

EXTENDED SUMMARY

RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND SELF-DIRECTED AGEISM IN OLDER PEOPLE: A Systematic Review

INTRODUCTION

Aging is a natural process throughout life that, despite being universal, is not uniform. How we age depends on our social and physical environment, as well as personal characteristics such as the family we were born into, our gender, or ethnicity (WHO, 2015). Due to the increasing increase of older people in the world population, understanding how older people perceive and experience the aging process becomes a topic of growing social and academic relevance (Levy, 2009).

One of the relevant phenomena in aging is ageism, defined by WHO (2018) as stereotypes, prejudice and discrimination against other people or self-directed on the basis of age. Ageism is composed of three dimensions: stereotypes (thoughts), prejudices (feelings) and discrimination (actions or behaviors); it is manifested in a self-directed, interpersonal or institutional manner; and it can be expressed explicitly (consciously) or implicitly (unconsciously) (PAHO, 2021).

Self-directed ageism, also known as negative self-perceptions of aging, is the internalization by individuals of negative stereotypes and age-related prejudices after repeated exposure to these influences by society, resulting in negative beliefs and perceptions about their own aging process (Levy, 2009). Self-perceptions of aging, regardless of whether they are positive or negative, have a significant impact on the quality of life and emotional well-being of older people, as they are an important predictor of physical and functional health, self-rated health, healthy behavior, and longevity (Westerhof et al., 2014; Wurm et al., 2017).

A key element in the lives of older people to maintain their health and independence is physical activity (Chodzko-Zajko et al., 2009). For this reason, WHO (2022) recommends that adults should engage in moderate aerobic physical activity for at least 150 minutes, or intense physical activity for at least 75 minutes (or an equivalent combination). It also recommends that adults 65 years and older should perform functional balance and muscle strength training at least three days a week, with the aim of improving functional capacity and preventing falls.

However, there seem to be differences among older people when it comes to practicing healthy behaviors such as physical activity, depending on the direction of their self-perceptions of aging. According to the studies carried out, people with more positive self-perceptions of aging tend to practice more healthy prevention behaviors and are more physically active (Levy and Myers, 2004; Wurm et al., 2010), whereas people with more negative self-perceptions of aging tend to be less physically active, have higher levels of depression, and lower levels of self-esteem, self-efficacy and social participation (Levy et al., 2002; Ranzijn et al., 1998). People who have internalized negative stereotypes about aging may be more likely to perceive themselves as less able to be physically active, which in turn limits their ability to maintain an active and healthy lifestyle (Levy, 2009).

It is necessary to better understand the influence of self-directed ageism on the behavior of the elderly, in order to be able to subsequently work on the promotion of their quality of life and well-being. For this reason, the aim of this work is to carry out a systematic review of the relationship between physical activity and self-directed ageism in the elderly.

METHODS

The systematic review was carried out following the guidelines of the PRISMA statement (Yepes-Nuñez et al., 2021).

Before conducting the systematic review, inclusion and exclusion criteria were established: Inclusion criteria were as follows: studies published in English or Spanish, based on self-directed ageism (self-perceptions of aging) in persons aged 50 years or older; quantitative, qualitative, and single-case or N=1 studies.

Exclusion criteria include studies based on interpersonal ageism or institutional ageism, case studies and systematic reviews.

The systematic search was carried out from April 2023 to April 2023, using the Scopus, PubMed and PubPsych databases. For this purpose, the following Boolean search was performed with English terms: ("self perceptions of aging" OR "self perceptions of ageing" OR "self directed ageism" OR "self directed stereotype" OR "perceived uselessness") AND ("exercise" OR "physical activity") AND ("elderly" OR "aged" OR "older adults").

After the search, 45 results were obtained (21 in Scopus, 13 in PubMed and 11 in PubPsych), of which 21 duplicates were eliminated, leaving 24 articles (among which one of them (Beyer et al., 2019) was privately accessible but it was requested and provided by the authors of the article via email). Following the inclusion criteria, 4 articles were eliminated after reading the title and 17 articles were eliminated after reading the abstract (for not studying the relationship between physical activity and self-directed ageism: n=15; for studying ageism in general, and not self-directed ageism: n=1; and for being a thesis based on studies already selected for SR: n=1), leaving 3 articles to evaluate their eligibility. Finally, after being analyzed in depth, 3 articles were selected to be included in the systematic review.

RESULTS

A summary of the results of the selected articles can be found in the table (see [Table 1](#)).

Table 1. Results.

AUTHORS	PARTICIPANTS	MEASURE	RESULTS
Craciun et al. (2014)	N=164 M=72,5; DT=5,8 EG: intervention on self-perceptions of aging	Age-Cog Scales Semantic Differential Scale (SDS) Ageing Perceptions Questionnaire (APQ)	<u>E1 (baseline) to E2 (after session):</u> SDS: EG ⇆ positive attitudes toward older people <u>E1 a E3 (1 sem. después):</u> SDS: EG ⇆ positive attitudes

	Active CG: healthy eating	Physical activity intentions	toward older people Physical activity intentions: EG ↑
Zhao et al. (2017)	N=26.624; (≥ 65 years old) Chinese Longitudinal Healthy Longevity Survey (CLHLS)	Self-perceived uselessness item Regular physical exercise item	<u>No regular physical exercise</u> → 70,8% Self-perceived uselessness: - ↑: 25,2% - ↓: 27,8% <u>Regular physical exercise</u> → 29,2% Self-perceived uselessness: - ↑: 17,6% - ↓: 45,7%
Beyer et al. (2019)	N=2.367; (65-93 years old) M=73; DT=5,61 German Ageing Survey (DEAS)	Age-Cog Scales Physical activity items Perceived residual life item	<u>Negative self-perceptions of aging (losses):</u> - Significant association with doing sports: ↑ loss-related self-perceptions of aging → ↓ frequency of doing sports 3 years later

DISCUSSION

All the articles included in this systematic review confirm the relationship between physical activity and self-directed ageism in older people. However, the following ideas can be drawn from the results: On the one hand, there is an association between engaging in physical exercise and lower likelihood of negative self-perceptions of aging. On the other hand, negative self-perceptions of aging are associated with a lower frequency of physical exercise in the long term. It is possible to change self-perceptions of aging in older people by providing information and cognitive-behavioral therapy tailored to negative self-perceptions of aging and older people. The change in self-perceptions of aging has effects on older people on their intention to engage in physical activity one week later. However, these findings have a proximal effect (one week later), so the changes cannot be generalized more distally in time.

This systematic review is limited in several respects. The included studies are only articles written in English and open access (with the exception of one privately accessed article that was requested and provided by its authors via email), so it is possible that not all relevant articles in the published literature have been included.

Given the importance of maintaining an active and healthy lifestyle throughout life, future research should be focused on analyzing the factors associated with self-directed ageism, with the aim of guiding interventions to promote positive self-perceptions of aging and thereby encourage physical activity in the elderly.



RELACIÓN ENTRE ACTIVIDAD FÍSICA Y EDADISMO AUTOINFLINGIDO EN PERSONAS MAYORES: UNA REVISIÓN SISTEMÁTICA

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INTRODUCCIÓN

EDADISMO: estereotipos (pensamientos), prejuicios (sentimientos) y discriminación (comportamientos) contra otras personas o hacia uno mismo por razones de edad (OMS, 2018).

Tipos:

- Autoinflingido
- Interpersonal
- Institucional

EDADISMO AUTOINFLINGIDO (o autopercepciones negativas del envejecimiento): interiorización por parte de las personas de estereotipos negativos y prejuicios relacionados con la edad (Levy, 2009).

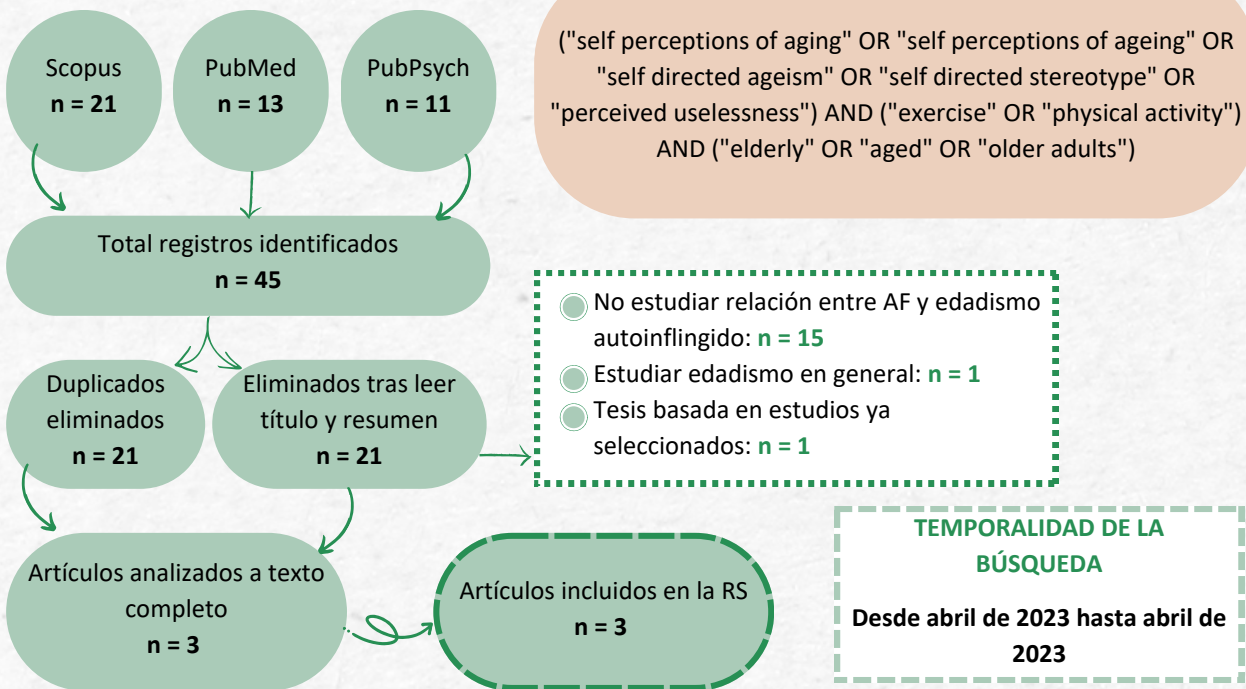
ACTIVIDAD FÍSICA: las personas que han interiorizado estereotipos negativos sobre el envejecimiento podrían ser más propensas a percibirse a sí mismas como menos capaces de realizar actividades físicas, lo que a su vez limitaría la posibilidad de mantener un estilo de vida activo y saludable (Levy, 2009).

OBJETIVO: llevar a cabo una RS sobre la relación entre la actividad física y el edadismo autoinflingido en personas mayores

MÉTODOS

La revisión sistemática se ha llevado a cabo siguiendo las directrices de la declaración PRISMA (Yepes-Nuñez et al., 2021).

Figura 1. Diagrama de flujo PRISMA.



DISCUSIÓN

- Existe asociación entre realizar ejercicio físico y la menor probabilidad de autopercepciones negativas del envejecimiento
- Las autopercepciones negativas del envejecimiento se asocian con una menor frecuencia de realizar ejercicio físico a largo plazo
- Es posible cambiar las autopercepciones del envejecimiento de las personas mayores, mediante la proporción de información y terapia cognitivo-conductual adaptada a las autopercepciones negativas del envejecimiento y las personas mayores
- El cambio en las autopercepciones del envejecimiento tiene efectos sobre las personas mayores en su intención de realizar actividad física una semana después. Sin embargo, estos hallazgos tienen un efecto proximal, por lo que los cambios no pueden generalizarse de forma más distal en el tiempo

LIMITACIONES

- Artículos incluidos únicamente escritos en inglés
- De acceso abierto (a excepción de un artículo de acceso privado que fue solicitado y proporcionado por los autores del mismo vía correo electrónico)

FUTURAS INVESTIGACIONES

Analizar los factores asociados al edadismo autoinflingido, con el objetivo de orientar las intervenciones para promover autopercepciones positivas del envejecimiento y la realización de actividades físicas en las personas mayores

RESULTADOS

Tabla 1. Resultados.

AUTORES Y MUESTRA	METODOLOGÍA Y VARIABLES	INSTRUMENTOS DE EVALUACIÓN	RESULTADOS
Craciun et al. (2014) N=164 (total 4 países) M=72,5; DT=5,8	Estudio experimental Tto: 1 sesión → proporción de información + terapia cognitivo-conductual En cada país: GE: intervención en autopercepciones del envejecimiento GC activo: alimentación saludable <u>Variables:</u> Autopercepciones del envejecimiento (VI) Actividad física (VD)	<u>Age-Cog Scales:</u> Ganancias en el desarrollo, pérdidas físicas y pérdidas sociales Semantic Differential Scale (SDS) Ageing Perceptions Questionnaire (APQ) Intenciones de AF	<u>E1 (línea base) a E2 (tras sesión):</u> - Italia y Alemania: SDS: GE ↑ actitudes 👍 hacia las personas mayores - Francia y Rumanía: diferencias no significativas, indicando ausencia de cambios <u>E1 a E3 (1 sem. después):</u> - Italia: SDS: GE ↑ actitudes 👍 hacia las personas mayores Intenciones de AF: GE ↑ intenciones - Alemania, Francia y Rumanía: diferencias no significativas, indicando ausencia de cambios
Zhao et al. (2017) N=26.624; (≥ 65 años) ♀ 56,4% - ♂ 43,6%	Estudio longitudinal (2005, 2008, 2011 y 2014) Chinese Longitudinal Healthy Longevity Survey (CLHLS) <u>Variables:</u> Autopercepción de inutilidad (componente principal de las Autopercepciones del envejecimiento) Ejercicio físico habitual	<u>Ítem de Autopercepción de inutilidad:</u> "¿A medida que envejeces, ¿te sientes más inútil?" — Siempre/a menudo (alta frecuencia), a veces (moderada frecuencia), rara vez/nunca (baja frecuencia), incapaz de responder <u>Ítem de Ejercicio físico habitual:</u> — Sí/No	No ejercicio físico habitual → 70,8% <u>Autopercepción de inutilidad:</u> - ↑: 25,2% - ↓: 27,8% Sí ejercicio físico habitual → 29,2% <u>Autopercepción de inutilidad:</u> - ↑: 17,6% - ↓: 45,7%
Beyer et al. (2019) N=2.367; (65-93 años) M=73; DT=5,61 ♀ 43% - ♂ 57%	Estudio longitudinal (2008-2011) German Ageing Survey (DEAS) <u>Variables:</u> Autopercepciones del envejecimiento Actividad física (hacer deportes y dar paseos) Vida residual percibida	<u>Age-Cog Scales:</u> Ganancias en el desarrollo y pérdidas físicas <u>Ítems de AF:</u> "¿Con qué frecuencia haces deportes?" y "¿Con qué frecuencia das paseos?" — Diariamente, varios días/semana, 1 vez/semana, entre 1 y 3 veces/mes, casi nunca, nunca <u>Ítem de Vida residual percibida:</u> "¿Cuánto tiempo crees que vivirás?" — Nº de años	Autopercepciones del envejecimiento 👍 (ganancias): - Asociación <u>no significativa</u> con hacer deportes - Asociación <u>no significativa</u> con dar paseos Autopercepciones del envejecimiento 👎 (pérdidas): - Asociación <u>significativa</u> con hacer deportes: A ↑ autopercepciones del envejecimiento relacionadas con pérdidas → ↓ frecuencia de hacer deporte 3 años después - Asociación <u>no significativa</u> con dar paseos

GE: grupo experimental; GC: grupo control; AF: actividad física; ↑: más/mayor; ↓: menos/menor; 👍: positivo/a ; 👎: negativo/a

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