Care Managers' Evaluation of the Implementation of a Collaborative Care Model for the Treatment of Anxiety Disorders.

Master's Thesis of Clinical and Health Psychology

Author:
T. Bouman (3158713)

Supervisors:
C.M. van der Feltz-Cornelis (Head of Program Diagnosis and Treatment, Trimbos Institute)
A. Muntingh (PhD Student Scientific Program Diagnosis and Treatment, Trimbos Institute)
S. Doosje (Assistent Professor, Utrecht University)

September 2009 – February 2010

Abstract

Objective: To improve the treatment of anxiety disorders, collaborative care (CC) has been proposed; a cooperation model with general practitioner (GP), care manager (CM), psychiatrist and patient. Treatment of CC in this study use a stepped care approach; beginning with the least intensive treatment. When this treatment does not lead to significant symptom reduction, treatment will be intensified until the desired outcome is achieved. This qualitative study evaluates the experiences and opinions of CMs on CC for the treatment of anxiety disorders. The factors that facilitate or obstruct the implementation of CC are evaluated.

Methods: Using semi-structured interviews, the experiences and opinions of CMs were evaluated with regard to treatment, collaboration with other professionals, as well as facilitating and obstructing factors for implementation of CC. Ten CMs were interviewed; seven women and three men.

Results: CMs appreciated the guided self-help of the treatment, because of its effectiveness. CMs found it less important to follow entirely their protocol, because they were willing to learn more about the background of the patients. An important facilitating factor for the collaboration with the GP was whether CMs worked in the same building. CMs did not seem to be motivated to follow the supervision meetings.

Conclusions: According to CMs, CC is a plausible and promising intervention. Satisfaction with treatment is mainly due to effectiveness of guided self-help. An essential factor for implementation of CC seems the presence of the CM in the same building as the GP.

Samenvatting

Inleiding: Om de behandeling van angststoornissen te verbeteren is collaborative care (CC) geïntroduceerd; een samenwerkingsmodel met de huisarts, care manager (CM), psychiater en patiënt. CC in deze studie maakt gebruik van de getrapte zorg, beginnend met de minst intensieve behandeling. Als deze behandeling niet tot voldoende symptoomvermindering leidt, wordt de behandeling opgevoerd totdat het gewenste resultaat is bereikt. Deze kwalitatieve studie evalueert de ervaringen en meningen van CMs over CC voor de behandeling van angststoornissen. De factoren die de implementatie van CC bevorderen en belemmeren zijn geëvalueerd.

Methode: Met behulp van semigestructureerde interviews werden de ervaringen en meningen van de CMs geëvalueerd met betrekking to de behandeling, samenwerking met andere professionals, en de bevorderende en belemmerende factoren voor de implementatie van CC. In totaal werden tien CMs geïnterviewd, zeven vrouwen en drie mannen.
Resultaten: CMs waardeerden voornamelijk de begeleide zelfhulp van de behandeling, vanwege de effectiviteit. CMs vonden het minder belangrijk om het protocol volledig te volgen, omdat ze meer wilden weten over de achtergrond van de patiënten. Een belangrijke bevorderende factor voor de samenwerking met de huisarts, was of de CMs in hetzelfde gebouw werkten als de huisarts. CMs leken niet gemotiveerd te zijn om de supervisie te volgen.
Conclusie: Volgens de CMs is CC een veelbelovende interventie. Tevredenheid over de behandeling is voornamelijk te wijten aan de effectiviteit van de begeleide zelfhulp. Een essentiële factor voor implementatie van CC lijkt te aanwezigheid van de CM in hetzelfde gebouw als de huisarts.

Preface

This thesis was performed simultaneously with another student, T.R. Bouwmeester. She interviewed the general practitioners, I interviewed the care managers. In the beginning of the process, we have worked intensively together. Therefore, the introduction and methods of our theses show considerable similarities. Nevertheless, we have also worked largely independently, and we are both individually responsible for our own thesis.

I would like to thank several people who supported me during my thesis. First, I would like to thank my supervisor Christina van der Feltz-Cornelis for her advice and suggestions for my thesis. Also, I would like to thank her for the opportunity to gain research experience at the Trimbos-Institute. Further, I would like to thank my supervisor Anna Muntingh for her support, help, and the many fruitful discussions we had about my findings. Besides, I want to thank my supervisor Sibe Doosje for critically reviewing my thesis, and for helping me write in English, since this is my first article in English. I would also like to thank Hennie Boeije from Utrecht University. She offered advice, and helped me with this qualitative study, which was entirely new to me. Finally, I wish to express my gratefulness to my family and friends, who supported me. In particular, I'm thankful to Tjitte, Menno and Zhen, who read my thesis and gave me good advice.

Introduction

The prevalence of patients with anxiety symptoms in primary care is high, up to 15.8% (Kroenke, Spitzer, Williams, Monahan & Lowe, 2007). Despite the frequency of presentation in primary care and the availability of effective treatment options, the treatment of anxiety disorders by the general practitioner (GP) rarely meets the requirements of international guidelines (Smolders et al., 2009; Young, Klap, Sherbourne & Wells, 2001).

To improve the treatment of anxiety disorders in primary care, various interventions have been proposed. According to a review by Smolders et al. (2008), collaborative care (CC) seems the most effective intervention resulting in more anxiety-free days, prescription of adequate medication, and adherence to medication. It is based on Wagner's model of care for chronic diseases (Wagner, Austin & Von, 1996), and it involves collaborative disease management in primary care through introduction of a mental health professional, also called the care manager (CM). CMs have a major share in patient care. They perform coordinate care, work according to an evidence-based treatment protocol, and actively monitor the patients' response to treatment. The CM and the GP formulate a treatment plan in collaboration with the patient. Both the CM and the GP may consult a psychiatrist to provide optimal care for the patient.

CC has shown positive results in the treatment of depression (Bower, Gilbody, Richards, Fletcher & Sutton, 2006; Gilbody, Bower, Fletcher, Richards & Sutton, 2006), and of somatoform disorders, in which half of the patients also had a comorbid anxiety disorder (van der Feltz-Cornelis, Oppen, Adèr & Dyck, 2006). CC may also be effective in the treatment of anxiety disorders. However, only a few studies have investigated this aspect. Some of them have shown that CC is more effective than usual care in the treatment of panic disorders (Roy-Byrne et al., 2005; Roy-Byrne, Katon, Cowley & Russo, 2001). Similar results have been demonstrated for patients with generalized anxiety disorder (Rollman et al., 2005), and anxiety secondary to a comorbid depression (Price, Beck, Nimmer & Bensen, 2000).

However, Van Orden, Hoffman, Haffmans, Spinhoven and Hoencamp (2009), found no differences in patients' psychopathology, quality of life, and patients satisfaction' with CC treatment, compared to patients who received usual care. On the other hand, CC did show positive results in GPs' satisfaction, together with shorter referral delay, reduced time in treatment, fewer appointments, and lower treatment costs.

To conclude, CC may be a promising intervention for the treatment of anxiety disorders. However, most studies of CC in the treatment of anxiety disorders have been

performed in the United States. Findings in their health care system may not be generalized to other countries without further consideration (de Jong et al., 2009). Also, CMs have different tasks in the studies mentioned so far, ranging from simple telephone interviews to more complex interventions that involve intense follow-up, incorporating a set of structured psychosocial interventions (Gilbody et al., 2006). Therefore, it is difficult to draw general conclusions about the factors influencing the effectiveness of CC. However, a common feature of CC remains the central role of the CM. The professional background of the CM as well as regular supervision of the CM are key predictors of the effectiveness of CC, although it is not clear yet which part of the expertise of CMs has substantial influence (Bower et al., 2006; Gilbody et al., 2006).

A study on the effectiveness of CC in the treatment of anxiety disorders is currently being conducted in the Netherlands (Muntingh et al., 2009). This randomized controlled trial (RCT) evaluates the effects and costs of CC for patients with panic disorder and generalized anxiety disorder. Most CMs in this study are already working in general practices, thus creating a more naturalistic setting. CC in this program used a stepped care approach to make CC more cost-effective (Muntingh et al., 2009; Roy-Byrne et al., 2001). Stepped care means that the intervention starts with the least complex treatment (Meeuwissen & Donker, 2004). If the first step of the treatment does not reduce the symptoms sufficiently, the next step will be initiated. Treatment will be gradually intensified until the desired outcome is achieved. When symptoms are sufficiently reduced, relapse prevention will be started. In the study of Muntingh et al. (2009), stepped care is provided in four steps. The first step is guided self-help, in which the CM assists patients in five sessions. The second step is cognitive-behavioral therapy, which the CM gives in weekly sessions, with a total of six. The third step is antidepressant medication, during which the CM monitors adverse side effects and responses to medication. The fourth and last step is to optimize medication or referring the patient to specialized mental health care. Combining collaborative care and stepped care, several disciplines work together and different types of professional care become more accessible for patients (Meeuwissen & Donker, 2004). Moreover, proceeding from lower to higher levels of care based on observed outcomes may increase effectiveness, lowering the overall costs at the same time (Katon, Korff, Lin & Simon, 2001).

Because CC seems to be an effective, albeit complex and multifaceted intervention (Bower et al., 2006), research is warranted to evaluate the effectiveness of CC for anxiety disorders, particularly with regard to the opinion of the professionals. Effectiveness of CC is often studied by evaluating the reduction in anxiety symptoms in patient groups. To date, few

studies have considered the experiences and opinions of professionals. Because the CM has a major position in delivering and coordinating care of the patients, this professional is therefore of great importance for the implementation of CC. The aim of this study is to evaluate the experiences and opinions of CMs on CC for the treatment of anxiety disorders. Furthermore, the factors that facilitate or obstruct the implementation of CC will be assessed. As CC is a multifaceted, complex intervention (Bower et al., 2006), listening to CMs experiences and opinions may contribute to more insight in the influencing factors of CC.

Method

Research design

This project set out as a qualitative research study, to maximize information on experiences and opinions of CMs. Because the purpose of this study was to evaluate the experiences and opinions of CMs, the research method was based on thematic survey, exploring a range of themes which represent repetitive responses by CMs (Sandelowski & Barroso, 2003). Themes were formed step by step while data were systematically obtained and analyzed. These themes were described and interpreted, instead of merely listing topics.

Participants

CMs who were trained in CC, and were participating in the RCT study of Muntingh et al. (2009), were selected. Sixteen CMs were trained in CC. They worked in the regions of Rijnstreek, Midden Holland, Duin en Bollenstreek, and Haagstreek, all parts of the West of the Netherlands. To achieve a maximum of different opinions of CMs, purposive sampling was used (Boeije, 2005). Sampling of CMs was based on professional background, due to the fact that people with different education levels often hold a different view. Also, sampling was based on gender because men and women might express their opinions in different ways, and might hence cooperate differently with the GP. Finally, sampling was also based on the number of patients they had treated according to CC, so the reasons for some CMs treating only a few patients could be studied.

Two CMs were excluded, because they were no longer participating in the study of Muntingh et al. (2009), due to a change of jobs. One CM did not want to participate, because of time constraints. Overall, ten CMs were interviewed. The mean age of the remaining ten CMs was 50.0, with a standard deviation of 5.52 (range 43-60). Seven women and three men were interviewed. Nine CMs were psychiatric nurses and one CM was a psychologist. CMs

worked part-time in the general practice, and worked in specialized mental health care for the rest of their working week. On average, CMs had treated seven patients according to CC, with a standard deviation of 3.68 (range 1-12)

Design of the questionnaire

A semi-structured survey was used, thus ensured that all information was gathered on the most important topics in every interview. Also, opportunities were created for CMs to discuss their ideas and opinions regarding CC. The interview was based on a topic list derived from the literature, and on expert opinions (Meere, 2009; Muntingh et al., 2009). The interview included the following topics: contents of treatment, collaboration between the professionals, and facilitating or obstructing factors for implementation of CC. The interview is included in Appendix 1.

Data collection

CMs were called by telephone for an interview. The type of study and its aims were explained to them. It was also explained that the data would be processed anonymously and confidentially. If CMs agreed to participate in the study, an appointment for an interview was scheduled. CMs received an email with a couple of questions with general information ahead of the interview, to save time in the interview, and to be able to completely concentrate on the experiences and opinions of CMs during the interview (see Appendix 2). CMs were visited in their practice for an interview of 45 minutes. After approval of the CM to record the interview on a voice recorder, the interview started. This enhanced the quality of data, because in this way all data were obtained, and to avoid memory bias. After each interview, impressions about CMs were noted in a memo book. CMs as a group were interviewed until no new information was achieved (data saturation) (Boeije, 2005).

Analysis

After the interviews were transcribed verbatim, the interviews were imported into the computer program MAXQDA (Kuckartz, 2007). This program facilitates the coding process of the interviews, and increases reliability. The analysis was started with ‘open coding’. This means that the entire text was read carefully, and was divided into fragments. Each fragment received a label, i.e., a code that reflects the topic of that fragment (Boeije, 2005). Coding was done ‘in vivo’, meaning that codes consist of words used by CMs. In this way, a code tree was developed. The final code tree is included in Appendix 3. After all interviews were

coded, axial coding was used. Axial coding refers to a set of procedures used to integrate data, by making connections between categories. The codes were compared again to check whether each fragment received the correct code, the codes correctly covered the fragment, and whether all fragments of one code matched. Finally, selective coding was used. The core category was selected, systematically linking it to other categories, and filling in categories that needed further refinement and development.

For a couple of interviews, the coding process was conducted and compared by two different researchers. In this way, the inter-rater reliability was increased. In the case of disagreement, a third researcher was available for final decision making. After three interviews were conducted, the information obtained was discussed with two researchers. If this group analysis of the interviews resulted in new hypotheses, they were tested in the next interviews. This process was repeated after another three interviews were conducted. Therefore, the research process was cyclical, alternating between data collection and data analyses.

Results

During the interview three themes were discussed; contents of treatment, collaboration between the professionals, and facilitating or obstructing factors for implementation of CC. Results are grouped in these three topics. There are a few topics added in the results, because they cover important experiences and opinions of CMs: working according to a protocol and recommendations of CMs are discussed below. All topics include the most important facilitating and obstructing factors for implementation of CC.

Treatment

Content of treatment

The first step of the treatment, guided self-help, seemed very effective according to CMs. The main reason for this effectiveness according to the majority of CMs, was because patients work it out by themselves. Thus patients became more aware of their problems and less dependent on their therapists. Patients had to work on their own instead of sitting down and listening to the therapist. For example, one CM explained:

"*Well, it is for one's sense of self esteem, it is a self-help book. Owing to the fact that*

you do it by yourself, you do not need to say thank you, because you've done it by yourself. This makes you independent of health care professionals."

Besides, most CMs indicated that it took a relatively short time for patients to visit their CM, and most patients were sufficiently recovered within three months. So, for most patients the treatment was of short duration. The guided self-help might not be that effective for patients with severe symptoms and comorbidity. When asked why this group of patients had less benefit, one CM replied:

"*The gap after fourteen days or after one month in the first stage, I think it's too long. I think she would need maybe two times a week of personal contact, and perhaps a psychiatrist who can prescribe medication. This cannot be offered in the general practice. This forces you to be there everyday and invest more*."

Because there were relatively few sessions in the first step of the treatment, CMs indicated that it was important that they continued to coach and motivate their patients. Additionally, several CMs argued the importance that they monitored patients' progress and maintained contact with other professionals.

Only a small number of CMs applied the second step, the cognitive-behavioral therapy, because most patients benefited sufficiently from guided self-help. A few CMs indicated that the second step was attractive, because it was a new form of treatment to them, enabling them to gain some experience with it. However, CMs who actually conducted cognitive-behavioral therapy, found this step too complicated. None of CMs conducted the third or the fourth step.

Working according to a protocol

Although CMs were satisfied with the treatment itself, they had mixed experiences with working according to the protocol, and did not strictly hold on to it. For most CMs working with a protocol was new. Some CMs liked it, because it ensured that CMs would not forget anything. Also, it provided clarity. Other CMs had to get used to working with a protocol. CMs attached less importance to closely following the protocol. An important disadvantage of the protocol according to many CMs was that it was focused too strongly on the complaints. Most CMs wanted to know more about the patients' background and therefore extended their consultations. According to the protocol, consultations with the patients in the

first step of the treatment should last for 20 minutes, but most CMs took much more time for them, up to one hour. They obtain more information they considered useful and helpful. Indeed, several CMs indicated that they used to work in this way. For example, one CM said:

> "*I'm a psychiatric nurse, which means I take a broad perspective. The entire social or psycho-social aspect is not part of this method. That is not consistent with my views of my work.*"

Also, a few CMs wanted to know more about their patients, to build a better relationship with their patients. Furthermore, CMs found it redundant that the GPs were present during the first consultation, when the treatment plan was designed together with the patient. Moreover, it was also impossible for most CMs, because GPs were often too busy or not located in the same building.

Communication

Communication with GP

Besides treatment itself, communication with the GP appeared to be an important factor to CMs. The majority of CMs thought that they had sufficient contact and were satisfied with the collaboration with their GP. The most important facilitating factor for this satisfaction was whether the CM worked in the general practice. CMs, who worked in the same building as their GP, were in general more satisfied with the collaboration with the GP, then CMs who did not work in the same building as their GP. The main reason was that GPs were not easily accessible by telephone and e-mail, and GPs were often too busy. CMs working in another setting, would like to work in the same building as their GP, because they could then discuss work-related issues during lunch or coffee breaks. According to a few CMs, a practical objection was the lack of room in general practices. One CM, who treated only a few patients according to CC, was not completely satisfied with the collaboration with her GP, because the GP did not refer enough patients.

Although most CMs found the communication with their GP important, many cases were apparently not discussed with their GP. Some CMs even barely contacted their GP. A reason that CMs had little contact with their GP, could be that they did not feel responsible for the communication. New questions were added in the interviews to test this hypothesis,. It appeared however, that most CMs felt responsible for contacting their GP. Only some CMs

indicated that the GP could also be more active in the initiation of contact. On the basis of this information, a new hypothesis was developed. It was hypothesized that making agreements with the GP on the communication, could be a facilitating factor. Because many interviews were already conducted, several CMs were called to test this hypothesis. It appeared that at the beginning of this project, none of CMs had made such agreements. Only one CM had recently made agreements with the GP. This CM indicated that making agreements improved the collaboration with their GP. The CM had now regular contacts and appointments with her GP, and her GP was also satisfied.

Contact with the psychiatrist and supervision

Besides the collaboration with the GP, CMs also cooperated with psychiatrist and received supervision. CMs were satisfied with the collaboration with their psychiatrist. Most CMs indicated that they could always contact their psychiatrist. However, it appeared that the collaboration with the psychiatrist was not as it should be. Officially, the psychiatrist was supposed to be up to date about the progress of the patients. In practice, most CMs did not discuss many cases with the psychiatrist. If CMs contacted their psychiatrist, most this was usually about medication or advice for patients with other psychiatric problems. Most CMs liked the possibility to ask the psychiatrist for advice, but only when necessary.

Supervision meetings also did not seem to work effectively. Although CMs liked it, and mentioned the importance to learn, attendance to these meetings was low. Major reasons were the time and location of the supervision meetings. Supervision was often provided after their working hours, and several CMs had to travel far for these meetings. Besides, CMs found it important that they could discuss problems with their patients during the supervision. However, CMs indicated that they had too little patients with problems or difficulties to discuss during their supervision. The only improvement most CMs indicated was that supervision seemed more important during the second step of the treatment.

Implementation

Recommendations

All CMs believed that this model could be introduced in the Netherlands in the future. CMs evaluated this model with an average grade of a 7.5 on a scale to 10. In general, CMs were satisfied with the model, which was particularly because of the effectiveness of the first step of the treatment. According to a large majority of CMs, another important factor was that the

general practices were easily accessible for many patients. Patients were generally familiar with the area, which made the intervention more easily accessible for them. One CM said for example:

> "*My experience shows that patients appreciate it, in the general practice. It is of course very accessible. You go to the GP, that is different if you say to your neighbor: 'I go to specialized mental health care.' Then they often ask: 'What do you have?' If you say; 'I go to the GP', that is of course acceptable to everyone.*"

Another facilitating factor was the possible low costs for patients. Some CMs pointed out that specialized mental health care is often quite expensive. Several CMs thought that this treatment, once running, could be relatively inexpensive. If this treatment could reduce the costs, patients would certainly be interested in this treatment.

There were some improvements for the future according to CMs. Most CMs indicated that experiences in specialized mental health care and knowledge of anxiety disorders were more important than the professional background of a CM. They also argued the importance of a CM could explain things properly, and communicate this to their patients. A few CMs recommended that CMs should have more experience to apply the second step or the second step should be applied by psychologist, instead of a psychiatric nurse.

Furthermore, several CMs warned that the implementation of CC also depends on the GPs. Some CMs indicated that GPs have their own routines, for example with regard to prescribing medication. According to a few CMs, it was important that GPs should be open-minded towards new methods. They expected that not all GPs would be interested in this new intervention. Another major obstacle was that GPs were often overloaded with various studies. According to several CMs, this could probably obstruct the implementation of CC. Besides, several CMs thought that patient selection by the GP could be improved. A few CMs thought that many patients with anxiety disorders were missed, because the GPs had not referred enough patients. A few CMs indicated that the GPs needed further support and training to improve on the selection of the patients. One CM recommended a meeting for both GPs and CMs, to improve and facilitate the bond between the professionals.

According to a few CMs, to introduce this model in the Netherlands, it would also be important to attract public attention. It should be kept alive and not forgotten, for example through sending emails, and showing results of the intervention. For example, one CM said:

"*That is the weak point. The same also applies to a website. You can build a wonderful website, but if you do not maintain it, it will be out-of-date within half a year. Then, no one will look on it, and it is no longer interesting.*"

Discussion

The present study provides insight in the facilitating and obstructing factors of the implementation of CC for the treatment of anxiety disorders. The main results are summarized in Figure 1.

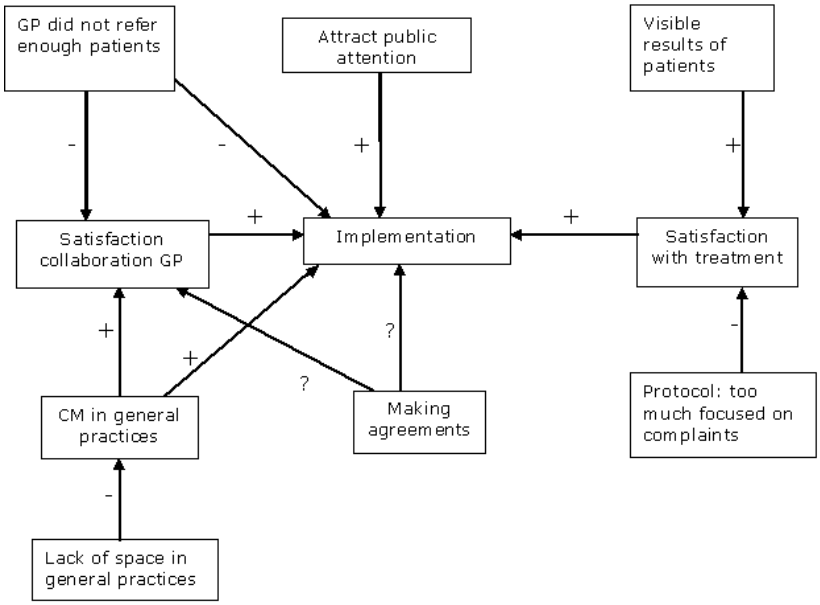

Figure 1: Factors that facilitate and obstruct implementation of CC.

There are a number of facilitating and obstructing factors identified in this study. Some factors can facilitate CC in some ways, but can also obstruct CC in other ways. This study shows that the treatment itself is an important factor for CMs. Satisfaction with treatment is mainly due to the effectiveness of the first step of the treatment. The results show that CMs, who actually set the second step, find this step too complicated. Most CMs do not closely follow the protocol. Many CMs extend their consultations in the first step, because they want to know more about patients' background. Although CMs are satisfied when they have the possibility to deviate from the protocol, it is interesting to know whether the extended consultations are necessary for the effectiveness of guided self-help. If this appears unnecessary, this would save time and possibly also money. Another important factor that emerges from this current study is the collaboration with the GP. Results show that the

presence of the CM in the same building as the GP is an essential factor for implementation of CC. If the CM works in the same building, this facilitates the communication and collaboration with the GP. A practical objection might be the lack of space for CMs in general practice. It appears that many cases are not discussed with their GP, although CMs felt responsible for contacting the GP. Making agreements with the GP might be beneficial for the communication, also when CMs do not work in the same building. However, only one CM in this study has experience with this, so general conclusions are difficult to draw. According to CMs, the implementation of CC also depends on the GPs. CMs expect that not all GPs would be interested in this new intervention, and GPs refer not enough patients with anxiety disorders. Finally, according to CMs, it is important to attract public attention, because otherwise it will be quickly forgotten.

In line with findings of the study of Richards et al. (2006), skills of a CM, such as experience and knowledge of mental health, are important. Also in other studies, the professional background of the CM appears a key predictor of the effectiveness of CC, although it is unclear which part of the expertise this is (Bower et al., 2006; Gilbody et al., 2006). Because experience and knowledge of mental health care seems important, a psychologist might be better able to fulfill the role of the CM. Also, psychiatric nurses in the current study argued that the second step is too complicated. However, the use of more specialized personnel may be more costly, which raises issues about trade-offs between effectiveness and costs (Bower et al., 2006). Besides, results in this study show that non-specific skills are also important, such as being able to explain things properly. Therefore, it seems a good choice to use psychiatric nurses as a CM, because they also have experiences, and knowledge of mental health care. A possible improvement would either be to train these CMs to deliver the second step, or to remove this second step. Another possibility is the use of a computer-assisted cognitive behavioral therapy (Craske et al., 2009). Results show that clinicians who use this program rate the program positively, because it is easy to use and provides a clear agenda and overall structure per session. Further research will be needed to evaluate the cost-effectiveness, and the degree to which these results are generalized to different types of clinicians with different levels of training.

Besides, a question raised is whether it is necessary that these CMs should perform this second step. Since most patients benefit sufficiently from the first step, and CMs argued that the second step is too complicated, one may choose to perform only the first step by CMs, and probably refer patients to specialized mental health care or prescribe medication when they do not benefit sufficiently from the first step. A disadvantage is that in this way

stepped care consists of two steps only, while extended stepped care could lower costs (Roy-Byrne et al., 2001).

Furthermore, CMs in the present study mentioned that they find the presence in the same building as their GP important. These findings are supported by previous research (de Jong et al., 2009), and are continued by GPs in a study as similar (Bouwmeester, 2009). Also the lack of space for CMs in general practice is consistent with results in a prior qualitative study (Richards et al., 2006). Irrespective of the location of the CM, many cases are still not discussed with their GP, although CMs felt responsible for contacting their GP. It seems that CMs work very independently, and report to the GP in their own way. It is our impression that CMs expect the GPs to communicate with them when they are not satisfied with the collaboration. As mentioned earlier, making agreements with the GP might be beneficial for the communication.

The role of supervision and the role of the psychiatrist in this study are of particular interest. CMs stated that they did not use these opportunities much. In light of previous research, these findings are remarkable. In previous studies, results have shown that regular supervision of the CM is a key predictor for effectiveness of CC (Bower et al., 2006; Gilbody et al., 2006). In the current study however, it appears that most CMs did not visit supervision meetings often and did not seem motivated to follow these meetings. A major difference with other studies is that supervision is given by a cognitive behavior therapist. In other studies, supervision is given by a research psychiatrist (Bower et al., 2006; Gilbody et al., 2006). Maybe the psychiatrist is more closely involved, leading CMs to invest more time in supervision. Currently, in the RCT study of Muntingh et al. (2009), the researcher is the person who contacts all CMs and encourages them to adhere to the protocol. In the future, at the end of this study, the psychiatrist may be a good option to monitor all patients, and also lead the supervision meetings. In this way, the psychiatrist might be more closely involved, and probably more CMs would go to the supervision meetings.

The strength of the present study is that it is the first study that evaluates the experiences and opinions of CMs about CC for the treatment of anxiety disorders. To this end, the study provides new insight in the influencing factors of CC according to the professionals. Based on their experiences and opinions, adjustments may be made to improve CC. The researchers were aware of the possibility of bias during the research. Everything possible has been done to acknowledge or minimize the effect of possible bias on the interviews and on the interpretation. The inter-rater reliability has been increased, because for some of the

interviews the coding process is conducted, and compared by two different researchers. Furthermore, data saturation was achieved in this study, so it is expect that all experiences and opinions are obtained. Finally, to meet the guidelines for qualitative research, a qualitative research professional was consulted.

A few limitations of the present study must also be acknowledged. The sample of CMs is restricted to CMs who were already working with this model. There is no insight in the opinions of CMs who did not work with CC. This study may not show which barriers there are at the start of this model. Besides, the data collection and analysis was not conducted as systematically as planned. The interviews were planned too fast after each other, making it impossible to transcribe and code the interviews before the next interview took place. However, after each interview, experiences were shared with the other researchers, and it was determined which information was missing. If data collection and analysis were to be carried out more systematically, there should be more time scheduled for this process. Thus all information could be analyzed with the other researchers, and one does not have to rely on what is remembered by the interviewer. Finally, data from this study may not always compare to other studies, because the present study combines CC and stepped care. There might be some differences between other studies which used only CC.

This study identifies several important themes regarding CMs perspectives on CC. For a more complete picture of implementation of CC, it is interesting to obtain the experiences and opinions of other mental health professionals. For example, this study can be combined with a study about the experiences and opinions of the GPs about the implementation of CC (Bouwmeester, 2009). Besides, it is interesting to interview patients and psychiatrists about implementation of CC. It is possible that they experience some aspects different than CMs, for example, patients' preference to tell the CM about their background and complaints. Moreover, opinions of the patients are important, because this model is designed for them. It is recommended to include these opinions in further research. Besides, it is interesting to look into the financial aspect of the model. CC seems a promising intervention for the treatment of anxiety disorders, so it is of great interest to evaluate the effects and costs of CC based on the results of the RCT of Muntingh et al. (2009).

References

Boeije, H. (2005). *Analyseren in kwalitatief onderzoek: Denken en doen*. Den Haag: Boom onderwijs.

Bouwmeester, T. (2009). *General practitioners' evaluation of the implementation of a collaborative care model for the treatment of anxiety disorders.* Unpublished manuscript.

Bower, P., Gilbody, S., Richards, D., Fletcher, J. & Sutton, A. (2006). Collaborative care for depression in primary care making sense of a complex intervention: systematic review and meta-regression. *British Journal of Psychiatry, 189,* 484-493.

Craske, M.G., Rose, R.D., Lang, A., Shaw Welch, S., Campbell-Sills, L., Sullivan, G., Sherbourne, C., Bystritsky, A., Stein, M.B. & Roy-Byrne, B.P. (2009). Computer-assisted delivery of cognitive behavioral therapy for anxiety disorders in primary care. *Depression and Anxiety, 26,* 235-242.

Feltz-Cornelis, C.M., van der, Oppen, P., Adèr, H.J., & Dyck, R., van (2006). Randomised Controlled Trial of a Collaborative Care Model with Psychiatric Consultation for Persistent Medically Unexplained Symptoms in General Practice. *Psychotherapy and Psychosomatics, 75,* 282-289.

Gilbody, S., Bower, P., Fletcher, J., Richards, D., & Sutton, A.J. (2006). Collaborative Care for Depression: A Cumulative Meta-analysis and Review of Longer-term Outcomes. *Arch Intern Med, 166,* 2314-2321.

Jong, S.J., de, Steenbergen-Weijenburg, K.M., Huijbregts, K.M., Vlasveld, M., Marwijk, H.W.J., van, Beekman, A., Feltz-Cornelis, C.M., van der (2009). The depression initiative. Description of a collaborative care model for depression and of the factors influencing its implementation in the primary care setting in the Netherlands. *International Journal of Integrated Care, 9,* 55-61.

Katon, W., Korff, M., von, Lin, E. & Simon, G. (2001). Rethinking practitioner roles in chronic illness: the specialist, primary care physician, and the practice nurse. *General Hospita; Psychiatry, 23,* 138-144.

Kroenke , K., Spitzer, R.L., Williams, J.B.W., Monahan, P.O. & Lowe, B. (2007). Anxiety disorders in Primary Care: Prevalence, Impairment, Comorbidity, and Detection. *American College of Physicians, 146,* 317-325.

Kuckartz, U. (2007). *MAXQDA: Qualitative data analysis*. Berlin: VERBI software. (Consult. Sozialforschung. GmbH).

Meeuwissen, J. & Donker, M. (2004). Minder is meer: Stepped care in de geestelijke gezondheidszorg. *Maandblad Geestelijke Volksgezondheid, 59,* 904-915.

Meere, M. M. (2009). *What are the promoting or obstructing factors for implementation of a collaborative care-model for depressive patients in Dutch primary care?* Unpublished thesis.

Muntingh, A., Feltz-Cornelis, C.M., van der, Marwijk, H.W.J., van, Spinhoven, P., Assendelft, J.J., Waal, M.W.M., de, Hakkaart-vanRoijen, L., Adèr. W.J., & Balkom, A.J.L.M., van (2009). *Collaborative stepped care for anxiety disorders in primary care: aims and design of a randomized controlled trail. BMC Health Services Research, 9,* art. no. 159.

Orden, M., van, Hoffman, T., Haddmans, J., Spinhoven, P., & Hoencamp, E. (2009). Collaborative Mental Health Care Versus Care as Usual in a Primary Care Setting: A Randomized Controlled Trial. *Psychiatric Services, 60,* 74-79.

Price, D., Beck, A., Nimmer, C., & Bensen, S. (2000). The Treatment of Anxiety Disorders in a Primary Care HMO Setting. *Psychiatric Quarterly, 71,* 31-45.

Richards, D.A., Lankshear, A.J., Fletcher, J., Rogers, A., Barkham, M., Bower, P., Gask, L., Gilbody, S., Lovell, K. (2006). Developing a U.K. protocol for collaborative care: a qualitative study. *General Hospital Psychiatry, 28,* 296-305.

Rollman, B.L., Belnap, B.H., Mazumdar, S., Houck, P.R., Zhu, F., Gardner, W., Reynolds, C.F., Schulberg, H.C., & Schear, M.K. (2005). A Randomized Trial to Improve the Quality of Treatment for Panic and Generalized Anxiety Disorders in Primary Care. *Arch Gen Psychiatry, 62,* 1332-1341.

Roy-Byrne, P.P., Katon, W., Cowley, D.S., & Russo, J. (2001). A Randomized Effectiveness Trail of Collaborative Care for Patients With Panic Disorder in Primary Care. *Arch Gen Psychiatry, 58,* 869-876.

Roy-Byrne, P.P., Craske, M.G., Stein, M., Sullivan, G., Bystritsky, A., Katon, W., Golinelli, D., & Sherbourne, C.D (2005). A Randomized Effectiveness Trial of Cognitive-Behavioral Therapy and Medication for Primary Care Panic Disorder. *Arch Gen Psychiatry, 62,* 290-298.

Sandelowski, M. & Barroso, J. (2003). Classifying the Findings in Qualitative Studies. *Qualitative Health Research, 13,* 905-923.

Smolders, M., Laurant, M., Roberge, P., Balkon A. van, Rijswijk, E., van, Bower, P., & Grol, R. (2008). Knowledge Transfer and Improvement of Primary and Ambulatory Care for Patients With Anxiety. *The Canadian Journal of Psychiatry, 53,* 277-293.

Smolders, M., Laurant, M., Verhaak, P., Prins M., Marwijk, H., van, Penninx, B., Wensing, M., & Grol, R. (2009). Adherence to evidence-based guidelines for depression and anxiety disorders is associated with recording of the diagnosis. *General Hospital Psychiatry, 31,* 460-469.

Wagner, E.H., Austin, B.T., & Von, K.M. (1996). Organizing care for patients with chronic illness. *Milbank quarterly, 74,* 511-544.

Young, A.S., Klap, R., Sherbourne, C.D., & Wells, K.B. (2001). The Quality of Care for Depressive and Anxiety Disorders in the United States. *Arch Gen Psychiatry, 58,* 55-61.

Appendix 1 interview care manager

Treatment

1. How would you describe CC in your own words?
2. What do you think of the treatment of anxiety disorders in general?
3. Do you think CC can be applied to all anxiety disorders?
4. Why do you were motivated to participate in this project?
5. Which expectations did you have?
6. What do you think of the stepped treatment of CC?
7. What are the main improvements in the treatment of anxiety disorders by CC?
8. What are the main limitations in the treatment of anxiety disorders by CC?
9. Which aspects do you use of CC? Can you explain that?
10. Which patients have the most benefits by the treatment of CC?
11. Which patients are less suitable for treatment by CC?
12. Where could the treatment according CC be improved?

Collaboration with the GP, psychiatrist, and supervision

13. Which cases do you discuss with your GP?
14. What do you think of the collaboration with the GP? Which problems you have in the collaboration with the GP?
15. Do you feel you have enough contact with the GP?
16. What could be improved in the collaboration with the GP?

17. Which cases do you discuss with your psychiatrist?
18. What do you think of the collaboration with the psychiatrist? Which problems you have in the collaboration with the psychiatrist?
19. Do you feel you have enough contact with the psychiatrist?
20. Are you, the GP, and the psychiatrist in general agree on the treatment?

21. Which cases do you discuss with you supervisor?
22. What do you think of the supervision?
23. What could be improved in the supervision?

24. Is it clear to you who you should discuss problems on a patient?
25. Do you think the roles of the professionals are good in this way?
26. What are the benefits of working together with the other professionals?
27. What are the limitations of working together with the other professionals?

Facilitating and obstructing factors

28. Which factors facilitate the implementation of CC ?
29. Which factors obstruct the implementation of CC?
30. Which knowledge and skills should a CM have?
31. Who can fulfill the role of the CM the best? (professional background)
32. Which factors could improve the implementation of CC?
33. Would you recommend CC to other colleagues?
34. Do you think CC could be introduced in the Netherlands?
35. To evaluate CC, what grade would you give?

Final

36. Was there a topic that you found more or less important than other topics?
37. What do you think of the interview?
38. Are there elements you have missed in the interview?
39. May I call you if I have other questions?
40. Are you interested in the results of this study?
41. Do you have further questions?

Appendix 2 questions general information

What is your age?

.....

.....

.....

What is your professional background?

.....

.....

.....

How many years of work-related experience do you have?

.....

.....

.....

How many hours do you work per week?

.....

.....

.....

Do you have also another job? If so, how many hours per week do you work there?

.....

.....

.....

How many patients do you see per week?

.....

.....

.....

How much experience do you have with the treatment of anxiety disorders?

.....

.....

.....

How many patients do you have treated according Collaborative Care?

.....

.....

.....

Appendix 3 code tree

Code System

- Description CC
- Motivation for participation
- Expectations
  - Disappointments
  - Fulfilled expectations
- Applicability anxiety disorders
  - Improvements of patient selection
  - Disappointments of patients
  - Less suitable patients
  - Suitable patients
- Number of patients treated according to CC
- Treatment
  - Why the treatment is effective
  - Follow steps of treatment
  - Follow protocol
    - Deviate from protocol
  - Expectations of treatment
  - Apply treatment outside research
  - Enthusiasm about treatment
  - Positive aspects
    - Guided self-help
    - Example of a patient
  - Limitations
    - Guided self-help
    - Cognitive-behavioral therapy
    - Medication
  - Improvements
    - Guided self-help
  - Positive for CM itself
  - Precondition
- Change since project

- Applicability of CC in practice
  - Obstructing factors
  - Positive aspects
  - Improvements
  - Precondition
  - Disadvantage of target
- Collaboration GP
  - Which cases discussed
    - Cases which are not discussed
  - Who initiate contact
  - Agreements about communication
  - Who is responsible for communication
  - Positive aspects
  - Problems
  - Improvements
  - Precondition
- Collaboration psychiatrist
  - Which cases discussed
  - Disadvantage
  - Positive aspects
  - Problems
- Collaboration Anna Muntingh
- Supervision
  - How often
  - Which cases discussed
  - What CM find important to discuss
  - Positive aspects
  - Problems
  - Improvements
- Collaborative care
  - Clear who consult for problems
  - Roles of professionals
  - Positive aspects
  - Improvements

- Care manager
  - Knowledge
  - Professional background
  - Role
- Deviation from protocol by GP
- Role of the GP
  - Negative feature
- Working in general practice
- Recommend CC to colleagues
- Introduce CC in future
- Total grade of CC
- Remaining issues

Sets