RISK FACTORS FOR MENTAL ILLNESS IN ELDERLY: AN INTEGRATIVE REVIEW

ABSTRACT

Objective: identifying in the literature factors associated with risk of mental illness in the elderly. Method: an integrative review of the literature guided by the question: What are the risk factors for mental illness in the elderly? Search in databases LILACS and MEDLINE and SciELO virtual library, in 2004 to 2014 period, with tool for the identification of the profile of studies and its categorization. There were included articles in Portuguese, English and Spanish; texts available in full and of free access. There were excluded chapters of books, reviews, editorials and abstracts. Results: we selected 16 articles, there were showed as risk factors: female gender, age, marital status, low education, low income and unemployment, involvement for chronic diseases and functional disability, obesity, malnutrition, physical inactivity and falls. Conclusions: there is a need for implementation of the mental health services in Primary Care articulated to measures directed at comprehensive care to the elderly. Descriptors: Mental Health; Elderly; Primary Health Care.

RESUMO


RESUMEN

Objetivo: identificar en la literatura los factores asociados con el riesgo de la enfermedad mental en los ancianos. Método: una revisión integradora de la literatura guiada por la pregunta: ¿Cuáles son los factores de riesgo para enfermedades mentales en los ancianos? La búsqueda en las bases de datos LILACS e MEDLINE y SciELO biblioteca virtual, en el período de 2004 a 2014, con la herramienta para la identificación del perfil de los estudios y su categorización. Incluyeronse artículos en Portugués, Inglés y Español, textos disponibles en su totalidad y de libre acceso. Fueron excluidos capítulos de libros, revistas, editoriales y resúmenes. Resultados: se seleccionaron 16 artículos, se demostraron como factores de riesgo: el sexo femenino, la edad avanzada, el estado civil, la educación baja, los bajos ingresos y el desempleo, las enfermedades crónicas y la discapacidad funcional, la obesidad, la desnutrición, la inactividad física y las caídas. Conclusiones: hay necesidad de implementación de las acciones de los servicios de salud mental en la Atención Primaria coordinada a las medidas dirigidas a la atención integral a las personas mayores. Descriptors: Salud Mental; Ancianos; Atención Primaria de Salud.

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INTRODUCTION

Aging is a progressive, natural, dynamic and irreversible process, in which there are morphological, biochemical and physiological changes that gradually change the body, making it more susceptible to intrinsic and extrinsic attacks, which can cause an increase of diseases in this group. Among the most common disease between elderly, there are mental disorders, especially of the type of dementia and depression.

In Brazil, it is considered that there is a steady increase in the elderly population, and there is a need for investment in care programs for the elderly, allowing the maintenance of their quality of physical, social and mental life.

The Primary Health Care has been highlighted in the axis of contemporary policies to promote healthy aging through prevention and promotion of mental health of the elderly. In this context, it highlights the importance of the study of risk factors those predispose mental illness in the elderly, since it can be used as an information base for planning of health services offered to the elderly.

In the approach of the context surrounding the research problem, the following guiding question was elaborated: What are the risk factors for mental illness in the elderly? Thus, the study sought to:

- Identifying in the scientific literature the factors associated with risk of mental illness in the elderly.
- Highlighting the actions of Primary Care in the mental health of the elderly.
- Checking the prevalence of mental disorders in the elderly.

METHODOLOGY

For the development of this research there was done the use of the assumptions of the integrative review. The choice for this kind of study was made because it corresponds to a search method that provides the synthesis of knowledge and the incorporation of the applicability of the results of significant studies in practice.

The elaboration of an integrative review involves six different stages, which were used in this study: establishment of the review issue; search in the literature; data collection; critical analysis of the included studies; interpretation of results and presentation of the integrative review.

The research question that guided the preparation of this study was: What are the risk factors for mental illness in the elderly?

The literature search was performed using the survey in the databases Latin American and Caribbean Health Sciences (LILACS) and International Literature on Health Sciences (MEDLINE) and virtual libraries Scientific Electronic Library Online (SciELO).

There were prioritized studies published between 2004 and 2014. This period was selected, seeking to use publications with more recent data.

For the cross there were used the following descriptors of MeSH (Descriptors in Health Sciences): mental health, elderly and Primary Health Care, associated with the Boolean operator AND, being crossed the descriptors: mental health AND elderly and mental health AND primary care to health. There was identified a universe of 14,345 articles. Through the infeasibility of data analysis of all articles found, there were established inclusion and exclusion criteria to select those that met the research objectives.

So, to select the articles, the following inclusion criteria were used: articles must have been published in Portuguese, English or Spanish; have free access; meeting established descriptors and be available in full. Exclusion criteria were: book chapters, book reviews, editorials and abstracts. Thus, in the LILACS database, 334 articles were located and, of these, seven corresponded to the inclusion criteria and were selected to be part of the sample. In SCIELO, from the 120 articles found, six met the established selection criteria, being selected to be part of the sample. In MEDLINE, 13,891 articles were found and, of these, three met the inclusion criteria. Thus, it was identified a sample of 16 articles.

For data collection there was built a tool that allowed the extraction in a systematic way, the relevant data from the selected articles, such as: article title, year of publication, authors, formation of the authors, country of origin of the study; data about the objectives, design and methodological features of the study; found results. The results were tabulated with the help of Excel 2010 program and arranged in
tables. The study of discussion was developed according to the thematic categories established.

**RESULTS AND DISCUSSION**

Relating to the year of publication of the studies, it was found that in the 2004-2014 decade, the year 2012 was the one with the highest number of publications (24.9%). In addition, it was noted that from 2007 there was an increase in publications on mental health of older people.

Researchers’ interest on the topic, from that period, may have increased due to the increase of this population group, which has grown considerably in the last years.

**Characterization of the studies**

When using the strategy described there were found 16 articles, as features figure 1.

<table>
<thead>
<tr>
<th>Origin</th>
<th>Title</th>
<th>Authors</th>
<th>Year</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>SciELO</td>
<td>Prevalence of mental disorders common among seniors living in municipality of Northeastern Brazil</td>
<td>Rocha SV, Almeida MMG, Araújo TM, Rodrigues WK, Santos JS.</td>
<td>2012</td>
<td>Quantitative</td>
</tr>
<tr>
<td>SciELO</td>
<td>Mental disorders common in the elderly: a population-based survey in the city of Campinas, São Paulo, Brazil</td>
<td>Borim FSA, Barros MBA, Botega NJ.</td>
<td>2013</td>
<td>Quantitative</td>
</tr>
<tr>
<td>LILACS</td>
<td>Depressive symptoms in the elderly assisted by the Family Health Strategy</td>
<td>Alvarenga MRM, Oliveira MAC, Facccdenda O, Cerchiar EAN, Amendola F.</td>
<td>2012</td>
<td>Quantitative</td>
</tr>
<tr>
<td>LILACS</td>
<td>Mental health, quality of life and religion of seniors in a Family Health Program</td>
<td>Floriano PJ, Dalgalarrondo P.</td>
<td>2007</td>
<td>Quantitative</td>
</tr>
<tr>
<td>LILACS</td>
<td>Prevalence and factors associated with depressive symptomatology in elderly residents in Northeastern Brazil</td>
<td>Maciel ACC, Guerra RO.</td>
<td>2006</td>
<td>Quantitative</td>
</tr>
<tr>
<td>LILACS</td>
<td>Physical activity and mental health of the elderly</td>
<td>Benedetti TRB, Borges LJ, Petroski EL, Gonçalves LHT.</td>
<td>2008</td>
<td>Quantitative</td>
</tr>
<tr>
<td>LILACS</td>
<td>Profile of elderly regulars living groups in Belo Horizonte, Minas Gerais, Brazil</td>
<td>Borges PLC, Brêtas RP, Azevedo SF, Barbosa JMM.</td>
<td>2008</td>
<td>Quantitative</td>
</tr>
<tr>
<td>SciELO</td>
<td>Physical activity in leisure and mental disorders common among elderly residents in a municipality in Northeastern Brazil</td>
<td>Rocha SV, Almeida MMG, Araújo TM, Virtuoso Júnior JS.</td>
<td>2011</td>
<td>Quantitative</td>
</tr>
<tr>
<td>SciELO</td>
<td>Depression in the elderly: doctors are investigating?</td>
<td>Gazalle FK, Hallac PC, Lima MS.</td>
<td>2004</td>
<td>Quantitative</td>
</tr>
<tr>
<td>SciELO</td>
<td>Depression in the elderly enrolled in the program of control of hypertension and diabetes mellitus</td>
<td>Sass A, Gravena AAF, Pliger C, Mathias TAF, Marcon SS.</td>
<td>2012</td>
<td>Quantitative</td>
</tr>
<tr>
<td>LILACS</td>
<td>Depressive symptoms and motor performance in the elderly: a population-based study</td>
<td>Santos KT, Fernandes MH, Reis LA, Coqueiro RS, Rocha SV.</td>
<td>2012</td>
<td>Quantitative</td>
</tr>
<tr>
<td>MEDLINE</td>
<td>Incidence and predictors of depression in non-demented primary care attenders aged 75 years and older: results from a 3-year follow-up study</td>
<td>Atkins J, Nasmith SL, Luscombe JM, Hickie IB.</td>
<td>2013</td>
<td>Quantitative</td>
</tr>
<tr>
<td>MEDLINE</td>
<td>Mental Health Status of Home Care Elderly in Michigan</td>
<td>Conwell Y, Li LW.</td>
<td>2007</td>
<td>Quantitative</td>
</tr>
<tr>
<td>LILACS</td>
<td>Mental health promotion for the elderly in the basic attention: the contributions of community therapy</td>
<td>Andrade FB, Filha MOF, Dias MD, Silva AO, Costa ICC, Lima EAR, et al.</td>
<td>2010</td>
<td>Qualitative</td>
</tr>
</tbody>
</table>

Figure 1. Distribution of the articles selected for the sample.
Also in Brazil, the greatest interest of researchers in this area may also have occurred from the publication of the decrees of the Cabinet nº 339 and nº 2528 of 2006, which deal respectively with the release of the health pact, which includes the pact for life that highlights the health of the elderly as a priority target; and the approval of the National Health Policy for the Elderly.

Regarding the methodological design, there was a predominance of the quantitative approach, used in 15 studies, and only one study used a qualitative design.

Regarding the training of the authors of the analyzed articles, 17 are nurses, 15 are doctors, and 10 are physiotherapists, seven physical education teachers, two nutritionists and psychologists and one dentist. In addition, two are professionals from other areas and nine did not specify their training.

It stands out a variety of training areas between the authors of the publications analyzed, which shows that the issue has aroused the interest of different specific nuclei of knowledge.

Regarding the area of expertise of the authors, 45 are teachers, six are students, four are healthcare professionals and 10 did not specify.

Those working in teaching are encouraged to develop scientific research, because the demands of organ teacher support linked to graduate departments and postgraduate programs, causing them to publish more often than professionals from other areas.6

In addition, professionals in the health care area, even living with concrete problems of the practical field, do not have the same opportunity and motivation for publishing studies. What explains the significant difference of research produced by professionals working in these two areas.6

♦ Thematic categories

The results of these studies were grouped and discussed in three thematic categories: risk factors for mental illness in the elderly; prevalence of mental disorders in elderly and; Primary Care actions for mental health care for the elderly.

♦ Risk factors for mental illness in the elderly

The risk factors for mental illness in the elderly identified in each study are presented in Figure 2.

<table>
<thead>
<tr>
<th>AUTHORS</th>
<th>RISK FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocha SV, Almeida MMG, Araújo TM, Rodrigues WKM, Santos LB, Virtuoso-Júnior JS.</td>
<td>Female; low education and low income.</td>
</tr>
<tr>
<td>Borim FSA, Barros MBA, Botega NJ.</td>
<td>Female; advanced age; low educational level; low income; unemployment and involvement for chronic diseases.</td>
</tr>
<tr>
<td>Alvarenga MRM, Oliveira MAC, Faccenda O, Cerchiari EAN, Amendola F.</td>
<td>Low income.</td>
</tr>
<tr>
<td>Floriano PJ, Dalgalarrondo P.</td>
<td>Functional incapacity and live alone or with only one person.</td>
</tr>
<tr>
<td>Maciel ACC, Guerra RO.</td>
<td>Advanced age; low educational level and functional incapacity.</td>
</tr>
<tr>
<td>Benedetti TRB, Borges LJ, Petroski EL, Gonçalves LHT.</td>
<td>Sedentarism.</td>
</tr>
<tr>
<td>Borges PLC, Bréatas RP, Azevedo SF, Barbosa JMM.</td>
<td>Falls.</td>
</tr>
<tr>
<td>Rocha SV, Almeida MMG, Araújo TM, Virtuoso Júnior JS.</td>
<td>Sedentarism.</td>
</tr>
<tr>
<td>Gazalle FK, Hallal PC, Lima MS.</td>
<td>Female.</td>
</tr>
<tr>
<td>Sass A, Gravena AAF, Pilger C, Mathias TAF, Marcon SS.</td>
<td>Marital status; advanced age; inadequate nutritional status.</td>
</tr>
<tr>
<td>Santos KT, Fernandes MH, Reis LA, Coqueiro RS, Rocha SV.</td>
<td>Functional incapacity.</td>
</tr>
<tr>
<td>Conwell Y, Li LW.</td>
<td>Functional incapacity, involvement by chronic diseases and pain.</td>
</tr>
</tbody>
</table>
Among the investigated aspects, four studies showed a significant association between gender and mental illness, indicating that the females are more susceptible, since they have higher prevalence of mental disorders.\(^7,8,16,21\)

This association of risk may be related to social disadvantages, such as: low pay, workload, domestic violence, beyond the multiplicity of assigned roles and played (mother, wife, educator, professional),\(^23\); however, the most consistent hypothesis is that the increased risk for mental disorders among women is related to the decline in hormone levels after menopause.\(^24\)

Old age was shown as a risk factor in four researches\(^8,11,17 \text{ 21}\)  In this sense, it was observed that elderly of 80 or older have a prevalence 2.86 times higher than the 60-69 years old.\(^8\) Furthermore, in this review, the low income was reported by three studies as a major vulnerability factor for mental disorders in the elderly.\(^7-9\)

This association can be explained by the fact that low income is associated constantly to stressful life events and the poor performance of social roles, resulting from less access to social opportunities throughout life, which would cause low self-esteem, thus causing greater susceptibility to mental disorders.\(^25\)

In this context, still stands out unemployment, found as a facilitator for higher prevalence of mental disorders. This is because the work acts as a protective factor for mental health, because it covers the application of forces and human capacities to achieve a particular purpose, and requires the completion of physical and intellectual activities, which are necessary in any task, service or enterprise.\(^8\)

Another relevant aspect evidenced was the low educational level.\(^7,8,11\) The relationship between low educational level and mental disorders can be explained by some aspects such as malnutrition in childhood, a factor that retards the intellectual development and leads to a low educational and psychosocial performance in the future. The consequences of low education level reveal the lack of opportunity in the social context and have been pointed as an important risk factor for mental illness.\(^26\)

There is still a higher prevalence of mental disorder in the elderly who never married, divorced and widowers.\(^11\) However, in the literature, there is no consensus on the association of mental disorders and marital status; however it should be noted that this is a disturbing finding, given that older people belonging to this group is more likely to live alone.\(^17\) In this regard, a survey of elderly people who lived alone or with just one person found that they had a higher prevalence of mental disorders compared to those living with more than one person. Thus, it can be inferred that the presence of family members considered significant social partners, emotionally connected; it appears to be an important factor in maintaining the mental health of the elderly.\(^10\)

Regarding the influence of clinical conditions, two studies\(^8,20\) showed association of risk between chronic diseases and mental illness in the elderly. In this sense, it was observed that the prevalence of mental disorders is about four times higher in elderly people who had 4 to 5 morbidities, compared with those who did not have chronic diseases.\(^8\)

The involvement of disabling diseases is responsible for causing one of the greatest fears presented by the elderly with increasing age: the loss of autonomy and independence to perform activities of daily living. It is understandable, then, that events that refer to a possible illness frame, dependence and lack of control, can generate high levels of stress, contributing to the mental illness of the elderly.\(^27\)

Thus, functional disability was evidenced with significant risk factor for mental disorders.\(^10,11,14,18 \text{ 21}\) It was observed that the elderly with functional disability have a 4.3 times higher risk for the occurrence of mental disorder when compared to those without incapacity.\(^10\) In addition, researchers point out that functional limitation presents significant association with mental disorders, independent of sociodemographic characteristics of the elderly.\(^18\)

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**Figure 2. Distribution of articles according to the risk factors of mental illness.**

|-------------------------------------------|------------------------------------------|

Oliveira ES, Pascoal FFS, Nagashima AMS de et al.
Oliveira ES, Pascoal FFS, Nagashima AMS de et al.

Also in relation to clinical conditions, pain was identified as villain. There are several theories that attempt to explain this association, among them stands out the cognitive behavioral model, which considers that pain conditions cause reduction in labor, social and leisure activities, generating feelings of loss of social prestige, insulation, among others, thus causing the mental illness.

Regarding nutritional status, it was found that both obesity and low weight predispose to the occurrence of mental illness in old age. This is due to the negative body self-image.

With regard to lifestyle, physical inactivity was associated with mental disorders in two articles included in this review. The non-sedentary elderly had less indicative of mental illness, which can be explained by the increased participation in various activities, whether domestic, leisure, transport or work.

Physical activity acts as a protective factor for the development of mental disorders, especially when practiced in a group, because it raises self-esteem, contributes to the implementation of psychosocial relations and for emotional balance, helping to maintain the mental health of the elderly; however, it is noteworthy that many older people who have mental disorders end up losing interest in engaging in physical activities, which often make them more sedentary, worsening significantly their mental status.

With regard to risk factors related to the environment, only one study has shown a significant association between falls and mental disorders.

Falls from occurring physical trauma can lead to disability, loss of function or result in immobility syndrome, leading to reduced autonomy and independence.

It is noteworthy, therefore, that the association of mental disorders and falls can be explained by the fact that these promote social isolation, inactivity and disability, or predispose the emergence of other mental illness risk factors in the elderly.

Shares of Primary Care related mental health care for the elderly

Among the 16 studies included in the sample of this review, only one showed some action developed in Primary Care for mental health care for the elderly. Who identified the Integrative Community Therapy (ICT) as a tool for mental health promotion and prevention of mental disorders in the elderly; a care tool in the integration programs and support for mental health of the population. Being established in 1987, under the coordination of the theologian and anthropologist Adalberto de Paula Barreto, the TCI is characterized as a welcoming place of suffering, where people are willing sitting side by side, to share concerns, difficulties or overcoming stories.

Considered an integrative and complementary practice in mental health, TCI, values the diversity of cultures, knowledge, and individual and collective skills in an attempt to combat isolation, fragmentation and exclusion. Such psychosocial intervention allows rescue the self-esteem, strengthens the power of resilience and empowerment, as it enhances individual and collective capabilities.

More than that, such care tool stands out as valuing the experiences of each elderly in building knowledge, developing therapeutic actions that provide both mental and physical balance of the elderly, strengthening their identity and citizenship.

Thus, the Community Therapy has provided satisfactory results to its participants and should be widely used by professionals of Primary Care in its actions on mental health care for the elderly, to build and strengthen solidarity links, leading users to a (re) construction and (re) know their identity, image and collective memory.

The prevalence of mental disorders in the elderly

The prevalence of mental disorders in the elderly identified in each article are presented in Figure 3.
Considering the different contexts and characteristics of the sample analyzed in each study, there is a high prevalence of mental disorders among the elderly, which ranged from 4.7% to 40.5%. This is a worrying statistic, especially when compared to the estimate of the World Health Organization, which mentions an average prevalence in urban populations of 25%.13

Therefore, it is important noting that most of the studies in this review showed a prevalence of mental disorders above average estimated by WHO. It can be explained by the deficiency of shares of Primary Care for the promotion of mental health of older people, as evidenced in the second category.

### FINAL REMARKS

The study allowed the characterization of national and international scientific production about mental illness in the elderly from 2004 to 2014. The sample was composed of 16 articles identified after crossings, readings and intense analysis in the databases LILACS and MEDLINE and SCIELO library.

The results showed that the items included in the sample were predominantly available in LILACS. Regarding the year 2012, it stood out as the largest number of published studies on the subject investigated. As for methodology, there was a predominance of research with quantitative design. Among the instruments used in education at Geriatric Depression Scale was the most prevalent.

With regard to vocational training and titration of the researchers, it was found that nurses, specialists and doctors make up the majority. As for the area of operation of these researchers, a higher prevalence of teachers was evident, with a small contribution of professional care area.

Qualitative analysis of publications was based on three thematic categories: risk factors for mental illness in the elderly; prevalence of mental disorders in the elderly and actions of Primary Care for the mental health of the elderly.

The profile of the elderly in the study characterized as female, with advanced age, low education, low income, unemployed, affected by chronic diseases with functional disability, pain, obese, malnourished, sedentary and who suffered falls are the most vulnerable to impairment of mental disorders. In addition, the analysis allowed observing an incipient number of shares in Primary Care intended for mental health care of the elderly, as well as a rising prevalence of mental disorders in old age.

Such findings reinforce the need for imminent implementation and execution of these actions, with the articulation of effective measures such as training of older age groups, with leisure activities, physical...
activities, Integrative Community Therapy, among others. Actions, these, directed to promotion of mental health and comprehensive care for the elderly, thus contributing to a better quality of life.

The analysis of the publications provided a better understanding about the various aspects involving mental illness in the elderly population. However, this study is limited by the fact that they were used only DeCS to search for articles in databases, as a disagreement was observed between these terms and descriptors used in relevant researches that could have contributed to the construction of this review.

Given the above, it was noticed that the investigation of factors that affect mental health of the elderly is a fundamental step for the planning of actions that seek to reduce the prevalence and impact of mental disorders on the quality of life of this population. Thus, it is expected that the results obtained could contribute to the building of knowledge about that relevant thematic and get subsidies for the development of programs and actions directed to the mental health care of the elderly.

REFERENCES


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Risk factors for mental illness in elderly...
Oliveira ES, Pascoal FFS, Nagashima AMS de et al.


