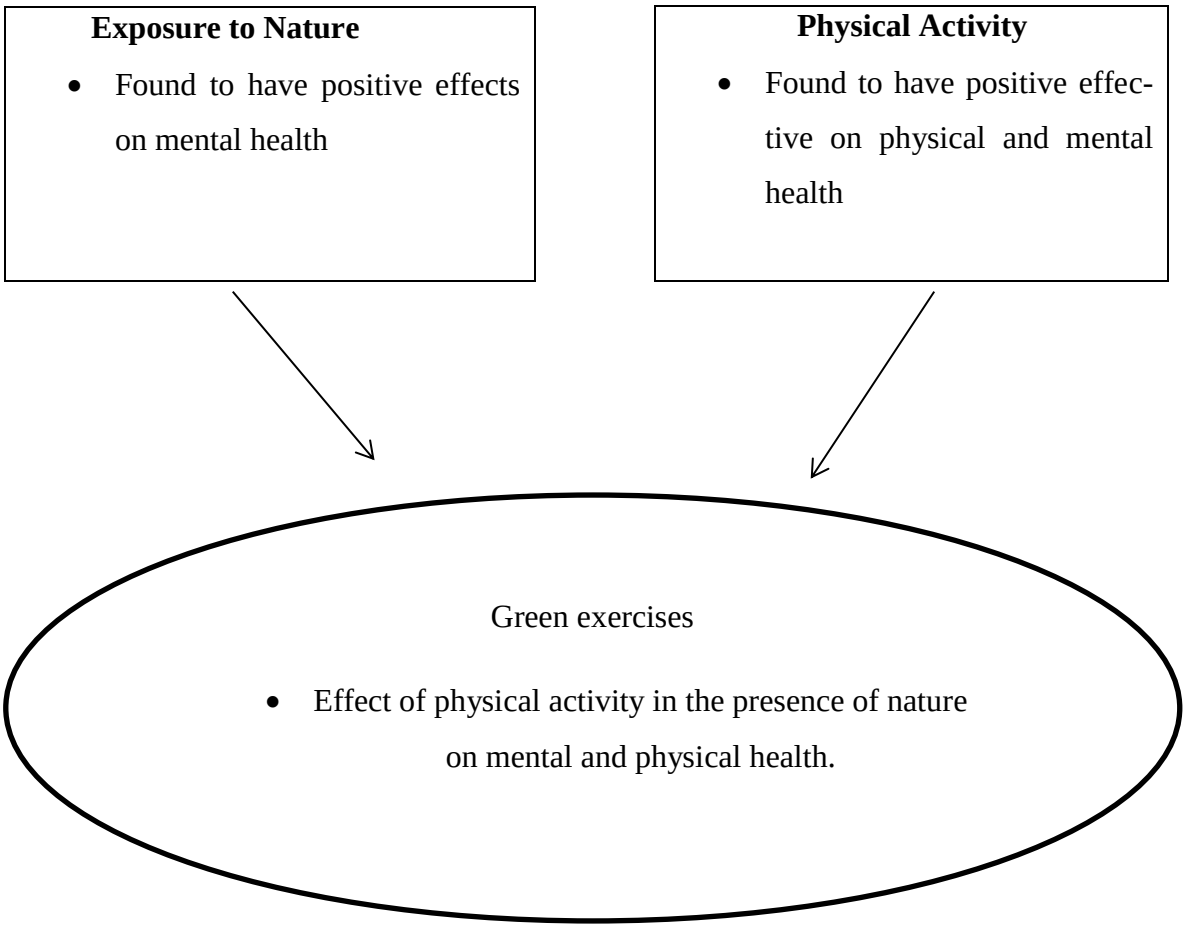


Figure3. The basic conceptualization of green exercise

5.4 General health benefits of natural spaces

According to de Vries et al. (2003), found that there are increasing evidence which shows that closeness to the natural space environment is healthy and that living in a green environment is positively connected to such health indicators as level of stress and amount of physical activity. The connection between health indicators and green space was somewhat stronger for the less educated elderly people.

5.5 Stress and the environment

Geoffrey Godbey (2009) say Bell et al. (1998) and Brand et al. (2000) found that the elderly people with high stress levels are at more risk for the common cold, cancer and heart attack. Also stress could be connected to elevated heart rates, high systolic blood pressure and obesity. According to Baltes and Baltes (1990) stress has been a serious and problematic for the elderly people, since ageing is accompanied by physical, social changes and psychological factors. The age related changes from chronic disease and disability to care giving responsibilities and the loss of loved ones are potential stress factors. Geoffrey Godbey (2009) p 3

5.6 Health benefits of outdoor recreation activities

According to Stebbins (1992), the benefits of outdoor recreation can help to contributes to the wellness of the elderly mostly through prevention and that the benefit of pursuing outdoor activities could become part of their life, which is done on a regular basis. Many elderly participants embark on a career in a particular activity, to become more motivated to it and adapting their participation to changing life circumstances.

5.6.1 Stress and outdoor recreation activities

According to Godbey and Blazey (1983), the importance and benefits of stress reduction was reported by the elderly people who visit to local parks. Visiting and spending time in the local park can help the elderly people to reduce negative moods and lower levels of anxiety and sadness. Hull and Michael (1995) mentioned that the longer elderly people are able to stay at a park, the less stress they can feel.

Geoffrey Godbey (2009) say Grahn and Stigsdotter (2003) found that statistically significant relationship between the use of an urban green spaces and stress reduction, regardless of the age, sex or social economic status of the respondents. The outcome suggested that the more often a person visited an urban green spaces, the less often he or she reports stress-related illness. Geoffrey Godbey (2009) p 6

6 MENTAL HEALTH

The definition of mental health and well-being are not just the absence of disease but it is state in which a person can make sense of their environments, feels they are in control, been able to cope with every day demands and has purpose in life. WHO (2005), there is no health without mental health and that mental health is the central to any human. Social and economic capital of nations should be taken into consideration as an integral and essential part of other public policy areas such as human rights, social care, education and employment. It also stated that mental health and mental well-being are fundamental to the quality of life and productivity of any individuals, families, communities and nations which will enable people to experience life as meaningful and to be creative and be active individuals. Mental ill health is major problem that affects 1 in 6 of the elderly population and this is strongly connected with life events, lower social class, been socially inactive, long term illness and diseases. One of the most common disorders among the elderly population is anxiety with depression, although there are many mental health symptoms of stress which are experienced by larger number of the elderly population particularly sleeping problems. Mima Cartan et al. (2006)

6.1.1 Mental health, well-being and illness

According Mima Cattan et al. (2006), mental health has been mostly viewed as the ideas and assumptions about the issues on mental illness such as, depression, suicide, paranoia, schizophrenia come to the fore, but argued on the hand that mental health has a very little if anything to do with mental illness. But the main problem here is that for a very long time "mental health as mental illness" the expression about this has been a stable point of view and the illusion of this sticks and become very hard to think of mental health as anything other than something which affects the values, myths and fears that surrounds mental illness. According to Trent (1993) and (Cox 1992), the meaning and term of mental health cannot be achieved unless the idea and thinking of mental illness is clear and how the thinking of mental health can different. Also one of the common attempts to distinct this is to imagine a continuous extent with mental health at the one and mental health illness at the other. Or to claim that mental health is simply the absence of mental illness.

Mental health ——————————————————————mental illness

Mental health= ~~Mental illness~~

Trent and Cox, both represent what is known as the pathogenic view of mental health. The thought and idea that people are healthy until something goes wrong and that people become mentally ill is seen as the reality of mental health by many health professionals and people with mental health problems. However, it is very important to consider some of the problems that arise with the concept of mental illness, especially when it is connected in relationship with meaning of mental health. The problem of the pathogenic view is the starting point on how to recognize and the intervention of opinion of those who have the knowledge and influence to decide what is mental health and who is mentally ill. According to Ingleby (1981), the norms of mental health and illness are essential matters of cultural judgment, although positivism misrepresents them as matters of empirical facts. Other point is that life can be completely chatter by traumatic events and unresolved chronic problem, which could onset broad questions about one´s life such as

- Does my suffering have a purpose and meaning?
- Am I responsible for my suffering?

Another major problem with the pathogenic view here is that it focuses on why people are ill but not what really makes people healthy and with this idea; it makes it very narrow and mechanistic model of being human. Aaron Antonovsky (1987) strongly argues that it is impermissible to identify or equate a rich, complex human being with a particular pathology, disability or characteristic or particular risk factors. The strongest argument against the pathogenic model was the assumption which focuses on curing or preventing disease in individuals is the most effective way of improving the health of populations. With these problems on the pathogenic view make it untenable to define mental health as the absence of mental illness. And maybe the field of mental illness has enough unresolved problems to make it an unacceptable starting point for a useful account on mental health. Mima Cattan et al. (2006) pp. 27 28

6.2 Mental health promotion

WHO (1984) described mental promotion as the process of enabling people to increase control over and to be able to improve their mental health, which was widely adopted. There are five key outlined principles of mental promotion, which are:

- To involve the population as a whole rather than focusing on the elderly or people who are at risk for a specific diseases
- To be directed towards action on the determinants or causes of health and required, therefore, cooperation of sectors beyond health services
- To combine diverse, but complementary, methods including communication, education, legislation, fiscal measures, organizational change and community development
- To aim at effective and concrete public participation
- Mental health promotion was not a medical service but health professionals had an important role in nurturing and enabling it and had a special contribution in education and mental health advocacy. Mima Cartan et al. (2006) p 35

According Bloom, (2001), the goal of health promotion and the prevention of disease activities is to reduce the potential years of lost in premature mortality and to ensure a

better quality of remaining life. Health promotion and disease prevention activities include a primary prevention, which the prevention of any disease before it occurs, while the secondary prevention is seen as the detection of the disease at early stage. Resnick (1999) p 2

Although the description of mental health promotion was refined through series of conferences and associated documents by WHO (1986, 1988, 1991, 1997, 2000, 2003) mainly because it was in the early development process of the Ottawa Charter (1986) which has been the quoted document. The refined document endorsed the above definition for mental health promotion and was able to set out the prerequisites for health as: food, education, income, sustainable resources, social justice, peace, stable ecosystem and shelter. Three requisites are needed in other to be able to secure a mental health improvement, which are:

- The advocacy for health representing the interests of disadvantage groups and lobbying to influence policy
- The enablement of achieving equity in health through reducing differences in health and ensuring equal opportunities and resources to enable all to achieve mental health potential
- The mediation of social groups, professionals and health personnel to have a major responsibility to mediate between differing interests in the society for the pursuit of health

The Ottawa Charter listed key elements of mental health promotion, which are consistently used to categorize the practice on health and these includes the following:

- Creating supportive services
- Strengthening the community action
- Building health public policy
- Developing personal skills
- Re-orienting health services

Sylvia Tilford et al. (2003) in Mima Cartan et al. (2006) found that a number of values could be traced through the document of (W.H.O.) and these are now connected with mental health promotion thinking and practice, which include the followings:

- Justice
- Partnership working
- Health as human right
- Ecological model of health
- Participation
- Evidence base practice
- Empowerment
- Equity and the reduction of health inequalities

Mima Cartan et al. (2006) say beatie (1979, 1991) developed a specific mental health promotion practice which is mostly used. It represented a 2 X 2 relationship of process and levels of action which distinguish between (top-down and bottom-up) in identifying a range of mental health promotion activities that can be related to different value position as illustrated in Figure 4, below. This approach is essentially top-down and professionally led and the methods used will include persuasion and others known to achieve attitude and behavior change. The values underpinning an empowerment approach and the methods used are different. The ultimate goal is to empower individuals or communities to take health related decisions by developing critical literacy, self-efficacy, self - esteem, coping skills etc. also building activities on the basis of participatory needs assessment.

6.3 Benefit of mental health promotion

According to Bloom (2001) and Dwyer (2001) has suggested that an elderly person age 65 and greater benefit just as much from primary and secondary health promotion activities as to those who are middle aged. The current research findings by the (United States Surgeon General´s 1998) report which highlighted the preventive health promotion services such as, smoking cessation, nutrition and physical activity. Barbara Resnick (2003) say Goldberg and Chavin (1997) that exercise and reducing cholesterol levels improves overall health status and physical fitness of the elderly people including aerobic power, strength, balance and flexibility, which helps to prevent acute medical problems such as fractures, myocardial infarctions and cerebral vascular accidents and improves overall function, independence and quality of life. Barbara Resnick (2003) p 3

6.3.1 Factors that influence health promotion activities

Lewis et al. (1999), Messecar (2000) and Cookson et al. (2000) found that there are numbers of variables that have been reported to affect the elderly people´s willingness to engage in specific primary and secondary health promotion activities and these factors include, socioeconomic factors, beliefs and attitudes of both patients and providers encouragement by a health care provider on specific motivation that is based on efficacy beliefs and access to resources. According to Gallant et al. (2001) and Resnick (2000) also mentioned that age, number of chronic illnesses, mental and physical health, marital status and cognitive status, however, have all been associated with participation on health promotion.

6.3.2 Advocacy of mental health

WHO (2005a) introduced a technical assistive provision to government to develop policies and create programs to promote mental health care and to protect the right of people with mental disorders. However, it is very impossible for government to be able to design and implement adequate mental health policies without the involvement of the individuals who will be directly affected by the policies. Government on their own cannot be able to adequately educate the general public about mental disorders in order to create the social and cultural conditions that are necessary to eliminate stigma and discrimination against people with mental disorders. The main effort of advocacy is to promote and protect the right of people who are mentally unfit and to educate the general public and policy makers to help create the conditions that are necessary for positive reform. Michelle Funk et al. (2005) p 70

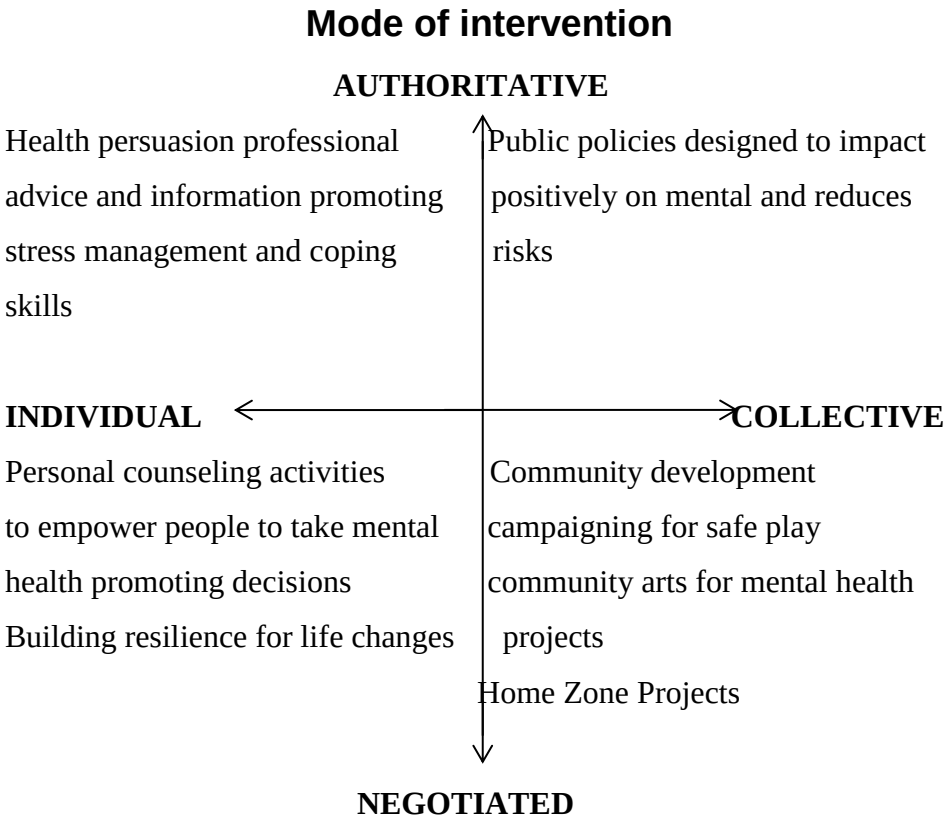


Figure 4: Beattie`s model of health promotion applied to mental health.

6.3.3 CRITICAL REVIEW OF THE STUDY

The general process of writing this thesis project has been very challenging and difficult because there are so many research works on physical activities for the elderly but most of the research materials did not point out the methodological frame work in details. Another major problem the author faced was that since the topic of this thesis was broad and wide, there are different research topics and methods which focus on various areas of activities for the elderly populations and the author found it very challenging for get-

ting current and reliable research materials and also combining and analyzing them. Despite all the challenges and data collection, the author was able to get useful and current research materials and was able to imply them for this thesis project.

7 RESULTS AND ANALYSIS

In this chapter the writer will describe the findings related to the literature review in order to answer the research questions.
The findings of the literature review are related to the theoretical frame work of this thesis which is the sense of coherence. The research questions are the benefits of physical activities for the elderly? What is the impact of physical activity on health promotion, quality of life, and mental health? How can the elderly be motivated to engage in outdoor physical activity?

7.1 DISCUSSION AND RECOMMENDATIONS

In this chapter the writer will discuss the findings related to information services and recommendation, offered as support services for careers and health care providers, communities, organizations and policy makers or governments.

7.2 The Statement of Types of Physical Activity Recommendation

The physical activity recommendation for the elderly who are (65+ years) and those between 50-64 years, with clinically significant chronic conditions (a person receives or should receive regular medical care and treatment for it) or functional limitations (impairs the ability to engage in physical activity) is similar to the recommendation for healthy elderly people but has several important differences.

- The recommended intensity of aerobic activity takes into account the elderly people aerobic fitness.
- Activities that maintain or increase flexibility are recommended.
- Balance exercises are recommended for the elderly people who are at the risk of falls.
- Elderly people should have an activity plan for achieving recommended physical activity that integrates preventive and therapeutic recommendations.
- The promotion of physical activity in the elderly people should emphasize moderate intensity aerobic activity, muscle-strengthening activity, reducing sedentary behavior, and risk management

Aerobic Activity

Recommendations	Frequency	Intensity	Duration
Healthy elderly, 2007 (ACSM) (companion recommendation to 2007, elderly recommendation)	Minimum of 5 days/ week for moderate intensity or minimum of 3 days/week for vigorous intensity	Moderate intensity between 3.0 METS, vigorous intensity above 6.0 METS	Accumulate for 30 mins. Of moderate intensity, in 10 mins. Continue vigorous activity for 20 mins.
Elderly, 2007, ACSM/AHA Recommendation (describe in present paper)	A minimum of 5 days/ week	Moderate intensity at 5 to 6 on 10 point scale, vigorous intensity at 7 to 8 on 10 point scale	Accumulate or 30 mins. Of moderate activity, 10 mins. Each and continue with vigorous 20 mins.
Bone health and osteoporosis: report of the surgeon on general 200	A minimum of 3 days/ week	Begin slowly and work up to 60 to 85% of maximal heart rate	At least 30 mins. of moderate intensity all days/week 5 to 10 mins. to be active/ day
Elderly people	4-7 d/wk.	Moderate intensity,	Accumulate 30-60

1999, Health Canada		But may progress to vigorous	mins. of moderate activity 10 mins. each
Coronary artery disease 2001 American Heart association (Aerobic recommendation)	At least 3 d/wk.	moderate intensity at 40-60% of HR reserve, vigorous intensity as tolerated at 60-85% of HR reserve	at least 30 min

(Continue on next page)

Aerobic activity

Continuation

Recommendation	Frequency	Intensity	Duration
Cardiovascular disease 2000, (A.H.A.) (flexibility and balance) Hypertension, (ACSM)	most preferably all days per week	moderate intensity at 40-60% of VO2 intensity acceptable for selected elderly	Accumulate 30-60 mins. /day of moderate intensity in bouts of at least 10 mins. each
Type 2 diabetes, 2004 American Diabetes Association	At least 3 days/ week with more than 2 consecutive days without activity	Moderate intensity at 40 to 60% VO2 intensity acceptable for selected elderly	At least 150 mins. /week of moderate intensity or at least 90 mins./week of vigorous intensity
Cholesterol, 2001 (NCEP)recommended physical activity as 2000 dietary guideline stroke, 2004 (A.H.A.)	Most days of the week preferably daily, 3-7 days/week	Moderate intensity 50 to 80% of HR max	At least 30 mins. /day and 20 to 60 mins./ each session

Osteoporosis 2001, American Geriatrics Society.	3 to 5 days/ week	50 to 60% of HR max	Begin with 20 to 30 mins. /day and progress as appropriate if possible.

(Continued on next page with muscle strength activity)

Muscle Strengthening Activity

Continuation

Frequency	Number of exercise	Sets and Repetitions	Flexibility/Balance
At least 2 days/ week	8-10 exercises involving the major muscle groups	8-15repetitions	
At least 2 days/ week	8-10 exercises involving the major muscle groups	10-15 repetitions	At least 2 days /week flexibility for those at risk of falls, include exercise to improve balance
2-3 days /week	A progressive program that uses all muscle groups	Sufficient intensity to improve muscle strength, increase amount of weight lifted gradually over time	Include balance training in overall exercise program
2-4 days /week		Weight that an elderly can lift 10 times (before they become too heavy)	Daily flexibility and balance activity
2-3 days/week	8-10 exercise involving the major	1 set of 8-15 reps (may progress to >	2-3 days / week flexibility

	muscle groups	1 set)	
2-3 days/week (resistance training an adjunct to aerobic activity)	8-10 exercise involving the major muscle groups	1 set of 8-15 reps (more than one set acceptable for selected elderly	

Continue on next page

Muscle Strengthening Activity

Continuation

Frequency	Number of exercise	Set and repetitions	Flexibility/balance
3 days/week	All major muscle groups	progress to 3 sets of 8-10 reps, use a weight that cannot be lifted >8-10 times	
Muscle-strengthening activities recommended as beneficial			Flexibility regarded as beneficial
2-3 days/week	8-10 exercises, involving the major groups	1-2 sets of 10-15 reps	2-3 days/week flexibility
2-3 days/week for isotonic resistance exercises (isometric exercises also recommended)	8-18 isotonic exercises involving the major groups (isometric exercises also recommended)	6-15 reps of isotonic exercises, depending upon intensity, begin with one set and progress as appropriate	3-5 days/week flexibility

Table 4: Summary of selected preventive or therapeutic recommendations for activity, Muscle strengthening activity, flexibility activity, and balance exercise.

Abbreviations: ACSM, American College of Sports Medicine, (AHA) American Heart Association, (NCEP) National Cholesterol Education Program, HRmax, maximal heart rate, HR reserve, heart rate reserve, VO2max, maximal aerobic capacity, reps as repetitions.

It is important to note that only one indicator or aerobic intensity is provided in the table, even if the recommendation provided several (comparable) indicators. Some of the recommendations are for strength training activity rather than exercise per se. For comparability, when sufficient information was provided in the recommendation, recommendations for muscle strengthening activity were all summarized in the form of exercise program that specifies number of sets and number.

7.3 Integration on preventive and therapeutic activity recommendations

Elderly people are recommended to perform physical activity in the manner for prevention as described herein. The elderly people are prone and also commonly have chronic conditions as shown in **(table 6)** in which physical activity is therapeutic. Hence, the elderly people need an activity plans that will integrate preventive measures and therapeutic recommendations. Integration is facilitated with the fact that preventive recommendations are also similar to the therapeutic recommendations for many common diseases, which includes coronary artery disease, hypertension, stroke, type 2 diabetes, osteoporosis, high cholesterol and osteoarthritis (**table 4**). The elderly people who have no activity limitations, are specified on aerobic, muscle strengthening, and flexibility activities (also possibly balance exercise), with the amount that meet with both preventive and therapeutic recommendations. James judge (2007) says U.S. Department of health and human service (2004) illustrated combining recommendations, an activity recommendation for a person with osteoporosis would start with the preventive recommenda-

tion for aerobic, muscle strengthening, and balance activities, but it emphasize weigh bearing activities, and add high impact activities like jumping for those who tolerate them. According to the (American Geriatric Society) adjustments in the activity plan for a person with arthritis of moderate severity could be involve in combination with strength training tailoring the number of aerobic activity days to 3-5 as tailored every other day and it is more challenging for person who have a limitation in activity to develop physical activity plans, that includes preventive and therapeutic recommendations. It is clear that a target level of physical activity below that of the typical preventive and therapeutic recommendations shown in (**table 4**) is appropriate for a group of the elderly people. An assessment of the nature of the person limitation and of the capability and preferences will determine the exact level of activity and the details of the plan. Usually, the plan will rely on health care and community resources that are designed for people who have limitations to activity, such as cardiac rehabilitation and pulmonary rehabilitation centers, and exercise classes that are specifically designed for the elderly with arthritis. James O.Judge (2007) p 7

The classification recommendation are 1, 11, and 111, are used to summarize the indications such as (suggested phrases for writing recommendations)
Class 1: conditions for which there is evidence and or general agreement that a given procedure or treatment is useful and effective (should; is recommended, is indicated, is useful or effective, beneficial)
Class 11: conditions for which there is conflicting evidence and or divergence of opinion about the useful or efficacy of a procedure or treatment ➢ Weight of evidence or opinion is in favor of usefulness or efficacy (is reasonable, can be useful, effective or beneficial, is probably recommended or indicated ➢ Usefulness or efficacy is less well established by the evidence or by opinion (may or might be considered, may or might be reasonable, usefulness or effectiveness is unknown, unclear or uncertain and not well established
Class 111: conditions for which there is evidence and or general agreement that the procedure and treatment is not in use or effective and it can be seen in some cases as harmful (is not recommended, not indicated, should not, not useful or effective, beneficial

and may be harmful). Level of the evidence for individual class assignments with the suggested language can be used with each level.

- Data derived from multiple randomized clinical trials
- Data derived from a single randomized trial or from nonrandomized studies
- Consensus opinion of experts

Table 5: ACC/AHA, approach to assigning the classifications and levels of evidence

Table 6: Percent of elderly people with selected chronic conditions in 1995 and 2001-2002

	Age 55-65	Age 65+	Age 65+
Condition	1995	1995	2001-2002
Arthritis	32.8	48.9	n/a
Hypertension	28.9	40.3	50.2
Heart disease	18.0	30.8	31.4
Selected respiratory disease	13.7	13.8	n/a
Diabetes mellitus	9.7	12.6	15.5
Cardiovascular disease	2.5	7.1	8.9
Osteoporosis			
Women		26.1	
Men		3.8	

According to Disal M.M., and P.Zhang (1999), it is important to note that n/a= not available; selected respiratory diseases include chronic bronchitis, asthma, and emphysema. The percentage on self-reported data collect in 1995 was based on self-reports from the National Health Interview Survey. Percentages for 2001-2002 were based on self-reported data from national interview survey (Federal Interagency Forum on Ageing-related Statistics 2004). And the data for osteoporosis are from examinations con-

ducted in 1988-1994 and are cited in the (US Department of Health and Human Services 2004) Judge O.James (2007) p. 7

Strategies	Recommendation
Further research	Evaluate the health and well-being benefits of contact with nature as potential preventive "upstream" health intervention.
	Determine the potential health and well-being benefits arising from contact with nature for range of population groups.
	Explore how contact with nature via park could contribute to to population health priority areas (especially in cardiovascular disease and mental health.
	Determine the importance of natural spaces for community health, and actual health benefits people derive from park. Examine whether human health in a range of population groups is affected by lack of opportunities to experience nature.
Health promotion	Education: promote understanding of the health and well-being benefits of viewing and being in nature through media and community projects that raise public awareness and housing development to provide access to nature.
	Partnership: form partnerships between health and environment

	sector, at national and local levels, towards sustainable socio-ecological approach to health promotion.
	training: Train health workers and administrators of public natural spaces (including park staff) to facilitate nature encounters.

Table 7: Recommendations for a development of contact with nature in upstream health promotion for populations

7.4 Role of occupational therapy

There are three major critical roles for occupational therapy practitioners in health promotion disability prevention, which are to promote healthy lifestyles, to emphasize occupation as an essential element of health promotion strategies, and to provide interventions for the elderly and general population. The importance of occupational therapy is to create and promote a healthy lifestyle for all groups of people and their families, including people with physical, mental or cognitive impairments. According to the American journal of occupational therapy (2008) says that Wilcock (2006) found that an occupation focused approach to prevention of illness and disability is defined as the application of medical, behavioral, social and occupational science to prevent physiological, psychological, social, and occupational illness; accidents and disability; and to prolong quality of life for the elderly through advocacy and mediation and through occupation that focus on program aimed at enabling the elderly to do, be and become accordance to their natural health needs. American journal of occupational therapy (2008) p. 3

The following are some examples of occupation that are based on primary prevention intervention that target the individual elderly people.

- Musculoskeletal injury prevention and management programs
- Fall prevention programs for community dwelling elderly people

Examples of secondary prevention carried out by occupational therapy practitioners may include:

- Educating and training regarding eating habits, activity levels, and prevention of secondary disability subsequent to obesity
- Stress management and adaptive coping strategies for elderly people with mood disorders and post-traumatic stress disorders
- Osteoporosis prevention and management classes for individuals who are recently diagnosed or who are at risk for this condition

Examples of occupation based tertiary prevention intervention may include the following.

- Groups for the elderly people with dementia to prevent depression, to enhance socialization in the groups, and to improve the quality of life
- Stroke support groups

7.4.1 The role of organizational level intervention may include the following

- Providing consultation to health care institutions to promote elderly well-being through identification of problem and solution for leisure and family life
- Providing education and awareness for careers and staff

7.4.2 Community or population level interventions may include the following

- The consultation of public transportation
- The consultation with contractors, architects and city planners regarding the accessibility and universal design for all
- The implementation of community wide screening program for depression at nursing homes, assisted living facilities and elderly centers for the purpose of developing group and individual prevention and intervention programs that will address depression
- The conduction of needs assessments and the implementation of intervention strategies that will reduce health disparities in communities with high rates of disease or injury and the strategies for intervention may include the life style

management programs which will address issues like hypertension, diabetes and obesity

7.5 Government or policy level of interventions may include the following

- The promotion of policy that will offer affordable, accessible health care to all, including those with disabilities
- The lobbying for public funds support research and program development in the areas that are related to improvement in the quality of for the elderly at risk and with disabilities

7.5.1 Role of government in supporting advocacy organizations

The organization of family members of people with mental disorders, professional organizations and non-governmental organization involve in this field of mental health can play an important role in advocacy of mental health. Most specifically, government is able to develop a database of consumer groups, family groups and related NGOs to establish a regular flow of information between the ministries of health and these various groups are able to publish and distribute a directory of mental health advocacy groups. It is very important that the ministries on health can make sure that representatives of the consumer groups, family groups and NGOs are included in their plans on mental related activities. These groups of representatives are able to work and draft new policies and laws as well as on committees with the authority to evaluate mental health facilities and enforce standards of treatment in these facilities. Michelle Funk et al. (2005) p 72

7.5.2 Advocacy functions that government officials can perform themselves

According the World Health Organization (2005b) sated that in other to be able to enact a new policy or law, it will usually require the cooperation from another part of the gov-

ernment which are the national legislature and courts, the executive and other ministries especially the finance ministry, which are likely to have an important roles to do in improving the lives of people with mental disorders. The importance of advocacy role of officials in the ministries of health to perform themselves is by persuading officials in other branches of the government to take mental health disorders seriously. Michelle Funk et al. (2005) p 73

7.5.3 Trends, Challenges and Future Possibilities

1. *Key issue: Providing access to physical activity opportunities.*
   - Neighborhood and the "built" environment should be constructed to enable and encourage walking and recreation. Various studies have shown that neighborhoods with sidewalks and safety are able to encourage walking and outdoor games. Maintained, safe, parks and trails encourage activity.
   - The number of recreation and fitness instructors with a specialty in gerontology is probably very small, in fact, because there are limited numbers of activity programs to train them. Concerning the less functional and frail elderly who begin a physical activity and exercise program, the knowledge of an instructor is critical for a safe and rewarding experience.
2. *Key issue: How to encourage the elderly to participate in physical activity and exercise.*
   - The opportunity is great to encourage research on behavior change and exercise motivation. For example, in focus groups of people 65 years or over, those who are inactive said their primary obstacle or barriers to engage in exercise were fear of falling, unwillingness to take action and a feeling of resistance to exercise.
   - Funding and publicity of model programs that are successful in attracting the elderly people provide a practical best practices approach.

3. *Key issue: Increasing professional's knowledge.*

- Primary health care providers can encourage exercise behaviors, but they need training to be effective.
- Professionals need further education in the ageing process and effect of physical activity on ageing and chronic health conditions.
- Communication methods need to be refined. Health care professionals need education in how to target messages about physical activity that appeal to the elderly patient.

8 CONCLUSION

In conclusion, the findings of this thesis provide empirical evidence for the importance of supportive environments for the elderly people to continue performing meaningful occupations outdoors. In other to design supportive environments for occupation and health, it is important to consider the physical environmental demands in details and the possibilities for social interaction provided by the environment. The findings also contribute to implementing structure form of physical activities such aerobic activity, muscle strengthening activity or resistance training on a regular basis which be a useful strategy for enhancing mobility in community dwelling older adults. Although the health benefits of physical activity for elderly persons are well established, exercise is an underused form of health promotion, especially in the elderly population. Physicians and health care professionals must play a more active role in motivating their patients to engage in exercise. Health care professional or Careers historically have not actively promoted physical activity and sometimes have even actively discouraged activity. Motivation is not simply a static description of an individual´s personality; rather, it is comprised of many modifiable factors. Also, this thesis report show that nature effects on health and well-being in various ways and that physical activity outdoors is a multiphase experience and has added value compare to exercise indoors. The importance of green exercise activities will grow in the near future, since provides needed alternative for sitting indoor lifestyle increasing mental and metabolic health problems. There is a good reason that "nature is a gold mine for health promotion".

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BILAGOR / APPENDICES

Table 8: Summary of findings and Result gotten from the used articles

Summary of the findings are grouped according to the three research questions that were used to support this thesis work. This is to clarify the concrete understanding of the articles which answers the research questions.

Question 1: what are the benefits of physical activities for the elderly?

Authors and the year of publication	Results/challenges
Kruk Joanna 2007 Kruk Joanna 2009	The recent study on mortality of 558 community dwelling 75- and 80- year-old men and women, found that a high level of physical activity may decrease the risk of mortality in people with low muscle strength.
James O Judge et al. 2007	The result recommendation for the older adults describes the amounts and types of physical activity that promote health and prevent disease. The recommendation applies to all elderly above 65 years, and to adults aged 50-64 with clinically significant chronic conditions or func-

	tional limitations that affect movement ability, fitness, or physical activity.

Question 2: what is the impact of activity on health promotion, quality of life and mental health?

Mima Cattan et al. 2006	Ecological approach: Short comings of attempting to improve the health of populations by intervention aimed at individuals. There are, for example, the very reall psychological dynamics that often play against usual behavior change approaches to promote health.
Funk Michelle et al. 2005	
Barbara Resnick 2003	The result focus on increasing quality of life and years of healthy life for each individuals and eliminating health disparities. This thesis provides opportunities for individuals to consider health behaviors for themselves and their communities and is particularly relevant for the elderly people.
Rantakokko Merja 2010	The results are shown with men and women combined in the same analyses, because the associations were almost identical for both sexes. Quality of life was worse in participants who reported more barriers in their outdoor environment and those who experienced fear of moving outdoors and unmet physical activity need.

Levasseur Melanie 2008	
Netuveli Gopalakrishnan et al. 2008	The results of quality of life described that with both objective and subjective dimensions. The majority of the elderly people evaluate their quality of life positively on the basis of social contacts, health, material circumstances, dependency and comparisons. Adaptation and resilience might play a huge part in maintaining good quality of life.
Maller Cecily et al. 2005	
Geoffrey Godbey 2009	Future approaches: lengthening lifespan, lowering stress levels, relieving arthritis and back pain, improving sleep for the elderly, improve the strengthening of muscles, bones and joints and the elevating of overall mood and sense of well-being.

Question 3: How can the elderly be motivated to engage in outdoor physical activity?

Edward et al. 2004	The result shown that to overcome the common obstacles to initiating exercise; it is incumbent on physicians to counsel their elderly patients to exercise. Interestingly, those encouraged by a career to exercise report fewer barriers and exercise more than those without such support, underscoring the large potential benefit inherent in a careers intervention to assist elderly patients to become more active. There are few things to consider when trying motivating

	an elderly to engage in activity. Which **1. Facilitate Empowerment** Empowering elders profoundly effects motivation. Involve seniors in planning, selecting, and evaluating their own physical activity program. Transferring control from clinicians and others outside the elderly community to within the senior community is a powerful motivating tool. The result also shows that interventions enabling nursing home residents to increase control of their own health resulted in greater activity levels and self-reported happiness. **2. Promote Socialization** Organized forms of physical activity also provide a form of socialization among the elderly which is a key motivating factor. The elderly people are more likely to be active if they have others to be active with and there is a social component to the physical activity. For example, exercise classes, walking clubs, and senior centers are social factors. This factor is particularly important to those who do not have a spouse or who live an isolated life, which is the case of many unmotivated elderly. Furthermore, seeing others with similar circumstances achieve improved fitness bolsters one's perceived chance of success and thereby improves motivation.