Featuring mental health studies and quality of life on elderly people, Santiago, Chile, 2020

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Introduction: *Currently the amount of people older than 60 years old is the age group with highest increase all over the world, which poses a big challenge for Public Health.* ***Objective:*** *By using scientific evidence to identify the existence of a correlation between mental health disorders and quality of life in elderly people.* ***Method:*** *The investigation was made by means of a systematic review, in January, 2020, based on bibliographies MEDLINE, LILACS, CINAHL and ScIELO, using descriptors such as "aged", "elderly", "aged, 80 and over", "mental health", "dementia", "depression", "alzheimer disease", "quality of life", "WHOQOL-BREE", "WHOQOL-BREF", "WHOQOL-OLD", "SF-12", "SF-36", "NdF", "geriatric depression scale" and "mental health scales".* ***Results:*** *Out of the 1,231 articles found, 15 were included in the analysis. In 4 studies a statistical association was proved between risk depression and life quality deterioration. No obstante, a study proved that elderly people population had a quality of life defined as medium or high, despite 31.1% of this population had mental disorders, such as stress, depression or anxiety.* ***Conclusions:*** *In order to assess quality of life and mental health an increase of publications during the last 3 years was evidenced. Instruments used were various scales or questionnaires. Several factors were identified which positively/negatively impacted the correlation between mental health and quality of life of elderly people.*

Key words: *Elderly person; Mental Health; life quality*

Introduction

The World Report on Ageing and Health performed by the World Health Organization (WHO) and presented in 2015, describes that all over the world the amount of people older than 60 years old will be twice as much for 2050[1]. This fast increase in elderly people population, leading to a higher longevity, depends on a key factor: it is health in all aspects, including mental health. All over the world, approximately 15% of elderly people have some type of mental disorder, being dementia, depression and acute confusional syndrome the most common disorders[1-4].

The WHO recognizes there is no official definition of mental health, as definitions vary, according to certain cultural differences, subjective assumptions and professional theories, but it states that related to "subjective welfare, autonomy, competence, intergenerational dependence and recognition of the skill to become an active person in a intellectual and emotional manner" [1,2]. As there

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is no official definition, the definition made by the Guipuzcoan Association of Families and People with Mental Health problems (AGIFES) is considered, stating that mental health is the "state of mental, cognitive and behavioral equilibrium which allows a person to live in a responsible manner with his/her family/social/labor environment, and also to enjoy welfare and quality of life"[5]. This last definition is mostly linked with improving life quality and the potential to have a better health, rather than just decreasing symptoms[6].

In this way, quality of life, has been defined by the WHO as "the perception of an individual about his/her position in life, in the context of culture and values systems where he/she lives and related with his/her objectives, expectations, standards and concerns"[7]. In this way, when linking quality of life concept with that of health Urzúa´s definition arises, who considers this area "as the welfare level derived from the assessment the person makes about various domains of his/her life, considering the impact his/her health status on these"[8].

Therefore, according to this context and possible repercussions in daily life of elderly people, the objective was to identify -by means of scientific evidence- the existence of a correlation between problems or mental health disorders and quality of life of this age group.

Methodology

A systematic review of literature related with mental health disorders and quality of life of elderly people was made, according to the stages recommended by "Colaboración Cochrane", which are: asking investigation questions, stating inclusion and exclusion criteria, articles found, application of methodological quality criteria, data collection, analysis and presentation of the results[9,10]

This systematic review was guided by the following investigation questions: ¿is there scientific evidence identifying the presence of a correlation between problems or mental health disorders and quality of life of elderly people? This question is based on the PICO strategy with the following components: Patient: elderly people and old people (65 and older); Intervention – conducts or factors intervening

on mental health and improving quality of life; Comparison: problems or pathologies intervening on mental health which deteriorate quality of life and "Outcome" – life quality levels associated to pathologies or mental health disorders, such as depression, senile dementia or Alzheimer.

For this search strategy some data bases were used, such as Medical Literature Analysis and Retrieval System online (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Literatura Latino-Americana e do Caribe em Ciencias da Saúde (LILACS) and Scientific Electronic Library Online (SciELO), searched in January, 2020.

For this search some selected descriptors from the Medical Subject Headings (MeSH) were used in English; in Spanish and Portuguese of the Descriptors on Health Sciences (DeCS) were used along with Boolean operators (AND and OR). The aforementioned components were used for the following search strategy in MedLine and it was further adapted for the other data bases: Search (((((((Aged) OR Elderly) OR (Aged, 80 and over))) AND ((((mental health) OR dementia) OR depression) OR alzheimer disease)) AND quality of life) AND (((((WHOQOL-BREE) OR WHOQOL-BREF) OR WHOQOL-OLD) OR SF-12) OR SF-36)) AND (((Geriatric depression scale) OR mental health scales) OR NdF)

After this electronic search, inclusion and exclusion criteria were applied. The inclusion criteria were: investigation articles, systematic reviews, meta analysis and Clinical Guides published between 2009 to 2019 in Spanish, English and Portuguese. Among particular characteristics of the person under study we have included elderly people and old people (65 and older) with health/mental illnesses. Exclusion criteria were: narrative reviews , letters to the editor, opinion articles, experience stories, clinical cases, books, presentations in congresses, studies where the measuring method of the variable under study was not clear and articles that did not answer any of the questions of this investigation. Among specific characteristics, elderly people and institutionalized elderly were excluded; those who were under treatment of mental illnesses were excluded as well.

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Once the articles at the data bases were found, double records were deleted, by using the software EndNoteBasic, Thomson Reuters, USA. Next, in order to further refine the search strategy 2 record elimination phases were executed. The first one was made by reading the titles and summary; the second one was made by reading a whole text. On this amount of full text selected articles, methodological quality assessment criteria of the studies was applied by using AMSTAR 2005 Scale (Assessment of Multiple Systematic Reviews) for systematic reviews and for observational studies , the list "Strengthening the Reporting of Observational Studies in Epidemiology (STROBE). The articles that obtained a score lower than 80% were deleted, thus obtaining in this last stage all articles included for review. All this identification, selection and assessment process for eligibility of the articles was made by using the Protocol "Preferred Reporting Items for Systematic Reviews and Meta-Analyze (PRISMA)[11]

The analysis of the selected articles was independently made by 3 authors and the divergences were solved by means of a consensus, after a new review of the or the articles under disagreements. This analysis was made by means of a descriptive/analytic review of the results found when reading the full text articles. These results were presented and assessed regarding its applicability and/ or response to the investigation question in a synoptic Table considering the following aspects: identification of the article, country, year of the study, sample size, age of elderly people, type of design, mental characteristics of the participants at the beginning of the study, assessment scales, correlation between mental health and quality of life and the contribution of the study to the investigation question (Tables 1 and 2).

Regarding ethical aspects, the integrity of the articles was respected, i.e., no modifications of the content found were made.

Results

A total of 1,231 studies were identified when applying the search strategy on data bases, such as Medline, LILACS, CINAHL and Scielo.

The identification, selection, eligibility and inclusion process of the selected studies can be seen in *Figure 1*.

The articles included for its analysis in the study are 15[12-26] (Table 1 and 2). Most articles[7] (46.6%) were obtained from the bibliographic data base MEDLINE[12,14-16,18, 25,26] English was the predominant language[7] (46.6%)[12,14-16,18, 25,26]. In Latin America most studies[8] (53.3%) were made in countries, such as Colombia, Brazil and México[13,17,19, 20-24]. Most of the articles were published between 2017 to 2019 (8, 53.3%)[19-26]. The type of study was transversal, descriptive and/or correlational in all cases and only one was transversal/comparative between two periods of time[16].

Regarding specific characteristics of the subjects under study, the whole population was 13,589 elderly people, most of them were women. The smallest sample was made up of 50 participants 22 and the biggest was made up of 4,248 elderly people[16].

The age of the participants varied from 55 to 112 years; and the average age was ranged between 65 to 75 years. Only one study included people from 55 years old 18, as most of them included subjects from 60 years on. 8 articles report that in their selection criteria to participate in the study elderly people with cognitive deficit assessed by the scales Mini Cognitive exam (MMSE), Test of mental valuation Pfeiffer and Miniexamen do Estado Mental (MEEM) were excluded[13,15,17,20-24].

The instruments related with measuring quality of life were, mainly, WHOQOL-BREF[12,13,15,20,23-25](7 studies), Geriatric depression scale GDS[12,18,23,24] (4 studies), WHOQOL-OLD[19,23,24] (3 studies), SF-12[14,16] (2 studies) and the Questionnaire of health general of Goldberg GHQ12 [13,22] (2 studies).

For measuring mental health, the most used instruments were the Geriatric Depression Scale (GDS)[12,18,23,24] and the Yesavage Geriatric Depression Scale (GDS)[17,21]. As an average for each study, 2 measuring scales, one for quality of life and another for mental health were used.

Discussion

The analyzed literature review evidenced that mental disability and life quality deterioration

Fig 1. Flowchart for identification, selection, eligibility and inclusion of studies. Santiago Chile, 2020
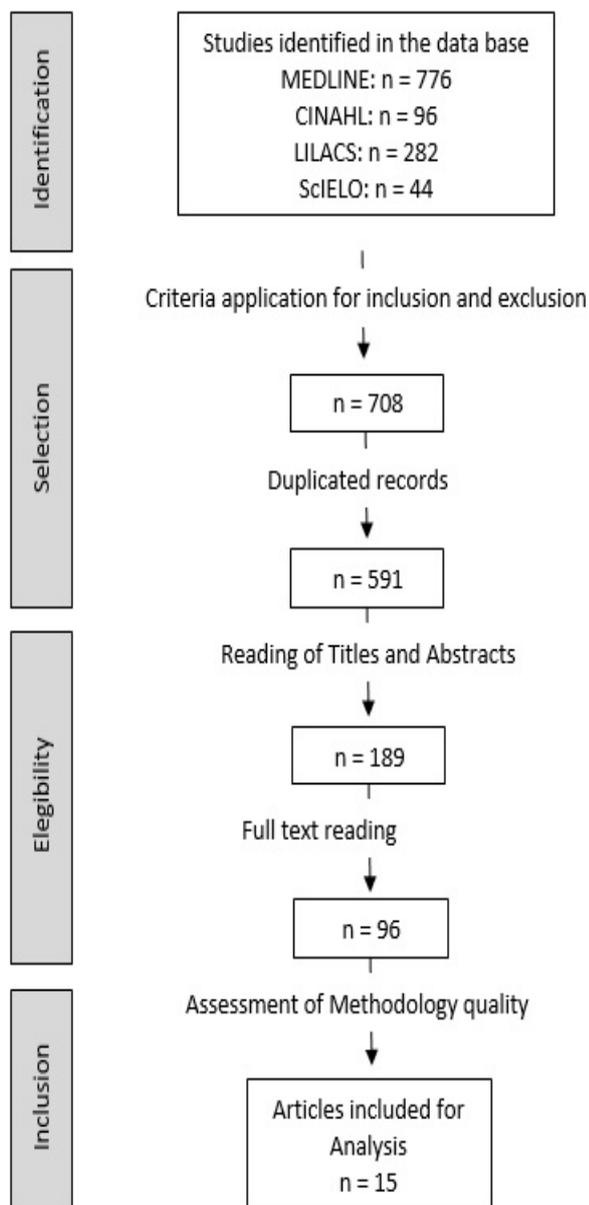
currently affects elderly people in various regions in the world as a significant public health problem[1-4,5].

Based on the analyzed literature, it was possible to identify that mental health issues and life quality of elderly people has caused interest only recently, which is evidenced by a bigger amount of publications during the last 3 years[19-26].

All studies included were transversal, which does not allow to know the existence of a cause-effect correlation, i.e., mental health causes deterioration on life quality of life or otherwise. One of these publications made a cross cutting assessment in 2 periods, identifying changes in the mental component of the questionnaire on health quality This component decreased, from 58.3% between 1997-2001 to 53.5% between 2008-2012. Besides, prevalence of depressive symptoms in this period of 7 years was increased twice as much[16].

It is important to highlight that some researches are not completely comparable, as some samples were random type[18,26], others were made by clusters or stratification[15,21] or do not refer full data on the type of sample[25].

Regarding subjects of study, the age range, n general, was from 60 years, which matches the WHO definition, defining people 60 and older as "elderly people". This definition includes 3 ranges: people from 60 to 74 years old so called as "advanced age", from 75 to 90 so called as "old" or "ancient", and those exceeding 90 years old so called as "longevity people"[1,27]. This classification is relevant, as in some studies the results on mental health varied, according to age range[15,26].

Another feature of the analyzed literature was the heterogeneity of the population under study, as in some cases, elderly people lived in rural areas[14,15,26] and in other cases, they were part of elderly people programs for population living in urban areas[12]. The latter have health control, support networks or other benefits, to be considered as as variables favoring quality of life

Instruments used to measure quality of life on elderly people were various scales or questionnaires which do not fully allow a comparison between the studies, because of its various criteria and dimensions to be assessed. The most used instrument to measure quality of life was the brief "World Health Organization Quality of Life Questionnaire" (WHOQOL-BREF), with 26 questions thus generating a life quality profile in 4 basic areas: physical/ psychological/ social relationships and environmental areas which, according to the authors, such as Cardona-Arias et al., presents an excellent conceptual and psychometric structure, apart from reliability and cultural adaptation[28]. This instrument has been validated in several countries and languages; therefore it is presented as a good alternative for making even assessments of this topic[29].

Regarding mental health, the The Geriatric Depression Scale (GDS) was the one most used, thus proving in 11 studies that depression rang from 5.7% to 61.5% 23. In the literature analyzed with applied search strategy, it was proved that the 2 most prevalent pathologies are depression and anxiety. However, no pathologies related with mental health were searched, such as dementia or Alzheimer which are also common in old age.

In this way, when relating this mental disability with life quality, there are 4 studies proving a statistic association between risk depression and life quality deterioration[17,20,23,24]. Contrary to this, Supasiri et al. study, proved that his population of study on elderly people had a medium or high quality of life, despite 31.1% of them had mental disorders, such as stress, depression or anxiety[26].

Some studies proved that variables associated with a low incidence of depressive symptomatology in these elderly people, such as living with a stable couple, to have an income, to be functional to perform daily activities and to have a proper social support[21,26]. This last scientific evidence allows to draw some work lines aimed to face this mental disorder.

Therefore, before the perspective of increasing aging in the population, scientific evidence presented as systematic reviews, have a fundamental role regarding contribution made by sciences, as these identify the risk dimensions, apart from protection regarding management of this in order to face this big world challenge.

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