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Analysis of quality of life in older adults in the Czech Republic and Brazil – a systematic review

Análise da qualidade de vida em idosos da República Tcheca e Brasil – uma revisão sistemática

Análisis de la calidad de vida en adultos mayores en la República Checa y Brasil: una revisión sistemática

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ABSTRACT: The objective of this study was to search for original articles that approach the Brazilian and Czech elderly's quality of life in different dimensions. A systematic review was developed and the searches were carried out in Pub-Med/MEDLINE, LILACS, SciELO and PsycINFO databases. The quests were performed using the English language, over the period ranging from July 2008 through June 2018. Thirty studies, 27 with Brazilian elderly, 2 with Czech elderly and 1 with both populations, were found according to selected inclusion criteria. The results show that the Czech elderly have a lower quality of life perception than the Brazilian ones. When living in rural areas, the latter showed good results for autonomy, psychological and physical factors as well as low consumption of alcohol and tobacco. The different dimensions of quality of life can be improved for the Czech and Brazilian elderly for health education and social purposes.
Keywords: Quality of life; Elderly; Czech Republic; Brazil.

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RESUMO: *O objetivo deste estudo foi pesquisar artigos originais com a abordagem da qualidade de vida de idosos Brasileiros e Tchecos, em diferentes dimensões. A revisão sistemática foi desenvolvida, e as buscas realizadas no Pub-Med/MEDLINE, LILACS, SciELO and PsycINFO databases. As questões foram respondidas usando-se a língua inglesa, no período compreendido entre julho de 2008 e julho de 2018. Foram encontrados 30 estudos, 27 com idosos brasileiros, 2 com idosos tchecos e 1 com ambas as populações, de acordo com os critérios de inclusão. Os resultados mostraram que os idosos tchecos têm uma percepção de qualidade de vida mais baixa que os idosos brasileiros. Ao viver em áreas rurais, estes últimos apresentaram bons resultados de autonomia, fatores psicológicos e físicos, bem como baixo consumo de álcool e tabaco. As diferentes dimensões da qualidade de vida podem ser melhoradas, tanto para os idosos checos quanto brasileiros, para fins de educação em saúde e para fins sociais.*
Palavras chave: *Qualidade de vida; Idosos; República Tcheca; Brasil.*

RESUMEN*: El objetivo de este estudio fue buscar artículos originales que aborden la calidad de vida de los brasileños y checos de edad avanzada, en diferentes dimensiones. Se realizó una revisión sistemática y se realizaron búsquedas en las bases de datos Pub-Med / MEDLINE, LILACS, SciELO y PsycINFO. Las preguntas se respondieron utilizando el idioma inglés, entre julio de 2008 y julio de 2018. Se encontraron treinta estudios, 27 con ancianos brasileños, 2 con ancianos checos y 1 con ambas poblaciones, de acuerdo con los criterios de inclusión. Los resultados mostraron que las personas mayores checas tienen una percepción más baja de la calidad de vida que las personas mayores brasileñas. Al vivir en zonas rurales, este último mostró buenos resultados de autonomía, factores psicológicos y físicos, así como un bajo consumo de alcohol y tabaco. Las diferentes dimensiones de la calidad de vida pueden mejorarse, tanto para los ancianos checos como para los brasileños, con fines de educación sanitaria y sociales.*
Palabras clave*: Calidad de vida; Ancianos; República Checa; Brasil.*

Introduction

According to the World Health Organization (2012), quality of life (QoL) is a multidimensional term characterized by psychological factors, cognitive well-being, level of independence, vitality, good social relations, leisure environment, financial situation, general health perception and religiosity. Some studies (Spirduso, Macrae, P., & Francis, 2004; Siverová, & Bužgová, 2018; and Andel, 2014), with older adults indicate that physical, mental and productivity activities change throughout lifestime and must be adapted to the fundamental maintenance of the balance between the elderly's potential and limitations.

The ageing of the world's population is already a phenomenon underway (Rappange, Brouwer, & van Exel, 2015). Aging of the population is the most significant society transformation in the 21st century. As estimated, 8.5 % (617.1 million people) out of the total 7.3 billion people worldwide were 65 years old or more in 2015, but this proportion is predicted to grow up to 12.0% (1 billion) by 2030 and to 16.7% (1.6 billion) by 2050 (Desa, 2015).

Even countries that have historically been characterized by their young population have recently been changing their demographic profile. For example, in Brazil, the current elderly population makes up 13.05% of the total (IBGE, 2018). Moreover, according to demographic projections, the Brazilian elderly population will reach the year 2050 with more than 66.4 million people, representing 29.4% of the total population (IBGE, 2018).

Conversely, the European population is already characterized by its well-established longevity estimate. According to the latest data, the elderly population in Europe averages out 17.8% of its total population (EUROSTAT, 2018). In about 2/3 of the European countries, the share of the elderly population is above this average. The Czech Republic is among these countries. At present, the elderly population in the Czech Republic makes up 18.3% of the country's total population (European Statistical System, 2012).

Politically, the Czech Republic is one of the Western countries of the Central and Eastern Europe (CEE) that, since the beginning of the post-communist era in the 1990s, kept its social spending and welfare mechanisms, thereby allowing for a high level of social protection (Orenstein, 2008).

On the contrary, at the same time, lower and middle-income emergent countries, like Brazil and others (India, China and South Africa), had already started dismantling these social safety nets, as a policy response to economic crises they had been facing since the 1980s. Even if, in the 2000s, some of these economies might have experienced higher levels of economic growth, the resources available for new social policies were often and by large, as in the case of Brazil, channelled rather to children's than to the elderly's support (Tillin, & Duckett, 2017).

Several studies in Brazil (Castro, Driusso, & Oishi, 2014; Lima, *et al.*, 2014; Vaz Serra, *et al*., 2006) and in the Czech Republic (Mares, Cigler, & Vachkova, 2016) have sought to determine the validity of protocols to measure QoL. These instruments are important for determining qualitative and quantitative aspects of QoL and its dimensions. Yet, beyond validating protocols, it is necessary to verify the way quality of life is taking place in both countries, and if there are some differences between them, considering their infrastructure, history, culture and public policies.

These aspects can influence their peoples' vitality, general perceptions of health, emotions, financial situation, autonomy to perform daily tasks and other dimensions of quality of life, thus justifying the need for a deeper analysis. In this way, the objective of this study was to search for original articles that approach the Brazilian and Czech elderly's quality of life in different dimensions.

Methods

This systematic review was performed following the recommendation proposed by Declaración PRISMA: una proposta para mejorar la publicación de revisiones sistematicas y metaanalisis (Urrrútia, & Bonfill, 2010). The study applies a systematic review of scientific articles published in online journals that evaluated the quality of life of elderly people in Brazil and the Czech Republic. The searches were carried out in Pub-Med/MEDLINE, LILACS, SciELO and PsycINFO databases.

The quests were performed using the English language, over the period ranging from July 2008 through June 2018. The searching expressions (keywords) were "quality of life, health-related, life quality, health-related quality of life, HRQOL, life style, value of life, older adults, elderly, aging, old, Brazil, South America, Czech Republic and Eastern Europe".
For the combination of terms, the Boolean operators AND and OR were used. The searching period ranges from July 2 through August 31, 2018.

As inclusion criteria, descriptive, cross-sectional and cohort studies were used, sampling the elderly between 60 and 80 years of age (Spirduso, *et al*., 2004). To do the selection of studies, two independent reviewers (STC and DLC) matched them all from the initial search against the pre-established inclusion criteria.

When a discrepancy or duplication were detected, the reviewers discussed the study and decided as to whether include it or not. As exclusion criteria, studies containing literature and systematic reviews, dealing with validation of research instruments or questionnaires, and targeting age groups in which less than 50% of people were between 60-80 years of age were not considered.

Likewise, studies with elderly in bad clinical conditions and with some health disorders (*e.g.* heart disease, diabetes, hypertension, cancer, stroke, osteo-muscular injuries that prevent walking, mental problems etc) were also left out.

Results

In the first round, 9951 studies were singled out, by using the keywords (searching expressions) described in the previous section. After filtering, two hundred and eighty-six studies we analyzed in their entirety.

After and were analised through this reading there was the elimination at the 256, considering that a large population with less than 50% of the elderly over 60 years old (99), the evaluation of questionnaire (62) and elderly with health vers us sick (95).

After filtering, considering the adopted selection criteria, were obtained 30 studies.

Fig. 1 shows flowchart with studies included.

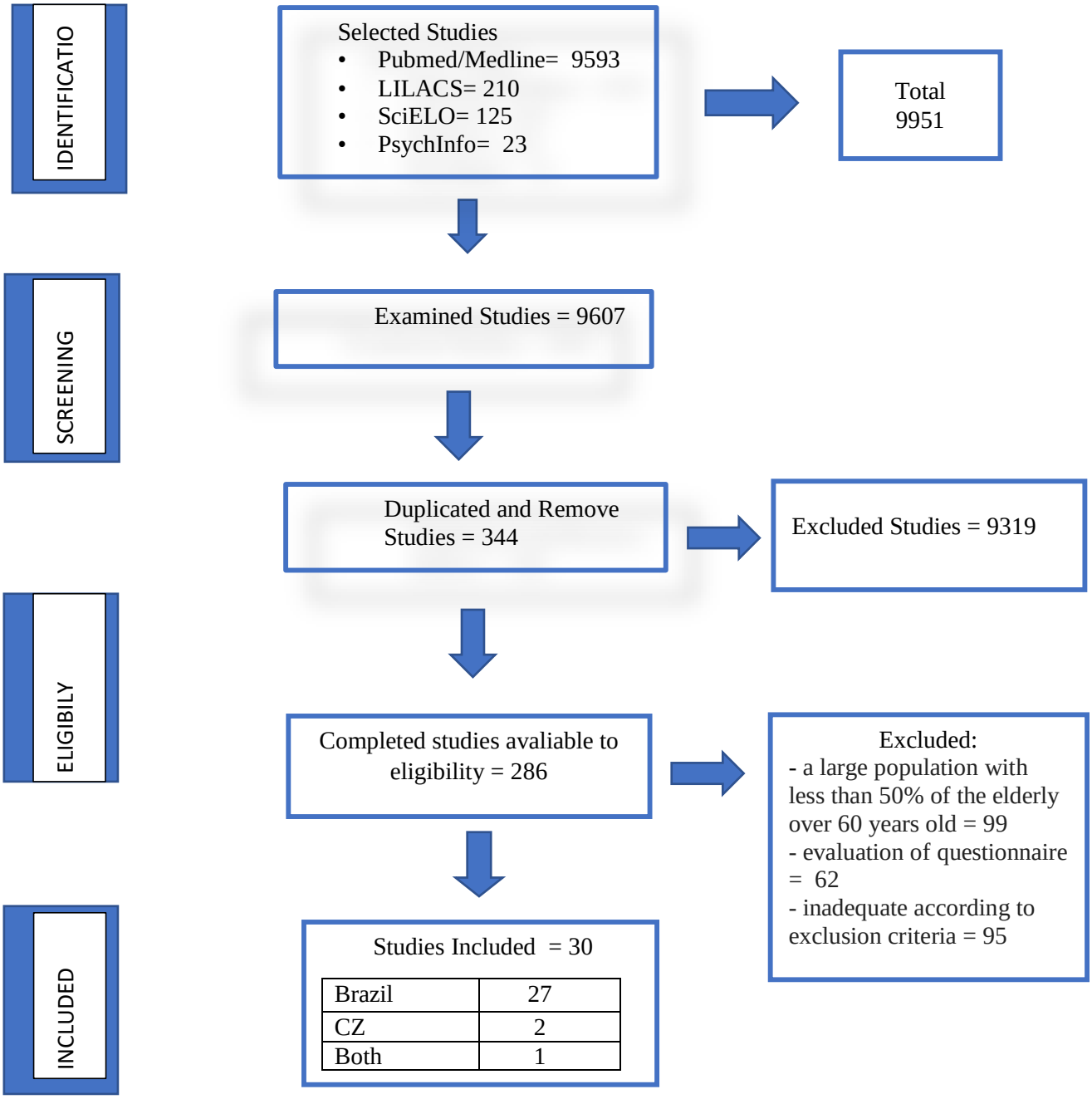

Fig. 1. Flowchart of studies selection

Of these 30 studies found and analyzed, the majority, corresponding to 27 studies, were developed with Brazilian elderly, 2 with Czech elderly and 1 with both populations. As for the instruments used in the analysis of quality of life, the most frequent ones were WHOQOL-OLD and WHOQOL-BREF. In 9 out of 30 studies, both of them were applied; in 5 other studies, only the WHOQOL - BREF was used; and in 4 others, only the WHOQOL – OLD was.

In the remaining surveyed studies, the observed frequency (between brackets) of instruments was the following: SF 12 (2), SF 36 (2), WHOQOL – 100(1), CASP 12 (1), CASP 16 (1) and CASP 19 (1) Finally, in 3 studies, instead of theme-related validated instruments, words and related questions were applied.

Table 1 shows the characteristics of these 30 studies.

Table 1 - Summary of included studies

Reference, Country	Participants	Aim to Study	Instrument Used to QoL	Dimension of QoL	Results
Abdala, Kimura, Duarte, Lebrão, & Santos (2015) Brazil	911 older adults (60-94 years old).	To examine whether religiousness mediates the relationship between sociodemographic factors, multimorbidity and health-related QoL[1] of older adults.	SF – 12	Religiousness	Relation between the mental component and religiouness in women (-0,564) and higher loads were mental health (0,75) and vitality (0,66).
Adamo, Esper, & Bastos (2017) Brazil	100 older adults (60-86 years old). 50 control group 50 veterans UTA[2]	To verify whether QoL[1] is greater or lesser between the veterans participating in the UTA X first-year students	WHOQOL-OLD	Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy.	There were better results to the veterans groups in the sensory function (p=0,025) and past present (0,008) domain
Alexandre, Cordeiro, & Ramos (2009) Brazil	120 active elderly subjects recruited from two open1s UTA[2]	To analyze whether QoL[1] in active, healthy elderly individuals is influenced by functional status and sociodemographic characteristics, as well as psychological parameters	WHOQOL-BREF	Physical, Psychological, Social relationships, Environment.	Not having a conjugal life implied greater perception in the social domain; developing leisure activities and having an income over fi ve minimum wages implied greater perception in the environment domain.

Barbosa, Teixeira, & Orlandi (2015) Brazil	40 participants of both genders, 20 were residents of urban areas and 20 were residents of rural areas	To investigate if the relationship between PAL[3] and QoL[1] is affected by living environment (rural or urban).	WHOQOL - BREF	Physical, Psychological, Social Relationships, Environment	There wasn't difference between the rural and urban area for QoL [1] and PAL[3] . There was correlation in the rural group and physica, psychological QoL domains
Bombardelli, et al. (2017) Brazil	100 elderly persons, 67 were female and 33 were male.	To describe the QoL[1] of elderly residents of a rural municipality in the state of Rio Grande do Sul.	WHOQOL BREF	Physical, Psychological, Social Relationships, Environment	There was an association between advanced age and low physical and psychological scores among men.
Campos, Cordeiro, Rezende, Vargas, & Ferreira (2014A) Brazil	107 elderly persons, 72 female and 35 male.	To describe the sociodemographic profile and evaluate the interdependence of QoL [1] of the elderly and physical activity	WHOQOL-OLD	Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy.	High quality of life 55.1% (59) and low quality of life 44.9 % (48). Higher longevity for women, higher ability for behaviour and lifestyle change than in men.
Campos, Ferreira, Vargas, & Albala,(2014B) Brazil	The sample consisted of 2052 individuals, of whom 59.7% were female and 40.3% were male.	To examine the association between QoL [1], gender and physical and psychosocial health among older Brazilian community-dwelling adults, with the aim to identify potential factors associated	WHOQOL BREF [a] and WHOQOL – OLD [b]	- Physical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	The majority of the older adults were included in the fair QoL [1] group (51.4%), which corresponded by [a] and [b]. Older adults of both genders with five or more years of education, good self-rated health, an absence of depressive symptoms, and no family dysfunction reported better QoL [1]
Carvalho-Loures, Freire-Filha, Celeno-Porto, & Alves-Barbosa, (2010), Brazil	38 elderly women	To Assess the QoL[1] of elderly women attending the University of the Third Age (UNATI) at the Federal University of Goiás in Brazil	-WHOQOL BREF [a] and -WHOQOL – OLD [b]	- Psysical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	For the [a] the general QOL [1] before and after attending (p=0.049) For the [b] only the sensorial function domain (p=0.014) and the death and dying domain were significant (p=0.001)
Conde Sala, Portellano-Ortiz, Calvó	33241 ageing and retirement in Europe	To analyse the clinical,	CASP 12 (Czech Republic)	Control, autonomy, self	Result: 34.6 (5.8) is low.

Perxas, & Garre Olmo, (2018), Czech Republic and others countries	2.922 Czech, with mean age=73.1 (6.7)	sociodemographic and socioeconomic factors that influence perceived QoL [1] in a community sample of 33,241 people aged 65 and to examine the relationship with models of social welfare in Europe.		realization and pleasure Score between 12 and 48 points.	Male gender was associated with lower QoL [1] and more years of education has a significant impact in the QoL [1].
Confortin, Giehl, Antes, Schneider, & d'Orsi, (2015) Brazil	1705 elderly	To identify factors associated with positive self-rated health in the elderly in Florianópolis, Santa Catarina State, in the South of Brazil.	A question with based in Ware Jr. et al 12-item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. Med Care 1996; 34:220-33.	In general, would you say that your health is: very good, good, fair, poor, or very poor	Positive self-rated health was 51.2%. In these: 20% were active in their leisure time; 21% were internet users; between 19% and 27% had not soffered falls in the previous year.
Dragomirecká, *et al*. (2008)) Czech Republic and others countries of Europe	1981 elderly to Europe 534 elderly Czech Republic	To compare the QoL [1] of older adults the Czech Republic with those living in Wester European coutries	WHOQOL BREF [a] and -WHOQOL – OLD [b]	- Psysical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	The comparison of the Czech sample with Norwegian, Swedish, Swiss, Danish and German samples showed lower QoL [1] in most domains of the [a] and [b]
Ferreira, Tura, & Ferreira, (2017) Brazil	30 elderly people, 25 women and 5 men	To identify the social representations of older adults regarding QoL, and to analyze the care practices adopted to promote it.	Words and Alceste software	quality of life, daily life and leisure, therapy applied in primary care and its consequence for health	The social representations of QoL[1] are based on the social determinants of health; they evidence knowledge and practices of care by valuing physical activities. The practices promoting QoL[1] comprise

					healthy eating habits, daily physical exercise, social participation, interaction and socialization, accomplishment of leisure activities and daily tasks
Gambin, Molzahn, Fuhrmann, Morais, & Paskulin, (2015) Brazil	197 elderly	To assess the perceptions of QoL[1] of older adults living in rural areas of southern Brazil	WHOQOL BREF [a] and -WHOQOL – OLD [b]	- Psysical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	-Social relationship is very good -Physical domain was the most compromised
Garbaccio, Tonaco, Estêvão, & Barcelos (2017) Brazil	182 elderly	To evaluate the QoL[1] and health of elderly in rural areas of Minas Gerais State's center-west	113 questions based on the SABE project	-Self perception of health49,5%, - Satisfaction with life, - Linking to live curret life - Memory evaluation	-Self perception of health: 49.5% is good; - Satisfaction with life: 73.6% totally agree - Linking to live current life: 74.7% totally agree; - Memory evaluation: 29.1% is good.
Guedes, Hatmann, Martini, Borges, & Bernardelli, (2012) Brazil	1204 older adults (645 women and 559 men)	To investigate the association between PA[3] and QoL[1] in a sample of Brazilian older adults	-WHOQOL – OLD	Sensory function, Autonomy, Present, past and future activities Social participation, Death and dying, Intimacy	Older adults of both genders who reported to be more physically active attributed higher scores to the sensory ability, autonomy, and intimacy domains.
Lima, Barros, César, Goldbaum, Carandina, & Ciconelli (2009) Brazil	1958 older adults: 926 men and 1029 women	To analyse the QoL [1] profile of the elderly across different demographic and socioeconomic s factors	SF – 36	Physical functioning, role-physical, bodily pain, general health, vitality, role-emotional, social functioning and mental health	Highest scores: role-emotional (86.1), social functioning (85.9), role-physical (81.2) Lowest scores: Vitality (64.4), mental health (69.9), general health (70.1)
Lima,Barros, César, Goldbaum,	1958 older adults: 926 men and 1029 women	To assess the association between health-related	SF – 36	Physical functioning, role-physical, bodily pain,	The results showed that physical

Carandina, & Alves (2011) Brazil		behaviors and QoL [1] among the elderly.		general health, vitality, role-emotional, social functioning and mental health	activity, moderate alcohol consumption and no smoking are positively associated with a better QoL[1] .
Marques, Schneider, & d'Orsi (2016) Brazil	1131 elderly people	To investigate the association of changes in social relations and physical activity on QoL [1] among the elderly living in the city of Florianópolis, SC State, Brazil,	CASP 16	Control, autonomy, self - realization and pleasure	-Results for QoL [1]: 37.76 points (48 is máx) - QoL better with those who remained living alone. - The social relations that were associated with positive QoL score were to start to work, to continue and used the Internet - Use the internet with become physically active, and for those who were PA [4]
Meneguci, Sasaki, Santos, Scatena, & Damião (2015)) Brazil	3206 older adults	To investigate the association between sitting time and QoL [1] in older adults.	WHOQOL BREF [a] and -WHOQOL – OLD [b]	- Physical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	Older adults who sat the most presented the worst scores in the physical domain and social participation facet of quality of life.
Miranda, Soares, & Silva (2016) Brazil	257 elderly people	Identified factors associated with the QoL [1] of individuals attending a Reference Center for the elderly in the city of Belo Horizonte, MG state, Brazil	WHOQOL BREF	- Physical, Psychological, Social Relationships, Enviroment	Showed a positive relationship between QoL with advancing age and PA [3]. Furthermore, a negative association was found between QoL, being born in the state of MG and comorbidities.
Molzahn, Kalfoss, Schick Makaroff, &	7401 older adults (22 countries)	To evaluate the relative importance of aspects of	WHOQOL – OLD	Physical health, psychological, levels of independence,	Mean importance rating:

Skevington, (2011) CZ and Brazil		quality of life (QOL) to older adults across cultures.		social relationships and environmental	Overall countries: 3.56 CZ: 3.96 Brazil: 4.05
Morsch, Mirandola, Caberlon, & Bós (2017) Brazil	6945 older adults	To analyze the relationship among older adults' health-related decision-making profile, QoL [1] and social demographic characteristics	SF – 12	Physical and Mental	Physical: 78.6% ask for advice, 76.3% decided alone, 64.5% others decide. Mental: 75.4% ask for advice, 72.7% decided alone, 66.8% others decide.
Oliveira, *et al*. (2013).	339 elderly 1 st group 180 with better perception of the QoL [1] 2 nd group 159 with worse perception of QoL [1]	To investigate multiple relations between socio-demographic, psychosocial, health variables and QoL [1]	WHOQOL 100	Physical, psychological, levels of independence, social relationships, environmental and Spiritualy, religion, personal beliefs	Overall QoL [1:] 1 st group: 16.9 2 nd group: 12.9 The firt group included with more schooling, belonging predominantly to social class B, more involved in volunteers activities using less medication, consuming alcohol moderately and no smoked.
Paiva, Pegorari, Nascimento, & Santos (2016) Brazil	3430 senior citizens	To establish the so-cioeconomic and health factors associated with QoL [1] among the elderly in the community.	-WHOQOL BREF [a] and -WHOQOL – OLD [b]	- Physical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	The social relationships domain (73.54) and the aspect of death and dying (72.36) show the highest average scores. The lowest average scores were observed in the environment domain (62.00) and from the aspect of autonomy (66.82)
Paskulin, Vianna, & Molzahn, (2009) Brazil	288 elderly mean age of participants was 71.2 years (SD = 7.5) and 67.4% were female	To explore factors associated with quality of life (QoL) of Brazilian community-dwelling older adults.	WHOQOL-BREF	- Physical, Psychological, Social Relationships, Enviroment	Older adults who reported higher education had better QoL [1] scores on the physical, psychological and environment domain as well as Overall – perceived health was one

					of the most important independent variables associated with QoL[1]
Paula, *et al*. (2016) Brazil	46 elderly, engaged in health promotion groups in the Community	To analyze the use of QoL[1] assessment as a strategy to evaluate the work with health promotion groups in the Community	WHOQOL BREF [a] and -WHOQOL – OLD [b]	- Physical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	[a] - were higher on Social Relations and lower in the Environment. [b] - the highest scores were achieved in facets Social Participation and Past, Present and Future Activities, while Death and Dying facet obtained lower scores
Ribeiro, Ferreti, & Sá (2017) Brazil	497 elderly. 358 elderly residents of rural area and 139 of urban area	To analyze QoL[1] according to PAL [3] level among elderly persons living in rural (RA) and urban (UA) areas.	WHOQOL BREF [a] and WHOQOL – OLD [b]	- Physical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities, Social participation, Death and dying, Intimacy [b]	Whoqol-Old was used, active and insufficiently active or sedentary elderly people in rural areas had a significantly higher overall perception of QoL [1] than their respective urban counterparts
Sonati, *et al*. (2011), Brazil	81 elderly women	To verify the body composition and the QoL [1] of elderly women who participate in the program of the UTA [2]	WHOQOL BREF	Physical, Psychological, Social Relationships, Enviroment	The average levels of the general QoL [1] scores and physical, psychological and environmental domains decreased in higher age groups, but social domains showed the opposite result.
Tavares, Bolina, Dias, Ferreira, & Haas (2014), Brazil	2992 elderly. 2142 elderly of urban área 850 elderly of rural area	To compare the scores of QoL [1] according to place of residences (urban and rural areas)	WHOQOL BREF [a] and WHOQOL – OLD [b]	- Physical, Psychological, Social Relationships, Enviroment [a] -Sensory function, Autonomy, Present, past and future activities,Social	For the [a] rural elders presented scores significantly higher than the urban area in the domains of physical, psychological and social relation and [b] in

				participation, Death and dying, Intimacy [b]	the facets of autonomy, past, present and future activities, social participation and intimacy
Tessari, Giehl, Schneider, & González-Chica (2016) Brazil	1131 older adults	To analyse the effects of anthropometric measures change on QoL [1] in elderly, using measured anthropometric data on body mass index and wais circumference	CASP 19	Control, autonomy, self realization and pleasure	obtained with results a absence of association between anthropometric measures and QoL

Quality of Life (QoL)[1] ; University of Third Age (UTA)[2] ; Physical Activity Level (PAL)[3] Physical Activity (PA)[4]

In these studies whose main theme is the quality of life of healthy elderly, some related factors were found. For better understanding of the results and their subsequent discussion, we sought to group those studies according to the following factors:

Factor A - Analysis developed by Adamo, *et al.* (2017), Alexandre, *et al.* (2009), Carvalho-Loures, *et al.* (2010), Miranda, *et al.* (2016) and Sonati, *et al.* (2011) of quality of life of the elderly people attending the classes at the University of Third Age (UTA);

Factor B - Studies carried out Barbosa, *et al.* (2015), Bombardelli, *et al.* (2017), Gambin, *et al.* (2015), Garbaccio, *et al.* (2017), Ribeiro, *et al.* (2017) and Tavares, *et al.* (2014) comparing quality of life of elderly residents in rural and urban areas;

Factor C - Religiousness and quality of life, developed by Abdala, *et al.* (2015) and Oliveira, *et al.* (2013).

Factor D - Social models or social representations and quality of life, carried out Conde Sala, *et al.* (2018), Dragomirecká, *et al.* (2008), Ferreira, *et al.* (2017), Molzahn, *et al.* (2011) and Paula, *et al.* (2016). Here there is a concentration of studies conducted with elderly people living in the Czech Republic.

Factor E - Physical activity level and quality of life, developed by Campos, *et al.* (2014A), Guedes, *et al.* (2012), Meneguci, *et al.* (2015) and Marques, *et al.* (2016) .

Factor F - Finally, the articles by Campos, *et al.* (2014B), Confortin, *et al.* (2015), Lima, *et al.* (2009, 2011), Morsch, *et al.* (2017), Paiva, *et al.* (2016), Paskulin, *et al.* (2009) and Tessari, *et al.* (2016) contain several analytical factors such as those related to health,

socioeconomic condition, gender, demographic data, body composition, alcohol and tobacco consumption.

When analyzing the studies and themes already highlighted, it could be noticed that predominantly they refer to the Brazilian population.

There were just a few studies focusing on elderly Czechs and on social representations. Either way, they apply a collective perspective, without putting aside individuality in the analysis of QoL.

Discussion

The main objective of this study was to investigate, through a systematic review, original articles that approach the Brazilian and Czech elderly's quality of life in different dimensions.

Considering the (Factor A) analysis of quality of life of elderly people attending the classes at the University of Third Age, Adamo, *et al.* (2017) found that they had a good perception of past, present and future activities, which reflected great satisfaction with their achievements in life and with their desired objectives. Using the WHOQOL-BREF, Carvalho-Loures, *et al.* (2010) reported improvements in the quality of life of women after one year's contact with UTA, thereby reinforcing the importance of their participation in group activities and also encouraging them to the get involved with other activities. When using the other instrument (WHOQOL-OLD), there only were significant results for the death-related aspect, thereby enhancing that the group of women had positive perceptions about death, were not afraid of it and was not very concerned about it. These two studies brought out that the elderly had good control over their present and future actions, because they lived together with people who allowed them to be free and respected it.

Still refering to factor A, the study by Alexandre, *et al.* (2009) that found favorable results for quality of life considering the environmental domain and the safety of a good economic income; reinforcing that elderly who have security and protection, access to transportation and participation in leisure activities, therefore they have a good quality of life. A better financial situation favors greater autonomy in the choice of leisure activities and increased access to goods services.

In the aspect of conjugal life, the emphasizes that an individual who to live alone, is more independent, seeking activities that suit you and gives you pleasure and this can be confirmed by Aigner, *et al*. (2006), who claim that elderly people who live alone seek out social groups to avoid isolation, negative thoughts and depression and that this attitude produces an improvement in their quality of life.

The study by Sonati, *et al.* (2011) showed that psychological and environmental domains are better when the elderly are younger but in the social domain, on the contrary, the higher the age, the more need to give and receive support. The study by Miranda (2016), was not developed in a UTA, but in a Reference Center, where it was offer services and programs aimed at promoting the health of elderly people, as well as preventing social isolation and protecting their rights. The scope of activities that are offered include a gym, ballroom dancing, Gypsy dancing, singing, Lian Gong, computer training, painting on fabric and screen and Biodanza. This study was put here, this matter, because the environment characteristics were very similar than UTA. The result showed that the majority (63.4%) of the elderly people considered that they had a good QoL and that they were satisfied with their health. Sonati, *et al*. (2011), did not find significant difference between the age groups related to the anthropometric measures, a decrease in the mean values could be detected, characterizing the aging process. However, the social domain of the QoL showed the opposite behavior, increasing with older age groups. Such fact can be a specific characteristic of this group, since participants presented high socioeconomic status, schooling and are involved in oriented physical activities.

These results, in general, can be corroborated by Oliveira e Simoneau (2012), considering the idea that UTA can act as a important tool to minimize the deleterious effects of age, since it aims to promote social contact and the development of new capacities that can help with the understanding and active coping with the repercussions that occur in this phase of life.

The studies comparing quality of life in elderly residents in rural and urban areas (Factor B) were analysed through Barbosa, *et al*. (2015), Bombardelli, *et al*. (2017), Gambin, *et al.* (2015), Garbaccio, *et al*. (2017), Ribeiro, *et al*. (2017) and Tavares, *et al.* (2014).

In studies by Barbosa, *et al.* (2015) and Ribeiro, *et al.* (2017) were compared the quality of life in elderly residents in rural and urban areas, and the level of physical activity of these elderly people.

Both found a better level of physical activity in the rural elderly, being in Barbosa's, *et al*. study (2015), directly related to the psychological and physical domain of QOL and in the study of Ribeiro, *et al*. (2017) positively related with Autonomy, Past, Present and Future Activities, Social Participation, Death and Dying, and Intimacy domains.

Tavares, *et al.* (2014) analysed only QoL comparing to place of resident and found positive results for the same variables that Barbosa, *et al*. (2015) that is the psychological and physical domain. Bombardelli, *et al*. (2017), Gambin, *et al.* (2015) and Garbaccio, *et al.* (2017) carried out descriptive analyzes of the QoL of rural elderly people and pointed out that in the different regions of Brazil (South, the first studies and Center-west for the third estudie), the QoL was very well. It should be noted that this region. In this analysis, according to Morais, Rodrigues, e Gerhardt (2008) the strong presence of European characteristics in the elderly in the southern region of the rural area, since this region was colonized by Italians and Germans and these are still alive today over there. The economy was focus on agriculture and livestock with in emphasis on pork, milk and tobacco production. Finally, Bombardelli, *et al*. (2017) found in the older adults the best results for physical and psychological domains and a hight presence of cardiovascular diseases in women. Therefore it was perceived in these studies the environment is important for a QoL, when it offers opportunities for accomplishing various practices (Saito, Sugisawa, Harada, & Kai, 2016).

Studies by Abdala, *et al*. (2015) and Oliveira, *et al*. (2013) verified the association between religion and QoL (Factor C) and they found an expressive relationship with the mental and social aspect, reinforcing that these elderly have a voluntary participation in community services, make little use of medication, consume moderately drink alcohol and don't use tobacco.Volunteer work enter this scenario as a resource to promote QoL and as indicated by the World Health Organization (2012), this type of practice can be an effective alternative for promoting active aging and health.

The group of studies united by the theme "Social Models and quality of life" (Factor D) is represented by the researches of Dragomirecká, *et al*., (2008), Conde Sala, *et al*. (2018), Ferreira, *et al*. (2017), Molzahn, *et al*. (2011) and Paula, *et al*. (2016). Out of them, 2 studies were developmented with elderly Czech (Dragomirecká, *et al*., 2008 and Conde-Sala, *et al*., 2018).

The first study (Dragomirecká, *et al*., 2008), compared the QoL of older adults the Czech Republic with those living in Western Europeas countries (Denmark, Germany, Normay, Sweden and Switzerland). Mean scores different on all QoL domains with Czech Republic having the lowest scores. In the physical, psychological and environment domains the mean QoL scores of the Czech sample were significantly lower as compared with each of the respective centres. In the social domain, the QoL score significantly lower for Czech as compared to Denmark, Germany, Normay and Sweden. The second study (Conde-Sala, *et al*., 2018) was developed with older adults from 14 European countries plus Israel.

The analysis of the sample was divided in four groups: Social democratic regime/Nordic cluster (Denmark, Sweden and the Netherlands); corporatist regime/Continental cluster (Switzerland, Luxembourg, Austria, Germany, Belgium and France); post-socialist regime/Eastern cluster (Slovenia, Czech Republic and Estonia); and Southern European regime/Mediterranean cluster (Spain, Italy and Israel). Social democratic regime/Nordic cluster (Denmark, Sweden and the Neherlands) obtained better results in quality of life, when the CASP -19 average was analyzed concerning the dimensions control, autonomy, auto realization and pleasure. In this regard, the Czech Republic obtained better results than Estonia, but worse than Slovenia.

When the average of the Czech Republic (34.6 ± 5.8) was analyzed in relation to that of the other countries', much worse results were found, which allow it to be classified as a low score country falling within a categorization ranging from low (<35) to very high (> 39). This can be justified by (Barvikova, & Österle, 2013). They say that the Czech Republic, which was one of the most developed countries in the world in the 1920s and 1930s, came under the Soviet influence after the Second World War (WWII) and experienced after 40 years communist rules, which resulted in much slower economic growth and little health status improvements ad compared to trends in developed countries. Economic problems became visible especially from the 60s, and mortality and morbidity indicators lagged more and more behind trends in most developed countries. These data still there were repercussions, years nowadays, since the evaluated elderly lived this historical moment.

The results reinforce that less education and lower income have previously been linked to poorer QoL. More specifically, Motel-Klingebiel, Romeu-Gordo, e Betzin (2009) and Niedzwiedz, Katikireddi, Pell, e Mitchell (2014) have noted that the

difference in quality of life by poverty and between the least educated is particularly wide in Eastern and Southern European countries.

A 3nd study this group (Factor D), was developed comparing diffents aspects of QoL to older adults across diverse culture, including Brazil and Czech Republic by Molzan, *at al.* (2012). When realized the analysis of the WHOQOL - OLD, through its 5 domains, the authors found the average of 3.56 for all countries evaluated, 3.96 in the Chech Republic and 4.05 in Brazil.

Thus, in the Czech an average is below the general average and in Brazil a higher average than the general, showing for this country (Brazil) the sensory ability was most highly rated. Also, in relation to autonomy and social participation, Brazil has better results than Czech Republic.

According to (Klicperova, Feierabend, & Hofstetter, 2007) the Czech Republic are undergoing socioeconomic transitions and these described a 'post-communist syndrome' characterised by lack of feeling of citizenship, lack of identification with community and withdrawal into family that may affect perceptions of importance of aspects of QOL. While in Brazil, for being characterized as a developing country, has records (Skevington, & O'Connell, 2004) of the increasing existence of searches for sufficient financial resources to meet their needs and to obtain adequate social assistance. This reinforces that social support, work capacity and lack of negative feelings stimulate older people to seek better QoL.

Still within this group (Factor D) there are the studies of Paula, *et al*. (2016) and Ferreira, *et al*. (2017), developmented with brazilian older adults. Paula, *et al.* (2016) found greats results for social participation, emphazing that participated engaged in health promotion group in community and it is very good for QoL, it is helping in the good perception of present, past and future and in the positive conception of the arrival of the death. In the Ferreira's, *et al*. (2017) study, although it has been applied in a small number of elderly people (30) was founded the social representations of quality of life are based on the social determinants of health; they evidence knowledge and practices of care by valuing physical activities.

The practices promoting quality of life comprise healthy eating habits, daily physical exercise, social participation, interaction and socialization, accomplishment of leisure activities and daily tasks with independence and autonomy, and support and family contact.

The studies by Campos, *et al.* (2014), Guedes, *et al*. (2012) and Meneguci, *et al*. (2015) specifically explored the influence of the level of physical activity on quality of life (Factor E). These indicated that increases in the levels of physical activity can contribute to improvements in quality of life of older adults agreeing with Virtuoso, Tribess, Martins, e Romo-Oerez (2012); Ferreira, Maciel, Silva, e Moreira (2012); and World Health Organization (2012). There is also the study of Marques, *et al*. (2016) that a sought the association between changes in social relations and physical activity on the quality of life of the elderly and found as results.

The social relations that were associated with positive QoL score were to start to work, to continue to use the Internet, to start participating in religious or lifestyle groups, to remain and to become physically active, and for those who were physically active, but became inactive.

To remain living with family had a negative effect on QoL score for the elderly. Some changes in social relations had a positive effect on QoL, and results reaffirmed the importance of physical activity to healthy aging (Tampubolon, 2015).

Finally, the articles by Confortin, *et al*. (2015), Lima, *et al*. (2009, 2011), Morsch, *et al.* (2017), Paiva, *et al.* (2016), Paskulin, *et al*. (2009), Tessari, *et al.* (2016) and Campos, *et al.* (2014); it deals with several factors that were analyzed as important elements for QoL, it contemplate especially the health, socioeconomics issues, gender, demographic data, body compositions and alcohol and tabacco consumption (Factor F). In a study by Lima, *et al*. (2009), the results showed a disparity in the values of QoL dimensions, pointing to the need of healthcare programs to consider the multidimensionality of health and significant social inequalities in order to prioritize the more threatening components of QoL and the most vulnerable groups of population. The same main author and other collaborators (2011) when seeking the association of the elements of health and QoL, found a good association with PA, moderate alcohol consumption and no smoking.

In this study by Confortin, *et al*. (2005), they found a prevalence of positive self-rated health was also directly associated with schooling, reflecting in the moderate alcohol consumption, and positive habits of leisure. Morsch, *et al*. (2017) when they analysed older adults' health-related decision-making profile and obtained as a result regarding autonomy, that the majority of older adults that received advice for decision-making, has shown that married individuals have better self-perceived health than nonmarried

individuals; one explanation is that couples are more able to overcome health adversities and feel they do not lose their sense of control, as they can count on a spouse (Bierman, 2014). Paiva, *et al.* (2016) analysed the issues socioeconomics and health factor associated with QoL in 24 municipalities of Minas Gerais – Brazil, they were found a good relationship between QoL and economics level. Still, the highest score in the death and dying aspects, indicated thet the elderly people are facing their concerns, you're your worried and fears about the end of their life in an optimistic manner.

Tessari, *et al*. (2016) were analysed the effects of anthropometric measures change on QoL, obtained with results a absence of association of body mass index and circumference with QoL, as well as in the study of Sonati, *et al*. (2011), cited inside elderly group of UTAs. They found still (Tassari, *et al*., 2016) higher score among elderly people with white skin collor, are showing an inverse association with the age of the participants and was positively associated with both educational level and family income. Concerning lifestyle habits, the QoL was lower among the insuficiently active and was positively related to alcohol consumption but was not related to smoking status.

Paskulin, *et al.* (2009) explored factors associated with QoL in a community in the southern region of Brazil, they found that older adults have higher education had better QoL scores on the physical, psychological, environment domain and the elderly do little use of medications. Campos, *et al*. (2014B), also used in its analysis elderly people from a community-dwelling, but from the southeastern region of Brazil, with the aim to examine the associations among QoL, gender, and physical and psychosocial health. As results obtained were that gender differences related to better QoL in this sample cohort and women with good physical and psychological health are more likely to have a better QoL. For men the best QoL was associated high sociocenomic conditions and good physical and psychosocial health.

Although sound conclusions cannot be drawn, it can be highlighted that the Brazilian elderly living alone are more autonomous and less depressed, while the married ones take care of their health and their companion. The elderly who live in rural areas show a better QoL, especially concerning psychological and physical factors, being these advantages owed to the environment. Moreover, those ones who take part in social groups were found to be able to minimize the deleterious effects of age by enhacing the conditions to get them actively assisted in coping with challenging situations. This applies to the elderly voluntarily engaged in religious activities who thereby get involved in other

community services which help them improve their perception of autonomy and self-esteem. To close with, it was also found that, in general, Brazilian women show a better QoL in relation to the male segment these population. As regards the elderly Czechs, Low, e Molzahn (2007) have noticed a statistically significant effect of health on quality of life. This impact can be reinforced by Conde Sala, *et al*. (2018), Dragomirecká, *et al*. (2008) and Molzahn, *et al*. (2011b), who found the Czech elderly to have low quality of life. Complementarily, Andel (2014), while studying the health of these people, found that 34% of the elderly's deaths were attributed to coronary diseases and 14% to cardiovascular accidents. These results were directly related to the exaggerated consumption of alcohol, mainly beer, high consumption of cigarettes and diet rich in fats.

Thus, even though the Czech elderly have high level of social protection, they are still fragile, most probably due to the repercussions of the WWII and installation of communism in the country, which ended in the 1990s (Orenstein, 2008). Accordingly, health care and perception of quality of life have been affected.

To wind up, based on the findings from the sampled studies, public policies are needed that specifically address the elderly through the establishment of strategies for community health promotion, improvement of their self-esteem, autonomy, social relations, vitality and environmental leisure, taking into account the differences between ill and healthy older adults.

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