

## Risk factors and quality of life in late-life depressive disorders

Octavian Vasiliu<sup>1</sup>, Daniel Vasile<sup>1,2</sup>

**Abstract:** *Late-life major depression is a high-incidence and difficult-to-treat affective disorder. Diagnosis of major depression in old age could also be a challenge, due to aspects like (1) there is a higher vulnerability to the stigma of depression in this population, (2) hypochondriac ideation and somatic symptoms are the main symptoms, while depressive disposition or anhedonia are under-reported by such patients, (3) differential diagnosis includes various organic diseases, but also several psychiatric disorders, like neurocognitive disorders, organic affective disorders, drug induced affective disorders etc. Reduction of social relationships caused by retirement and loss of spouse and friends, as well as a decrease of personal income could precipitate or maintain depressive disorders during late-life. Quality of life in patients diagnosed with depressive major disorders is a rarely monitored parameter, although its importance for case management could not be overemphasized. A reduction of life quality correlates with a poorer functional prognosis, persistence of neglected residual symptoms, low adherence to treatment plan etc.*

**Keywords:** *late-life depression, geriatric depression, quality of life, risk factors, institutionalized population*

### BACKGROUND

Late-life depressive disorders have a high impact over patients' quality of life, general well-being, risk of organic diseases recurrence, involvement in daily activities and life expectancy.

Although depression could be perceived as a part of normal process of ageing, this is only a relatively widespread misconception. Adjustment to changes in life style due to retirement, loss of the spouse, death of close friends, financial losses, decreasing of physical capacities etc, should not be confounded with major depressive disorder. Depression has been identified in 17-37% of elderly patients treated in primary care

facilities, and 30% of these have a diagnosis of major depressive disorder [1].

Elderly patients are more sensitive to stigma associated with depression and this is a reason for them to declare less frequently than young adults that they have dispositional symptoms during epidemiological studies [2]. Therefore this kind of data should be regarded with caution, as an underestimation of the depression real incidence in late-life is very possible.

<sup>1</sup> Carol Davila University Emergency Military Hospital, Bucharest, Romania

<sup>2</sup> Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

**Table 1:** Risk factors for depressive disorders in late-life population

Risk factor	Overall impact
Bereavement after loss of spouse, a child or other close relatives	Bereavement after a recent loss correlates with depressive symptoms in elderly [5] Elderly bereaved patients seek frequently medical help for their emotional discomfort [6] Most of the depressive symptoms are reported by mothers who have lost a child after a prolonged suffering and in fathers who lost a child by suicide; it's possible that old adults have a lower risk of depression caused by the death of a child than younger adults, possible due to better coping mechanisms [7]
Retirement	People who retired recently have a higher risk for depression than those who continued to work, although self-esteem scores didn't change significantly, as reported by a prospective evaluation during 2 years [8] Depressive symptoms increase when the retirement is sudden and perceived by the subject as being too early or forced [9] There is a reciprocal relationship, as patients diagnosed with depression tend to retire with 1.5 years earlier than those without depression [10]
Income decrease	Women who have lost their spouse have as main mediator of depression financial burden, while widowed males have mainly problems with house holding activities [11]
Interpersonal relationships decreasing	Loneliness was the only factor which correlated with depression scores in 8% of people aged 60-98 who were institutionalized, thus suggesting that loneliness is an independent risk factor for major depression [5]
Lower physical capacity	Old adults with sedentary lifestyle and physical disabilities had a higher risk (OR=2.44) for depressive symptoms appearance than those with good mobility and that were physically active, according to a 8 years follow-up study; the risk maintained high (OR=1.99) in those with low mobility but active life-style, when compared to those who were both physically active and have an intact mobility [12]
Somatic symptoms, pain included	Presence of several organic diseases predicts late-life depression [5] Organic pathologies which associate important pain have a risk for developing more depressive symptoms and a worsening of pre-existing depressive manifestations [13] Quality of life is decreased more in old adults with symptoms like physical pain, because this is associated with limitations in functionality, fatigue, sleep disturbances, depressive mood [14]
Physical or psychological symptoms of patient's spouse	There is a high correlation between depressive symptoms in both spouses: if one has depressive manifestations, there is a high risk for the other to have the same type of symptoms, and this correlation increases in frequency with the patients' age; age difference between spouses has been associated with more depressive symptoms, and those with younger spouses reported more depressive symptoms in 65+ age than spouses with minor age differences [15]
Psychological symptoms, including decrease in cognitive function	Elderly patients (60+) with major depression who have persistent insomnia have a 1.8-3.5 times higher probability to maintain depressive symptoms than those who doesn't have insomnia [16] Depression appears frequently in almost every type of neurocognitive disorder, even in mild cognitive disorder (MCI), and the risk for depression to increase the risk of MCI conversion to dementia is investigated [17] Late-life depression leads to further functional and cognitive decline [18]
Decrease autonomic functioning	Mobility deficits predict a higher risk of mortality and loss of autonomy in elderly patients [14]
Relocation in other area (from city to rural areas, or from his/her own residence into a long-term care facility)	Institutionalization, lower frequency of visits from friends or relatives and less involvement in social activities have been associated with greater risk for late-life depression [5] In institutionalized patients, depression is more common in women who were widow/single, younger or much older than the mean group age, with lower educational background, poor social and economic status, who live alone [20].

Detecting vulnerable populations for depression disorders is an important process if we look at the risk of early death from natural and unnatural causes in patients diagnosed with depressive disorder (71.1 vs. 75.9 years old) and loss of potentially years of life (13.4 vs. 10.2 years) comparative to the non-depressed population [3].

Risk factors for development of depressive disorder in late-life are intricate, with genetic vulnerability, cognitive diathesis, age-associated neurobiological changes, and stressful events, while protective factors are higher education, high socioeconomic status, and involvement in desired activities, inclusive of religious

and spiritual nature [4].

Clinical manifestations of major depression in elderly patients has several peculiarities, like denial or dissimulation of feeling sad or anhedonia, but with predominance of somatic complaints, irritability and anxiety, self-isolation, low level of energy and slow movements.

## OBJECTIVE

To assess the specific risk factors for late-life depression and to search for impact of this pathology over the patients quality of life, by analyzing data from literature.

**Table 2:** Quality of life in late-life depressive disorder

Lin J-H, Huang M-W, Wang D-W et al. [21]	Depressed elderly inpatients have less satisfaction and quality of life; female gender, duration of hospital stay, and in-hospital rehabilitation correlated significantly with quality of life scores.
Doraiswamy PM, Khan ZM, Donahue RM, Richard NE [22]	Late-life depression associates significant quality of life impairments in 5 out of 8 baseline SF-36 items; women rated their quality of life as worse than men on physical functioning and role physical; subjects aged over 70 reported lower quality of life on the summary physical component and a trend for higher scores on the mental component of the SF-36
Dombrovsky AY, Lenze EJ, Dew MA et al. [23]	All domains of health-related quality of life except physical functioning improved with successful acute and continuation treatment using paroxetine and/or monthly interpersonal psychotherapy
Hunkeler EM, Katon W, Tang L et al [24]	Collaborative care intervention (including depression care manager, primary care doctor, psychiatrist offering education, behavioral activation, antidepressants, a brief behavior based psychotherapy, relapse prevention geared to personal needs and preferences) was superior to usual care for depression in elderly patients (60+) diagnosed with major depressive disorder regarding quality of life, self-efficacy, satisfaction with care, remission of depression after 12 months
Heiligenstein JH, Ware JE Jr, Beusterien KM et al [25]	Treatment with fluoxetine for 6 weeks in patients over age 60, diagnosed with major depressive disorder, had improvements vs. placebo in all dimensions of SF-36 health status survey; before treatment these patients had lower values in mental health, role limitations due to emotional problems, social functioning, vitality, role limitations due to physical problems, bodily pain- as dimensions of quality of life and health-related dimensions.

## METHODS

Main electronic databases (PubMed, EMBASE, CINAHL, Cochrane) were searched using as keywords „old age depression“, „late life depression“, „geriatric depression“, combined with „clinical dimensions“, „quality of life“, „risk factors“, „prognosis“, „evolution“.

All articles were analyzed, including clinical trials,

systematic reviews, meta-analyses, case reports, case series, guidelines and editorials.

We formulated the following inclusion criteria for the selected papers: population age over 60; diagnosis of major depressive disorder, organic depression or mixed anxiety-depressive disorder; institutionalized or community dwelling residents; specified statistical method for data processing; risk factors and/or quality

of life as specified variables.

Exclusion criteria were: unspecified age of studied population; age under 60; diagnosis of drug induced depressive disorders, or bipolar disorder- major depressive episodes.

## RESULTS

According to the analysis of the data from literature, main risk factors for depressive disorders in elderly are illustrated in table 1. Each factor has a different impact over the onset or evolution of depressive symptoms, but these factors appear seldom isolated, therefore it is hard to quantify each variable's impact.

Patients diagnosed with depressive disorders in late-life have various risk factors for this affective disorder, like social events (d.e. retirement, lack of social interaction), psychologic aspects (d.e. bereavement, cognitive deficits) and organic diseases (d.e. somatic pathologies, decreasing of physical mobility). Therefore, it's important to configure a management plan that includes all these factors and adequate monitoring methods, in order to improve depressive symptoms severity, prognosis and risk of relapse.

Regarding the quality of life in depressed elderly patients, we found several studies which are presented in table 2. All the cited trials are randomized and included quality of life and/or health-related quantitative measurements as main or secondary variables.

Although only a small number of trials dedicated to evaluation of life quality in depressed elderly patients

was found, we can conclude from the available data that (1) a significant correlation between depression and quality of life decrease was found; (2) treatment, either psychotherapy or pharmacotherapy, could help in resolving both depressive symptoms and alterations in quality of life; (3) several risk factors like female gender, duration of hospital stay, and in-hospital rehabilitation correlated significantly with quality of life scores.

## CONCLUSIONS

There are many risk factors that could be correlated with the onset of a new depressive disorder in old age, or with a relapse or recurrence of a previously diagnosed major depression. Some of these risk factors could be corrected and thus patient's prognosis could be improved (d.e. symptoms related to organic comorbidities, like pain, dizziness, or medical aids for visual or hearing deficits), while others could be only monitored and assisted through counseling (d.e. reduced immobility due to untreatable or only partially treatable conditions, lower physical capacity or bereavement).

Quality of life is an important predictor of prognosis in depressive disorders and monitoring the patients' well-being should be more frequently recommended during psychopharmacologic or psychotherapeutic treatment in elderly population. An increased attention should be placed in patients with depressive disorders and risk factors for lower quality of life, like female gender or long duration of hospitalization.

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