

GUEST EDITORIAL

Preventing major depression in older medical inpatients: innovation or flight of fancy?

Major depression in older medical inpatients is frequent, persistent, and disabling (Cole and Bellavance, 1997). The incidence is 20.5%–30.2% during the 12 months following admission to hospital (Fenton *et al.*, 1997; Cole *et al.*, 2008). Up to 73% of patients have a protracted course (Koenig *et al.*, 1992; Cole *et al.*, 2006; Koenig, 2006). Moreover, major depression in older medical inpatients appears to be associated with decreased function (Covinsky *et al.*, 1997), increased use of health care services (Koenig *et al.*, 1989; Büla *et al.*, 2001), increased caregiver burden (McCusker *et al.*, 2007), and possibly increased mortality (Cole, 2007).

To date, few healthcare policies or practices address the enormous burden of major depression in older medical inpatients and none does so systematically. Psychiatric consultation may be requested by attending physicians but the majority of older medical inpatients with major depression remain undetected and untreated (Koenig, 2006; Cepoiu *et al.*, 2007). Even if detected and treated, available treatments appear to have limited benefits. Antidepressant treatment is modestly efficacious in older ambulatory patients (McCusker *et al.*, 1998; Williams *et al.*, 2000) but two trials of disease-management models for depression in older medical inpatients have reported high rates of drop-out and non-compliance and limited value in reducing depressive symptoms or improving outcomes (Cole *et al.*, 2002; Oslin *et al.*, 2004). These findings challenge healthcare professionals to find innovative, feasible, effective, inexpensive, and easily implemented approaches to reducing the burden of major depression in this population.

The success of a program to prevent delirium in older medical inpatients (Inouye *et al.*, 1999) offers hope that major depression may be prevented in this population. The delirium program identified older medical inpatients with at least one of six risk factors for delirium and implemented standardized intervention protocols for each of the risk factors present. The program attenuated the risk factors and reduced the incidence of delirium by 40%.

Preventing depression in older subjects

The Institute of Medicine Report on Preventing Mental Disorders defines three levels of preventive

interventions: (1) universal preventive interventions targeted at communities regardless of risk, (2) selective preventive interventions targeted at high-risk groups, and (3) indicated preventive interventions targeted at individuals with early signs or symptoms of mental disorder (Mrazek and Haggerty, 1994). A range of strategies and frameworks for the development and evaluation of interventions to prevent depression have been described – from assessing needs for prevention through identifying target populations to conducting pilot studies, randomized controlled trials, and implementation studies. There seems to be consensus that selective and indicated interventions are probably the levels at which to begin to develop preventive approaches for depression (Cuijpers, 2003; Schoevers *et al.*, 2006; Smit *et al.*, 2006).

A systematic review of 14 trials of selective or indicated interventions to prevent depression in older subjects has reported that such interventions appear to be feasible, although none of these trials was conducted in older medical inpatients (Cole, 2008). Reported trial enrolment rates were 21% to 100% (median 45%–49%), trial completion rates were 53% to 100% (median 85%), rates of compliance with the interventions were 29% to 100% (median 80%). Evidence of the effectiveness of these interventions was weak, however, considering the methodological limitations of the trials and the inconsistent results. Only 8 of the 14 trials reported positive results. Among studies that reported risk reductions, absolute risk reductions were –17% to 45% (median 7%) and relative risk reductions were –125% to 71% (median 33%). Nevertheless, some of the interventions were promising, especially those that used educational and cognitive-behavioral techniques, such as the Depression Prevention Course, (Muñoz and Ying, 1993). At the least, the above findings justify efforts to explore the development of programs to prevent major depression in older medical inpatients.

Preventing major depression in older medical inpatients

Programs to prevent major depression in older medical inpatients require the identification of target patient groups and development of selective or indicated preventive interventions that can be

implemented on a wide scale. As for identifying target patient groups, two studies have described risk factors for incident major depression in older medical inpatients. The first study reported that depressive symptoms at admission and loss of meaning in life predicted the onset of major depression (Fenton *et al.*, 1997). The second study reported that depressive symptoms at admission, a prior history of depression, and inadequate emotional support predicted the onset of major depression (Cole *et al.*, 2008). Although the attributable fractions for these risk factors have yet to be determined, it is conceivable that older medical inpatients with one or more of these risk factors could be targeted for intervention.

As for development of preventive interventions, the etiology of major depression in older medical inpatients is probably multifactorial. Nonetheless, acute and chronic physical disease and disability likely contribute to a vicious cycle of disempowerment, negative thinking, unpleasant social interactions and feelings of helplessness, and lowered self-esteem and depression (Blazer, 2002; Hinrichsen and Emery, 2005). Interventions that educate, empower, reduce negative thinking, and increase pleasant interactions and feelings of mastery and self-esteem may well contribute to the prevention of major depression in this population.

Including self-management

Self-management programs for depression use written information, audiotapes, videotapes, and computerized or group courses to assist patients in the management of depressive symptoms (Morgan and Jorm, 2008). In the UK, these interventions are recommended as step 1 in a stepped care program for treating depression in primary care (National Institute for Health and Clinical Excellence, 2007). A meta-analysis suggests that guided (or supported) self-management is more effective than unguided self-management (Gellatly *et al.*, 2007). Although there are no studies of self-management programs to prevent depression, the educational and cognitive-behavioral content of many of the self-management programs are similar to the educational and cognitive-behavioral content of interventions that were feasible and potentially effective in preventing depression in older subjects (Cole, 2008).

Developing a program to prevent major depression in older medical inpatients

Cognitively intact older medical inpatients at risk of major depression (e.g. those with some depressive symptoms at admission) could receive a guided

self-management intervention to prevent major depression. The intervention could involve the patient learning some relatively simple cognitive-behavioral skills to manage depressive thoughts and feelings. Patients could receive a self-management workbook, adapted from an intervention such as the Depression Prevention Course (Muñoz and Ying, 1993) and four 20–30 minute self-management sessions with a trained self-management guide. The workbook and sessions could cover the following topics: information about depression; learning to monitor daily mood level; relaxation exercises; how thoughts, activities, and interpersonal contacts affect mood; and how to identify and change thoughts, activities, and contacts with people that most affect mood level. The self-management guide could use a manual that sets specific goals for each session. The sessions could be conducted face-to-face while the patient was in hospital and, if necessary, by telephone after discharge.

Evaluating a program to prevent major depression in older medical inpatients

Initial evaluation of such a program would involve determining its feasibility and potential benefits. Can a substantial proportion of older medical inpatients at risk of major depression be screened, identified, and recruited for a feasibility study? Can the intervention be implemented in a timely manner? Will a substantial proportion of enrolled patients comply with and complete the intervention? Is the intervention potentially beneficial in terms of increasing scores on measures of pleasant activities, social contacts, feelings of mastery and self-esteem, and decreasing scores on measures of negative thoughts and depressive symptoms? If the intervention appears to be feasible and potentially beneficial, the next step would involve a randomized controlled trial to determine its effectiveness.

Conclusion

Preventing major depression in older medical inpatients may be an innovative approach to reducing the frequency of this disorder or a flight of fancy. On the one hand, it is likely that a target population can be identified. There is some evidence that prevention of depression in older subjects is possible. Development of preventive interventions with significant self-management components may increase ease of dissemination and reduce costs. Delivery of the intervention in hospital may increase feasibility because older patients may be more open

to screening and healthcare interventions in this setting. Finally, a preventive psychosocial intervention may be more acceptable to older medical inpatients, their families, and attending physicians than the use of additional medication. On the other hand, the feasibility of preventive and self-management interventions for depression among older medical inpatients is unknown. Evidence of the effectiveness of preventive and self-management interventions for depression in older subjects is promising but not strong.

Clearly, much research is needed to define target groups and develop and evaluate interventions. If such an approach proves to be feasible and effective, it may provide an opportunity to reduce the burden of major depression in a substantial number of older people.

Conflict of interest

None.

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