



# **IMPACT OF PHYSICAL ACTIVITIES IN ELDERLY WITH DEPRESSION:- A literature review**

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<p><b>Abstract:</b></p> <p><b>Aim:</b> The aim of this research is to explore the effect of physical activities in treating depression among elderly population living in an institution using different existing literature. Also, aim is to make this study useful to healthcare professionals and students while working with elderly population suffering from depression. The research question is kept in concern during the study: 1. How do physical activities promote health for elderly suffering from depression living in an institution? <b>Methodology:</b> The materials were acquired through qualitative research leading to deductive content analysis and literature review was also used in order to develop ideas and facts and deal with any problems during the process. Only 7 articles could be accessed due to author's copyright policy while conducting this research, which somehow created some limitations. <b>Result:</b> It was found that physical activities enhances functioning of the bodily systems with improvement in mental health as well in elderly people who have already lost their vibes due to different depression related disorders. The suffering age were found to be physically and psychologically benefited physical activities that increase feelings of self-esteem, self-regard and self-respect, which are important for elderly for recovery. <b>Conclusion:</b> Physical activities have been identified as one of the health-promoting factor on reducing depressive symptoms among elderly population. So, it has to be considered more importantly with more researches on this field.</p>	
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## **Table of Contents**

<b>1. INTRODUCTION .....</b>	<b>6</b>
<b>1.1 Motivation to choose a research topic.....</b>	<b>6</b>
<b>1.2 Aim and Research questions .....</b>	<b>7</b>
<b>1.3. Background .....</b>	<b>8</b>
1.3.1 Depression .....	9
1.3.2 Depression in elderly.....	10
1.3.3 Findings on depression among elderly living in an institution .....	11
<b>1.4 Theoretical Framework.....</b>	<b>15</b>
1.4.1 Health Promotion.....	16
<b>2. METHODOLOGY .....</b>	<b>17</b>
<b>2.1 Literature Review .....</b>	<b>17</b>
<b>2.2 Content Analysis .....</b>	<b>18</b>
<b>2.3 Validity and Reliability .....</b>	<b>19</b>
<b>2.4 Ethical Consideration .....</b>	<b>19</b>
<b>2.5 Inclusion and exclusion criteria.....</b>	<b>20</b>
<b>2.6 Material.....</b>	<b>21</b>
<b>2.7 Presentation of Articles .....</b>	<b>22</b>
<b>3. RESULT.....</b>	<b>25</b>
<b>3.1 Interpretation of the process.....</b>	<b>26</b>
3.1.1 Physical Activities Promotes Physical Health.....	27
3.1.2 Physical Activities Promotes Mental Health.....	29
<b>4. CRITICAL REVIEW ON RESULT .....</b>	<b>30</b>
<b>5. DISCUSSIONS .....</b>	<b>31</b>
<b>6.CONCLUSION.....</b>	<b>32</b>
<b>References.....</b>	<b>34</b>

## **Figures**

Figure 1. Illustrate the health promotion process through physical activities.....	26
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## **Tables**

Table 1. The criteria used during inclusion and exclusion.....	20
Table 2 The summery of electronic search Process. ....	21
Table 3 Presentation of articles. ....	25

## **FOREWORDS**

# 1. INTRODUCTION

Population of elderly age over 65 is increasing everyday compared to any other age group in a society. Swedish Statistics Bureau (2009) cited by Hedberg et al. (2010: p.757) state that “In Sweden, the population of those aged 85 years increases from 1990 to 2007 by 40%, and prediction is that by year 2050, the very old population will increase by another 50% compare with 2007”. From older adults points of view, Old age is regarded as less satisfying than the present compared to past life they had spent. Pinquar (2002) cited by Hedberg et al. (2009: p.758) also reveal that “ In a meta-analysis synthesizing 70 studies among middle aged and old age (<65) persons, it was found that purpose on life decreases in old person and obviously similar patterns was found among the middle age group”. So, it could also some how indicate a negative orientation towards purpose of life among most of the elderly compare to other age group thus, symptoms of depression and low wellbeing occurs more among this age group. Depression remains as significant public health problem for older adults in all service sectors like hospitals, primary care, and long-term care. In present time, depression is significant public health problem causing most suffering for people worldwide and sometime end up with suicides. The prevalence of depression in the elderly is higher in medical settings compare to the community dwellings adults.

In this thesis an author had used the term elderly to represent older people, elder and aged generations living in an elderly homes. Especially, elderly living in an institution in long term care.

## 1.1 Motivation to choose a research topic

In the geriatric home there are an elderly suffering from different diseases and disabilities like arthritis, diabetes, and heart problem etc. Author observe one case in a working place, One elderly women most of the often she uses to exclude herself from all group of people and do not participate in any activities held in an institution. When author agers to invite her in activities she uses to complain for bad sleep in night, tiredness and

pain in body. As Blaze (2003) states that “ Depression is often co-morbid with other health condition such as diabetes, stroke, arthritis, urinary and bowel incontinence, kidney disease, ulcers and heart problems”. Gradually, her social contacts and daily activities seem to be diminished day by day. One day she was found dead in her room. Later it was diagnosed she was dead due to over dose of medication. Whenever authors remember the critical incident feel psychologically uncomfortable for what had happened. In one sense, reflection on that incident encourage an author to take an action on what had happened in past to create more reflective knowledge for the upcoming future practices. To know the fact on is there any other way to treat sort of depression beyond medication. So, author comes up with the topic on impact of physical activity for elderly depression.

## **1.2 Aim and Research questions**

The aim of this research is to explore the effect of physical activities in treating depression among elderly population living in an institution using different existing literature. Also, aim is to make this study useful to healthcare professionals and students while working with elderly population suffering from depression. In order to reach the aim of this study, the following research questions is formulated to clarify the main aim of this study.

Research Questions.

1. How do physical activities promote health for elderly suffering from depression living in an institution?

### 1.3. Background

This thesis topic is mainly focusing on depression and curing through physical activities. Depression is some how related with most of middle aged to old age group. Through earlier researches it is proved that medication is a most common way to treat depression whether it is in adult or in elderly. Research also reveals the fact that there are other alternative ways on treating depression beyond medication. Which, might be time consuming but less expensive and gives positive result .

WHO defines “Physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits”. Physical activities consist of different activities like walking, jogging, exercise, stretching, gardening, playing, swimming, aerobics etc. also it possess different benefits on human body.

Regular and adequate levels of physical activity in adults:

- Reduce the risk of hypertension, coronary heart disease, stroke, diabetes, breast and colon cancer, depression and the risk of falls;
- Improve bone and functional health; and
- are a key determinant of energy expenditure, and thus fundamental to energy balance and weight control.

(World Health Organization 2011)

This thesis work will help author to explore the knowledge on available literatures on impact of physical activities and analyses the knowledge on identifying the main issues on “Impact of Physical activities elderly with depression living in an institution”.



### 1.3.1 Depression

WHO describes depression as “Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy and poor concentration”. Biological symptoms include loss of appetite; changes in sleep pattern and low energy. In certain time everyone may feel sad and low mood but it does not last for few days or a week. While reading about depression it may feel like in some extent all people have sort of depression but it might not be true. With ups and down in life sometimes certain sadness occurrence in life does not fill the accurate meaning of depression in ones life. Significantly, at present depression is regarded as common mental disorder leading much more people suffering worldwide. Depression is seen not only in elderly but also in every age group in equal extent. Depression is common but a serious mental illness that can be treated with pharmacological (medication), non-pharmacological, or sometime by both ways.

World health organization (2012) had revealed the facts on depression that, depression is most common mental disorder. Globally, more than 350 million people of all ages suffer from depression, causing disability worldwide, worse depression leading suicide among population, and it is a major contributor to the global burden of disease. Depression is reliably diagnosed and treated in primary care.

Depression is distinguished in different types, major depression, manic depression (bipolar disorder), and Dysthymia depression.

**Person suffering from depression at least posses five to six following symptoms like: -**

- Feel unhappy most of the time (but may feel a little better in the evenings)
- Lose interest in life and can't enjoy anything
- Find it harder to make decisions
- Cannot cope with things that you used to
- Feel utterly tired

- Feel restless and agitated
- Lose appetite and weight (some people find they do the reverse and put on weight)
- Take 1-2 hours to get off to sleep, and then wake up earlier than usual
- Lose interest in sex
- Lose your self-confidence
- Feel useless, inadequate and hopeless
- Avoid other people
- Feel irritable
- Feel worse at a particular time each day, usually in the morning
- Think of suicide.

(Royal College of Psychiatrists, 2013)

As other diseases, depression also can be treated if it is diagnosed in proper time. So, the early identification plays vital role on progression and treatment of disease in less severe stage. Screening identifies Depression. The most common screening for elderly includes Mini Mental State Examination (MMSE), Beck Depression Inventory (BDI) and Geriatric Depression Scale (GDS) etc and much more other tests and screenings. These memory test and screenings can perform with out doctor's appointment; it can be done in a nearest health care centres, hospitals with the help of nurses or health-care workers.

### **1.3.2 Depression in elderly.**

Depression can be distinguished from normal mood change by the severity of symptoms and the duration of disorder. Fewer than 25 % of those affected have access to effective treatments. Depression can be reliably diagnosed in primary care. Depression is seen as a common mental illness among elderly age over 65 years, also sometime seen as normal part of ageing. The prevalence of depression in elderly population age over 65 is highly affected compare to other age group. Although depression is known widely but most of the time this serious mental illness is hard to diagnosed. According

to Bair 2000 “ The diagnosis of depression in the elderly is often challenging with as many as 85% not properly diagnosed, if diagnosed at all”.

Depression can impact on daily activities and in quality of life of person. However, behind causing depression there are lots of known and unknown factors that plays vital role for the formation of depression among an individuals.

Depression affects all the people around the world and in all cultures (WHO, 2006 (a)). The depression is most common in old age because of many triggering factors such as no work or less money as a consequence of retirement, arthritis or other health problems, death of partner of friend and/or biological influence as a part of ageing (The Royal College of Psychiatrists UK, 2010).

### **1.3.3 Findings on depression among elderly living in an institution**

World most of the growing population in few decades is known as elderly population. World is changing everyday, new technologies, innovation, physical environments, person’s needs are changing with time too. Human are changing too in a form like life expectancy of every human being are getting higher and higher in number. Like, decades ago life expectancy of human being was considered low in number but now, e.g. in Europe a life expectancy of human being is 85 years or ever can be more can be come normal. Most of the elderly population is living in their own homes as long as possible until and unless they possess serious mental, physical problems health problems. Each and elderly living in an institutional settings are some how possess more illness compare to community dwellings elderly. For some elderly population mental or physical problem is a main cause to shift to a long-term care where, as for another group of elderly long-term care is considered to get mental health problems like depression, anxiety etc. slowly, depression might be the cause to get more physical disabilities and other problem related to health.

There is not only one specific one reason behind the prevalence of depression on elderly living in an institution compare to community dwellings. Different factors pushes on creating a depressive symptoms on ones life. For example, loss of independency, freedom and continuity, privacy, physical illness, disability, loss of spouse or loneliness, social isolation, lack of ADL activities, physical exercise, lack of proper screening on depression, or recognition, adaptation of new environment for e.g. shifting from ones home to institutional care etc.

### **Loss of independency and freedom.**

The prevalence of depression tendency is higher in institutionalized older people then community dwelling older people (Beckman et al. 1999, Tssai et al. 2005). Main reasons behind depression on institution because of natural condition of reduce of daily contacts in a community. Choi et al. (2008 p.536) cites from (Gaugler, Leach, & Anderson, 2004; R.L. Kane et al., 2004; Mosher-Ashley & Lemay, 2001) found more information on “In the nursing homes physical and social environment, in which person autonomy, self-determination, independence and privacy are largely compromised, affects residents psychosocial status, especially life satisfaction and depression, as well as physical and functional health”. More often population living in a community are more likely to possess active living style compare to institutional living for e.g. most communities possess a group of people with similar hobbies like gardening, music, sports and much more. Elderly living in a community possess freedom, independency and continuity compare to elderly living in an institution. Ron (2004) cited by Chung (2008: p.371) states that “In the United Kingdom, the rate of depression among elderly people living in the community is about 15.0%, and rises to 40.0% among the elderly people residing in nursing homes or hospitals”. With time body became frail and weak so, home sweet home no longer becomes the safer place to be, as a result person need to move to nursing homes or in an institution willingly or unwillingly. Leaving ones place and moving to new world with new people, no friends no family members are the kind of trauma in ones life. Moving to new surrounding or in residential homes somehow seen as life changing experience for elderly sometimes with feeling of loss and grief.

### **Poor Physical Health.**

Poor health should not be an end of happiness but still poor health affects people in a negative way like unable to take participation in social roles, affects life satisfaction, and lead to poor lifestyle. As age increases most of the proportion of people with health related problems increases but it does not apply for everyone. Choi et al. (2008 p.536) cites (Meeks & Tennyson, 2003; Williams, 1999) states that “The higher prevalence rates of depression among nursing home residents than among their community dwelling peers are expected, given their highest rates of physical illness, pain, co-morbidity, disability, cognitive problems and nutritional deficits”. Some possess healthy ageing other poor physical health, they might be affected by heredity, activities and one's lifestyle of choosing to live life. Some population of elderly people suffer from poor physical health or disabilities that work to build a background on formation of depressive disorder. Lenze et al. (2001 p. 113) states “Physical disability typically refers to difficulty, restriction, or dependence on other in performing activities of daily living (ADLs) or instrumental activities of daily living (IADLs)”. Activities of daily living consist of simple tasks like eating or feeding self, bathing, toileting, dressing or grooming, cleaning etc. without completing daily normal routines it is hard to start a day.

### **Loneliness and isolation from outside world.**

Loneliness and isolation are very normal to experience by every age group from young, adult, and old in some instances. Social lives of elderly are quite narrow compared to other age groups so, ageing or late life may often come with the problem of loneliness and social isolation among the elderly leading to unhappiness negative impact on life with social exclusion from the society. Victor et al. (2009: p1) cites (Bond and Corner, 2004; Bowling, 2005) states on importance of social life of person as “Social engagement and relationships, however, remain and their quality is the key element contributing to quality of life of older people”. Human being is regarded as a social animal lives

in a society, and provides different roles in life being, partner, child, parents, family, friends, neighbours, etc. with time everything changes, friends gone apart, family is left behind, partner being apart, time comes with motion that frail body need a special attention and help. Then person needs to move to an institutional care. For some people acceptance of change plays positive role on living life as for some one else it gives a devastating side effect. Most of the elderly had a feeling on everything is left behind, left is just some stuff and a person.

Teeri et al. (2006; p. 124) gives such a good example on what is going inside institutional settings everyday “ For patients, the time they spent in an institution is boring and depressing; all they do is to lie there and wait. The nurses are fully occupied and have no time for conversation”. The nursing interventions are carried out in a hurry:

*“You have to wait, there are very few staffs they are fully occupied. They do talk to you during treatments, but they can’t stay for long because they’re so busy.”* Teeri et al. (2006).

Most of the time elderly are living a lonely life in institution although surrounding is full with people. Person is far from family or relatives, nurses are busy, and roommate living near might not in a condition to communicate these leaves no option then sitting and waiting for day to end. Everyday end with same routine same place nowhere to go that creates, isolation from outside world. Adams et al. (2010) found that “Reduction in (AS) active social pursuits were most strongly associated with depression in the study suggests that occupational therapist, social workers and other health providers should continue the important work of connecting older adults with activities such as socializing with people outside family, going on outings, attending cultural events or interest groups that will be manageable and meaningful to them”

### **Assessment on recognition of depression**

Nursing and health care staffs working in a geriatric care play an important role in maintaining the health and well being of the elderly. As healthcare professionals they spend regular time with the elderly compare to other. Therefore, Llewellyn et al. (2007)

suggested, “Nursing home staffs need to be aware of factors that contribute to the development and persistence of depression and to minimize the effect of those factors as far as possible”. Although depression is hard to diagnose or misdiagnosed compare to other illnesses so, it is considered as a major issue largely among healthcare professional too. There are many reasons behind improper diagnosis of depression that consist of lack of understanding of depression and chronic mental illness among elderly, which sometime ends with life threatening attempts like suicide.

The factor associated with poor prognosis of depression in nursing homes are likely to include higher rates of physical illness, cognitive impairment and severe depressive symptoms, since these have been frequently, but inconsistently, related to poor prognosis in hospitals and community bases studies (Llewellyn et al. 2007).

Despite the high prevalence and incidence rates of depression among nursing home residents, little research has been done to examine nursing home residents’ own understanding and perceptions of depression. Likewise, although research findings have consistently showed that deprivation of individual autonomy, self-determination and independence in nursing homes contributes to a low quality of life and to depression among residents (R.A. Kane, 2001; Tulloch, 1995), few studies have examined the way residents see specific nursing home environmental factors as affecting their own psychosocial well-being. Depression needs to be recognized by patient itself as well as health care professionals. Normally, Depression is diagnosed on clinical interview conducted by specially trained professionals, usually doctors.

## **1.4 Theoretical Framework**

Health promotion was chosen as theory while, conducting this study. This research connects to existing knowledge guided by theory of health promotion as a research method to find answers of the research questions. Theoretical framework is a theory

that helps in conducting research and their problems under existing study. Brewer (2000) cited by Bell (2005: p106) says “Theory” has been explained as being ‘a set of interrelated abstract propositions about human affair and the social world that explain their regularities and relationship’

Miles and Heberman (1994) cited by bell (2005: p103) say, Theoretical framework is an explanatory advice ‘which explains either graphically or narrative form, the main things to be studied- the key factors, constructs or variables and the presumed relationships among them’.

#### **1.4.1 Health Promotion**

Before knowing about health promotion it better to know first about health or definition on health. Therefore, WHO, 1948 defines Health as “State of complete physical mental and social wellbeing and not merely the absence of disease or infirmity”. Dubos influential perspective on health is that health is a mirage and so it is evanescent and unattainable but worth pursuing. Seedhouse (1986) describe health as the ‘foundation for achievements’. This implies that, without good health, the life chances- that is, individuals’ ability to work, enjoy education and establish and maintain social and personal relationships- is considerably reduced. Therefore, many more studies have suggested that poor health had contributed directly or indirectly to low participation in society and low level of enjoyment in ones life. Maslow’s concept of psychological health emphasizing on self- actualization resonates with Dubo’s perspective on nature of health. According to Maslow’s self-actualization refers to desire for self-fulfilment, namely to the tendency for him to become actualized in what he is potential. Health is associated with different component of mental, social, and spiritual wellbeing along with physical fitness.

As far as history reveals, the term “health promotion” was first used by Henry Sigerist in lays as noted by Terris (1996) while explaining the four task of medicines as the promotion of health, prevention of illness, restoration and rehabilitation of the sick. But, since 1970, health promotion has been initiated more as a concept.



The health promotion includes efforts to take social and environmental determinates of health by means healthy public policy. The World Health Organization (WHO) 1986 define Health Promotion as “ The process of enabling people to increase control over the determinant of health and there by improve their health”, Health promotion programs consist of different activities to develop different health programs, which involves education on prevention and legislation related to the concepts of positive health, wellbeing and lifestyle.

## **2. METHODOLOGY**

Qualitative research method was used on doing this thesis. Qualitative research studies are focused on differences in quality rather than in differences in quantity. However, qualitative data does provide a depth and richness on data. Content analysis is a method that may be used with either qualitative or quantitative data and in an inductive or deductive way (Elo & Kyngäs 2007).

In deductive content analysis, either a structured or unconstrained matrix of analysis can be used, depending on the aim of the study (kyngäs & Vanhanen 1999). Deductive content analysis begins from the general and ends with specific approach. So, in this study an author had used a deductive content analysis as a method to get clear information on the following study.

### **2.1 Literature Review**

The main purpose of writing literature review is to bring clarity and to focus the research problem. Literature reviews improve the methodology and also broaden the knowledge about the topic chosen.

Literature reviews explain or briefly describes the work that has been related on a topic or field. Literature review should be comprehensive and include all the pertinent and valid papers; details of method and result of studies included should be presented in critical manner (Bowling 2002: p.136)

## **2.2 Content Analysis**

Here, author had used deductive approach method because this topic is not just to prove the truth of something but also the aim is to find the correct answer of the research question by evaluating what had been known on his topic matter. With deductive reasoning means that the investigator starts with general ideas and develops specific theory and hypotheses from them which, are then tested by collecting and analyzing data (Bowling; 2002). A deductive approach involves a ranking of explanation or truth and also helps to get specific conclusion based on generalization and application of knowledge in the formation of new knowledge.

Analysis refers to the process of breaking a big topic with many parts into smaller parts to get a better understanding on the related topic. According to Polit et al., (2001), “Content analysis is the process of organizing and integrating narrative, qualitative information according to emerging themes and concepts; classically, a procedure for analyzing written or verbal communications in a systemic fashion, typically with the goal of qualitatively measuring variables”.

While conducting this analysis all the articles were read twice or number of times to get the clear information, broken down in different categories and sub-categories and comparing similarities with each other. Then, articles with similarities were grouped together with categories and sub-categories. Different parts of an articles like phrase, sen-

tences were marked with different colour pens to make visible to support some arguments in result.

Content analysis allows the researcher to test theoretical issues to enhance understanding of the data. Through content analysis, it is possible to distil words in to fewer content related categories (Elo and Kyngäs 2007 p.108).

### **2.3 Validity and Reliability**

Validity is an assessment of whether an instrument measures what it aims to measure (Bowling 2002: p. 147). Validity refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. From the qualitative point of view validity is more to do with logic. Reliability refers to the reproducibility and consistency of the instrument (Bowling 2002: p.147). Reliability is the extent to which an experiment, test, or any measuring procedure yields the same result on repeated trials. Where, from qualitative point of view instrument is valid and pretested.

### **2.4 Ethical Consideration**

Good ethical conduct is an important factor in research. Helsinki Declaration 2004 “Respect of human dignity, human value, integrity, autonomy”. Good scientific practice should be carried out in doing research. Author had gone through The Arcada Thesis Guide, Herten *et al.* (2009) to avoid plagiarism, rewriting and carry out proper written thesis by providing references materials like, research articles, journals, books, quoted and cited properly according to the Arcada thesis guide. Research plans involving human being like questioners, interviews, observational studies, interventions, per-

sonal documents, sensible or insulting issues, risk etc are ethically viewed before implementing them.

Ethical principles of research should always carry out these principal of justice and fairness, principal of trustfulness, principal of honesty, principal of benevolence and professional secrecy, confidentiality.

## 2.5 Inclusion and exclusion criteria

The author chose material carefully with fulfilling the criteria to achieve the answers of the research questions. Articles were chose from inductive content analysis. The material that does not fulfil the criteria of the study was excluded and materials that fulfil the study criteria were included below in Table no. 1.

<b>Inclusion</b>	<b>Exclusion</b>
Articles published in English language only. Free articles only Relevant article for the studies Scientifically approved articles. Special focus was given to the articles with physical activities.	Articles not published in English language. Paid articles. Non-relevant articles for the studies. Articles older then year 2000. Non- scientifically written articles.

*Table 1. The criteria used during inclusion and exclusion.*

## 2.6 Material

The literature was gathered through different database using Nelly porter EBSCO, CINHAL, Google Scholar etc. The chosen literatures were written in English language.

In search engine search terms were used as **\*Elderly depression\*** AND **\*Physical Activity\***, **\*Physical activity\*** AND **\*Non-pharmacological Treatment\***, **\*Exercise** AND **\*Depression\***. Limited terms were used as old age, treatment, and physical health. It is shown in table no.2.

Database	Key words	Year Range	Result	Selected Articles
(Academic search Elite) EBSCO	Physical Activity AND Depression.  Depressive Symptoms, Aged.	2000 - 2014	272	4
CINHAL	Physical Exercise And Depression	2000 - 2014	40	1
Google Scholar	Exercise and depression	2000 - 2014	134000	2

Table 2. The summery of electronic search Process.

## 2.7 Presentation of Articles

In table 3 the results of the data collection are presented in a alphabetical way. Although articles were found in a huge number from different sources, only 7 articles meet the inclusive criteria while presenting articles. Different methods like systematic review, participation, interview, qualitative analysis, Random Control Trials (RCTs), and literature review were used. All articles were written in English language but originated from different countries.

Author	Title	Year	Method	Result
Babyak ,M., Blumenthal, J.A, Herman, S, Khatri, P., Doraiswamy M, Moore K, Craighead W.E., Baldewicz T.T., & Krish- nan K.R	Exercise Treat- ment for Major Depression: Maintenance of Therapeutic Benefit at 10 Months	2000	Interview	The result shows that the Clinical status at 10 months (6 months after treatment) among patients who were remitted (N 83) after 4 months of treatment in Exercise (N 25), Medication (N 29), and Combination (N 29) groups. Compared with participants in the other conditions, those in the Exercise condition were more likely to be partially or fully recovered and were less likely to have re-

				lapsed.
Brenes, G.A., Williamson, J.D., Messier, S.P., Rejeski, W.J., Pahor, M., Ip, E., & Penninx, B.W.J.H.	Treatment of minor depression in older adults: A pilot study comparing sertraline and exercise	2006	Participation	Result states that an individuals in the ex- ercise condition showed greater im- provements in phys- ical functioning than individuals in the usual care condition. Both sertraline and exercise show prom- ise as treatments for late-life minor de- pression. However, exercise has the added benefit of im- proving physical functioning as well.
Blake, H., Mo, P., Malik, S., & Thomas, S.	How effective are physical ac- tivity interven- tions for alleviating depressive symptoms in older people? A sys- tematic review	2009	Electronic Data- base.  (Randomized controlled tri- als (RCTs) and quasi- experimental studies )	Short-term positive out come was pre- sented in the study but long-term effects of intervention were less clear.

Eriksson,S., & Gard,G.	Physical exercise and depression	2011	A literature review.	Physical exercise can be an effective treatment against depression. Eight studies fulfilled the inclusion criteria and were included. Seven of the eight studies showed significantly improved mood and reduced depression.
Mura, G., and Carta, M.G.	Physical Activity in Depressed Elderly: A Systematic Review	2013	A systematic review.	Result had concluded that physical activity interventions appears to exert beneficial clinical effects on depressive symptoms in elderly, justifying the interest of researchers in this field, and clinicians general conviction.
Sjösten, N., and Kivela, S.L.	The effects of physical exercise on depressive symptoms among the aged: A systemic review	2006	Qualitative Analysis.	Exercise was effective in treating depression among those suffering from minor or major depression and in reducing depressive symptoms among those with a high amount of de-



				pressive symptoms at baseline.
Tsang, H.W.H., Chan, E.P., & Chung, W.M.	Effect of mindful and non-mindful exercise on people with depression: A systematic review	2008	Search through Electronic databases to identify randomized controlled trials (RCTs),	The result shows a significant short-term effect of mindful and non-mindful exercise on reducing depression. Also 10 out of 12 studies revealed that elderly age groups are benefited by physical non-mindful activities when it comes to depression, anxieties, or insomnia.

*Table 3. Presentation of articles.*

### **3. RESULT**

After presentation of articles in data from a database and analyzing, chapter 3.1 first parts will provide answer research question in a detail with figure 1 in 3.1, creating two different subcategories on physical activities. Where, chapter 3.1.1 and 3.1.2 will explain those figure in detail by using results from different 7 articles used on presentation of articles. Research question is related on physical activities as health promotion

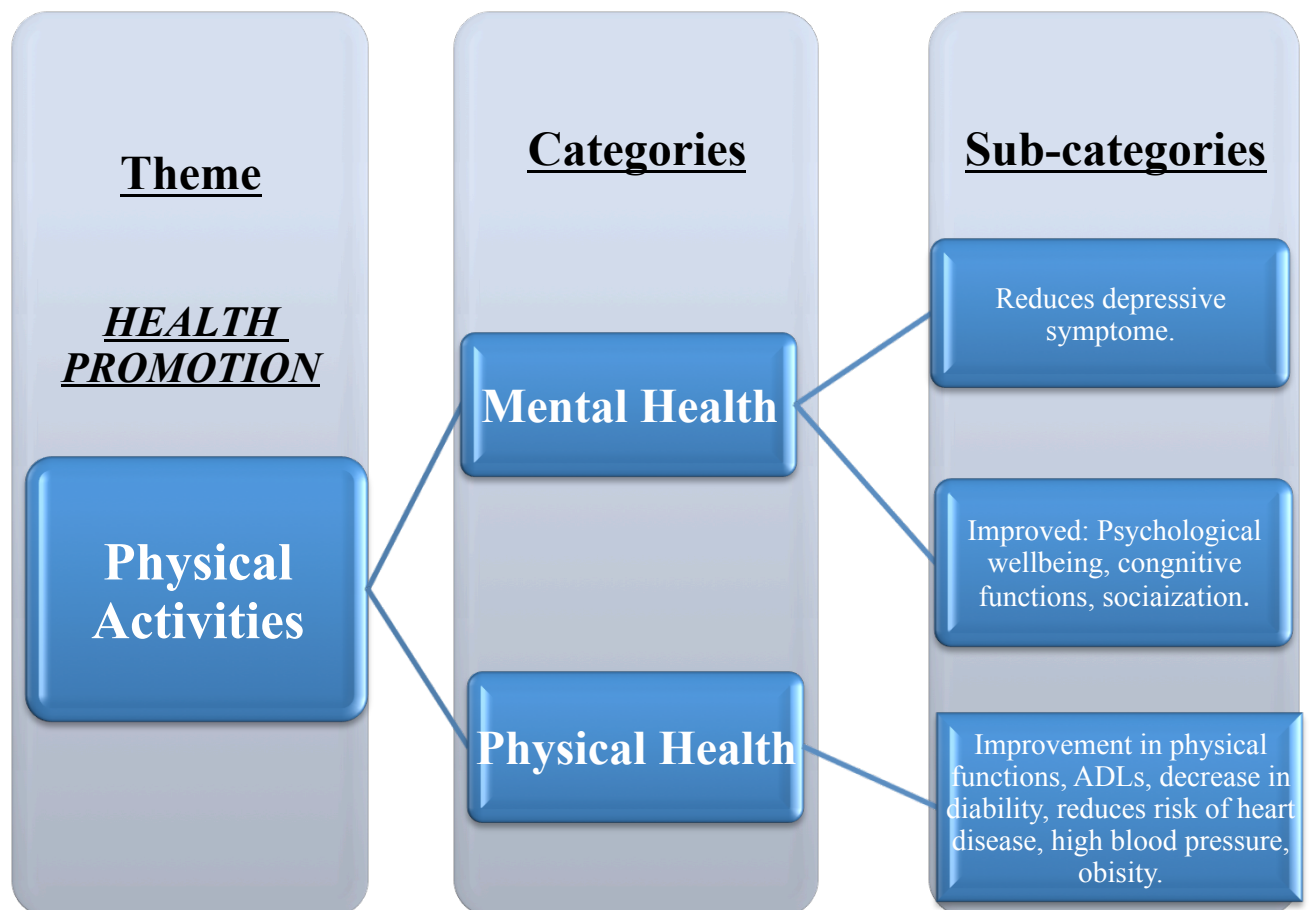
in elderly depression and it ends up with opening benefits on both mental health and physical functioning through physical activities like exercise.

### 3.1 Interpretation of the process

In this chapter the author describes the result of the analysis in categories and in sub-categories answering the research question related to health promotion in figure 1.

- **How physical activities promote health for elderly suffering from depression living in an institution?**

Figure 1. Illustration of the health promotion process through physical activities.



Here, are the different interpretation of result that, author had found while conducting this research on theme of physical activities as health promotion programme. Author had found two different categories, mental health and physical health. Physical activi-

ties are not only beneficial to physical functioning it also improve mental functioning r mental health in older adults with depression. Health promotions through physical activities are explained below briefly in sub heading 3.1.1 and 3.1.2.

Many researches had been done on outcome of physical activity in elderly aged group. Most of the result had shown positive result on physical activity programs on reduces mobility, disability and psychological well beings among elderly population, that are in high risk of disability and mental disorders. Where, most people consider the advantages of exercises nearly limited only to physical health, but the researches have connected the conceptual benefits of physical activities like exercises, on mental wellbeing too. It benefits from different perspectives on reducing depressive symptoms mood, anxiety, improves psychological well -beings, cognitive function. While comparing between those who were involved in physical activity like normal stretch, exercise, walking etc and elderly group those who were not involved in any activities, it was found that non exercise group have poorer mental health and physical health compare to active group. A physical activity does not only improve physical functioning it improves as well as mental wellbeing. Even, Moderate physical activities help elderly to maintain stamina and lower the risk of functional limitations.

### **3.1.1 Physical Activities Promotes Physical Health.**

Physical activities consist of different activities like exercise, running, walking, jogging, playing, doing household tasks, gardening swimming etc. Physical activities does not only promotes physical health along with physical health it benefits metal wellbeing of an elderly. Physical exercise improves physical functions, strengthen the muscles, helps to maintain balance in elderly that reduces falls among elderly, perform Activities of Daily livings (ADLs), decrease in disability, reduces risk of heart disease, high blood pressure and obesity. While doing normal moderate aerobic activity causes increase in breathing and heart rate increases that is beneficial especially for disease prevention like heart disease. Many researches had shown that, the depressive disorder

is regarded as main cause for the difficulty on accomplishing at least one activity of daily living among elderly population. So, physical activities show the alternative way or positive effects on treating depression among elderly population.

Person frequently participating in an exercise programs or frequently active in a physical activities are more likely to promote mental health as well as a physical health. The latest guidelines from the National Institute for Health and Clinical Excellence included physical activity as a management strategy for depression, recommending structured, supervised exercise programs, three times a week (45 min to 1 h) over 10–14 weeks, at low-intensity, as a Step 2 intervention for mild to moderate depression (Mura & Carta; 2013). Researches and comparison were conducted between participants in the aerobic exercise and non-participation in any activities demonstrates significant improvements in depressive symptoms. The finding suggests that an exercise program, treatment for depression should be carried out in a regular base and ongoing life activity to gain a proper outcome. Exercise has been shown to improve subjective quality of life in physical domains in depressed patients, with higher doses of physical activity associated with larger improvements both in mental and physical domains of quality of life (Mura & Carta ; 2013. p.130) ”

Physical exercise is a potential treatment for depression among older adults and emphasized the need for more controlled studies (Sjosten & Kivela; 2006). Physiological changes are linked to intensive training and probably explain only a part of the effects Biological changes, together with a relief of somatic symptoms, may lead to better physical functioning and quality of life.

Laboratory researches have also shown that exercise promotes adult hippocampal neurogenesis and triggered dendritic remodelling, and such effect exercise-related has been found to be much stronger than that determined by antidepressant drugs (Mura & Carta; 2013) Physical activity interventions possess beneficial clinical effects on depressive symptoms in elderly that promotes physical health of an elderly population.

### 3.1.2 Physical Activities Promotes Mental Health

Research has suggested the potential psychological benefit of exercise training for older, depressed adults includes improvement in depressive disorder, cognitive functions, psychological wellbeing, mood, and socialization. Physical exercise may be efficient in reducing clinical depression and depressive symptoms among the aged suffering from clinical depression or a high amount of depressive symptoms (Sjosten & Kivela; 2006). Moreover, regular exercise or physical activities program help individual to promote cognitive function along with mental wellbeing with sense of purpose in ones life. The findings do suggest that both aerobic exercise and resistance training program may be beneficial in improving mood in older people with depression (Blake et al. 2009). Elderly populations are more likely to live alone, most of the time spent in a loneliness that is associated with lack of social contact, less active living and being far from family etc, these factors tend to cause an idle living with out any activities. Where, Some physical activities are carried out in a group of people, it help them to meet new people, make new friends and help to come out of their lonely zone creating a new circle. Determining time spent in groups or activity programs a treatment per se. Consequently, also social contact seems to be acceptably used as control for the social component of physical activity programs (Mura & Carta 2013). Physical activity is directly indirectly link with socialization where, socialization is linked with mental wellbeing and good mood, happiness among human being. Moreover, the guideline for promoting mental health prescribes an accumulation each week of a minimum of 150 minutes of exercise at moderate intensity or a minimum of 75 minutes at vigorous intensity, in bouts of at least 25 minutes over 3 to 5 days per week (Mura & Carta; 2013). Regular physical exercise can be an affective and less costly treatment against depression among elderly population. However, this depends on stage of depression like minor, moderate, or major depressive symptoms. Studies carried out by Tsang et al. (2008) states that the “Mindful physical exercise is a special kind of physical exercise with an additional element on the state of mind. It has recently emerged as a therapeutic intervention for improving psychosocial well-being of individuals”. Review shows that all of our mind-full studies (100%) demonstrated positive effects on treating depression (Tsang et al. 2008). This echoed a similar review by Meeks et al. (2007), which reported that most of the

mind–body interventions (83%) were effective to reduce depression although the review did not restricted itself to mindful physical exercise. One of the positive outcomes of an exercise programs under physical activities is a gradual development of sense of positive wellbeing that help elderly on reduction of depressive symptoms. Physical disabilities are also one of the factors related on depressive symptoms among aged population. Physical exercise is an achievable means by which the progression of mobility limitation and further disability may be slowed or even prevented, both within the general population and specifically for older adults with or without chronic conditions (Blake et al. 2009). Physical activity is importance to promote mental wellbeing as well as it is importance to promote more active living among elderly population.

One of the positive psychological benefits of systematic exercise is the development of a sense of personal mastery and positive self-regard, which we believe is likely to play some role in the depression-reducing effects of exercise (Babyak et al. 2000). Psychological benefits were achieved after different physical activities like exercise programs, aerobics, mindful studies, regular exercise patterns, socialization, group activities and Thai Chi training etc suggesting that increases in fitness level and helps on promoting mental health by reducing depressive disorders.

#### **4. CRITICAL REVIEW ON RESULT**

An author had chosen a topic on impact of physical activities on elderly depression from health promotion point of view to promote health of depressed elderly living in an institutional setting. 7 literatures were used on answering the research question and background was developed using different articles, journals and books related on topic. Author had used different sources like EBSCO, CINHALL and Google scholar. It could have been better to get more specific answer if author had found more and effective articles with free assess.

## 5. DISCUSSIONS

### ➤ **How physical activities promote health for elderly suffering from depression living in an institution?**

The word “Depression” had been a severe mental illness killing more population in the earth although; it is a normal illness as other which can be treated both pharmacologically and non-pharmacologically. Where, pharmacological way of treating depression is more in common. This thesis topic opens up on causes of depression on question no one where, author had answered different factors on main cause of in depression living in an institution. As Choi et al. (2008) had concluded that “The major themes related to the causes of their depression were loss of independence, freedom and continuity with their past life; feelings of social isolation and loneliness; lack of privacy and frustration at the inconvenience of having a roommate and sharing a bathroom; loss of autonomy due to the institutional regimen and regulations; ambivalence toward cognitively impaired residents; ever-present death and grief; staff turnover and shortage; and stale programming and lack of meaningful in-house activities”. Strawbridge et al. cited by Eriksson & Gard (2011; p. 261) has shown that “those who exercise have a lower incidence of depression, Persons who exercise are also more likely to engage in other health and well-being promoting activities”. There are not only one specific reason behind depression, there are different factors affecting on quality of life of person. Due to certain problems like poor prognoses, misdiagnosed and wrong perceptions had carried a sever consequences in peoples life. Exercise also help to promote healthy living through active lifestyle.

Second step author comes up with health promotion strategies with the help of physical interventions to get the related answer on research question. Here, author concord categories on affect through physical activities like, exercise, aerobic, walking, jogging, swimming, running. Existing used literature shows that there are two categories that benefits human through physical activities are mentally and physically. Researches also proved that exercise caused depressive symptoms to be reduced at 6-month follow-up, because it is possible that patients who continued to exercise after the intervention did so because they already were less depressed at the end of the treatment period.

Author had chosen two different research questions at first while doing this study but due to different background on research question author had difficulties on finding related articles for both research questions, so, finally discussing with supervisor author came to the conclusion on choosing one research question which will be carried out while conducting this study. Question was based on health promotion among elderly through different physical activities. Author has gathered background information in background by using different books, articles, and journal. For the research question, 7 articles were used based on impact of physical activities to treat depression among elderly living in an institution, where author feels that it would have better if author had found more articles in related topic with free access so, that more appropriate result could have been found on this thesis work.

## **6.CONCLUSION**

This study reveals the most common factors associated with the causes of depression among elderly population and impact of physical activities on treating depression among elderly suffering living in institutional settings. Study had found the positive effect of exercise and physical activity on reducing depressive symptoms among elderly suffering from minor to moderate depressive symptoms but, best effect are found through continuous exercise and physical activities. Exercise as physical activities showed greater improvements in physical functioning compare to usual individual. It is also found that exercise was effective on treating minor or major depression by reducing high amount of depressive symptoms in an individual.

Exercise does not only promote physical health it also promotes mental health of an individual and works as effective way as antidepressant drugs or other form of psychological treatment for depression. More and more researches should be carried out in this field. Some how in many researches physical activities are heightened in some aspect but still it is less identified compare to antidepressant use for treating depression. So, furthermore research should be carried out as an essence of more dedicated research



focusing on the benefits of non-pharmacological interventions for depression using different sorts of physical activities acknowledging in several cost effective ways.

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