

Original Article

Depressive illness in institutionalised older people in Malta

Paul Zammit, Anthony Fiorini

Abstract

Introduction: Depression in older persons is associated with being placed in a nursing home. Depression is linked to increased medical morbidity in nursing home residents.

Methods: 150 patients living in two nursing homes in Malta were included in the study. The geriatric depression scale was used to identify depression. Data for risk factors for depression and management of residents for this pathology was also collected.

Results: 67.3% (p value <0.01) were found to be depressed. 12% of the total population had major depression while 55.3% had minor depression. Only 40% of those diagnosed with depression in this study had been so diagnosed prior to the study. Significant associations included low Barthel scores, loneliness, being currently in pain, taking several medications, being widowed and having osteoarthritis. The study also showed that those residents already diagnosed with depression were being treated inappropriately with low prescription levels of antidepressants (40.6%).

Conclusion: Results show that depression in nursing home residents is highly prevalent and under diagnosed. There is also a lack of proper treatment in those identified with depression. There is a need for further research to develop intervention and management strategies for depression that is specifically tailored to meet the needs of the frail nursing home population.

Keywords

Depression, nursing homes, elderly

Introduction

Several independent studies have shown that major and minor depression is widespread in the nursing home population. A studyⁱ had observed that, 'Depression is the most common, treatable psychiatric disorder found in elderly nursing home residents'. This statement is understandable when consideration is given to the inactivity, decline in functional competence, loss of personal autonomy, and inevitable confrontation with the process of death and dying that are associated with a nursing home placement. In addition, some nursing home residents have already had previous episodes of depression in their lives or are admitted to the facility already with low mood or with other chronic forms of this illness. Such circumstances provide a population and environment conducive to the development and persistence of depressive illness.

There are other described characteristics of depression affecting older persons, thus making a diagnosis difficult.ⁱⁱ Proper diagnosis and adequate treatment give good therapeutic results among older persons. The consequences of undiagnosed and untreated depression are high both for the older person as well as for carers and staff. From the rehabilitation point of view, persistent depression among individuals with physical dependency following an acute event such as a cerebrovascular accident (CVA) is associated with failure to improve in physical functioning. Depression is linked to increased medical morbidity in nursing home residents, a relationship that also has been suggested for medical inpatients. Due to this loss in activities of daily living (ADLs), the need of increased nursing time and other health care facility services is greater for depressed than non depressed residents, and financial costs are higher as well.

Studies have found that depression prevalence in this population is higher than in the community and ranges from 35% to 80%.⁴ Associated factors with one being depressed in a nursing home include pain, functional limitations in ADLs, visual impairment, the effect of a stroke, loneliness, lack of social support, negative life events and perceived inadequacy plus lack of care among others.⁵ Besides, when depression is successfully diagnosed in older persons the medications given are often inappropriate.⁶

In addition, a study⁷ showed increased mortality in nursing home residents with major depressive disorder. It is apparent that depression in long term care facilities

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is a condition that has negative medical, social, and financial consequences.⁸

Methodology

In Malta there have been no studies on depression in older persons living in nursing homes. The main hypothesis was to see if depression is widespread but unrecognised in nursing home residents in Malta. Management in those residents identified as being depressed was assessed along with significant associations. The collection of data was through subject interview and review of the medical records. Parameters included descriptive statistics such as age, gender and marital status. The Barthel ADL index was taken to judge the level of independence. Medical data collected included the presence of the physical symptom of pain, common medical pathologies and the number of medications the subject was on.

All residents had a consent form explained to them and full confidentiality was emphasized. The geriatric depression scale (GDS) developed by Yesavage⁹ was the tool used to identify depression. Prior to this a minimal state examination (MMSE) developed by Folstein¹⁰ was carried out to exclude from the study all those who were cognitively impaired. This was done because the GDS has a low sensitivity in severely demented subjects.

The study was done in the two largest nursing homes in Malta. The largest had a capacity of 1100 residents and the second had a capacity of 200 residents. The total number of subjects included in the study was 150 in total. These were chosen randomly from the two homes and the interview was done by one doctor. No patient refused to do the interview. Data was analysed using SPSS version 13.0.0.

Exclusion criteria

Residents who had communication difficulties had to be excluded from the study as they were unable to do the interview. Residents with cognitive impairment (MMSE less than 21) were also excluded as the reliability of the GDS decreases markedly with MMSE scores of 20 or less.

Results

From 150 subjects, 113 were female and 37 male. Mean age was 80.3 years (Standard deviation (SD) 6.7, range 60-96). Mean MMSE scores was 26.9. The mean Barthel index score was 12.9 (SD 6.6 range 0-20). 96 (64%) were widowed. There were 25 (16.7%) who were still married whilst 29 (19.3%) remained single. The mean number of medical pathologies for each resident was 3.2 (SD 1.5, range 0-7). The most common pathology was diabetes (41.3%). 37 (24.67%) were suffering from osteoarthritis (OA) and 14 (9.33%) had a

recent fracture. The mean number of medications each subject was on was 6.5 (SD 3.1, range 0-15). 46 (31.7%) admitted feeling lonely. 51 (34%) of residents admitted suffering from pain regularly.

Depression

Mean GDS score was 12.5 (SD 5.9, range 1-26). 101 (67.3%) had GDS scores suggestive of depression. According to GDS scoring (GDS over 11) there were 18 (17.8% of those depressed) with major depression and 83 (82.2% of those depressed) with minor depression (GDS less than 11). When enquired directly 52 (34.6%) felt depressed. When the GDS was done 41 (78.8%) of these actually had an element of depression. There were a number of risk factors which were positively associated with depressed residents. Those with a *p* value <0.05 by using one way ANOVA can be seen in Table 1.

Only 15 (10%) of the 150 subjects interviewed were seen by a specialist regarding depression. Of those seen, 10 (66.6%) had depression according to the GDS. None of the residents were ever seen by a psychologist. There were a total of 43 residents (28.7%) on some kind of anti-depressant. Of these, 35 (81.4%) were found to be depressed. 37 (86%) were on selective serotonin reuptake inhibitors (SSRIs) while only 6 (14%) were on a tricyclic antidepressant.

Discussion

The results show that the population of subjects living in nursing homes in Malta had a high degree of depressive disease. A major difference when one compares this study in Malta with the prevalence of depression in other countries is that it is higher. Only a study in Taiwan⁴ had a higher prevalence of depression while other studies on this subject had a lower one.^{5,11,12} The prevalence of major depression in other countries was found to vary from 12.4% in the USA¹³ to 16% in the Netherlands.¹⁴ In Malta the results regards major depression were similar at 12%. Thus, the major difference was the much higher prevalence of minor depression.

There were various risk factors in the subjects studied which were positively associated with depression (Table 1). These risk factors compared favourably with similar studies done in Europe.^{5,15} Studies also found depression in nursing homes to be associated with heart disease, stroke¹⁶ and Parkinsonism⁵ but this was not found in this study.

There may be various reasons for these risk factors being associated with depression. Having low Barthel scores means one is dependent and disabled so the number of activities a subject can do is limited which may increase the risk of depression. When a person is lonely or widowed means he might be left with a sense

of emptiness and solitude resulting from inadequate levels of social relationships. This would increase the risk of depression. Pain is a disabling symptom that can affect the quality of life of a person physically as well as psychologically. A person who is in pain, especially if chronic, will have the mood affected adversely and may lead to a depressive disorder. Residents who feel unsatisfied living in a nursing home may feel that their needs are not adequately met or listened to and this may have caused their depression.

Residents suffering from OA and fractures were at increased risk of being pain which may have been the cause for their depression. Another reason could be the fact that these two conditions tended to increase dependency which was significantly correlated with depression in this study.

Having a large number of co-morbidities and having depression may be due the fact that these subjects may have been worried about their precarious health. Having medical conditions may cause an alteration in their lifestyle (e.g. change in food habit if one has diabetes) which may also cause low mood. These subjects tend to take a higher amount of medications which may be the reason why the latter was associated with depression. The more medication one takes, the higher the potential risk of side-effects which may also be a reason for the lower mood of these subjects.

28.6% of the total number of residents was or were on an anti-depressant. Of the 101 who were found to be depressed, 35 (34.6%) were on an anti-depressant. These levels were quite low and these might have been for a number of reasons. One of the reasons might have been failure to make a diagnosis of depression. This was evident from the fact that only 41 of the 101 depressed residents (40.6%) had this diagnosis in their medical records. Another reason might have been the fact that clinicians were reluctant to treat the depressed residents. As regards non pharmacological treatment this can be said to be nonexistent as none of the subjects were ever seen by a psychologist. Review by a psychiatrist was also low with only 9.9% being seen.

In other countries the situation is similar to the above. Studies in the United States show that from 45% to 53% of the depressed residents were not on any form of treatment.^{6,17} In the United Kingdom a study showed a worse result with only 19% of depressed older residents being on any form of treatment.¹⁸ In Germany few residents were treated and only 11% were on anti-depressants. It found that review by a psychiatrist was low at 20% which was similar to this study. Only 4% were ever seen by a psychologist.¹⁹ In Australia results were similar to Malta. A study found that only 33% of depressed residents were on anti-depressant treatment.²⁰

It was positive to note that the majority of residents who were on an anti-depressant were on the newer

SSRIs (86%) and only 14% were on the older tricyclics. This may have been due to the increased awareness of the side-effects of the latter. These findings in Malta were similar to other countries. The general trend was for SSRIs to be given rather than for other anti-depressants such as tricyclics as the former are better tolerated with less side-effects.²⁰⁻²¹

Conclusion

Depression appears to be a major health problem among nursing home residents in Malta. The results of this study emphasize the major importance of optimal medical treatment and care for residents in pain, those having a high number of medical co-morbidities in general, those having had a fracture in the past, those taking a large number of medications and OA sufferers. Furthermore, special attention and care must focus on psychosocial factors on those already diagnosed with depression, aspects of loneliness and the widowed. The absence of treatment given to those residents with depression was an important factor. Given that the number of residents involved in the study was high with consequent significant results, there is a need for further research to develop intervention and management strategies for depression that is specifically tailored to meet the needs of the frail nursing home population.

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