Part V: Discussion and summary
Chapter 7

General Discussion

Summary

Samenvatting (summary in Dutch)
Introduction

Depression is a worldwide health concern and it has a big impact on daily life and society. Effective treatments are only able to reduce about one-third of the disease burden. Therefore, preventing the onset of depression is important. However, providing prevention to everyone is expensive and not always necessary. A way to make it more feasible is to prevent depression in people at high risk for depression or indicated prevention. Research has shown that depression exists on a continuum from no symptoms to many symptoms. Subclinical depression is considered a prodromal phase and, as such, is viewed as part of this continuum. Hence, people that suffer from subclinical depression are at high risk of developing depression. Prevention targeting this group is an important first step in lowering the incidence of depression and examining the words of Benjamin Franklin: “An Ounce of Prevention is worth a Pound of Cure”.

This thesis aims to broaden the knowledge on help-seeking and the onset of depression in people with subclinical depression, a group at high risk of developing depression. The following research questions were stated in the introduction:

1. Can people benefit from preventive interventions?
2. Which people with subclinical depression (are willing to) participate in preventive interventions for depression?
3. How do people view their symptoms?
4. What are the attitudes towards care?
5. Which people with subclinical depression develop depressive disorders?

In this chapter, the main findings are summarized and the implications of the findings for clinical practice and future research are discussed. Also, the conclusions are stated.

Main findings and previous literature

Effectiveness of preventive interventions

A first important step in examining whether prevention of depression has the potential to lower the incidence of depressive disorders is to examine the effectiveness of preventive interventions for depression. There are three types of prevention: (1) Universal prevention targeting the entire population; (2) Selective prevention targeting individuals or subgroups that are at higher risk of developing mental disorders than average subgroups; (3) Indicated prevention targeting individuals who already show depressive symptoms, but do not yet meet criteria for depressive disorders (1, 2). Previous research has shown an overall effect of universal, selective and indicated prevention of depressive disorders (3). However, universal prevention was only examined in two studies making it impossible to examine its effectiveness. One way to examine whether preventive...
interventions are effective is to look at the numbers needed to treat (NNT). The NNT indicates the number of people that would have to receive a preventive intervention in order to prevent one new case of depression.

The findings in chapter 2 of this thesis have shown a relative risk of developing a depressive disorder of 0.79, indicating a 21% reduction in the incidence in depression in the people who received a preventive interventions compared to control groups. The NNT to prevent a new case of a depressive disorder was 20. Although this appears high there are no normative thresholds for lower or higher NNT (3). Considering the impact depressive disorders have on nearly all aspects of daily life, its clinical relevance, and the similar results in other areas of health care, 20 seems an acceptable number.

**Help-seeking in people with subclinical depression**

Another way to increase our understanding of prevention and its potential to lower the incidence of depression and its burden of disease is to investigate help-seeking and the onset of depression in people with subclinical depression. Although previous research and the findings in this thesis have shown that preventive interventions for depression are effective in preventing and delaying the onset of depression (3, 4), very few studies have examined help-seeking in people with subclinical depression.

Literature on help-seeking is mostly focused on “general mental conditions” and is often guided by the Behavioural Model of Health Service Use by Andersen and Newman (5). This model identifies three interrelating factors that explain health care use: need, predisposing, and enabling factors (5-7). Need factors include perceived need – how people view and experience their own health and illness symptoms - and actual need – defined by professional assessment and objective measurement of the symptoms a person experiences. Predisposing factors consist of demographic factors, social structure and belief factors, such as attitudes, values and health beliefs. Enabling factors relate to organisational factors that influence availability and affordability of mental health care.

Due to the Dutch health care system, enabling factors were expected not to present a barrier to help-seeking as most preventive care is available to everyone at little to no cost. Furthermore, the need factors were expected to play a less important role compared to help-seeking for full-blown disorders, since the symptoms are less severe. Research has indicated that the ability to recognize symptoms in oneself and attitude are consequently found to influence whether someone will seek help (8, 9).

Our results in chapter 3 showed that many people with subclinical depression (40%) do not perceive a need for care, 33% reported that they felt they needed help, but did not receive any, and 27% received professional help. People who reported no perceived need mostly felt they believed their symptoms were not severe enough to seek help or that they were able to solve problems on their own. Previous research has also shown that
people’s perception of their symptoms and their ability to deal with them is mentioned more often as a reason not to seek help than more practical reasons, such as lack of money (10-12). Furthermore, people without a perceived need frequently mentioned they were able to mobilize their own support, such as friends or family. They were also more often in a relationship, which is a protective factor for need for professional help (38), had not experienced a previous episode of depression in their life, and reported unfamiliarity with preventive interventions. Therefore, people might not see prevention as an option and seek other options to deal with their problems first. People who did not perceive a need for care were characterized by lower scores on neuroticism and older age compared to those who received care, suggesting that predisposing factors are more important in seeking help than need factors, at least, in people with subclinical depression.

People who received care mostly found this help in a combination of primary and specialized mental health care. People who reported an unmet need preferred group interventions, such as mindfulness, over web-based interventions. This is somewhat contradictory to certain previous studies. However, mindfulness is known to be popular treatment for anxiety and depression and web-based preventive interventions are relatively new (13). This, in combination, with the relatively old age in our study might explain this difference in results.

The ability to recognize one’s own symptoms, or insight, is also an important predictor in help-seeking. The model of Andersen considers this a predisposing factor. However, most research has examined this by using “vignette-studies” (14, 15). The research that has investigated insight has mainly focused on “common mental disorders” and has shown that insight or recognizing one’s symptoms is closely related to level of education and the burden of disease (6, 16). The results in chapter 4 have shown that, although most people are capable in identifying anxiety and depression in themselves, a clinically significant percentage of people underestimate their symptoms. This lack of insight seems to be associated with higher personal stigma, being separated or divorced, and younger age.

Another important factor in help-seeking is how people view the available care, or their attitude towards care. There are multiple types of care, but they can be characterized as: professional care, informal help (e.g. friends or family), or self-reliance (e.g. keep problems to oneself). In order to understand help-seeking it is important to know what influences people’s beliefs about the existing care. Who has these beliefs and are they changeable over time? Chapter 5 focused on this and showed that attitude does not change a lot over time and the attitudes people hold at baseline are consequently related to the attitudes after four years. Furthermore, a more positive attitude towards professional care after four years was associated with a change in mental health care use. People that had not used care at baseline, but indicated to have used at follow-up
reported a more positive attitude compared to people who had not used mental health care.

The onset of depression in people with subclinical depression

In order to make prevention of depression useful to people the preventive interventions should be effective in preventing or delaying the onset of depression and people should seek help when they need it. However, not much is known about which people with subclinical depression develop a depressive disorder and which people do not, making it difficult to determine who needs care (17-20). Above I have discussed the effectiveness of preventive interventions for depression and possible important barriers to seeking care in people with subclinical depression, such as neuroticism and age. However, in order to provide care to the people that need it, it is important to determine in which people the subclinical depressive symptoms will convert into a depressive disorder. This will make it possible to tailor the care to the people that need it. Chapter 6 has addressed this question.

Although people with subclinical depression are at higher risk of developing depression, research on which people with subclinical depression develop a depression is scarce. Nevertheless, in other populations certain risk factors have been identified in preventing depression (21). These risk factors include severity of depressive symptoms, suffering from a chronic illness, need for care and mastery (17-19, 22). The findings in chapter 6 showed that 22% had developed a depressive disorder (dysthymia and/or major depression) within a year after baseline and 12% developed an anxiety disorder. However, at baseline certain people already suffered from a comorbid anxiety disorders. Examining people who developed an anxiety disorder without a comorbid anxiety disorder, showed that 7% were new cases of anxiety. The development of depressive and anxiety disorders between people with only subclinical depression and people with subclinical depression and anxiety disorder is shown in Figure 1.
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**Figure 1. Flowchart of diagnosis within a year in respondents with and without anxiety disorders at baseline**

Lifetime history of depression predicted the onset of depression within a year and severity of symptoms at baseline predicted the onset of anxiety within a year.

**Overall discussion**

The work in this thesis showed that the difficulty lies not in proving the effectiveness of preventive interventions, but in predicting which people with subclinical depression will develop a depressive disorder and/or an anxiety or, in other words, which people will benefit from preventive interventions. A first step has been taken in this thesis and has shown that lifetime history of depression predicted the onset of depression within a year and severity of symptoms at baseline predicted the onset of anxiety disorders within a year in people with subclinical depression. Taking into account figure 1 of the introduction (p. 9), this indicates that the results of our sample might provide more information on
relapse prevention. This emphasizes the importance of reaching a consensus on what defines prevention. Moreover, it shows that there might be several types of subclinical depression, which could require different (preventive) approaches in dealing with the symptoms. A possible explanation for the difficulty in predicting the onset of depression and anxiety in this high risk group is the heterogeneity of this groups, meaning some people might have remittal symptoms of a previous depressive disorder whereas other people might report depressive symptoms without having suffered from a previous depressive disorder.

**Recommendations for Clinical Practice and Policy**

The findings in this thesis have implications for clinical practice and lead to the following recommendations. In general, people are difficult to motivate if there is no direct benefit. Therefore, motivating people to seek preventive care is difficult. Prevention focuses on averting a bad event from possibly happening. Furthermore, people are reluctant to seek help for something that is not perceived as an event or illness that has a significant impact on their life. These two things, the uncertainty that something will happen and the lack of impact on daily life, make it difficult to convince people that prevention is useful.

In the Netherlands (and many other countries) we value informing and guiding people in making educated decisions on what is right for them in treating symptoms. This is partly shown in our health care system in which people are free to choose the height of the deductibles. It is important that the government educates people on the risks of developing depression as well as the consequences of suffering from a depression by using campaigns. Moreover, the government should focus on educating health care professionals on prevention and its benefits in seminars and/or campaigns. A good start would be making clinicians aware of the low participation rates in preventive care, but, more importantly, the effectiveness of preventive interventions. This way health care professionals are better able to provide information people can use to make an educated decision on seeking certain care.

Although it is difficult to predict who will develop a depression it is important to be vigilant for people who report lifetime history of depression and/or more severe symptoms according to a screening instrument. Taking into account other factors, such as family history, can make prevention more feasible and tailored in preventing the depressive symptoms from converting into a disorder. Although subclinical depression could have several origins, such as remittal symptoms or prodromal phase, clinicians should be aware of the possibilities of prevention.

Furthermore, care should be easily accessible to everyone (i.e. short waiting lists or travel time). When accessibility to care no longer feels like a barrier people will seek
help sooner, increasing people’s experience with care. This is important, since experience with care lowers the threshold to seeking (future) care. This is an important finding especially in people who have suffered from previous depression or other disorders. Even though the preventive care in the Netherlands is nearly free of charge this does not seem to be enough to increase awareness or accessibility. A special task might not only lie with GPs and Municipal Health Services, but also with the government. The results in this thesis increase insight into the reasons for not seeking help in people who are at high risk. Most people do not believe their symptoms are severe enough or believe they will be able to handle problems on their own. Since it is known that not everyone will develop a depressive disorder, this might be true in some cases. Furthermore, the predictors of depression identified in chapter 6, lifetime history of depression and severity of depressive symptoms can help clinicians identify people that may benefit from preventive care. However, when people come in with different complaints that might be related to depression or subclinical depression, (mental) health care professionals and Municipal Health services should know where to refer people to. Increasing awareness about prevention in these target groups of professionals is important.

Another important focus for policy makers and professionals should be the people that have indicated their willingness to seek and use help, but have not received any, and people that tend to underestimate their symptoms. Increasing awareness among the general public on what help is available, what the goals are and where this help is available, especially since many people indicated they did not know where to seek care. Also, increasing awareness in the general public might lead to other, more indirect, advantages. Many people report seeking care from friends and family, when awareness about subclinical depression and its consequences is better understood by people, they might be able to provide better care. Furthermore, increasing awareness might lower stigma and this might lower barriers to help-seeking. Moreover, due to people underestimating their symptoms the help they do seek might be for other problems. It is important to educate people on the (preventive) interventions that are available and their goals.

A way of improving this is to consider providing prevention at GP’s and not (only) in specialized mental health institutions or redirecting the focus of preventive interventions to strengthening resilience instead of preventing depression. The focus of the interventions and the location these interventions are provided, might lower stigma in “patients” as well as professionals.

The findings in this thesis, as well as previous research, have shown that prevention of depression is effective in preventing and delaying the onset of depression. Since treatment, even under optimal conditions, can only reduce about one-third of the disease burden of depression, it is essential that prevention of depression is better understood.
This research can be two-fold, either focusing on preventing the onset of depression or focus on reducing the symptoms of subclinical depression. Since the consequences of depression as well as other common mental disorders are enormous for both the individual as well as the society, research focused on preventing common mental disorders should be stimulated and financially supported by the government and public health institutions.

Recommendations for future research

In addition to recommendation for clinical practice and policy makers, the results in this thesis also provide recommendations for future research. These can be made to prevention of depression as well as the type of prevention.

Subclinical depression has been defined in several ways; (1) a score above a threshold on a screening instruments without meeting the DSM-V criteria for major depression on a diagnostic instrument or (2) reporting a depressed mood accompanied by additional symptoms, but not as severe as or as many as the DSM-V criteria for major depression (20, 23, 24). In this thesis the first definition was used (25). Future research should determine what constitutes subclinical depression. Are people that report subclinical depressive symptoms as remittal symptoms from a previous depressive episode the same as people who report subclinical depression as prodromal phase to a first onset depressive disorder? It is important to reach some sort of consensus on what constitutes a subclinical depression, since this most likely influences the outcome of results. Lifetime history of depression has shown to predict the onset of depression within a year, however it is likely that these people with subclinical depression most likely suffered from remittal symptoms or were more vulnerable to develop a depression and when they suffer from some addition symptoms these sooner convert into a depressive disorder.

This also shows the importance increasing insight into the course of subclinical depression. Prevention is two-sided, either research can focus on preventing the onset of depression or research can focus on lowering the depressive symptoms. Both sides of depression prevention need more research. The work in this thesis has focused on prevention of depression and future research should examine this in other high-risk groups, such as people with first-degree family members who suffer from depression, and identify people who may benefit from preventive care. Equally important is increasing our understanding of reducing subclinical depressive symptoms. Therefore, research should focus on recovery of subclinical depression as defined in the current thesis. In order to investigate this, researchers will have to measure depressive symptoms more often, which would then have to be cross-examined with the (absence of) diagnosis on a diagnostic instrument. For example, the screener used in the study discussed in
chapters 3 and 6 is reliable in asking four to six weeks prior to the date of completion. It is necessary to synchronize the completion of the screening to the diagnosis on the diagnostic instrument.

It is imperative to identify which factors predict the onset of a disorder even if the target group is fairly heterogeneous. Depression is a very debilitating disease and has immense economic costs at individual as well as societal level. Preventive interventions have shown to be effective, however it is important to make sure the right people receive the care they need. Providing prevention to everyone means wasting valuable resources, since many people do not develop depression and therefore do not need care. Tailoring prevention to people that need it, is important. Tailoring interventions may depend on the target group and setting in which they are provided, for example depending on age, education and setting. Future research should identify predisposing, need and enabling factors that predict the onset of depression in several other people at (high) risk. In order to tailor interventions, more information is needed on target groups. This will lead to adaptations as small as linguistics or as big as implementation. For example, implementing preventive care in high school settings will require a different approach than employment settings.

Furthermore, it is important to know how effective preventive interventions are in the long run. This could be examined by a prospective longitudinal study examining the onset of disorders in people at high risk who have used preventive interventions compared to people at high risk who have not used preventive care.

**Conclusion**

“An Ounce of Prevention is worth a Pound of Cure” is not as simple as it looks when applied to prevention of depression and certain issues need to be clarified. The work in this thesis allows us to conclude that preventive interventions for depression are effective. Although it remains difficult to determine who will benefit from preventive interventions, in most cases the subclinical depressive symptoms do not convert into a depressive disorder. Although many people can accurately identify their symptoms, a clinically relevant number of people with subclinical depression, who would benefit from care, underestimate their symptoms and do not seek help.

Lifetime history of depression and severity of symptoms seem to predict the onset of depression or anxiety in people with subclinical depression. Professionals should be vigilant of people who report more severe symptoms and who have suffered from a depressive disorder in the past. It is imperative to make (and keep) care easily accessible and tailor prevention to people that need it. It is especially important that care is provided to people who reported an unmet need.
References


