Chapter 11

Summary

Depressive and anxiety disorders are a very common, serious and underdetected problem in homes for the elderly. As the number of elderly persons aged 75 years or older increased, the group of very old persons in homes for the elderly has been increasing rapidly. In addition, the levels of psychological and physical frailty are increasing. Elderly persons in residential homes are at high risk for developing major depressive and anxiety disorders, and deserve attention with regard to prevention. The aim of this thesis therefore was to evaluate the (cost)effectiveness of a stepped care programme on the prevention of depression and anxiety in residential homes for the elderly.

Chapter 1. General introduction

Chapter 1 starts with a case vignette in order to illustrate some of the complexities of becoming old while living in a residential home. Depression and anxiety disorders are often considered to be consequences of physical vulnerability, rather than problems that deserve attention in their own right. Therefore, the focus of treatment and care for elderly people living in a residential home is mainly restricted to physical disability and disease. From there on depression and anxiety disorders in older people are described, followed by the mechanisms and the importance of preventive activities. Following, Chapter1 describes the stepped care prevention programme that we used in our study. This programme is a model to organise the expertise in efficient way, and may be particularly relevant for an environment of limited resources. The Chapter ends with a description of the objectives and the outline of this thesis.

Chapter 2. Study design

Chapter 2 presents the protocol of the pragmatic randomised clinical trial. This protocol describes a randomised trial on the feasibility and (cost) effectiveness of a stepped care programme for the prevention of depressive and anxiety disorders in homes for the elderly. The main outcome measure is the incidence of depressive and anxiety disorder in one year with a two-year follow up. Secondary outcomes are symptoms of depression and anxiety, quality of life, direct health care costs and satisfaction with treatment. The number of studies examining the effects of preventive interventions on the incidence of mental disorders in the elderly population is very small. However, indicated prevention by means of a stepped care programme seems to be an important option for decreasing the burden of illness for residents and their caregivers. This study contributes to the body of knowledge in this field.

Chapter 3. Pilot study for the screening procedure

Chapter 3 describes the problems that we met when screening for depressive and anxiety disorders in elderly persons in residential homes. The proposed prevention protocol has been developed for elderly persons who have a certain level of self-reliance, but who are part of an at-risk group in relation to the development of a depressive and/or anxiety disorder. A comparable protocol was found to be feasible with fragile elderly persons (75+) in the general population and it, therefore, also seemed to be a suitable method for elderly persons in residential homes. Of all the residents approached, 44% were prepared and/or able to fill in the screening list, with help if required. This was lower than we had expected on the basis of the previously mentioned research in the general population, in which two thirds completed this list. Of the residents who filled in the questionnaire, 37% appeared to have symptoms of depression and/or anxiety. It can be derived from this that the prevalence of the symptoms of depression and anxiety in this residential home is certainly as high as expected. However, we were subsequently expecting, on the basis of comparable research in the general population, that 80% of these residents with symptoms were prepared to participate. This was not the case. We concluded that a personal approach, performed by familiar persons, directed at the more independent inhabitants is most likely to succeed. The need for research on the effectiveness and feasibility of evidence-based methods in residential care remains evident. However, the more vulnerable residents, possibly already being considered for nursing homes, have other needs.

Chapter 4. Criterion validity of the screening instrument

Chapter 4 concerns the characteristics of our screening instrument, the Center for Epidemiological Studies Depression Scale (CES-D) in a residential home population. The CES-D is an instrument that is commonly used to screen for depression in community-based studies of the elderly, but the characteristics of the CES-D in a residential home population have not yet been studied. The aim of this study was to investigate the criterion validity and the predictive power of the CES-D for both depressive and anxiety disorders in a vulnerable, very old population living in residential homes. We found that the CES-D had satisfactory criterion validity for depressive disorders and for depressive and/or anxiety disorders together. With a desired sensitivity of at least 80%, the optimal cut-off scores varied between 18 and 22. We concluded that the use of one single instrument to screen for both depression and anxiety disorders at the same time has obvious advantages in this very old population. The CES-D seems to be a suitable instrument for this purpose.

Chapter 5. Incidence of clinically relevant depressive symptoms

Chapter 5 focuses on the incidence rates of clinically relevant depressive symptoms and their predictors in a vulnerable elderly population living in the community. Very old people with a vulnerable health status are under-represented in studies focussing on incidence and risk factors, while the risk of developing depressive symptoms is expected to be very high in this group. As we know that people living in a residential home often have a very vulnerable health status, the aim of this study was to test our assumption of high incidence rates of depression and anxiety in people living in residential homes. In a community-based cohort, 651 vulnerable elderly (75+) people were identified by means of the COOP-WONCA charts. After 18 months, we found that the incidence rate of all clinically relevant symptoms of depression was 48% (95% CI 44.2-51.8). No specific risk factors were identified within this population. These results do confirm the high risk of developing symptoms of depression in people in this selected vulnerable and older population.

Chapter 6. Activity-scheduling as a guided self-help intervention

Chapter 6 evaluates the feasibility and effectiveness of the first intervention in the stepped care programme, activity scheduling as a guided self-help intervention for the prevention of depression and anxiety in elderly people living in residential homes. We hypothesised that participation in the intervention would probably be difficult in this old and vulnerable population, and that uptake would be an important determinant of effect. We did, indeed, observe that a minority of the residents were able to complete the intervention (14/67 = 21%). The drop out rate in the intervention group was significantly higher than in the usual care group. Although guided self-help may be promising in the prevention of depression and anxiety, it proved to be difficult to apply in this very old and vulnerable group of inhabitants of residential homes. Although we found some large positive effect sizes on the CES-D, none of the effects were statistically significant. The results of our study contribute to the existing body of knowledge about the prevention of depression and anxiety in the elderly. The hypothesis that activity-scheduling as a self-help intervention is more effective in lowering symptoms than usual care in a very old residential home population with a high risk for depressive and anxiety disorders, cannot be confirmed on the basis of this trial, mainly because of limited uptake.

Chapter 7. The results of the stepped care programme after one year

Chapter 7 evaluates the effectiveness of a stepped care programme to prevent the onset of depression and anxiety disorders in elderly people living in residential homes after one year. Previous research has suggested that prevention is most likely to be effective when targeted at those with a high a priori risk of developing the disorder. This can be achieved either by focusing on people with established risk factors for a disorder (selective prevention), or by targeting people with early symptoms of the disorder, but have not yet developed the full-blown disorder (indicated prevention). We combined both strategies by focusing on a frail elderly population exposed to multiple risk factors, with above average levels of symptoms of depression and anxiety, but not yet meeting the diagnostic criteria for a disorder. We hypothesised that the stepped care prevention programme would be superior to the usual care in preventing the onset of depressive and anxiety disorders in residents in homes for the elderly. The intervention was not effective in reducing the incidence of the combined outcome of depression or anxiety (IRR=0.50 and a 95% confidence interval [CI] ranging from 0.23-1.12). However, the intervention was superior to the usual care in reducing the risk of MDD incidence (IRR 0.26; 95% CI 0.12-0.80), in contrary to anxiety incidence (IRR 1.32; 95% CI 0.48-3.62). For the prevention of anxiety, the programme would need to be improved, for example by including components that focus more specifically on anxiety disorders. Nevertheless, the preventive effect on depression is encouraging, and suggests that prevention may be a viable option, even in very old frail residents of residential homes.

Chapter 8. The sustained effects of the stepped care programme after two years

Chapter 8 describes the re-assessment of the effectiveness of a stepped care programme over two years. We hypothesised that the effect of the stepped care programme on depression, based on monitoring and evidence-based interventions, after one year would not sustain after two years. In two years, the IRR of MDD was 0.98; 95% CI 0.54 to1.81. In the 79 residents who completed the two year of measurements the IRR was 0.53; 95%CI ranging from 0.32 to 0.87. The effects of the stepped care programme did, indeed, not hold in the follow-up year. It was only in the “completers-only analysis” that the effects remained equal to the effects in the first year. The frailty of the population might be the cause of a limit to longer term effects. Participation in a preventive intervention is optional, and people in high risk groups may not acknowledge the urge to participate and modify their behaviour. This may result in some amount of self-selection of the healthiest residents in the population in which the positive effects of the intervention are sustained.

Chapter 9. Cost-effectiveness of the stepped care programme

Chapter 9 evaluates the cost-effectiveness of a stepped care programme to prevent the onset of depression and anxiety disorders in residents of elderly homes compared with usual care from a societal perspective. The stepped care intervention was not effective for the combined outcome, but it was effective in preventing depressive disorders in this frail elderly population with multiple risk factors. However, implementing such a programme requires scarce resources that otherwise could be employed elsewhere. Therefore, the aim of the study was to evaluate the cost-effectiveness of this stepped care prevention programme in comparison with usual care from a societal perspective. The incidence of depression and anxiety combined in the intervention group was not reduced in comparison with the usual care group. There was also no effect on the other outcomes. Mean total costs in the intervention group were €838 higher than in the usual care group, but this difference was not statistically significant (95% CI -593 to 2420). Cost-effectiveness planes showed that there was considerable uncertainty. Cost-effectiveness acceptability curves showed that the maximum probability of the intervention being cost-effective in comparison with usual care was 0.46 for reducing the incidence of depression and anxiety combined.