

ENVEJECIMIENTO ACTIVO: CÓMO REALIZAR ACTIVIDADES INFLUYE EN LA SALUD MENTAL

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Extended Summary

Introduction

Although the aging process has been traditionally considered the final stage of life associated with decline, current increases in life expectancy and quality of life, have revealed that the elderly population remains active. This demonstrates how the term "aging," associated with loss and decline, has become ambiguous. Therefore, the World Health Organization (WHO) initially proposed the term "Healthy Aging" in 1990 as a process to promote the functional capacity, and later redefined it as "Active Aging," which encompasses the optimization of health, participation, and security in order to improve quality of life (WHO, 2002). Various factor influence in the quality of life, and this study is focused on three of them: **1) psychological well-being**, and how is associated with successful aging as individuals who lead active lives are more likely to live longer and healthier, reducing the development of motor and cognitive diseases (Boccardi & Boccardi, 2019) and how an active lifestyle, both physically and cognitively, is associated with increased well-being and satisfaction (Steptoe et al., 2015); 2) life satisfaction, where several studies have reported how, in each individual person, its physical and cognitive daily activities increase the satisfaction (Alvarez & Quadros Seiffert, 1998); and **3) subjective loneliness**, perceived as interpersonal relationships deprivation of, depleting social resources (van Baarsen et al., 2001). Based on these three representative variables, the research question was formulated as follows:

Can Active Aging related activities, such as engaging in physical exercise and cognitive activities, influence life satisfaction and psychological well-being? And could these activities serve as protective factors against subjective feeling of loneliness as people get elder?

Hypotheses

H1. Engaging in physical exercise will be positively related to life satisfaction and psychological well-being, and negatively related to loneliness.

H2. Performing cognitive activities will be associated to life satisfaction and psychological well-being, while being negatively related to loneliness.

Objectives

General Objective: To determine whether factors associated with active aging, as well as the regular practice of physical exercise and cognitive activities, are associated with relevant variables that indicate mental health.

Specific Objectives:

SO1: To examine the relationship between engaging in physical exercise and life satisfaction, psychological well-being, and loneliness.

SO2: To analyze the relationship between engaging in cognitive activities and life satisfaction, psychological well-being, and loneliness.

Methodology

A total amount of 57 participants were polled, of whom 6 were excluded for not meeting the minimum age requirement. The final sample consisted of 51 participants aged between 60 and 88, with a mean age of 68.10 (SD=0.50). The study included 25 women and 26 men. The research protocol consisted of 1) sociodemographic questions of interest; 2) questions to assess the frequency and type of physical and cognitive activities; and 3) standardized self-report measures for the variables under study.

Satisfaction With Life Scale (SWLS)

A 5-item Likert scale (ranging from 1 - "strongly disagree" to 7 - "strongly agree") designed to assess Life Satisfaction (Diener et al., 1985).

Ryff's Scales of Psychological Well-Being (EBR)

This scale, adapted to Spanish by Van Dierendonck et al. (2008) and validated for older adults by Tomás et al. (2010), assesses six dimensions: Autonomy, Self-Acceptance, Personal Growth, Positive Relationships, Environmental Mastery, and Purpose in Life. It consists of 29 items on a 6-point Likert scale (ranging from 1 - "very inadequate to describe me" to 6 - "very adequate to describe me"). Higher scores indicate higher Psychological Well-Being.

UCLA Loneliness Scale

The Spanish adaptation of the UCLA Loneliness Scale (Russell et al., 1980) was used to assess Subjective Loneliness. The scale consists of 10 items rated on a 4-point Likert scale (ranging from 1 - "often" to 4 - "never"). Higher scores indicate lower Subjective Loneliness.

The research protocol was administered using Google Forms, and the collected data were analyzed using IBM SPSS Statistics V21. The frequency of engagement in the surveyed activities was categorized into three levels: a) low, b) moderate, and c) high. The Kruskal-Wallis test with $p < 0.05$ was used to assess differences in the frequency of activities, followed by an analysis of variance (ANOVA) using Tukey's post hoc test for significant variables.

Results

Physical Activity

Significant differences were observed in the Subjective Loneliness dimension ($p=0.031^{**}$) and the subcategory of Purpose in Life ($p=0.032^{**}$) in relation to engagement in physical exercise. However, no significant differences were found in the other subdivisions of Psychological Well-Being.

The ANOVA analysis revealed a gradual increase in Purpose in Life, a subcategory of psychological well-being, with higher frequency of physical exercise. Higher frequencies of this activity were associated with a greater sense of Purpose in Life.

Regarding Subjective Loneliness, the low frequency of physical exercise was associated with a lower sense of loneliness, similar to the high frequency group. Those who engaged in physical exercise moderately reported higher levels of loneliness.

Cognitive Activity

Engaging in cognitive activities showed a significant association only with Life Satisfaction ($p=0.041^{**}$). The ANOVA analysis revealed that an increase in low to moderate levels of mental activity contributed positively to Life Satisfaction. However, there was no further increase in Life Satisfaction levels with higher frequency of engaging in cognitive activities.

Discussion

Consistent with the study by Boccardi and Boccardi (2019), engaging in regular physical exercise appears to be positively related to Psychological Well-Being, specifically purpose in life. Higher frequency of physical exercise also indicates a greater sense of Purpose in Life.

Regarding Subjective Loneliness, the results showed a somewhat confusing relationship with physical activity. Participants who engaged in physical exercise with low frequency reported less loneliness, similar to those with high frequency. Moderately active individuals experienced higher levels of loneliness.

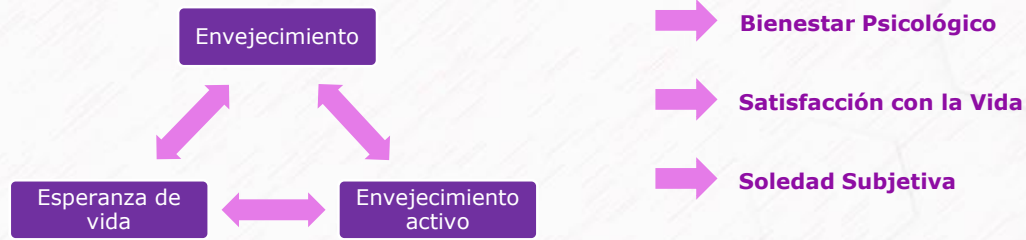
In relation to cognitive activities, dedicating more time and effort to this kind of activities, which do seem to increase satisfaction, as previously indicated by Álvarez, Quadros, and Gonçalves (1998), leads to an improved quality of life among older adults.

Furthermore, the obtained sample size being relatively small, required lowering the minimum age of the participants to 60 years, an age at which people are still actively working in the present day. Consequently, participants who are still engaged in professional work may not have the same amount of time to engage in physical or cognitive activities as they would desire. Thus, a deeper study should be performed polling more people to have more precise results, which could contribute to the elucidation of clearer results.

Conclusion

Regular physical exercise is positively associated with Psychological Well-Being, particularly in the dimension of Purpose in Life. Regarding Subjective Loneliness, there is a relationship with engagement in physical exercise, but the results are somewhat ambiguous. Engaging in cognitive activities more frequently appears to increase Life Satisfaction level, but there were no observed differences between routine and moderate engagement in these activities. No significant relationships were found between the frequency of cognitive activities and Subjective Loneliness or Psychological Well-Being.

1. INTRODUCCIÓN



2. HIPÓTESIS Y OBJETIVOS

H1: Realizar ejercicio físico se relacionará de forma positiva con la satisfacción con la vida y el bienestar psicológico, mientras que se relacionará negativamente con la soledad.

H2: Las actividades cognitivas aumentarán la satisfacción con la vida y el bienestar psicológico, y disminuirán la sensación de soledad.




OG: Comprobar si factores asociados al envejecimiento activo (realización de ejercicio físico y actividades de tipo cognitivo) se asocian a variables relevantes que indiquen salud mental.

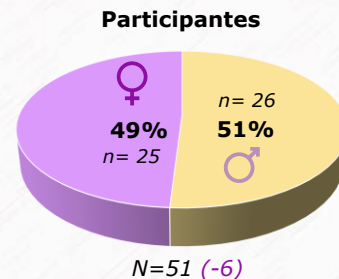
OE1: Comprobar si realizar ejercicio físico se relaciona a con la satisfacción con la vida, el bienestar psicológico y la soledad

OE2: Analizar si las actividades cognitivas se relacionan a con la satisfacción con la vida, el bienestar psicológico y la soledad

3. METODOLOGÍA

Instrumentos estandarizados

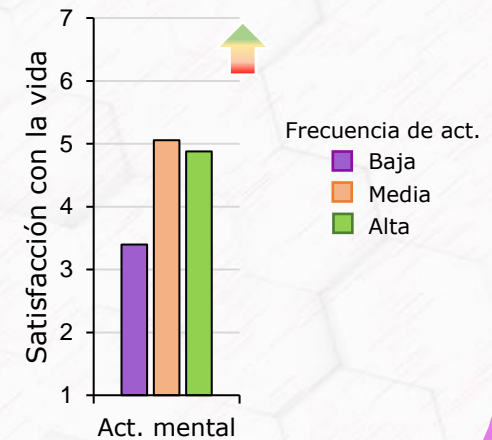
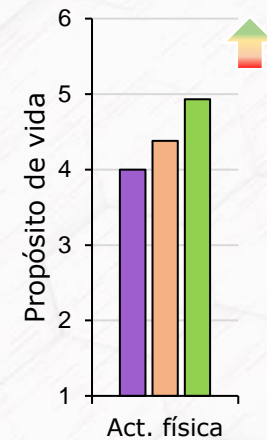
-  **SWLS (Satisfacción con la Vida)**
-  **RYYF (Bienestar Psicológico)**
-  **UCLA (Soledad Subjetiva)**



4. RESULTADOS Y DISCUSIÓN




Kruskal-Wallis $p < 0.05$

Variable	Satisf. con la Vida	Aceptación Personal	Relaciones Positivas	Autonomía	Domino Entorno	Crec. Personal	Propósito	Soledad
Act. Física	0.091	0.101	0.733	0.923	0.914	0.737	0.032**	0.031**
Act. Mental	0.041**	0.534	0.535	0.139	0.168	0.211	0.388	0.343



ANOVA $P < 0,05$

5. CONCLUSIONES

-  Una mayor frecuencia de realización de actividades físicas parece promover el aumento del bienestar psicológico (propósito de vida).
-  Las personas que realizan ejercicio físico de manera moderada sugieren una percepción mayor sentimiento de soledad que las que la realizan de forma esporádica o rutinaria.
-  El aumento de actividades cognitivas desde una frecuencia baja a niveles moderados o altos apunta un aumento en la satisfacción con la vida de los individuos.

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