



Socialization and coping in older adults in Spanish and Hispano- American studies (years 2013-2020)

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Abstract

Introduction: The population in Spain and Latin America is aging and in many cases in an unfavorable socio-economic environment. The socialization of the elderly and the development of coping strategies have been desirable objectives to improve their mental health.

Objective: To update the state of knowledge on socialization and coping strategies of the elderly in studies in Spain and Hispan America in the period 2013-2020, mainly oriented to primary health care. **Methods:** Intervention and theoretical studies carried out in Spain and Hispan America in the period 2013-2020 were reviewed in the Medline, Lilacs and Scopus databases and scholar google. The key words used in Spanish and English were exercise in old age, social support networks in old age, coping strategies in old age, and perception of aging.

Conclusion: The development of a positive perception of aging and stimulating the socialization of the elderly and the recognition and use of functional coping strategies decrease the impact of cognitive losses at these ages.

Keywords: older adult, socialization, social networks, exercise, coping, perception of aging



Introduction

In 2009, PAHO conducted a study on active and healthy aging, in which it states that Latin America and the Caribbean, like all countries, are aging, but they are doing so in an unfavorable economic, social and health situation; in this region, 20% of the elderly lack basic functional capacity¹.

In Mexico today we are witnessing a reduction in worker benefits with the recent reforms in pension systems, which for a large number of people are insufficient² to live a dignified life. More comprehensive and oriented public policies are required that consider the objective of leading a productive and creative life for older adults and that consider both their interests and their needs³.

Primary care mental health programs in Mexico have low priority. To strengthen them, proposals have been suggested to obtain human resources, improve training and take advantage of human capital⁴.

The socialization of older adults and the development of coping strategies are ambitious objectives to improve their mental health by helping the perception of old age in a better sense of independence and social usefulness of these people. This review was done to update the knowledge on socialization and coping strategies of older adults in studies from Spain and Latin America between 2013 and 2020, mainly oriented to primary health care.

Material and method

Intervention and theoretical studies conducted in Spain and Latin America in the period 2013-2020 were reviewed in the Medline, Lilacs, Scopus and scholar Google databases; with the keywords in Spanish and English, exercise: old age, social support networks in old age, coping strategies in old age, perception of old age. The selection of studies prioritized intervention studies with methodological rigor and, among theoretical studies, those that provided an in-depth review of the topic and consulted more than 40 sources.

Cognitive functions in aging

It is the learning and social skills mainly of a practical nature that have been acquired during life, determinants that may influence the older adult's social insertion and positive acceptance. This intelligence is focused on the practical and immediate facilitates of decision making and points to a high level of control over metacognitive processes and to cognitive

flexibility associated with greater cognitive reserve, therefore, better compensation and adaptation mechanisms⁵. Other authors assume that a greater occupation of unstructured time, greater frequency of activities, less space for free will and more "active" rest time impact the preservation of cognitive functioning⁶.

A recent study showed that the compensation strategies most commonly employed by older adults concerning cognitive losses are external remediation, substitution and memory aid mechanisms⁷. A deceleration of psychomotor skills in older adults has also been reported, which has repercussions on daily life activities, and a correlation between cognitive and motor variables has been established⁸.

The disease is also related to the quality of cognitive functions, e.g., diabetes in older adults has been associated with impaired attention and numeracy⁹. In a study that addressed executive functions in older adults with pathologies related to cognitive impairment, it was noted that the components of executive function affected were mental flexibility and verbal fluency in phonological and semantic expression in patients with type 2 diabetes mellitus and arterial hypertension, which points to difficulties in tasks requiring high levels of attention¹⁰. The aging process leads to the gradual loss of functional reserve due to nutritional risk factors and sedentary lifestyles, which condition the increase in circulating levels of inflammatory and oxidative markers related to cognitive impairment¹¹ and diseases such as diabetes mellitus and uncontrolled arterial hypertension increase cognitive impairment. Concerning gender, the 2012 ENSANUT survey indicates greater cognitive impairment (not dementia) in older women living in rural areas of Mexico¹².

Social support groups and the development of coping strategies are some activities for older adults that improve the perception of aging. Favorable experiences have been accumulated with the following strategies: reconceptualizing the meaning of old age and quality of life, fostering the development of high self-esteem and self-concept, promoting spiritual growth, preventing, detecting early and treating symptoms of depression, developing assertive communication, encouraging the expression of feelings, developing self-efficacy and emotional self-control, training in social skills and improving memory, problem-solving strategies in the context and approaching and interpreting death¹³.

Many aging-active behaviors are linked to a greater perception of emotional intelligence and a positive approach to aging¹⁴.

In the study “*Soledad, depresión y calidad de vida en adultos mayores mexicanos*” (Loneliness, depression and quality of life in Mexican older adults), a correlation was found between the attitude towards aging and the deterioration of quality of life, highlighting the importance of modifying negative thoughts about aging through the use of social networks to reduce depression¹⁵. Having a positive perception of their sensory abilities is related to achieving greater functionality and independence, contributing to improving the quality of life of these people¹⁶. Those who perceive aging positively are more likely to develop socioemotional competencies such as self-efficacy, optimism, assertiveness, emotional awareness and assertive communication, and positive attitude before adverse situations, even better than younger adults¹⁷.

Older adults possess an interpersonal intelligence developed throughout the growth and maturation of the person and this is related to skills such as leadership, initiative, tolerance to change, need for achievement, problem management, energy, creativity and work capacity¹⁸.

High levels of self-efficacy and schooling are protective factors for the development of depression. It is recommended that the elderly develop strategies aimed at strengthening self-efficacy beliefs, strengthening social ties and providing recreational activities, especially those who live alone or are widowed¹⁹. Older adults who have an active lifestyle and engage in activities that they consider important are likely to perceive themselves as having a higher quality of life than those who perceive this age as a negative experience²⁰.

Another study conducted a comprehensive geriatric assessment with four dimensions: mental, functional, social and medical. It revealed that older adults with primary care have a low degree of mental impairment and are independent; they detected depression at 11%, severe cognitive impairment at 4.0%, impairment in instrumental activities at 4.3%, and total dependence in basic activities of daily living at 2.0%. These frequencies were lower than those found in the medical and social resources dimensions, which means that we have the opportunity to influence the social, medical (physical health) and functional dimensions²¹. When mental health is a little compromised, it should be taken advantage of in primary care programs for the elderly.

Stimulating the socialization of older adults is a priority to improve their mental health. The recommendation for active and functional aging is to reduce the burden of stress and to eat a healthy diet. To achieve this, the quality of the time

invested is important, for example: physical activity improves cognitive performance and favors self-esteem²². It is also important to better control risk factors for chronic diseases, particularly cardiovascular diseases and diabetes, which are associated with lifestyle²³. In addition, physical-recreational activities are useful to reduce levels of depression and anxiety²⁴. A study on depression, cognition and quality of life in active older adults, based on self-reports, concluded that exercise has a positive influence on these variables²⁵. Likewise, lower levels of depression and alexithymia have been reported in older adults who engage in frequent physical activity compared to sedentary adults²⁶. Even aerobic exercise and environmental stimulation reduce anxiety effectively in older adults²⁷.

The National Health and Nutrition Survey (2012) reflects an increase in sedentary lifestyles in Mexico in the population aged 20-69 years, reporting in 2012 47.3%, spent a lot of time in inactive transportation, sitting and screen time, which carries greater health risks¹².

At any age, the benefits of physical exercise on health have been demonstrated^{28, 29} that determines and influences the lifestyle of people with chronic diseases, typical of a healthy life and, in conjunction with good nutrition, improves the prognosis of these patients when used on a prolonged basis³⁰. When physical activity is performed from childhood, the psychological benefits are usually greater maintaining cognitive processes such as memory, executive functions and stimulation of plasticity and cognitive reserve⁵. Other benefits obtained with physical activity concerning the psychological dimension are the avoidance of unpleasant situations, better control over oneself and bodily functions as well as enjoyment³¹ and a significant reduction in the consumption of medications, up to 24% for the non-active population³² and also a decrease in anxiety levels and an increase in subjective wellbeing³³.

From the physical point of view, strength, power and aerobic endurance training in older adults at risk of frailty increases their functionality, improves their cognitive status, increases upper limb strength and flexion and extension range of motion in the lower limbs, and reduces the fear of falling³⁴. El ejercicio en adultos mayores puede aumentar la densidad mineral ósea y disminuir el riesgo de deficiencias cognitivas cuando se practica regularmente³⁵. Además tiene efectos antioxidantes y antiinflamatorios cuando su intensidad es moderada¹¹.

When older adults practice exercise, they can perceive the social environment as an opportunity for psycho-social support in their relationship with others, and foster empathy

and positive affection by making decisions about the activities they performed³⁶. It has been suggested that the adaptation of the psycho-social and functional characteristics of the older adult to exercise programs should be carried out to satisfy their objectives to motivate them to exercise. When hobbies are perceived as physical and intellectual activities, the use of social networks and the development of skills and aptitudes, as well as functional stress coping can be supported³⁷.

In addition to exercise, it is of great importance for the integral health of the elderly. Having support networks that can provide help to people in times of need and belonging to social groups is a fundamental part of personal identity³⁸.

Social support networks are related to the self-efficacy of older adults³⁹. Other authors consider that support networks fulfill both instrumental and emotional functions in both positive and negative ways for this population and contemplate that not all support relationships result in positive outcomes⁴⁰. To reduce the risk of dependency in older adults, it has been proposed that it is necessary to influence health professionals in institutions to incorporate programs in these institutions to regulate the functionality of older adults, treat eating habits, occupation of time, manage stressful situations, and physical and mental activities⁴¹. In a study on health promotion and disease prevention for active aging and quality of life, it was concluded that health promotion activities should be approached considering the macro-social, micro-social, interpersonal and individual scenarios of the older adult and give them the necessary guidelines to exercise better control over their health and improve it, trying to maintain their autonomy at all times and respecting their values and preferences⁴².

Coping

Coping has been conceptualized according to Lazarus and Folkman⁴³ as the "constantly changing cognitive and behavioral efforts that are developed to manage specific external and/or internal situations that are assessed as exceeding or overflowing the individual's resources". There is one type of emotion-focused coping aimed at the emotional response to the problem and another focused on the problem to modify it. Older adults respond to problems with different strategies, both emotion-focused and problem-focused, depending on the difficulty they are facing⁴⁴.

The coping styles proposed by Lazarus and Folkman are: distancing, self-control, confrontational coping, avoidance-escape, responsibility, seeking social support, making a problem-oriented plan, and positive reappraisal⁴⁵.

"Once the subject perceives a stimulus as threatening, coping appears, occupying the place of mediator between those specific stressful events and their emotional consequences"⁴⁶. A differential use has been suggested between the terms coping styles and coping strategies, the former referring to personal predispositions to cope with situations and coping strategies being the concrete processes used in each context⁴⁷.

Coping strategies and cognitive vulnerability are differential features not only among individuals with good mental health but also among those with mental disorders; for example, important differences have been detected both in socio-tropic coping or professional support seeking and in autonomic coping or problem-solving in subjects with anxiety and depression⁴⁸.

Coping with the elderly

The environment of the older adult seems to play an important role in employing coping strategies. An Argentinean study showed that older adults living at home, as opposed to those living in institutions, had more frequently reevaluated the situation to modify the meaning of the problem and decided to carry out concrete actions to solve it and look for rewarding alternatives; they also maintained a better affective balance through resignation⁴⁹. A study of this decade showed that in older Spanish adults the cognitive coping strategies frequently found were: worry, self-criticism, renunciation, planning, and behavioral coping strategies: seeking social support, isolation, renunciation, and problem-solving⁵⁰. The coping styles of older adults are determined by the context, and from the identification of stressors, the behavioral and cognitive resources used can be identified; for example, it is common to find coping styles focused on passivity among older adults⁵¹. Schooling is a determinant that has been widely studied for its influence on the maintenance of cognitive functions in old age, and most of the studies on this subject point to a protective effect of high schooling on the maintenance of cognitive functions in older adults. A recent study has shown that older adults who had a high stock of knowledge, life experiences, tolerance for interindividual differences and recognition of values, tended to optimize their self-regulatory resources and find ways to compensate for limitations and losses upon retirement⁵². Other authors have pointed out the importance of reinforcing educational actions in people over 55 years of age to face situations such as coping with loneliness and the importance of linking internal and external resources with daily life to face problems in later stages⁵³.

The use of coping strategies in older adults also depends on sociodemographic variables. For example, a recent Spanish study indicates that with increasing age the strategy of religion is used more, and that women use the strategy of religion, avoidance and social support more than men. In the marital status of widowhood, religion is also used, and in singlehood, strategies of social support and positive re-evaluation are prioritized; those with higher incomes prefer problem-solving as a strategy, and those with lower incomes more frequently opt for religion. When there are lower levels of education, negative self-focus and avoidance are more frequent ⁴³.

In a Mexican study aimed at describing the quality of life and coping strategies in the face of problems and illnesses in older adults, in which more than half of the population studied suffered from some disease, mainly chronic degenerative, it was concluded that quality of life and illness are linked to the ways of coping with the latter ⁵⁴. This study supports the idea of Lazarus⁵⁵ in which it is assumed that coping strategies are a function of the cognitive appraisal of the critical event. If the event is perceived as controllable, active or confrontational coping strategies are preferred, and if it is perceived as uncontrollable, passive and emotion-focused coping strategies tend to be used.

In a study on coping strategies used by older adults with depressive disorders ⁵⁶ it was found that the most frequently used coping strategies were, among the affective coping strategies, those reflecting the attempt to maintain affective balance and regulation of emotional aspects; Among the behavioral coping strategies, those focused on behaviors aimed at confronting reality and managing consequences; in terms of cognitive coping, the most frequent strategy was the attempt to find meaning in the event and to value it in a way that makes it less unpleasant. This study highlights that in these three types of strategies, men showed greater dominance than women.

In Reyes R.C., et al., refer to coping strategies concerning the perception of social support comparing institutionalized and non-institutionalized older adults, as a result, non-institutionalized older adults received greater social support than institutionalized adults and women perceived greater social support from friends and family than men. The most frequently used coping strategies were acceptance of responsibility, self-control and active coping. While women used focusing, ventilation of emotions, positive reinterpretation, growth, acceptance of responsibility and self-control ⁵⁷.

Another study that addressed a sample of older adults with a high degree of resistant personality reported that they use coping strategies aimed at personal growth, activities that distract from the situation such as recreational activities, venting and focusing on emotions, concentrating efforts to resolve the situation, seeking social support, and using alcohol and drugs in a minimum percentage ⁵⁸. También se ha sugerido una correlación entre la autoestima y las estrategias de afrontamiento en el adulto mayor, si hay buen nivel de autoconocimiento, auto respeto, auto aceptación, autoevaluación, y auto concepto, la expresión emocional, apoyo social, autocrítica, resolución de problemas, pensamiento desiderativo, restructuración cognitiva, evitación de problemas y retirada son favorables ⁵⁹.

Conclusion

The development of a positive perception of aging and stimulates the socialization of the older adult. The recognition and use of functional coping strategies decrease the impact of cognitive losses in this age group.

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Conflict of interest

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References

- Organización Panamericana de la Salud. Plan de Acción sobre la Salud de las Personas Mayores Incluido el Envejecimiento Activo y Saludable. Washington, D.C.; 2009. (CD49/8). http://fiapam.org/wp-content/uploads/2014/11/plan_de_accio_n_sobre_la_salud.pdf
- Damián, A. Seguridad social, pensiones y pobreza en adultos mayores en México. *Acta Sociol.* 2016; 70:151-172. doi: <https://doi.org/10.1016/j.acso.2017.01.007>
- Domínguez, G. M. T. Desafíos sociales del envejecimiento: Reflexión desde el derecho al desarrollo. *CES Psicología.* 2016; 9(1):150-164. <https://www.redalyc.org/articulo.oa?id=423545768011>
- Berenzon, G. Sh., Galván, R. J. Y Saavedra, S. N. Salud mental y atención primaria en México. Posibilidades y retos. *Atención Primaria.* 2015; 48(4): 258-64. <https://www.sciencedirect.com/science/article/pii/S021265671500205X>
- Da Silva, R. CH. Y. Envejecimiento. Evaluación e intervención psicológica, 2017, Ciudad de México: Manual Moderno
- López, F. V., Requena, H. C., Rosario, I. Y Plaza, C. M. (2015). La relación entre el tiempo no estructurado, el ocio y las funciones cognitivas en personas mayores. *Euro J Edu Psychol.* 2015; 8: 60-67. doi: <https://doi.org/10.1016/j.ejeps.2015.05.001>
- Mayordomo T., Meléndez J.C., et al. Estrategias de compensación en adultos mayores: Diferencias sociodemográficas y en función de la reserva cognitiva. *Anal Psicol.* 2015; 31(1): 310-316. <https://www.redalyc.org/articulo.oa?id=16732936032>
- Franco M. P., Sánchez C.A. Interacción de funciones cognitivas y ejecutivas en mayores. *INFAD Rev Psicol.* 2010; 2(1): 635-642. <https://www.redalyc.org/articulo.oa?id=349832325066>
- Baéz F. J., García M. G., Pérez M.G.P., Zenteno L.M.A. Función cognitiva en el adulto mayor con y sin diabetes tipo 2. *Revista Científica de la Sociedad Española de Enfermería Neurológica.* 2016; 44 : 3-8. doi: <https://doi.org/10.1016/j.sedene.2016.05.002>
- Aguilar M.K., Arrabal G.M.A, Herrera J. L. F. Función ejecutiva en adultos mayores con patologías asociadas a la evolución del deterioro cognitivo. *Revista Neuropsicología Latinoamericana.* 2014; 6(2):7-14. <https://www.redalyc.org/articulo.oa?id=439542507002>
- Besciani, G., Galle, F. A., Y Martella, D. Modulación antioxidante y antiinflamatoria del ejercicio físico durante el envejecimiento. *Revista Española de Geriatria y Gerontología.* 2018;53(5): 279 - 84. doi: <https://doi.org/10.1016/j.regg.2018.03.003>
- Encuesta Nacional de Salud y Nutrición. Resultados de actividad física y sedentarismo en personas de 10 a 69 años. México; 2012. <https://bmcpublishedhealth.biomedcentral.com/articles/10.1186/1471-2458-13-1063> <https://www.insp.mx/lineas-de-investigacion/salud-y-grupos-vulnerables/investigacion/adultos-mayores.html>
- Molina, L. J. M., Rodríguez, U. A. F. Y Valderrama, O. L. J. Intervención psicológica en adultos mayores. *Psicología desde el Caribe.* 2010; 25(1):246-258. <https://www.redalyc.org/articulo.oa?id=21315106011>
- Bernaras I.E., Jaureguizar A.J., Jiménez-Etxebarria E. Inteligencia emocional y envejecimiento Activo en las personas mayores. *Neurama, revista electrónica de psicogerontología.* 2019; 6(1): 48-58. <http://46.29.49.21/~creanete/neu/articulos/articulo5.pdf>
- Acosta, Q. CH. O., Echeverría, C. S. B., García, F. R., Rubio, R. L., Tánori, Q.J. Y Vales, G. J.J. Soledad, depresión y calidad de vida en adultos mayores mexicanos. *Psicología y salud.* 2017; 27(2): 179-188. <http://psicologiaysalud.uv.mx/index.php/psicysalud/article/view/2535/4417>
- Loyola M., Navarrete M., Urzúa A., Valenzuela F. El efecto de valorar la importancia atribuida a cada área de la vida en el autoreporte de calidad de vida en adultos mayores. *Revista Argentina de Clínica Psicológica.* 2014, XXIII (1): 41-50. <https://www.redalyc.org/articulo.oa?id=281935591004>
- Aruano Y., Caballero R., Mikulic I. M. Competencias Socio-emocionales en adultos mayores de la ciudad de Buenos Aires. *Anuario de investigaciones Universidad de Buenos Aires Argentina.* 2014; 2:, 277-284. <https://www.redalyc.org/articulo.oa?id=369139994028>
- Corrales V.J.M., González B.S., Maldonado B.J.J., Ruiz F.M.I. Nuestros mayores activos: inteligentes y emprendedores. *INFAD. Rev Psicol.* 2016;1(2):85-92. <https://www.redalyc.org/articulo.oa?id=349851778009>
- Irizarry R.C.Y., Serra T.J.A. Factores protectores de la depresión en una muestra de adultos mayores en Puerto Rico: Autoeficacia, escolaridad y otras variables sociodemográficas. *Acta Colombiana de Psicología.* 2015; 18(1): 125-134. <https://www.redalyc.org/articulo.oa?id=79838614012>
- Avelino R.I., Ávila S.U.H., Luna H.F., Magallán T.M.I., Martínez G. G., Meza C.A.M., Ramos E. J. Calidad de vida: percepciones y representaciones en personas mayores del Estado de Michoacán, México. http://www.cucs.udg.mx/revistas/edu_desarrollo/antiores/24/RED24_Completa.pdf#page=30
- Cervantes B.R.G., Galicia R.L., Martínez G. L., Vargas D.E.R., Villareal R.E. Estado de salud en el adulto mayor en atención primaria de una valoración geriátrica integral. *Atención Primaria.* 2015; 47(6): 329-335. doi: <https://doi.org/10.1016/j.aprim.2014.07.007>
- Espinoza S.J.C. Intervención psicológica específica en adultos mayores aplicando estrategias de promoción para un envejecimiento activo y funcional (ensayo práctico de pregrado). 2017. Universidad Técnica de Machala UTMACH, Machala, Ecuador. <http://repositorio.utmachala.edu.ec/bitstream/48000/10076/1/ESPINOZA%20SANCHEZ%20JINSOPH%20CARLOS.pdf>
- Gáinza K.D., Kunstmann F.S. Estrategias de prevención y detección de factores de riesgo cardiovascular. *Rev Med Clin Condes.* 2010; 21(5): 697-704. doi: [https://doi.org/10.1016/S0716-8640\(10\)70590-3](https://doi.org/10.1016/S0716-8640(10)70590-3)
- Alomoto M.M., Calero M.S., Vaca G.M.R. Intervención con actividad Físico-recreativa para la ansiedad y la depresión en el adulto mayor. *Revista Cubana de Investigaciones Biomédicas.* 2018; 37(1): 47-56. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-03002018000100005
- Ayala G.M., Díaz S.E., Matus C.C., Poblete V. F., Vidal S.P. Depresión, cognición, y calidad de vida en adultos mayores activos. *Revista ciencias de la actividad física UCM.* 2015; 16(2): 71-77. <https://www.redalyc.org/pdf/5256/525652731005.pdf>
- Barón-López F.J., Cuesta-Vargas J.S., Gálvez-Ruiz P., Mate-Pacheco F., Medina-Porqueres I., et al. Alexitimia y depresión en mayores que practican actividad física dirigida. *Revista Iberoamericana de Ciencias de la Actividad Física y el Deporte.* 2016; 5(3): 36-48. <http://www.revistas.uma.es/index.php/ricafid/article/view/6140/5723>
- Sampedro P. Efecto del ejercicio aeróbico y la estimulación ambiental sobre la reducción de los niveles de ansiedad en el envejecimiento. *Eur. J. Investig. Health Psychol. Educ.* 2015; 5(2):197-208. <https://doi.org/10.1989/ejihpe.v5i2.112>
- Organización Mundial de la Salud. Acción multisectorial para un envejecimiento saludable basado en el ciclo de vida: proyecto de estrategia y plan de acción mundiales sobre el envejecimiento y la salud. Ginebra; 2016

- (A69/17). https://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_17-sp.pdf
29. Baños M.V., Corbí S.M., Esoclar L.C., Jiménez E.A., Luis R.I., Palmero C.C., Ruiz P. E. Ergonomía y actividad física en mayores. *INFAD Revista de Psicología*. 2014; 1(2): 243-252. <https://www.redalyc.org/articulo.oa?id=349833719032>
 30. Vázquez Pulgar E, Ibarra-Ramírez F, Figueroa-Núñez B, et al. Consumo de macronutrientes y estilo de vida en pacientes con trasplante renal que acudieron a un evento deportivo nacional. *Nutrición Hospitalaria*. 2010; 1(1):107-12.
 31. Cabrera G.J.L., Carrera V.G.J., Colunga R.C., García S.J.A., Jáuregui, et al. Motivación al deporte en adultos y personas mayores que practican cachibol. *Cuadernos de Psicología del Deporte*. 2017; 17(2): 15-25. <https://www.redalyc.org/articulo.oa?id=227052203002>
 32. Camarrelles, G. F., Córdoba, G. R., Del Campo, G. M., Gómez, P. J. M., Martín C. C., Muñoz S.E., Ramírez M.J.L., Revenga F. J., San José A. J., Grupo de Educación Sanitaria y Promoción de la Salud del PAPPs. Recomendaciones sobre el estilo de vida. Actualización PAPPs 2018. Atención Primaria. 2018; 50(1):29-40. doi: [https://doi.org/10.1016/S0212-6567\(18\)30361-5](https://doi.org/10.1016/S0212-6567(18)30361-5)
 33. Bueno F. E., Guerra S. J., Guillén P.L., Gutiérrez C. M. Programa de actividad física y su incidencia en la depresión y bienestar subjetivo de adultos mayores. *Retos*. 2018; 33:14-19. <https://dialnet.unirioja.es/servlet/articulo?codigo=6367717>
 34. López M. A. Entrenamiento de fuerza, potencia y resistencia aeróbica, en adultos mayores con riesgo de fragilidad (Tesis de pregrado). Universidad Nacional Autónoma de México Escuela Nacional de Estudios Superiores Unidad León, León Guanajuato. 2018 <http://132.248.9.195/ptd2018/junio/0774961/Index.html>
 35. Castro V. Á., Contreras V. K., Landínez P. N.S. Proceso de envejecimiento, ejercicio y fisioterapia. *Revista Cubana de Salud Pública*. 2012; 38(4): 562-80. <http://www.medigraphic.com/pdfs/revcubsalpub/csp-2012/csp124h.pdf>
 36. Belando P.N., Marcos P.P.J., Moreno M. J. A., Orquín C. F. J. Motivación autodeterminada en adultos mayores practicantes de ejercicio físico. *Cuadernos de Psicología del Deporte*. 2014; 14(3):149-156. <https://www.redalyc.org/articulo.oa?id=227032542016>
 37. González R.M.T., Vanegas F. M. Estructura factorial del inventario leisure coping belief en una muestra mexicana. *Liberabit*. 2014; 20(2): 261-266. <http://www.scielo.org.pe/pdf/liber/v20n2/a07v20n2.pdf>
 38. García M.M., García T.M., Rivera A. S. Apoyo social en adultos Mexicanos: validación de una escala. *Acta de Investigación Psicológica*. 2017; 7: 2561-2567. doi: <https://doi.org/10.1016/j.aippr.2017.02.004>
 39. Acuña G.M.R., González C. R. A. L. Autoeficacia y red de apoyo social en adultos mayores. *J Beha Healt Soc Isu*. 2010; 2(2):71-81. <https://www.redalyc.org/articulo.oa?id=282221720007>
 40. Arias A.A., Barrón L.R.A., Gallardo P.L.P., Sánchez, M. E. Elementos estructurales de la red social, fuentes de apoyo funcional, reciprocidad, apoyo comunitario y depresión en personas mayores en Chile. *Anales de Psicología*. 2015; 31(3): 1018-1029. <https://www.redalyc.org/articulo.oa?id=16741429028>
 41. Cárdenas B.L., Contreras G.M.E., García H.M.L., García J.M.A., Rivero R.L.F., Monroy R.A. Estatus funcional de adultos mayores de Tláhuac, Ciudad de México. *Enfermería universitaria*. 2016; 13(1): 25-30. doi: <http://dx.doi.org/10.1016/j.reu.2016.01.005>
 42. Aliaga-Díaz E., Cuba-Fuentes S., Mar-Meza, M. Promoción de la salud y prevención de las enfermedades para un envejecimiento activo y con calidad de vida. *Rev Peru Med Exp Salud Publica*. 2016; 33(2): 311-320. doi: [10.17843/rpmesp.2016.332.2143](https://doi.org/10.17843/rpmesp.2016.332.2143)
 43. Blasco I. C., Mayordomo R.T., Sales G.A., Satorres P. E. Estrategias de afrontamiento en adultos mayores en función de variables sociodemográficas. *Escritos de psicología*. 2015: 8 (3), 26-32. doi: [10.5231/psy.writ.2015.2904](https://doi.org/10.5231/psy.writ.2015.2904)
 44. Bueno B., Navarro A.B. Afrontamiento de problemas de salud en personas muy mayores. *Anales de Psicología*. 2015; 31(3): 1008-1017. <https://www.redalyc.org/articulo.oa?id=16741429027>
 45. Andrade P.P., Reid M.L.M., Rivas L.R.A., Zavala Y. L. Validación del instrumento de estilos de enfrentamiento de Lazarus y Folkman en adultos de la ciudad de México. *Revista Intercontinental de Psicología y Educación*. 2008; 10(2):159-182 <https://www.redalyc.org/articulo.oa?id=80212387009>
 46. Depaula P. D., Piergiovanni L. F. Autoeficacia y estilos de afrontamiento al estrés en estudiantes universitarios. *Ciencias Psicológicas*. 2018; 12(1): 19-23. <https://www.redalyc.org/jatsRepo/4595/459555547003/index.html>
 47. Castaño E.F., León D.B. Estrategias de afrontamiento del estrés y estilos de conducta interpersonal. *International Journal of Psychology and Psychological Therapy*. 2010;10(2):245-257. <https://www.redalyc.org/articulo.oa?id=56017095004>
 48. Arias A., Toro, R. Personalidad cognitiva y afrontamiento diferencial en ansiedad y depresión. *Psychologia. Avances de la disciplina*. 2015; 9(2): 49-59. <https://www.redalyc.org/pdf/2972/297241658004.pdf>
 49. Feldberg C., Stefani D. Estrés y estilos de afrontamiento en la vejez, un estudio comparativo en senescentes argentinos institucionalizados y no institucionalizados. *An psicol*. 2006; 22(2): 267-272. <https://www.redalyc.org/pdf/167/16722212.pdf>
 50. Acosta, R. Y. Nivel de estrés y las estrategias de afrontamiento que utilizan los adultos mayores de la Asociación Los Auquis de Ollantay, Pamplona Alta, San Juan de Miraflores (Tesis de pregrado). Universidad Nacional Mayor de San Marcos, Lima-Perú. 2011. http://cybertesis.unmsm.edu.pe/bitstream/handle/cybertesis/3151/Acosta_nr.pdf?sequence=1&isAllowed=y
 51. Clemente A., Tartaglini M.F., Stefani D. Estrés Psicosocial y Estilos de Afrontamiento del Adulto Mayor en Distintos Contextos Habitacionales. *Revista Argentina de Clínica Psicológica*. 2009; 18(1): 69-75. <http://www.redalyc.org/articulo.oa?id=281921800007>
 52. Ayelén B.M., Krzemien D., Richard's M.M. Conocimiento experto y autorregulación en adultos mayores jubilados profesionales y no profesionales. *Avances en Psicología Latinoamericana*. 2018; 36(2): 331-344. <https://www.redalyc.org/jatsRepo/799/79955443008/index.html>
 53. Cardona J.J.L., Henao V.E., Quintero, E.A., Villamil G.M.M. El afrontamiento de la soledad en la población adulta. *MEDICINA U.P.B.* 2011; 30(2):150-162. <https://revistas.upb.edu.co/index.php/Medicina/article/viewFile/921/832>
 54. González C.A.L., Padilla A. Calidad de vida y estrategias de afrontamiento ante problemas y enfermedades en ancianos de Ciudad de México. *Universitas Psychologica*. 2006; 5(3): 501-509. <http://www.scielo.org.co/pdf/rups/v5n3/v5n3a06.pdf>
 55. Lazarus, R. S. Estrés y emoción. Manejo e implicaciones en nuestra salud. 2000. Bilbao: Desclée De Brouwer. <https://www.edesclée.com/img/cms/pdfs/9788433015235.pdf>
 56. Cruz M.A., Jara M.M., Rivera M.D. Estrategias de afrontamiento utilizadas por personas adultas mayores con trastornos depresivos. *Anales en*

- Gerontología. 2010; 6:31-49. <https://revistas.ucr.ac.cr/index.php/gerontologia/article/view/8869>
57. Reyes R. C. , Rojas, A. P. Las estrategias de afrontamiento frente a la percepción de apoyo social: estudio Descriptivo-Comparativo con adultos mayores institucionalizados y no institucionalizados de la Región Metropolitana, considerando la variable género (Tesis de pregrado). Universidad Santo Tomás, Chile. 2004 <https://doi.org/10.18774/448x.2005.2.28>
58. Hernández Z.Z.E. Variables que intervienen en la personalidad resistente y las estrategias de afrontamiento en adultos mayores. Liberabit.2009; 15(2):153-161. http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1729-48272009000200009
59. Romero S.S.A. Autoestima y estrategias de afrontamiento en adultos mayores de la micro red de salud de Alto Selva Alegre-Arequipa. 2018. (Tesis de pregrado). Universidad Privada Autónoma del Sur Arequipa, Perú. <http://repositorio.upads.edu.pe/xmlui/handle/UPADS/56>

Conflict of Interest

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