Subjective Well-Being In Older Adults

Hernández-Vergel, Viviana Karina[1] , Prada-Núñez, Raúl[2] , William Rodrigo Avendaño Castro[3]

[1]Universidad de Santander, Facultad de ciencias médicas de la salud, Grupo de investigación ENTROPIA, Cúcuta, Colombia. E-mail: vivi.hernandez@mail.udes.edu.co. Orcid: https://orcid.org/0000-0003-3543-8419

[2]Research professor at Universidad Francisco de Paula Santander. Master's degree in Data Analysis Engineering, Process Improvement and Decision Making from the Universidad Politécnica de Valencia (Spain). E-mail: raulprada@ufps.edu.co. Orcid: https://orcid.org/0000-0001-6145-1786.

[3]Facultad de Ciencias Empresariales williamavendano@ufps.edu.co, ORCID: 0000-0002-7510-8222, Grupo de investigación GICSH, Universidad Francisco de Paula Santander, Cúcuta, Colombia.

Abstract

Subjective well-being constitutes an emerging and attractive element in the knowledge of the situation of older adults for formulating national health policies. The objective of this study is to determine the dimensions of the level of subjective mental well-being in a population of older adults in a Colombian city. The methodology consisted of the application of the PERMA Profile by Butler and Kern (2016), which measures the five pillars of well-being expressed in a questionnaire applied to 421 older adults in a Colombian municipality. The results indicate that there are few differences in the levels of well-being reported by the respondents. It is concluded that gender was not a determining factor in the behavior of the average values assigned by the respondents to questions about their well-being.

Keywords: Subjective well-being, older adults, PERMA profile, associations, Colombia.

Resumen

El bienestar subjetivo constituye un elemento emergente y atractivo en el conocimiento de la situación de los adultos mayores para la formulación de políticas de salud de los estados nacionales. El objetivo de este estudio consiste en determinar las dimensiones del nivel de bienestar mental subjetivo en una población de adultos mayores de una ciudad de Colombia. La metodología consistió en la aplicación del Perfil PERMA de Butler y Kern (2016), que mide los cinco pilares del bienestar expresados en un cuestionario aplicado a 421 adultos mayores de un municipio colombiano.

E-mail: vivi.hernandez@mail.udes.edu.co

Los resultados indican que existen pocas diferencias en los niveles de bienestar reportados por los encuestados . Se concluye que el género no resultó determinante en el comportamiento de los valores promedios asignados por los encuestados al bienestar.

Palabras clave: Bienestar subjetivo, adultos mayores, Perfil PERMA, asociaciones, Colombia.

1.   Introduction

Colombia is currently witnessing a demographic phenomenon called population transition, referring to an increase in the long-lived population segment over the young population segment. An analysis of population growth in the period 2005-2017 shows that while the number of young people between 12 and 25 years of age increased by 6.1%, the number of elderly people (aged 60 years or older) presented an increase of 56.5% (DANE, 2018).

The increase in the number of elderly people is a worldwide trend. During the last decades of the last century and in the last two decades, it has been seen how, despite the many factors against (increasing pollution, the hectic pace of life and the stress it brings as a consequence, changes in diet, the use of chemicals for disease control and increased productivity in the cultivation and breeding of plants and animals...), the life expectancy of the world population has increased, and will surely increase even more in the future (WHO, 2016). Because, although there are indeed factors that make life difficult in many places. In parallel, it happens that there is greater awareness and control over the elements that allow for maintaining health and prolonging life for much longer than has ever happened so far in the history of mankind (Malvárez, 2007). The fact is that people are living longer than before (*) and, with some exceptions, in better health conditions.

At the same time, although demographic statistics vary from country to country and region to region, there has been a global decrease in births (BBC News World, 2020) which, in conjunction with the prolongation of life, results in general aging of the population, which will increase in the following generations. According to Nieto Antolínez and Alonso Palacios (2007: 296), in the 1960s "Colombian women had an average of 6.7 children; today the fertility rate is 2.6 children per woman". In this sense, public policies should be envisaged at the international level (and each country on its own) to face the fact that there is a growing elderly population that will need attention and care from both the health and social perspective.

However, an increase in age does not necessarily imply a proportional decline in health. This is not a mathematical equation. A positive view of old age, considered not from the perspective of the deficit but in a beneficial way, as a stage of life in which important moments of satisfaction can be found, encourages the ability of older people to continue as far as possible an independent life. Consequently, one of the most important goals of a country's health planning should therefore be to increase the age of the disabled. This is primarily a matter of individual and collective satisfaction of the elderly and, in another sense, of cost savings for the national healthcare system.

While it is true that the aging of the population brings with it the possibility of worsening physical and psychological health (and the consequent eventuality of becoming dependent), it is also true that the enhancement of the positive aspects of life has an impact on a sense of well-being that can influence health as a broader construct than the absence of disease. In this sense, factors that enhance well-being and strengthen health among older adults should be identified and promoted.

There is currently a growing interest on the part of various international organizations, such as the OECD and the UN, in generating indicators of progress other than objective measures such as minimum income and GDP. The reason for this interest lies in the fact that quantifiable measures in figures do not always reflect the perception of well-being and happiness expressed by people from different cultures and socioeconomic levels. In this sense, indicators such as subjective well-being (Seligman, 2012), understood as people's evaluation of their own life situation in terms of satisfaction and happiness, constitute an emerging and attractive element for the formulation of State policies related to empowerment, physical, personal, social, cultural and political well-being of citizens. Measures of subjective well-being include aspects such as the perception of happiness, positive affect, quality of life and its relationship with family, economic, labor, social, political and personal factors. This set of factors makes it possible to segment, discriminate and compare human groups and regions. The knowledge derived from these studies, on the other hand, makes it possible to establish levels of well-being and eventually take actions to improve aspects of life conceived as priorities for people, even if they do not necessarily coincide with quantifiable parameters.

In this sense, the research seeks to determine the dimensions of the level of subjective mental well-being in the population of older adults who are members of the associations of the Mayor's Office of the municipality of Los Patios. The municipality of Los Patios hosts the capital city of the Department of Norte de Santander, Cúcuta, an intermediate city[1] in the eastern region of Colombia.

2. The social concept of welfare

The notion of well-being and its study was incorporated late in psychology, associated, moreover, with the measurement of quality of life concerning certain quantifiable variables such as income level, quality of housing, access to public services, educational level, etc. The first studies on well-being were conducted under the label standard of living (Merino et al., 2015; Urzúa and Caqueo, 2012), and the variables that measured it were fundamentally economic. This view of well-being associated with the possession of and access to certain goods and services prevails in many current measurements, especially those used by governments and institutions to determine the quality of life of citizens.

 In state censuses, for example, demographic measures occupy a privileged place and projections on people's quality of life are established on the information they reveal. Thus, a significant amount of research has been devoted to establishing demographic correlates and the objective variables that have been linked to human well-being: sex, age, social class, marital status, health, or income level.

Notwithstanding the usefulness of objective indicators for measuring the quality of life (mainly for institutions and governments), such factors are insufficient for establishing people's levels of individual and social satisfaction. The satisfaction of material needs is not always accompanied by well-being (Elizalde, Martí, and Martínez; 2006). In this sense, studies on this concept have expanded, including perceptual and subjective factors about happiness. In this sense, Veenhoven (1994; 2000), refers that quality of life includes two perspectives: the set of conditions necessary for the possession of a good standard of living, on the one hand, and on the other, the capacity to enjoy life. As can be expected, this second dimension includes the subjective assessment of external conditions, i.e., the

---

[1] Those with a population between 100,000 and 1,000,000 inhabitants (IDB, 2005).

subject's perception of his or her life and material conditions. Rather than the standard of living, this new orientation refers to well-being, the basis of which is found in the individual's perception of the satisfaction of his or her material, affective and social needs. It is also about self-esteem and psychological levels of satisfaction with oneself.

In this sense, Lawton (1983) proposes the notion of the good life, based on four categories, three of which are psychological: (a) behavioral competence, which refers to functional capacity and the possession of adequate health, good social behavior and preserved mental functions; (b) psychological well-being, which has to do with congruence between desired and achieved goals in life, a good state of mind and an optimal affective level; c) perceived quality of life, associated with the person's satisfaction with himself/herself, with family and friends, with his/her work, and also satisfaction with the activities performed or the place where he/she lives; and d) the objective environment, the characteristics of the physical surroundings where the subject lives (García, 2002).

The result of the change of perspective in the measurement of quality of life has brought as a consequence a gradual substitution of this term, at least in the social sciences, by the construct well-being, later subjective well-being, which refers to the physical conditions of the individual's environment, but mainly to the evaluation in terms of satisfaction with such conditions.

3. Measurement of well-being

As we know, well-being is a subjective concept, which has more to do with the sensation of feeling at ease than with the enjoyment of the objective conditions that in principle produce this effect. One can be more or less well, even if the external conditions are the same. The issue almost always has to do mainly with the subjective point of view.

Therefore, the measurement of well-being, although based on certain material guarantees related to the satisfaction of basic vital needs (such as the preservation of life, physical integrity, sufficient and adequate food, the protection of the body against external inclemencies through appropriate housing and clothing, and health care) depends above all on the attitude assumed towards the coverage of expectations that are considered individually and socially indispensable (Jaramillo, 2016; Carvajal et al., 2021). This explains why the perspectives of well-being are different in different cultures and geographies, and even among people in the same community.

Well-being is not an objectively measurable category but is associated with cultural and individual perspectives. In this sense, Butler and Kern's (2016) PERMA Profile measures positive emotions, engagement, relationships, meaning, and achievement.

From a social perspective, positive attitudes should be developed at any time during the life cycle. In addition to greater possibilities of social integration and individual happiness, there are the repercussions that these states of well-being have on the subjects, individually and from the collective perspective (social, health, economic). Indeed, healthy people (physically and emotionally) contribute to the development of a social emotional balance, to the integration and consideration of the elderly in the social conglomerate, to the improvement of the general perspective of the population about their own better future aging, and even to better use of the material goods available through savings in the health sector. Indeed, healthy people (physically, psychologically, and socially) are more positively integrated into the collective fabric.

Since the well-being of individuals is not a category that can be quantified by external parameters such as income level, home ownership, physical independence or absence of illness, different models have been devised to measure happiness through perceptual parameters. Indeed, the measurement of well-being is rather the measurement of the feeling of being well. And although well-being is, as mentioned above, an elusive category, levels of satisfaction or dissatisfaction with living conditions can be established indirectly.

4. Methodological details of the research

This field research takes into account the Subjective Well-being of Older Adults according to the PERMA instrument by Butler and Kern (2016), (Positive emotions, Engagement, Positive Relation, Meaning and Accomplishment), which measures positive emotions, engagement, relationships, meaning, and achievement. In addition, it assesses three independent factors, namely health, negative emotions, and loneliness, and thus seeks to analyze without manipulating the information received.

The data was obtained from the older adults belonging to the associations attached to the Mayor's Office of Los Patios. Within the framework of social isolation measures due to Covid-19, it was decided for prevention, that the data collection will be done by telephone, given that the administration of the questionnaire allows it. The database of the population under study was provided by the Coordination of Social Development of the Mayor's Office of Los Patios. The sample was calculated for a population of 1400 older adults belonging to the associations located in the Llanitos and 12 de Octubre neighborhoods of the Municipality of Los Patios with a confidence level of 95% and a margin of error of 4%, resulting in 421 older adults.

The data collection instrument was a questionnaire based on the adapted PERMA Profile model by Butler and Kern (2016), which measures the five pillars of well-being defined by Seligman (2012): Positive Emotions, Engagement, Relationships, Meaning, and Achievement. In addition, it assesses three independent factors, namely: health, negative emotions, and loneliness. It is composed of 23 items, 15 of which assess the five pillars of well-being (three items for each factor) and one item representing 'general well-being, which is listed as a criterion item. Each item is proposed on a Likert scale. Depending on the nature of the statement the scale ranges from 0 (never) to 10 (always) or from 0 (not at all) to 10 (completely). Butler and Kern (2016) suggest in their studies that the English version of this scale is acceptable and reliable.

The questionnaire whose function is to determine the Subjective Well-being of Older Adults has been translated into Spanish and validated in the Colombian context as mentioned in the work " Adaptation of the PERMA Profile of subjective well-being for Colombian institutionalized older adults", carried out by Hernandez et al. (2018), where it was validated for the application of the Colombian population by expert judgment, a professional with knowledge of statistics, for the application of reliability and validity of the instrument.

With the advance in technological tools, some statistical resources were created to facilitate the interpretation of data from graphical representations. In 1977, John Wilder Tukey created the box-and-whisker diagram, a graph composed of a rectangle, the box, and two arms, the whiskers. It is used to represent numerical variables (Ritchey, 2001). They are very useful, but to be able to interpret them properly it is necessary to have clarity in their composition. It is a graphical representation that facilitates the visualization and description of a distribution of a set of data, through the quartiles,

how is the distribution, central tendency, dispersion, symmetry, outliers (outliers and extremes), and compare distributions.

A graph of this type consists of a rectangular box, where the longer sides show the interquartile range. This rectangle is divided by a vertical segment that indicates where the median is positioned and therefore its relationship with the first and third quartiles (the second quartile coincides with the median). This box is placed to scale on a segment that has as extremes the minimum and maximum values of the variable.
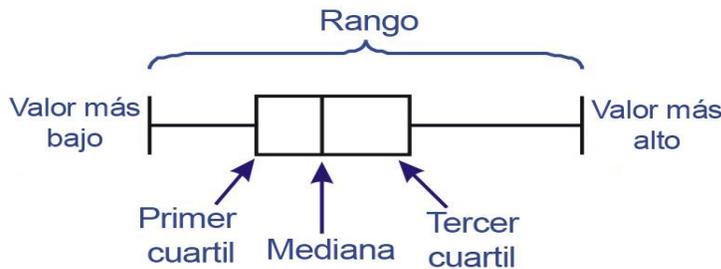
Figure 1. Structure of the box-and-whisker diagram
Source: https://www.ck12.org/book/ck-12-%c3%81lgebra-i-en-espa%c3%b1ol/section/11.8/

The lines protruding from the box are called whiskers. These whiskers have an extension limit, so that any data that do not fall within this range are individually marked and identified and are called typical (in the box-and-whisker plot they are represented by circles and are values that exceed 1.5 units of the length of the box or interquartile range) or extreme (in the box-and-whisker plot they are represented by stars and are values that exceed 3 units of the length of the box or interquartile range). These values correspond to observations whose values are very different from the other observations in the same data set, i.e. they are too low or too high. They are outliers caused by: a) Procedural errors; b) Extraordinary events; c) Unknown causes.

The criterion used to conclude on the existence of possible differences between the average scores of each gender corresponds to verifying whether the diagrams overlap between their whiskers, otherwise, it is affirmed that the differences are significant concerning the variable under study.

5. Dimensions of the level of subjective mental well-being in the population of older adults in Colombia.

The results derived from the research have been organized in such a way that they respond to the determination of the level of well-being of older adults in the city of Cúcuta, Colombia. A sample size of 423 older adults was achieved, of which 313 are women and 110 are men, which is equivalent to saying that for every three women there is one man.

The dimensions that make up the level of subjective well-being are: 1) Negative Feelings; 2) Health Perception; 3) Positive Feelings; 4) Commitment; 5) Relationships; 6) Meaning; and 7) Achievement. The behavior of each dimension of the PERMA Profile is analyzed from the interpretation of box-and-whisker plots looking for possible differences between the average scores of each gender.

In the dimension Negative Feelings, there are no significant differences by gender, but it is observed that in women there are a good number of atypical cases (represented by circles outside the whiskers) at both ends of the rating scale, which allows affirming that in the group of women surveyed three groups can be distinguished: (a) those who live extremely happy lives and never experience negative thoughts, locating themselves at the lower part of the graph; (b) those who lead an emotionally balanced life and are located within the limits of the graph; and (c) those who are extremely negative, living daily seized by feelings of sadness, anger or anguish. This situation does not occur with the group of men, who seem to lead a more emotionally balanced life, as shown in Figure 2.
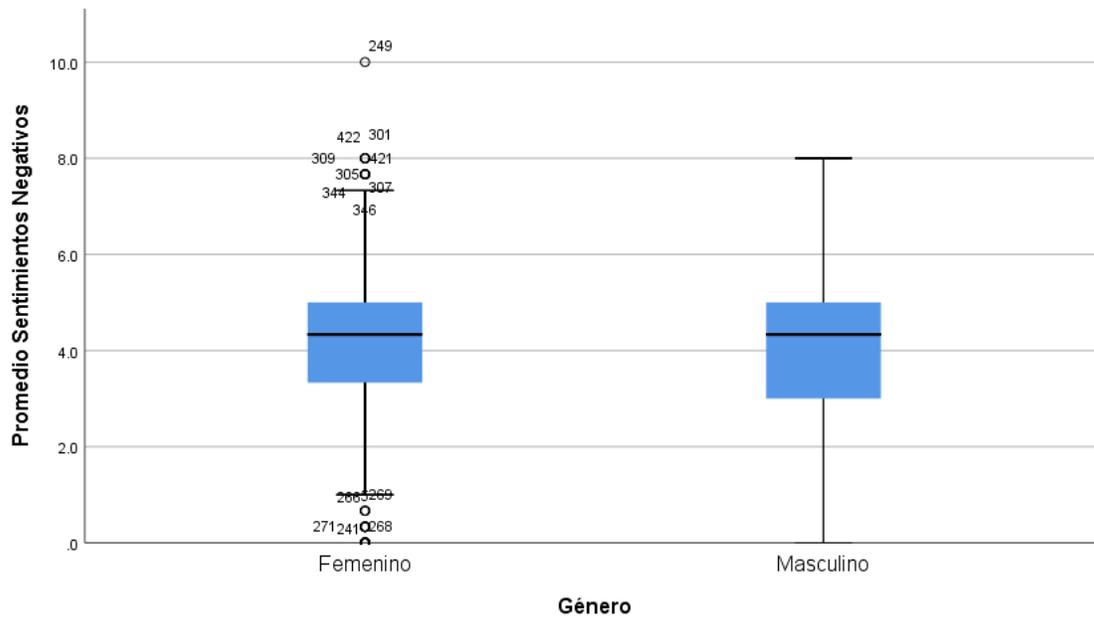
Figure 2. Average of the negative feelings dimension by gender

In the Health Perception dimension, several trends can be observed using the box-and-whisker diagram, as shown in Figure 3.
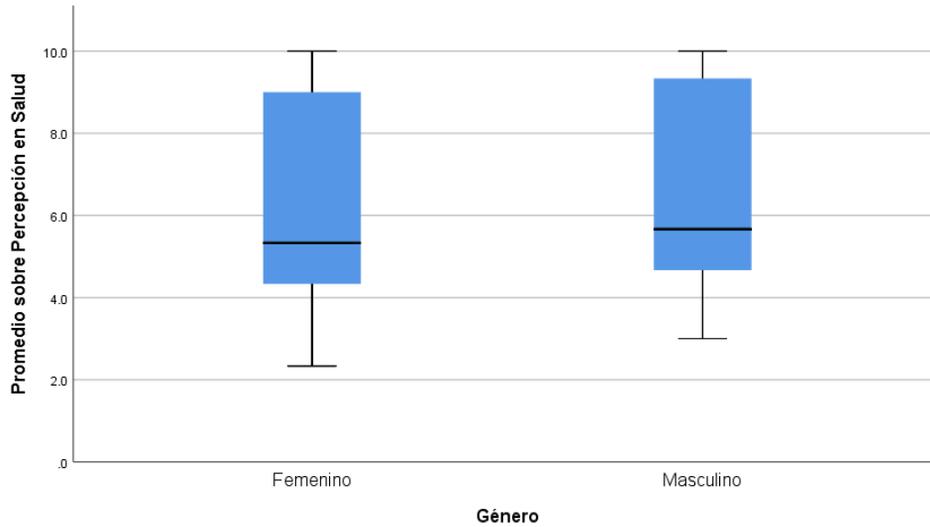
Figure 3. Average of the Health Perception dimension by gender
Source: Own elaboration.

There are no significant differences by gender, while in both groups of older adults, the section between the median and the third quartile is longer, which is equivalent to inferring that in the 25% of the highest averages they have greater dispersion, that is, there are older adults who feel in good health and that fills them with happiness because they consider that their current physical condition is more favorable than those of other people of the same age.
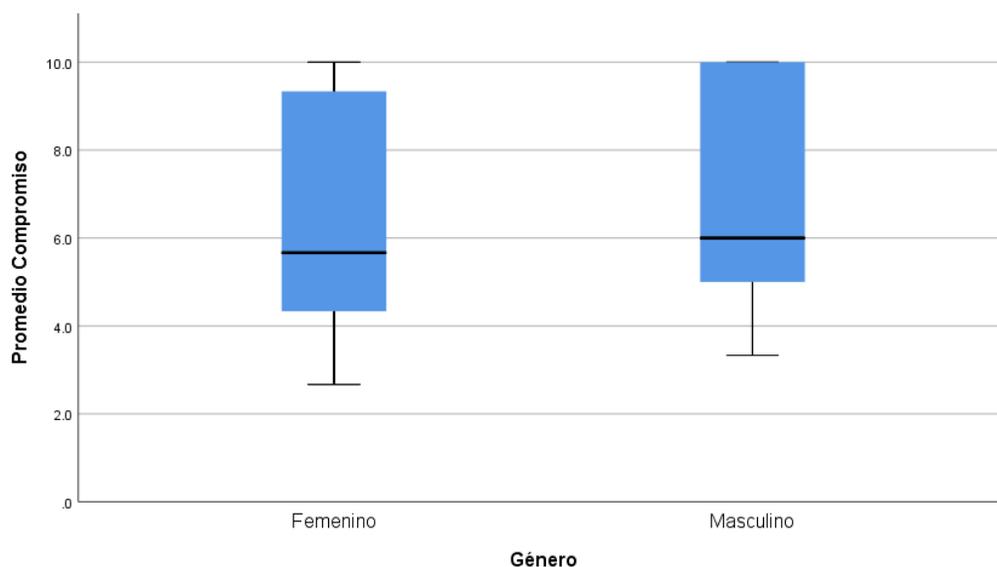
When the behavior of the averages associated with the Positive Feelings dimension is analyzed, it is concluded that there are no significant differences by gender. Although it is observed that in both women and men, it is evident that the section between the median and the third quartile is longer, which is equivalent to inferring, that in the 25% of the highest averages they have greater dispersion, that is, there are older adults who almost always feel happy, optimistic and satisfied with the life they have lived, being slightly more evident in men than in women, as shown in Figure 4.
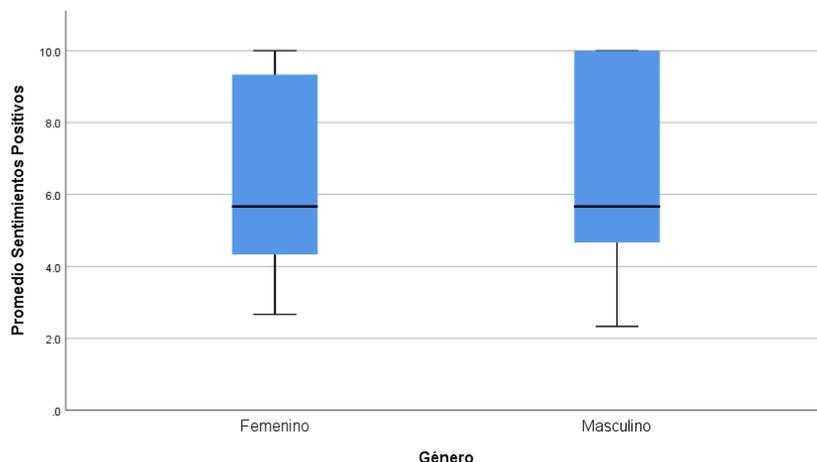
Figure 4. Average of the positive feelings dimension by gender
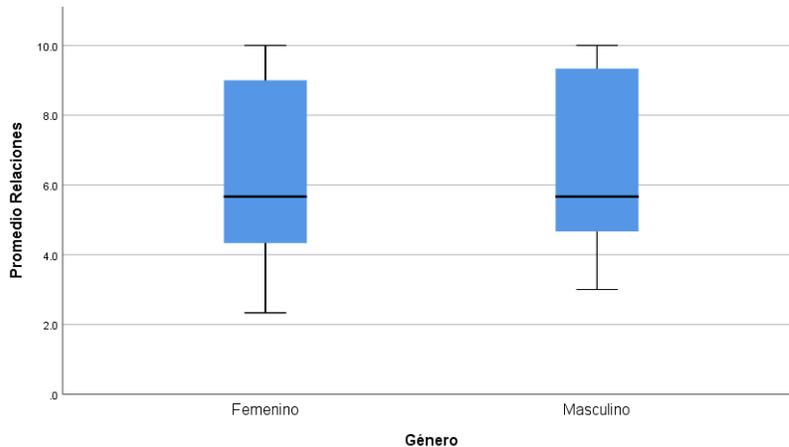**Source**: Own elaboration

Concerning the commitment dimension, the behavior of the associated averages shows a very similar trend to that observed in the previous dimension, where it stands out that in both genders 25% of the highest averages have a greater dispersion or what is equivalent to mentioning that there are older adults who almost always feel fascinated and enthusiastic about the activities they perform, which produces in them the feeling that time is running fast when they perform these activities, being slightly more evident in men than in women (See Figure 5).

Figure 5. Average of the commitment dimension by gender
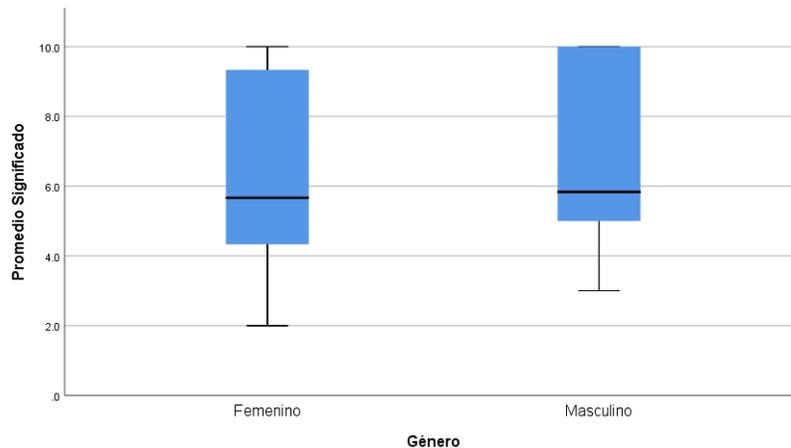Source: Own elaboration.

The averages associated with the Relationships dimension show a behavior similar to that observed in the dimensions of positive feelings and commitment. Greater variability continues to be observed in the upper half of the box, which is equivalent to asserting that there is a whole range of positions, but always positive, concerning the quality of the social relationships that the older adults in the sample enjoy daily. Then it is highlighted as a characteristic aspect in this dimension, that regardless of gender, older adults feel loved by other people, based on the social relationships that have been consolidated over time and that is reflected in obtaining support from them when it has been necessary (Figure 6).

Figure 6. Relationship dimension average by gender
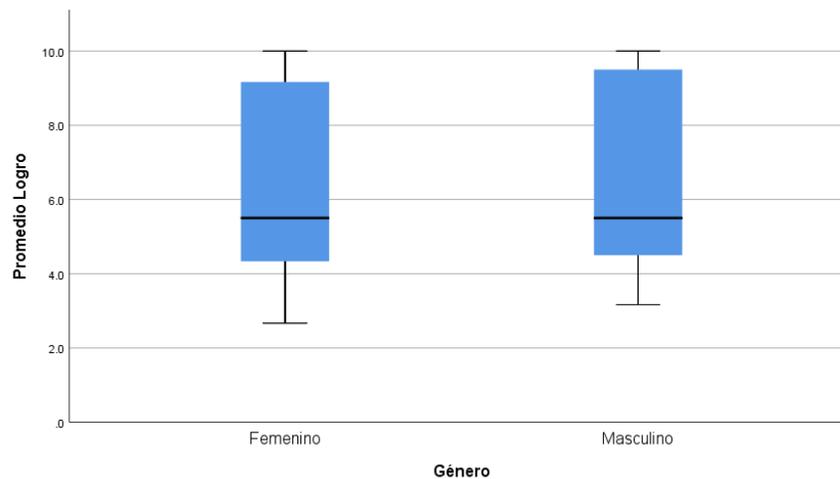**Source**: Own elaboration

The behavior of the averages associated with the Meaning dimension, what can first be inferred is that there are no significant differences according to gender. However, it is worth noting that in the male older adults in the sample, there is a more positive attitude towards this dimension than that observed in the women. This conclusion is reached by observing that the 25% of the highest averages have a greater dispersion or what is equivalent to mentioning that a wide variety of older adults were found who almost always assure that they are clear about where their lives are going since they have had clear goals and purposes that have generated in them that feeling of social valuation for their performance (See Figure 7).

Figure 7. Mean Meaning dimension by gender
Source: Own elaboration**.**

About the behavior of the averages associated with the Achievement dimension, it can be inferred that there are no significant differences according to gender. In the opinion of the older adults, with 25% of the best evaluations in this dimension, there is still a whole range of positive opinions in which they make it clear that in their lives they have set goals, they have made an effort to achieve them, always supported by responsibility as a fundamental principle to reach their objectives (See Figure 8).

Figure 8. Average achievement dimension by gender.
Source: Own elaboration.

As complementary information, the group of older adults was consulted on some aspects associated with their comfort and well-being based on their daily experience in the municipality of Los Patios.

6.   Conclusions

The determination of the level of subjective well-being of older adults in this study replicates the tendency of the geographical and social context of Latin American countries in which the subjective values assigned to well-being are relatively high.

Considering the internal dispersion, and the determination of the levels of subjective well-being in Colombian older adults, it is concluded that gender was not a determining factor in the behavior of the average values assigned by the respondents to well-being, which is valid for most of the dimensions of the PERMA profile. The dimension of relationships understood as the social relationships that older adults perceive daily was the one that showed the greatest degrees of internal dispersion, although always maintaining positive evaluations of well-being. The regularity of the phenomenon and the large sample consulted in this study can be a source of contributions to programs for the quality of life of older adults.

References

DANE (2018) National Census of Population and Housing - Colombia. https://www.dane.gov.co/index.php/estadisticas-por-tema/demografia-y-poblacion/censo-nacional-de-poblacion-y-vivenda-2018

BBC News World (2020) The dramatic decline in world births (and what the profound consequences will be). BBC. Available at: https://www.bbc.com/mundo/noticias-53417504

Butler, J. and Kern, M. (2016) The perma-profiler: a brief multidimensional measure of flourishing. International Journal of Wellbeing. 6(3), 1-48.

Carvajal, D, Vásquez, A. and Botero, L. (2021) Assessment of subjective workplace well-being of construction workers: A bottom-up approach, Journal of Building Engineering, Volume 36, https://doi.org/10.1016/j.jobe.2021.102154.

Elizalde, A. Martí, M. and Martínez, M. (2006) Una revisión crítica del debate sobre las necesidades humanas desde el enfoque centrado en la persona, Polis,15 http://journals.openedition.org/polis/4887

García, M. (2002). Subjective well-being. Psychology Writings. 6 (2), 18-39.

Lawton, M. (1983). Environment and other determinants of well-being in older people. The Gerontologist, 23, 349-355.

Hernández V, Prada R, Hernández C (2018) Adaptation of the PERMA profile of subjective well-being for Colombian institutionalized older adults. Revista Ciencia y Cuidado 15(1) 83-97. https://revistas.ufps.edu.co/index.php/cienciaycuidado/article/view/1235

Jaramillo, M. (2016). Subjective and Objective Well-Being Measurements ¿Complement or substitute?. Acta Sociológica, 70.

Malvárez, Silvina (2007). The challenge of caring in a globalized world. Revista Texto Contexto, 16 (3), 520-530.

Merino, M.; Privado, J. and Gracia, Z. (2015) Mexican validation of the Positive Psychological Functioning Scale. Perspectives around the study of well-being and its measurement. Salud Mental, 38 (2), 109-115. DOI: 10.17711/SM.0185-3325.2015.015

Nieto Antolínez, M. and Alonso Palacio, L. (2007). Is our country prepared to assume the challenges posed by population aging? Salud Uninorte, 23(2),292-301 https://www.redalyc.org/articulo.oa?id=81723214

WORLD HEALTH ORGANIZATION. 2017. Available at: https://www.who.int/features/2017/year-review/es/#event-resumen-del-2017-actualidad-de-la-salud-mundial

Ritchey, F. (2001) Statistics for the Social Sciences. From the statistical imagination. McGrawHill. Mexico

Seligman, M. (2012). Flourish: A visionary new understanding of happiness and well-being, Free Press. New York.

Veenhoven, R. (1994). The study of life satisfaction. Psychosocial Intervention. 3, 9, 87-116.

Veewnhoven, R. (2000) The Four Qualities of Life. Journal Of Happiness Studies, 1, 1-39.

Urzúa, A. and Caqueo A. (2012) Quality of life: A theoretical review of the concept. Terapia Psicológica, 30 (1), 61-71.

WHO (2016) Life expectancy has increased by 5 years since 2000, but health inequalities persist. https://www.who.int/es/news/item/19-05-2016-life-expectancy-increased-by-5-years-since-2000-but-health-inequalities-persist