CHAPTER 8

General Discussion
This thesis addressed issues around implementing and evaluating a low-cost intervention for psychological distress in low-income South African communities. The previous chapters presented the results of particular components of this work. This chapter will summarize the overall findings and address implications. The findings are sorted in 4 main categories subsequently discussed in separate paragraphs.

TREATMENT EVIDENCE FROM LOW- AND MIDDLE-INCOME COUNTRIES

The meta-analysis in chapter 3 indicates that psychological treatments of depression and anxiety disorders have promise in low- and middle-income countries and may contribute to the reduction of the disease burden of common mental disorders in these countries. The effect sizes in the reviewed studies were consistent with effect sizes found in meta-analysis of outcomes in high income countries (1;2). Effect sizes were associated with the type of control group used in the research design; designs with waiting list control groups yielded much larger effect sizes than care-as-usual control groups, which in turn resulted in larger effect sizes than placebo control groups (pill placebo or psychological placebo) (1). These findings hold in both high and low- and middle-income countries. The effect sizes for individual and group interventions appear to be equal in our meta-analysis, consistent with literature indicating group interventions are as efficacious as individual treatments for anxiety and depression (1;5;6). Although some studies found individual therapy was slightly more efficacious than group therapy, more research is needed to understand the clinical relevance of the differences found (7). Individual treatments are generally considered more time-consuming and costly and therefore not ideal for low-income under-resourced countries. There is relatively limited data on cost-effectiveness of individual versus group treatments, but group treatments may be more cost effective in treating depression, and less cost effective in treating anxiety disorders (8). In some low- and middle-income countries group intervention may be desirable as an extension of traditional sociological structures. The pilot results of our self-help problem solving intervention described in chapter 6 indicated a preference for group rather than individual delivery in low
income communities around Cape Town. In our communities, group delivery had lower dropout rates than individual delivery, and was more feasible and acceptable.

There were 3 major limitations of our meta-analysis on treatment evidence in LAMIC which must be kept in mind. First, our analyses found a high heterogeneity which could not be explained by conducting subgroup analyses. This implies that we have little understanding of the reasons for differences in effect sizes across different studies. Heterogeneity in effect size may reflect the fact that studies were conducted in different countries and cultures, therefore creating unique variables that could account for the differences in effect sizes found. The number of studies was too small for a detailed analysis to identify these variables. Second, several of the studies also had a considerable risk of bias and low quality which may also account part of the heterogeneity. Third, there was also a strong indication of publication bias, so our meta-analysis might be overestimating the effect size of psychological treatments. However, this might apply too to studies on psychological treatments in high-income countries (9).

Despite these limitations, we would argue that psychological treatments can be effective in low- and middle-income countries, consistent with earlier reviews (10;11). The publication dates of the randomized controlled trials in our meta-analysis indicate that studies in this field are increasing - most were published between 2003 and 2008. More research in this field could provide evidence to scale-up evidence-based interventions for mental disorders in LAMICs. If psychological treatments turn out to be efficacious in LAMIC countries, more work is needed to demonstrate their effectiveness in such settings. There may be important barriers to implementing such interventions in resource-constrained contexts, as described in chapter 5. Randomized controlled trials can be used to study efficacy in a tightly controlled environment. Interventions whose efficacy is demonstrated should then be studied in a naturalistic community setting to evaluate its benefit to the community (12).
INCREASING ACCESS BY (WEB-GUIDED) SELF-HELP INTERVENTIONS

The systematic review presented in chapter 4 indicates that some self-help therapies are efficacious in the treatment of depression and anxiety disorders. Most of the meta-analyses found relatively large effect sizes for self-help treatments, independent of the type of self-help, and comparable to effect sizes for face-to-face therapy. The data suggest that self-help was less effective in clinical samples than community samples. Thus, self-help approaches may help milder problems more than serious disorders. Besides that, unguided self-help is less effective than face-to-face therapy, while guided self-help studies show equal efficacy (13).

In many countries available mental health services cannot meet the demand for treatment of mental disorders. Keeping results of the systematic review in mind, guided self-help is worth considering in order to reach people who would otherwise not receive treatment. Some mental health professionals worry that they might be replaced by self-help therapies. The idea though is not to replace the therapist, but to fill the gap between demand and supply of mental health services. Increasing the accessibility to mental health care is particularly important where access to clinicians is limited as in most low- and middle-income countries. Guided-self-help could be very valuable in step-based interventions given the indications its effectiveness in mild disorders and community settings. That is, patients can be first offered a low-cost intervention (i.e., self-help methods), and then be followed by more intensive therapies (i.e., face-to-face or pharmaceutical therapy) should the first step prove unsuccessful.

The systematic review in chapter 4 also found that computer and internet self-help interventions were as effective as self-help delivered through other media. In low- and middle-income countries, however, obstacles such as lack of computer/internet access and computer/internet literacy may undermine the implementation of web-guided self-help methods. Our attempt to implement guided self-help in low income communities around Cape Town, as presented in chapter 5, certainly suggests this. The lack of access to a computer and the internet in the communities made it impossible to implement a web-guided program. Even when internet access is available, unfamiliarity with and fear of the relevant technology can
make the use of an online intervention difficult if not impossible. The lack of basic computer (41%) and internet literacy (57%) among community members made a web-guided program unfeasible at present. A third of people with computer and internet skills were anxious about working on a computer. Despite this, the potential of future web-guided programs was backed up by the fact that a large majority of the people who participated in our project said they’d like to work more on a computer in the future.

Since there is a growing familiarity with computers and internet in most low- and middle-income countries (including South Africa), online self-help programs could be implemented in future. The use of recently introduced SMART phones offers two major advantages over computers and could also be a way of providing access to e-intervention. First, the ‘digital divide’ along the socio-economic gradient is less prevalent with mobile phones than with PC use (14) and landline internet connections are far more expensive to implement over large areas than mobile phone networks (15;16). Web-guided mental health interventions accessible through SMART phones could be a way of providing mental health services to communities in very remote areas. Second, SMART phones have a higher degree of portability, access and privacy than computers. The setting in which online treatments are offered can influence their uptake and adherence (17). As described in chapter 5 some participants mentioned problems of travel time & costs and restricted opening hours regarding access to libraries and internet cafes, though we have no systematic data on this. When using computers for internet interventions, the use of internet cafés and public libraries for computer and internet access has pros and cons. The main benefit is that technical support can be provided when people need it. However, an important downside is the lack of privacy which risks incurring stigma when dealing with sensitive issues like mental health problems. This a problem which can be taken care of by the use of SMART phones. More evidence on this topic is required to plan and implement interventions in the future.
PROBLEM SOLVING THERAPY IN LAMIC

Our pilot problem solving self-help described in chapter 6 proved both feasible and acceptable in low income communities around Cape Town. The mental health symptoms of participants improved significantly over 5 weeks of the ‘Taking Control’ program. Participants said our program was sensitive to local needs, and increased their sense of empowerment as they adopted solutions suiting their local context and acquired skills to enhance control of their lives. The project fostered active coping styles in people suffering from mental problems and also allowed for indigenous solutions suited to the local cultural context and participants. Empowerment on a community level is likely to yield more respect for health and personal well-being and that of others, a stronger sense of belonging to the community and more activities to change their social and political environment to improve health-related life circumstances. We found no differences in levels of improvement of empowerment or mental health symptoms between people going through the project individually or in a group. Participants did say they preferred group- delivered PST and greatly valued non-specific group factors like altruism and cohesion. The results suggest that brief problem solving in a booklet/workshop format may be an effective, feasible and acceptable short-term treatment for people with CMD’s in deprived communities. In this setting, group delivery of PST had lower drop-out rates than individual delivery, and was more feasible and acceptable. Randomized controlled trials are, however, needed to test the efficacy of group PST more rigorously and to justify its future scaling up in LAMIC.

A major limitation of our study is that it does not allow drawing of conclusions about the efficacy of the intervention in our population since we did not have the resources for a randomized controlled trial. It is also possible that the improvement and sense of empowerment might have stemmed from spontaneous remission or placebo effects. Non-specific factors, like individual attention from someone else, can also have an effect. As described in chapter 6 more rigorous studies are needed to evaluate the efficacy of PST in under-resourced areas. The data from this pilot study regarding acceptability and feasibility in
combination with earlier studies support efficacy of the intervention and point to the importance of studying further applications of PST in randomized controlled trials.

In a recent Indian study, brief problem solving was not more effective than placebo for people with common mental disorders, which the authors themselves found surprising given the evidence from developed countries. In a recent Indian study individually delivered brief problem solving was not more effective than placebo for people with common mental disorders (18). The authors considered that insufficient structure of the therapy and the fact that their primary care patients thought and expected that they should receive medication might have been reasons for finding no effect. Another problem was poor adherence to their problem solving interventions. The problem solving sessions were delivered individually and took place in clinics, which differs from our use of group session in community settings. The poor adherence rate might be an indication for low acceptability of the treatment in the research population and another reason for finding no effect. They authors remark that many problems people face in low- and middle-income countries are embedded in social problems so a purely clinical program may be insufficient to bring relief (19). This important study on implementing problem solving therapy in a low-income country holds implications for future studies. Its results also strengthen our findings and plans for a randomized controlled trial for community- and group-delivered self-help by problem solving.

**HELPSEEKING BEHAVIOUR AND MENTAL HEALTH LITERACY**

Low levels of mental health literacy and stigma may contribute to delayed treatment seeking and poorer outcomes in people with mental disorders. So, besides structural barriers, like the cost and availability of services, attitudinal barriers are also important in determining people’s help-seeking behaviour. In studies in several countries the main reason for failing to access mental health care was that participants did not recognize the need for treatment (20-21). A recent study in South Africa found similar results, indicating low perceived need of treatment to be the main barrier (22). A preference to handle the problem themselves and perception that
treatment would be ineffective are mentioned are the most prevalent attitudinal barriers in international and South African research (22;23). In research on explanatory models in Africa depression was not usually considered an illness. People consider psychological difficulties resulting from poverty, crime, family and other social problems as causes for depressive symptoms (24).

Our study reported in chapter 7 found that most people participating in our project did not consider DSM-IV symptoms of depression as typical of a mental illness, and over half reported these symptoms as typical of a weak character. It also showed that stress and lack of willpower were most often endorsed as possible causes for depressive symptoms, which is consistent with findings in other studies (25;26). Psychological and life-style interventions were far more often endorsed as useful treatments for the depressive symptoms represented in the vignettes than were medical treatments. This is in accordance with results from past studies in South Africa (27) and elsewhere revealing that psychological treatments are preferred to drug treatments (28;29). The extent of stigma reported on the CAMI was significantly correlated with psychological distress. This indicates that, in our study, people with a high level of psychological distress had a tendency to stigmatize mental illnesses more.

This study has several limitations that deserve emphasis. First, the psychological distress was administered by self-report but no diagnostic interviews were conducted so that the effect of clinical status on stigma is unknown. Second, the vignettes used in our study only represented mild or severe depressive symptoms. Therefore, the results found with regards to the reported causes, treatment and stigma towards the behaviour cannot be generalized to other mental illnesses.

Despite these limitations, the findings discussed in chapter 7 and other studies can hold implications for addressing and scaling up mental health care in South Africa and other LAMIC. The inability of people to recognize a mental illness in others may be associated with an inability to recognize one’s own symptoms and to communicate these to a health practitioner. Additionally, since higher levels of stigma is associated with more psychological stress, stigma
may also be a barrier to accessing treatment. Literature reports the chances of detecting mental disorders in primary care to be greater if patients indicate their symptoms to be a reflection of a psychological problem when seeing a general practitioner (30-32). However, a positive finding of the present study was the acceptability of psychotherapy as a treatment option for depression. What the results of the present study reveal is the need to increase the understanding of the biological causes of mental illness and the value of pharmacotherapy.

The results of this study thus show the need for further mental health awareness activities in South Africa. There is a need to educate people more about mental illnesses, in specific the possible biological causes and the additional value of pharmacotherapy. Improving mental health literacy could assist the process of early recognition, in turn reducing the burden associated with untreated common mental disorders. Improving knowledge on all the available effective treatments available could increase the help-seeking behaviour of people suffering from mental disorders. The desire for self-reliance, combined with the preference for psychological treatments makes the self-help problem solving approach (as discussed in chapter 5, 6 and 7) more feasible in communities which hold these types of attitudes. Our findings support the development, testing and evaluation of empowering treatments like self-help therapies in order to make mental health care more accessible.

**IMPLICATIONS AND FUTURE RESEARCH**

The results of chapter 3 to 7 provide valuable insights into possible ways of scaling up services for common mental disorders in South Africa and other under resourced countries. There is a relative lack of such research.

The data presented in chapter 2 and 3 point to the need for evidence-based treatments in low- and middle-income countries. Effort should be invested into developing and monitoring ways to introduce evidence based treatments in low- and middle-income countries despite socio-economic and resource problems. Task-shifting to lay counsellors and the integration of
mental health services in primary health or community settings may be a way to increase access to mental health services. Skilling up (psychiatric) nurses in primary health settings may be a way to increase mental health services offered to communities (33;34), but since staff are often overloaded with work in under resourced areas, other community resources should be mobilized as well. The usefulness of lay counsellors was indicated in studies reported in chapter 3 and future research should explore the possibility of drawing on this resource. Other community resources that could be mobilized are traditional healers, as reported in chapter 2. Research should explore how to train traditional healers to provide basic mental health services and put a system in place to thoroughly evaluate and monitor their services. Investigating integrative psychotherapies that are locally relevant to communities is also a needed topic for research. By generating more evidence based research, the commitment of policymakers can be encouraged and evidence based programs can be provided to scale up care for mental disorders. In this way an evidence base treatment database can be developed to inform mental health services and diminish the burden of disease.

The low mental health literacy found in various studies in LAMIC reveals the need to make people aware of the different types of mental illnesses, their possible (biological) causes and the value of both psychological and pharmacological treatment. Improving mental health literacy may assist early recognition and bridge some attitudinal barriers to help-seeking. By creating more awareness of the different types of mental disorders and treatment options the extent of stigma and disbelief in benefits of treatments may be diminished. It is not enough to simply make people aware of these issues without having a functional mental health system which people can access; they need to know where to go for help if they recognize the need for this.

When developing interventions it is essential to work together with local structures and communities. Mental health and attitudes towards it are embedded in a social context. Treatment programs therefore need to be meaningful to the people in order to be beneficial. Regardless of the origin and format of interventions, they should fulfil the same uniform standards and tests before being implemented in communities. There also is a need for more
evaluations of conceptual models of how psychotherapy works and what makes them effective. To date there is still uncertainty about the actual active components of the psychotherapies we use.

In line with the future research focus just discussed, more thorough research is needed on (online) guided self-help in both high and low income countries, before implementation on a large scale. One necessary field of research is the standardizing of internet treatments. More research should focus on indentifying the active components of guided interventions and potential factors or characteristics that determine whether patients benefit from the intervention. More specifically, a reliable diagnostic system should be developed to identify specific patients that would benefit most from these types of interventions. The acceptability of (internet) guided self-help requires more rigorous evaluation. It would be useful to identify which traits in patients enhance the adherence to and completion of self-help interventions. For example, Hirai and colleagues (35) (chapter 4) found that early in the diagnostic and treatment process, an optimized internet-based self-help intervention can identify people who benefit from these. Individuals with specific disorders which might not respond adequately to self-guided therapy may only benefit from traditional therapist-directed treatments.

The results of our pilot study (described in chapter 6) suggest that it is worth studying further applications of PST to reduce the heavy burden of common mental disorders in low income communities. Randomized controlled trials are needed to study the efficacy of PST more rigorously and provide a basis for future improvements. Low cost training by lay people instead of a trained psychologist requires evaluation. Eventually it would be useful to create a guideline on how to adapt PST-based interventions for integration into existing health care structures across countries, and to evaluate and monitor their implementation. The guidelines could be used by organizations working in areas needing mental health care. Research therefore should focus on developing good quality sustainable therapies and integrating them in local communities and services. These types of interventions may provide a cost-effective method of strengthening the infrastructure of mental health care and in doing so, contribute to diminishing the burden of disease.
REFERENCE LIST


