Discussion

This thesis is about the conceptual foundation, implementation and effectiveness of integrative psychiatry. We will now discuss these three parts separately. After that we discuss and respond to criticism on integrative psychiatry, make a plea for an integrative research focus and do suggestions for future research.

Part I: conceptual foundation

As integrative medicine is a new concept in health care, we explored its conceptual foundation in the first part of this thesis and identified the main concerns in conventional medicine for which integrative medicine may provide some solutions (cf. Introduction). We argued that integration is not only a current tendency in medicine, but also a trend fitting the contemporary spirit of the age, in which integration seems to be the most common focus. It can be observed in religion, philosophy, spirituality and psychotherapy as well (chapter 1). We then compared conventional and alternative medicine as regards their perspective, paradigm, organization, scientific method and procedures. We showed that theoretically, conventional and complementary / alternative medicine are categorically opposed to each other in many respects. In practice, they seem to differ only gradually. However, in one aspect they seem to differ categorically both in theory and practice, namely in the commonly used theoretical models (mechanism / reductionism versus vitalism / holism). This aspect is therefore the main reason for heated debates. We nevertheless think these differences can be bridged using an integrative model that accommodates both (chapter 2). These two studies provide a conceptual basis for integrative medicine and the integration of non-conventional medicines in mental health care. Although these studies were based on literature searches, they were not performed in a systematic way, so they can be subject to bias.

There are different views on the integration of conventional and complementary / alternative medicine: if and how it could or should take place. Parker (2007) concludes that integration should only take place in an integrated evidence-based model, not in a multicultural pluralistic model. Pluralism refers to an organizational model in which different parts exist next to each other without being integrated. Kaptchuck et al. (2005), however, express a rather different view. They argue that pluralism is the most ethical and desirable option, as there are unbridgeable epistemological differences between the medicines. Koutouvides (2004) acknowledges these epistemological differences, but does not regard them as obstacles to collaboration or even convergence. He argues that collaboration is the way forward, instead of confrontation. Bell et al. (2002) state that integrative medicine provides a bridge between these theoretical models / paradigms, because it accommodates both conventional treatments and CAM, emphasizing wellness and healing of the entire person (bio-psycho-socio-spiritual dimensions) in the context of a supportive and effective physician-patient relationship. Tataryn and Verhoef (2001) argue that integration can take place at different levels (patient, practitioner, department, hospital). In the Netherlands some authors feel integration is not at all an option. They strongly oppose the integration (and even the existence) of non-
conventional medicine (Renckens, 2004; Van den Berg & Hengeveld, 2010; see paragraph ‘criticism’).

We agree with Koutouvides (2004) and Bell et al. (2002); although there are epistemological differences in theoretical models (chapter 2), we think these differences can be bridged using a model based on the principles of evidence-based medicine and integrative medicine (chapter 3). Our model facilitates integration at the patient and practitioner level. It helps practitioners to provide safe and effective conventional, lifestyle and complementary medicine. Further, patients are informed and advised to be able to make responsible and healthy choices when using alternative medicine (Part II / chapter 3).

Part II: implementation

In the second part of this thesis we outlined our position on the integration of medicines and presented a working model / guideline for the judicious use of complementary and alternative medicine in conventional psychiatry (chapter 3). There were four reasons for formulating and implementing a working model of integrative psychiatry. First, the practice of integrative medicine / psychiatry is highly varied and idiosyncratic. There is a clear need for more consensus and clinical guidelines to optimize effectiveness, efficiency and scientific evaluation. Second, the concept of integrative medicine was formulated in the United States of America, but in the Netherlands different laws concerning alternative medicine apply. So there is a need to adjust the concept of integrative medicine to Dutch law. Third, the World Health Organization (2003) and the European Parliament (1997) have asked their member states to do research on complementary and alternative medicine, to integrate those therapies that have been proven effective and safe, to provide the public with reliable information, and to formulate policy. Fourth, in the Netherlands we witness heated debates on complementary / alternative medicine in which opponents and proponents frequently express prejudices. These prejudices hinder the development of a balanced policy.

We assessed the main prejudices for and against complementary and alternative medicine, and refuted them with founded arguments. We then formulated a clinical guideline on the judicious use of complementary and alternative medicine in conventional psychiatry. Until now in the Netherlands patients and doctors are informed about what cannot be done concerning complementary and alternative medicine, while it remains unclear what could or should be done. This is a first attempt to guide patients and professionals in what they can or should do concerning unconventional medicines in the Netherlands. To our opinion, it guards patients against malpractice and harm, while simultaneously maximizing treatment options based on the needs and preferences of patients.

This paper has been criticized for being called a ‘protocol’ although ‘it is not based on best practice determined by psychiatrists as protocols should’ (Van den Berg & Hengeveld, 2010). But there does not seem to be any consensus on definitions of protocols, guidelines and decision trees. These terms are used interchangeably. Our intention was to make clear that one should act judiciously, based on law and scientific evidence. To emphasize that, we used ‘protocol’ to emphasize that the steps as described in the decision tree are not merely suggestions but have to be followed.
Part III: effectiveness

In the third part we presented four studies to answer some of the questions on the effectiveness of integrative psychiatry. We did a comprehensive review on the efficacy and safety of complementary medicines for bipolar disorder (chapter 4). We found high-quality evidence for the effectiveness of select nutrients. We concluded that current evidence supports the integrative treatment of bipolar disorder using combinations of mood stabilizers and select nutrients. As this review was not performed in a systematic way, it could be subject to bias. Still, it offers a meta-view on the evidence base of complementary medicine for bipolar disorder. We also did a systematic review of natural medicines for schizophrenia (chapter 5). We found 105 high-quality RCTs (with a Jadad score of 3 or higher) that show emerging evidence for improved outcome by adding herbs or nutrients to antipsychotics. However, most study samples are small, duration is generally short, they only cover a modest part of the globe's geography, and most results need replication. Even systematic reviews can be subject to bias (Tricco et al., 2008). For that reason protocols to perform systematic reviews have been developed (www.cochrane.org), but these were not applied here. Although we did use Jadad scores to assess the quality of RCTs, some unintended bias cannot be ruled out.

The above-mentioned reviews have focused on RCTs because these are regarded the 'gold standard' in medical research. This is because the RCT has strong features that control for bias and confounding (e.g. randomization), which results in high internal validity. As a corollary, however, external or ecological validity is often compromised (Howard et al., 1996; Natan et al., 2000). Today many researchers propose a more balanced position, acknowledging the strong features of RCTs but at the same time stressing the need for other types of research (Bluhm, 2009; Slade & Priebe, 2001; Van der Lem et al., 2012; Walach et al., 2006) to answer additional research questions, such as questions of effectiveness (does this treatment work in daily practice?), questions of individuality (does this treatment work for this particular patient?) or questions of mechanism (why does this treatment work?). To answer such questions, effectiveness studies are needed, for example modifications of the orthodox randomized trial (called ‘real-world’ randomized trials or pragmatic trials) or analyses of large administrative databases (Simon et al., 1995). Also single-subject studies with time-series analysis or experience sampling can be useful to answer these questions (Molenaar & Campbell, 2009; Hilliard, 1993; VandenBroucke et al., 2006; Nikles et al., 2004; Aan het Rot et al., 2012). Therefore, we did a single-subject study using time-series analysis to unravel the dynamic interplay between symptom and treatment variables in a multi-component treatment of anxiety disorder (chapter 6). We found that relaxation practice increased this patient's energy levels, and - via these - reduced his anxiety levels. Physical activity appeared to have the opposite effect, worsening the symptoms. Further, a feedback effect from energy to relaxation was found; increases in energy increased the patient's tendency to do his relaxation practices, indicating a positive spiral. Although the effects found in this paper were significant, they only applied to one patient, so the generalizability to the population was low. More studies are needed to confirm or refute our findings. The study did show the potential of high-intensity time-series designs to disentangle complex interactions in systems of multiple interconnected variables.

The overall outcome of integrative (mental) health care systems has hardly been investigated thus far (Verhoef, 2004). Since 2004 only a few routine outcome studies that addressed the effectiveness of treatments at a center for integrative
mental health have been published (Greeson et al., 2008; Mykleburst et al., 2008). So, we decided to evaluate the outcome of treatment at the Center for Integrative Psychiatry, using routine outcome measurement (ROM) (chapter 7). We discussed pitfalls associated with the assessment, analysis, and interpretation of ROM data, using data of 376 patients. 206 patients (55%) completed one or more follow-up measurements. Mixed-model analysis showed significant improvement in symptomatology, quality of life, and autonomy, and differential improvement for different subgroups. Effect sizes were small to large, depending on the outcome measure and subgroup. Subtle variations in analytic strategies influenced effect sizes substantially. Because of many problems inherent to the design and analysis of ROM data we could not draw conclusions about (comparative) treatment effectiveness. Still, this paper yielded some insights into the characteristics of patients visiting centers for integrative mental health, their diagnoses and their satisfaction with integrative psychiatry.

Criticism

During these years of research and practice of integrative psychiatry we sometimes encountered strong opposition and criticism (Kuipers & Gijsman, 2006; Van den Berg & Hengeveld, 2010; Renckens, 2013). Some criticism has been described and answered at the end of previous paragraphs. Others are discussed here.

Most of the critics state that we should not get involved in non-conventional medicines in any way, as they are ‘unscientific’. Medicine that is based on ‘ridiculous principles’ should not be investigated, so they say (e.g. Renckens, 2004). They think it is a waste of money and time. However, we feel that science should not be limited to conventional medicine, but can be applied to any medicine, as the scientific method is a way of relating to phenomena following certain rules and principles. In other words, it is not the subject that determines if it is scientific or not, it is the way in which the investigation and analysis are done. If we would decide by ourselves which phenomena should and should not be investigated in medicine, based on our subjective ideas, that would not be beneficial for the progress of medicine. Also, what seems ridiculous to one person may be convincing to another. Many patients use these medicines and pay for it; they seem to find them convincing. Who are we to decide that this is nonsense? Moreover, many findings in medicine seemed ridiculous and were rejected when they were first proposed (e.g. arteriosclerosis causes heart disease, vitamins prevent disease, microbes cause disease; Olshansky & Dossey, 2003). Therefore, we argue for an open and critical attitude.

Kuipers and Gijsman (2006) argued that ‘it has taken psychiatry many years to become a medical specialty. We have been working hard to get rid of vagueness, irrationality and unsubstantiated claims. We are now a scientific discipline. We need to armor ourselves against modern trends, magic and exotic religion’. We do agree that science should be differentiated from magic or religion. However, we think that showing an interest and respect for the opinion and preferences of patients, and trying to investigate therapies by means of proper scientific methods is not the same as being vague, irrational or magical. There is a need to be open to different perspectives on health and disease. Moreover it is an illusion to think that conventional psychiatry is scientific in all respects (Dobbs, 2013). Recently, the very basis of psychiatric diagnosis and classification, the Diagnostic and Statistical Manual of mental disorders (DSM), has been criticized by the National Institute of Mental
Health for being based on consensus rather than scientific evidence (Insel, 2013). The institute has already started to redirect its research focus away from DSM categories to research across categories or research on subdivisions of categories. When we are open to other perspectives, new opportunities might emerge. For instance, Van der Greeff (2011) reported in Nature how systems biology applied to traditional Chinese medicine (TCM) yields promising results and opens possible new ways in conventional medicine. Reviews have shown positive outcome of Chinese herbal medicine (Rathbone et al., 2007), Ayurvedic medicine (Agarwal, 2010) and other complementary medicine (Hoenders et al., in preparation; chapter 5) when combined with antipsychotic drugs.

Renckens (2013) expressed strong criticism on our paper on wind direction and mental health (Bos et al., 2012; not part of this thesis). In this paper we used time-series analysis to study the relationship between weather parameters and symptomatology in a patient suffering from recurrent anxiety. Wind direction was related to the patient's energy levels; these were significantly lower when the wind blew from the southeast. The effects could not be explained by other weather parameters. Renckens (2013) asked whether we had lost our mind, doing research on the influence of weather on mental states. He invited readers to comment on our level of insanity in categories ('fool, damn fool, bloody fool, fucking fool'). While we acknowledge that the influence of wind on mental health is an unusual one, there is reason to assume it might exist, based on local reports (e.g. on 'ill winds' like Foehn, Mistral and Sirocco), other research (e.g. ecopsychology) and our data. Moreover, we used sound scientific methods to investigate this relationship. But that is not the point. What is most intriguing is the question: why do critics feel the need to devaluate, even offend us, for engaging in research on complementary / alternative medicine? Milders (2006) suggested it is out of fear. Whether or not it was out of fear, it seems reasonable to assume that the controversy between mechanism / reductionism and holism / vitalism, as described in chapter 2, is involved in these heated debates, because a challenge of strongly held convictions can provoke a strong emotional response.

Some psychiatrists argue that when patients ask doctors for advice on complementary or alternative medicine, they should refuse to give it or even discourage them to try it. But if we do not advice patients on (lack of) evidence for effectiveness and safety of these medicines, they will be more vulnerable to unsubstantiated claims made on the Internet. Also there is a risk for interactions between drugs and herbs (Ernst, 2003a). Only 3% of the user population is aware of this potential risk (Walter & Gray, 1999). So, even from a medical perspective it is important to know what patients buy and try. But beyond that, patients do want their medical doctors to advice them on complementary medicines (Gray et al., 1998; Hoenders et al., 2006). The World Health Organization (WHO, 2003) and European Parliament (EP, 1997) have also advised their member states to do so. Respecting patients’ opinions and informing them can also improve the therapeutic relationship (Steingson, 2001) and therewith enhance treatment outcome (Koenig, 2000; Nikles et al., 2005; Gill, 2013), as treatment outcome has been shown to be highly dependent on the quality of the therapeutic alliance (Wampold, 2001; Driessen et al., 2010; Baldwin et al., 2007; De Jong, 2011).

There is also criticism on applying lifestyle medicine. Some psychiatrists say: ‘I am not trained to prescribe herbs, nutrients or lifestyle changes, that should not be work for doctors’. But we feel that any therapy that has been proven effective and safe in clinical trials for mental health problems should be known to and possibly prescribed by psychiatrists. The committee in charge of crediting conferences with
continuous medical education points did not agree to give points for a three day training in compassion (a training that builds on mindfulness with a focus on mildness and empathy), stating: ‘systematic training of compassion is for now not relevant for doctors’. However, we feel that compassion and empathy are essential for doctors and all those involved in healthcare. It is critical for establishing and maintaining a good therapeutic relationship, which is one of the most powerful predictors of success in (psycho-)therapy (Wampold, 2001; Driessen et al., 2010; Baldwin et al., 2007; De Jong & Colijn 2010). Moreover, there is emerging scientific evidence for the positive effects of compassion training for psychiatric disorders (Gilbert & Proctor, 2006; Mayhew & Gilbert, 2008; Laithwaite et al., 2009).

Integrative research focus

Mental health research needs to span both the natural and social sciences (Van Os, 2012; De Jong, 2013). Evidence based on RCTs has an important place, but to adopt only concepts from one body of knowledge is to neglect contributions that other well-established methodologies can make (Slade & Priebe, 2001). In other words: besides an integrated treatment approach, a truly integrative research focus is also needed.

In this thesis we used different research methods in an effort to answer some of the research questions related to integrative medicine / psychiatry. Based on literature searches, we wrote essays on the conceptual foundation. Taking into account the Dutch law, scientific research, jurisprudence and rules of professional bodies, we wrote a treatment protocol for the judicious application of complementary medicine in conventional mental health care. We assessed the quality and results of RCTs on complementary medicine in two reviews. Then we used a single-subject study to unravel the interrelatedness of symptoms and treatment variables using time-series analysis. Finally, we provided some insights into the characteristics of patients visiting centers for integrative mental health, their diagnoses and their satisfaction with integrative psychiatry, using routine outcome monitoring data.

Future research

Research into integrative (mental) health is still in its infancy. Far less than 1% of the research budget in the United Kingdom and the United States of America is spent on complementary / alternative medicine (Ernst, 2003b). The rest is spent on conventional medicine. In the Netherlands the situation is probably not much different, although exact figures are lacking. This thesis is a small step towards a more evidence-based integrative psychiatry.

Future research in integrative psychiatry should be integrative in methodology and include: 1) pragmatic trials comparing integrative treatment approaches to conventional treatments to examine (cost-)effectiveness and safety aspects; 2) clinical trials that study patient-tailored multiple-component interventions with both quantitative outcome measures (e.g. laboratory tests and validated psychometric scales) and qualitative experiences (e.g. subjective perceptions of improved functioning, placebo and nocebo effects), in RCTs as well as single-subject time-series designs; 3) use of pharmacogenomic, epigenetic, and neuroimaging technologies to elucidate mechanisms of action; 4) exploration of the impact of lifestyle modification (e.g. diet, exercise, stress management) on mental health as
both preventatives and treatments; 5) studies of the interactions between specific pharmaceuticals and complementary or alternative therapies and medicines (potentially beneficial synergistic and potentially dangerous adverse or toxic effects) (Sarris et al., 2013); and last but not least 6) qualitative studies with epistemological consideration of the paradigms of widely used Eastern medicine such as TCM, Tibetan medicine and Ayurveda. These paradigms contain insights which fit well with an immunological view of health that is often at the basis of lifestyle interventions. This is an area where more of a systems approach is warranted than an approach that looks simply at the individual therapies of whole systems (e.g. acupuncture, herbal medicines, massage, etc) rather than at their underlying diagnostic and explanatory models. The latter, in the long run, holds the potential to yield important new insights for expanding the biomedical paradigm – with major implications for medical care and human health (Bodeker, 2012).

Finally

In this thesis we differentiated integrative medicine, as a new concept of health care, from conventional medicine / psychiatry, arguing that it may provide some solutions to current challenges in health care. Looking closer one might argue that most aspects of integrative psychiatry should just be part of conventional psychiatry. Most conventional doctors agree that the therapeutic relationship is central, that we should not only look at diseases but at the whole patient, and that focusing on health is as important as trying to eradicate symptoms. Only the third principle, the use of non-conventional medicines, remains controversial. So, is integrative psychiatry really different from conventional psychiatry? Is it really necessary to distinguish them? The answer is yes and no.

Yes, because even though these three principles should be part of conventional medicine, they usually are not. Concepts like the biopsychosocial model are acknowledged in theory, but rarely practiced fully. Moreover, the third principle often provokes strong emotional responses and prejudice, which are not evidence-based and hinder progress. That is why we discussed those responses extensively.

No, because most clinicians agree that these principles should be part of medicine. So, after differentiating at the start of this thesis we now arrive at integration once again, hoping that soon most aspects of integrative medicine are accepted and integrative psychiatry will just be ‘psychiatry’.
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