Depressive symptoms at old age : proactive management in general practice

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Chapter 9

Summary

Chapter 1 is the general introduction to this thesis that (as main aim) examines depressive symptoms at older age; this is an intriguing and much investigated topic. It is well established that at old age these symptoms have a negative impact on well-being, quality of life, daily functioning and mortality. Furthermore, these symptoms have a fluctuating and often chronic course, and also increase the risk of developing major depression. However, recognition of depressive symptoms at old age is notoriously difficult, especially in the presence of (multiple) chronic somatic and cognitive disease. Moreover, poor recognition may hamper adequate treatment, even though both pharmacotherapy and psychological interventions have shown significant positive effects on clinical outcomes. This led to the idea that a pro-active strategy, such as screening older persons for depressive symptoms followed by treatment of screen-positive individuals, is needed in order to improve detection and treatment of depressive symptoms at old age. This idea was strengthened by several studies that showed promising results.
Whether these positive results would also be found in a combined screening-intervention program for the oldest old in the primary care setting of the Netherlands was, however, uncertain. Therefore, we conducted the PROMODE study (PROactive Management Of Depression in the Elderly) with the primary aim to investigate in a pragmatic way whether a pro-active approach in primary care by screening for depressive symptoms, followed by an intervention offer to older persons who screened positive, is (cost-)effective to detect and relieve suffering from depressive symptoms at old age.
Parallel to the PROMODE study several secondary studies were performed. First, we tested our hypothesis that depression with concurrent anxiety has a stronger correlation with decreasing functional status and quality of life and increasing mortality risk, than depression alone. Second, we explored the variety of approaches to the 'usual care' concept in pragmatic trials and evaluated the influence of the study design on the behaviour of caregivers and patients in a usual care control group. Third, we investigated the influence of the administration method (self-administered versus interviewer administered) on the scores of the PROMODE screening questionnaire, the 15-item Geriatric Depression Scale. Finally, we explored the limiting and motivating factors that play a role in the decision whether or not to accept a treatment offer among persons aged ≥75 years who screened positive for depressive symptoms.

In **Chapter 2** we tested our hypothesis that at old age depression with concurrent anxiety has poorer outcomes regarding functional status, quality of life and mortality risk, than depression alone. We had the opportunity to analyse data of the Leiden 85-plus Study, a population-based cohort study in which depression (at least 5 points on the 15-item Geriatric Depression Scale) and anxiety (at least 1 positive answer on the Anxiety Screening Questionnaire) were assessed in all persons at age 90 years, with at least 19 points on the Mini-Mental State Examination (MMSE). This study showed that both depression and anxiety are highly prevalent among people at the very old age of 90 years;

17% had only depression, 4% had only anxiety, and 8% had concurrent depression and anxiety. This means that 32% of the group who suffered depression also had anxiety, and that 64% with anxiety also had depression. The presence of depression was associated with an overall decreased functional status and quality of life, and with increased mortality. Within the depressed group, those who also experienced anxiety did not differ from persons without anxiety, except for higher loneliness scores. We concluded that, although a substantial number of depressed older people has concurrent anxiety, the presence of anxiety probably has only a minor (if any) additional negative effect on functional status, quality of life or mortality risk. Thus, anxiety is most probably part of the phenomenology of depression. Since most older people with anxiety are also depressed, health care providers should focus on depression in order to improve quality of life in very old age.

In **Chapter 3** we performed a literature review to explore the variety of approaches to the 'usual care' concept in pragmatic trials, and to evaluate the influence of the study design on the behaviour of caregivers and patients in a usual care control group. Our review included 73 pragmatic trials that were performed in primary care and had a usual care control group; these studies were published between January 2005 and December 2009 in the *British Medical Journal*, the *British Journal of General Practice*, and *Family Practice*. In most trials, the caregivers of the control group had the possibility to treat these patients according to their own insight; in two studies, treatment options were restricted. Of all reviewed trials, 38 were individually randomised trials and 35 were cluster randomised trials. Although possible influences on the behaviour of control caregivers and control patients were more often identified in individually randomised trials, these influences were also present in the cluster randomised trials. We concluded that researchers in primary care medicine should carefully consider the design of a usual care control group, especially with regard to minimising the risk of study-induced behavioural change. It was difficult to evaluate many of the reviewed trials because the description of the instructions and/or information given to the control group was often insufficient. Therefore, we proposed an extension to the CONSORT statement on the reporting of trials that requires authors to specify details of the usual care control group.

In **Chapter 4**, as part of the PROMODE study, we examined the yield and costs of two screening methods for untreated depressive symptoms in persons aged 75 years and over in general practice. This study was performed in 73 general practices with 12,144 registered persons aged 75 years and over. In the first 31 practices we invited 3,797 persons for direct screening, which implied an invitation by letter followed by a home visit to administer the 15-item Geriatric Depression Scale (GDS-15) by an interviewer. In the remaining 42 practices 6,884 persons were invited for stepped screening, which implied that the GDS-15 was sent by post, followed by a home visit only if the score on the self-administered GDS-15 was at least 4 points. An important finding of this study was that 5.8% of the registered

persons already received treatment for depression. The yield of screen-positive persons (defined as an interviewer-administered GDS-15-score ≥ 5 points) was 2.6% in direct screening and 1.9% in stepped screening, with similar yields for persons aged 75-79 years and for those aged ≥ 80 years. Overall screening-participation rates were similar for both methods. In a standard general practice with 160 persons aged ≥ 75 years, estimated total screening costs would be about twice as high for direct screening than for stepped screening. Based on these findings no definite conclusion could be drawn about a preferred screening method. Whether the extra yield of direct screening is clinically relevant and worth the extra costs would depend on the subsequent treatment effect; this was investigated in the next PROMODE intervention study (Chapter 6).

The objective of **Chapter 5** was to study the influence of the administration method on the scores of the GDS-15 (total scores ranging from 0 to 15 points). In two general practices we administered the GDS-15 twice within one month among registered persons aged 75 years and older, once self-administered by mail, and once interviewer-administered during home visits. The sequence of the two methods was different for the two practices. No items were left unanswered when the GDS-15 was interviewer-administered, whereas almost 25% of the persons left one or more items unanswered when the GDS-15 was self-administered. Although item-item comparisons showed high percentages of agreement, the self-administered total GDS scores were higher (on average 0.7 points) than the interviewer-administered scores, showing that the method of administration should be taken into account when interpreting scores.

Chapter 6 presents the PROMODE randomised controlled trial. Among persons aged 75 years and over who screened positive for depressive symptoms in general practice, we studied the cost-effectiveness of a stepped-care intervention program compared to usual care by general practitioners. We also analysed the data for two age groups separately (75-79 years and ≥80 years). This study, with a 12-month follow-up period, was performed in 67 Dutch general practices with 239 persons aged 75 years and over, who had screened positive for untreated depressive symptoms (see Chapter 4). After cluster randomisation, 34 practices with 118 persons were randomised to the usual care condition, and 33 practices with 121 persons to the stepped-care intervention. The intervention consisted of 3 steps: 1) individual counselling; 2) the 'coping with depression' course, and 3) if indicated, referral back to the GP to discuss further treatment. After 6 months, severity of depressive symptoms as measured with the Montgomery-Åsberg Depression Rating Scale (MADRS), being the primary outcome measure of this study, had improved more in the usual care than in the intervention group, but not after 12 months. Also within the two separate age groups (75-79 years and ≥80 years), the intervention showed no positive effects on MADRS-outcomes, nor on quality of life or mortality. Without beneficial effect, also the cost-effectiveness of the intervention was not favourable. An important finding was that in

intervention practices the acceptance of course participation (intervention step 2) was low. Although 83% of screen-positive persons accepted referral to the community health care centre for the stepped-care program, only 19% accepted participation in the 'coping with depression' course, which was the core element of the intervention program. The main conclusion of the PROMODE trial was that, among older persons who screened positive for depressive symptoms, the offered stepped-care intervention program was not (cost-) effective compared with usual care, possibly due to the low uptake of the main part of the intervention.

In **Chapter 7** we explored the limiting and motivating factors for accepting a 'coping with depression' course offer, among persons aged ≥75 years who screened positive for depressive symptoms in general practice. In addition, we examined subjective needs regarding depressive symptoms. Parallel with the PROMODE trial, we interviewed 23 persons who had screened positive for depressive symptoms and were offered a 'coping with depression' course. Of the interviewed persons 5 had accepted to participate in this course, whereas 18 had declined. We found that all persons who had accepted the course offer felt depressed and/or lonely, and had positive expectations about the course. Important reasons to decline the course offer were: not feeling depressed, or having negative thoughts about the course effect, about group participation, or about being too old to change and learn new things. The perceived needs to relieve depressive symptoms seemed to largely match the elements of the offered course. However, most persons seemed not (yet) prepared to accept an intervention offer, even when they acknowledged that they felt depressed. In line with the transtheoretical model that differentiates between different motivational stages towards change (used in Dutch primary care in the treatment of smoking cessation), we concluded that treatment should preferably be more individually tailored to the patient's motivational stage towards change. In this process an important role is granted to GPs, since many of the interviewed older persons expressed the need to discuss screening outcomes and treatment decisions with their own GP .

Chapter 8 summarises and reflects on the main results of this thesis and discusses several issues that might have affected these results. In addition, this chapter discusses possible implications for clinical practice and for further research.
First, the discussion focuses on several aspects of screening for untreated depressive symptoms in the oldest old. The added value of screening all older persons who are registered in a GP-practice to detect depressive symptoms seems to be limited. However, if systematic screening is considered, a 'stepped-screening' approach, starting with a self-administered screening questionnaire by mail, would be the most efficient and preferred option. Instead of a universal approach of screening all older people, a more selective approach, aimed at high risk groups (e.g. recently widowed and chronically ill older people), might increase the efficiency of screening or case finding.

Next, we evaluate the low uptake of the main part of the intervention and the need for help among older people who screened positive for depressive symptoms. Our qualitative study showed that the majority of screen-positive persons were not (yet) prepared to accept an intervention offer. This implies that the usefulness and efficiency of a screening-intervention program could be further increased by focusing not only on symptoms but also on the need for help and readiness to accept help, paying special attention to an individual's motivational stage towards change. Screening should preferably be followed by an individually-tailored investigation before offering an (unsolicited) intervention. From the patient's perspective it is important to discuss psychosocial problems with a familiar caregiver, such as the GP.

Then we discuss whether our primary outcome measurement, the Montgomery-Åsberg Depression Rating Scale (a good instrument in specialised psychiatry settings), adequately fits our study population. In view of the need for an adequate instrument to measure and monitor severity of depressive symptoms in primary care, further research is needed to adapt and validate currently available instruments especially for use among the oldest old.

Finally, we discuss the external validity of our study results. In our pragmatic study, the provision of and adherence to the intervention were probably not more ideal than could be achieved in daily practice. Furthermore, no appreciable contamination of the usual care group seemed to have occurred. Therefore, we feel confident that our results have good generalisability in (Dutch) primary care.

Further research is required to increase understanding what depressive symptoms mean to older people, especially in terms of impaired (social) functioning. In addition, more insight is required into older people's perceptions on how to improve their quality of life.