

# Physical Activity: Motivators and Barriers of Older People With Chronic Conditions.

A Systematic Review By Hannah Ehses

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## Introduction

Worldwide life expectancy is increasing and leading to more elderly aged 65 and over and more people at extreme old age<sup>(1,2)</sup> The extent of how the older generation will live their lives is heavily depended on their health and their perspectives of Physical activity<sup>(3)</sup> (PA).

Living in good health will give them the ability to do things they value, like taking part in the workforce and other social activities<sup>(4)</sup>.

Even though known health benefits exist<sup>(5)</sup> more and more elderly are diagnosed with chronic conditions and do not meet the recommendations of PA<sup>(2)</sup>.

This systematic review aims to present possible factors that influence PA among older people with chronic diseases by evaluating the current state of motivators and barriers for PA. Therefore, the research question is which motivators and barriers influence PA in elderly with chronic conditions.

## Research question

What motivators and barriers influence Physical activity in elderly with chronic conditions?

## Method

### Study Design:

Systematic Literature Design

### Search Strategy:

A comprehensive data search was obtained in PubMed, SPORTDiscuss, CINAHL And MEDLINE, all with full-text. This can be seen in Table 1.

Table 1. Search strings

| Database     | Search String  |
|--------------|--|
| PubMed       | ((((elderly) AND chronic illness) AND (barriers OR facilitators)) AND (motivational factors OR enablers)) AND (exercise OR regular physical activity)  |
| MEDLINE      | (65 years and older) AND chronic disease AND (motivators or beliefs or enablers) AND (facilitators or barriers) AND ( perceptions or attitudes) AND physical activity behaviour NOT (systematic review or poster or conference)                  |
| CINAHL       | (65 years and older) AND chronic condition AND (motivators or enablers) AND (barriers or facilitators) AND (perceptions or attitudes or opinion) AND physical activity NOT (conference or poster presentations or systematic reviews)            |
| SPORTDiscuss | ( 65 years and older ) AND chronic conditions AND ( motivators or enablers ) AND ( barriers or facilitators ) AND ( perceptions or attitudes or opinion ) AND physical activity NOT ( conference or poster presentations or systematic reviews ) |

### Inclusion criteria:

- All study designs;
- Mean age of 65+;
- Present chronic conditions;
- Perspective towards PA;
- Peer-reviewed articles;
- Articles in English;
- Articles in German;
- Articles available in full-text;
- Studies published from 2008

### Quality assessment:

The quality assessment has been performed using the Methods Appraisal Tool<sup>(6)</sup>(MMAT).

### Best Evidence Synthesis (BES):

The final synthesis presents the overall findings in analytical themes described below:

- Intrapersonal
- Interpersonal
- Community

The definition of the categories can be seen in Table 2.

## Results

### Data selection process:

The initial search generated a total of 97 articles. After 4 duplicates have been excluded, the remaining articles were checked for title and abstract. The full-text articles were then screened for eligibility. Finally, leading three articles through reference checking leading to a total number of eight articles.

### Quality assessment using the MMAT:

-6 articles scored 7/7

-2 articles 4/7

### General study characteristics:

#### Continents:

Europe; Australia; North America

#### Chronic conditions:

Osteoporosis; Venous leg ulcers; Stroke; Chronic Obstructive Pulmonary Disease

### Data Extraction:

The data extraction showed that each article used diverse categories to analyse behaviour and these categories were different within each study.

Through a process of thematic synthesis two essential themes, reflecting the motivators and barriers have been identified. Subthemes (intrapersonal, interpersonal, and community) based on the study of Baert et al.<sup>(9)</sup> and the ecological model of Bauman et al.<sup>(16)</sup> were created to compare the different behaviour categories of each article.

Table 2. Levels of influences based on Baert et. al<sup>(7)</sup> & Bauman et. al<sup>(8)</sup>

| Level of influence | Explanation  |
|--------------------|--|
| Intrapersonal      | Intrapersonal are individual characteristics that influence behaviour, such as attitude, beliefs, and perception about themselves and their chronic condition. |
| Interpersonal      | Interpersonal are influences from external, such as family, friends, groups and health professionals.  |
| Community          | Community factors are influences from the environment such as, weather and structures that may constrain or promote recommended behaviours.                    |

### Data analysis:

After grouping and analyzing the provided information into themes and subthemes. The following motivators and barriers have been identified.

**Intrapersonal:** Perception/ Attitude (e.g. PA benefits, self-perception) and self-efficacy (e.g. confidence, knowledge)

**Interpersonal:** Support influences of others (e.g. family, friends, health professionals).

**Community:** Environmental influences, such as transportation, weather and finances.

This can be seen in Figure 1.

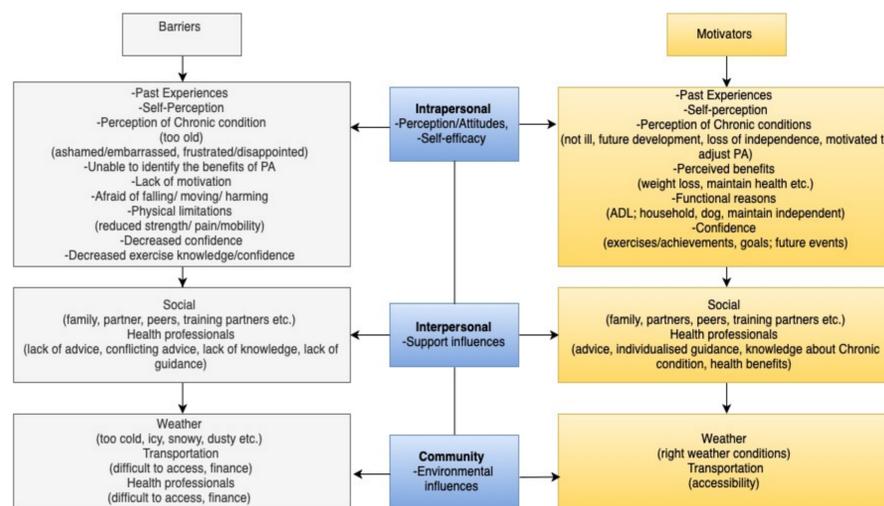


Figure 1. Illustration of the identified Motivators and Barriers and their themes and subthemes

## Discussion

In order to understand the perspectives of PA of older people with chronic conditions, this study was carried out using a systematic literature review.

### Main Findings

In this study, participants who had a positive perception and more positive experiences with their age and chronic condition seemed to be more motivated to be active than those who had a negative perception about their age or chronic condition or negative experiences with PA due to Physical limitations.

It is known that a sustained level of PA in older age is associated with improved overall health and that exercise can reduce physical limitations such as pain, improved physical functioning and assist in many common health conditions. The perception of PA of those that have physical limitations can be influenced by increasing the knowledge of older people with chronic conditions<sup>(9,10)</sup>.

Older adults, particularly those with chronic health conditions, have relatively high rates of attendance at physician's offices and therefore are in a strong position to receive exercise-related advice<sup>(11)</sup>.

Participants of the included studies, still mentioned lack of advice, conflicting advice, lack of knowledge and lack of guidance from their health professional as a barrier. This is in line with the study of Ostergaard et al.<sup>(10)</sup> where participants experienced lack of information about the benefits of PA, opportunities for improving PA with their conditions and nor about the negative consequences of an inactive lifestyle.

Most elderly expressed that they would prefer more individualized guidance, advice, and exercises. Increasing patient centred guidance and advice would improve their self-efficacy, which is in line with the study of Reinseth et al.<sup>(12)</sup>.

### Strength of this review

This review uses an extensive search strategy, covering four different databases of different fields. Another advantage is the inclusion of all study types, which broadens the access to available evidence. Furthermore, the studies have been from the last eight years giving the latest evidence based research.

### Limitation of this review

Thematic synthesis and interpretation has been done by one researcher, therefore the placements of the study is subjective and dependent on the interpretation of the researcher. Furthermore, the definition of PA varied within each study and was not the same.

### Future suggestions

Future research needs to aim at developing strategies at a policy level to enhance PA activity in elderly with chronic conditions by implementing the known motivators and barriers of this population.

## Conclusion

Older adults with chronic conditions perceive several motivators and barriers towards PA. Most of the barriers could be diminished by raising awareness of the perceived benefits of PA, increasing physical knowledge about chronic conditions and giving more individualized guidance and exercises. These findings highlight the need for more research to find a solution to incorporate these barriers and motivators with health professionals and patient's needs.

**Bibliography**

1. Suzman R, Beard J. Global Health and Aging. *NH Publ* no 17737. 2011;161:273-7.
2. Kuzuh R, Muroch S, MacLeod S, Algaard K, Hawkins K, Yeh CS. Population Health Management for Older Adults: Review of Interventions for Promoting Successful Aging Across the Health Continuum. *Vol. 2, Gerontology & geriatric medicine*. 2016. p. 233772416657877.
3. Franco MP, Tang A, Howard K, Sherrington C, Ferreira PH, Probst AC, et al. Older people's perspectives on participation in physical activity: A systematic review and thematic synthesis of qualitative literature. *Int J Sports Med*. 2015;48(19):1268-76.
4. World Health Organization. *World report on Ageing And Health*. 2015.
5. Heimer M, Lavine KL, Bacon S. Taking up physical activity in later life and healthy ageing: The English longitudinal study of ageing. *Int J Sports Med*. 2016;48(3):339-43.
6. Baert V, Goris A, Meets T, Geerts C, Baetmans J. Motivation and barriers for physical activity in the oldest old: A systematic review. *Ageing Res Rev*. 2011;10(4):464-74.
8. Bauman AE, Parr RS, Sallis JF, Welsh JP, Looze RW, Martin BW, et al. Correlates of physical activity: Why are some people physically active and others not? *Lancet*. 2012;380(9838):258-71.
9. Beyer AK, Wolff JK, Warner LM, Schulz B, Wurm S. The role of physical activity in the relationship between self-perceptions of ageing and self-rated health in older adults. *Psychol Health [Internet]*. 2015 Jun;30(6):671-85. Available from: [https://search.ebscohost.com/login.aspx?direct=true&url=https://search.proquest.com/docview/10108072001852512018-08-01\\_ENG.pdf](https://search.ebscohost.com/login.aspx?direct=true&url=https://search.proquest.com/docview/10108072001852512018-08-01_ENG.pdf)
10. Ostergaard EB, Sriharan SS, Thomsen PM, Kristiansen AD, Lakke A. Barriers and motivational factors towards physical activity in COPD - an interview based pilot study. *Eur Clin Respr J [Internet]*. 2018;05(1). Available from: <https://doi.org/10.1080/20018525.2018.1484654>
11. Taylor D. Physical activity in medicine for older adults. *Progr Geriatr Med J*. 2014;9(10):29-32.
12. REINSETH L, ARNESEN T, KERNIS W, SPODINSKY J, SPODINSKY G. Performance in leisure-time physical activities and self-efficacy in females with rheumatoid arthritis. *Scand J Occup Ther [Internet]*. 2011 Sep;18(3):210-8. Available from: [https://search.ebscohost.com/login.aspx?direct=true&url=https://search.proquest.com/docview/10108072001852512018-08-01\\_ENG.pdf](https://search.ebscohost.com/login.aspx?direct=true&url=https://search.proquest.com/docview/10108072001852512018-08-01_ENG.pdf)