

**The course and outcome of dyadic adjustment and individual
distress during and after residential couple therapy.**

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MODUMBAD 
- en kilde til liv



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Preface

I had a dream of becoming a therapist. It never crossed my mind to become a researcher. Finding myself as a researcher still surprises me.

I can see that experiences from my childhood and family of origin have formed my interest in psychology and family therapy, something that motivated my studying social work. I started working as a therapist in the Individual therapy unit at Modum Bad in 1989. After moving to the Family unit in 1995 I was asked to conduct a professional development project, exploring the grounds for establishing a unified treatment model based on cognitive therapy. Parallel to that project, as part of the governmental requirements for quality assurance, the Family unit introduced several patient self-report questionnaires for purposes of clinical assessment. Eventually, realizing that this new practice also yielded a rich collection of research data, I was asked to consider conducting research within the unit. After initial reluctance my motivation grew, and in August 2005 I was accepted in the Doctoral Program of the Medical Faculty, University in Oslo.

My interest in conducting research into family therapy is fueled by a curiosity whether couple and family therapy works and *how* it works, thus leading to a need to understand more of the complexity of couples' and families' relational interplay. Several theories offer explanations and suggest interventions. However, many prominent theories and practices do not include empirical findings from quantitative research as their basis for knowledge. Hence, I consider it to be a great need for increasing this type of knowledge to the field of couple and family therapy. In this perspective I am proud to share this small empirical contribution.

My identity as a researcher has grown and strengthened. And I like it.

Vikersund, October, 2009/April, 2010.

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1. OVERVIEW

1.1. Summary

This effectiveness study was conducted within naturalistic settings at Modum Bad Family unit, Norway. The aim was twofold:

(1) To evaluate the Family unit's treatment program by assessing the participants' levels and changes in dyadic adjustment during and after therapy.

(2) To investigate the predictive relationships of a) patients' and therapists' assessments between specific and non-specific process variables during treatment, and b) patients' assessed dyadic adjustment, individual symptomatic and interpersonal distress during treatment and after treatment termination.

In addition, while relevant for internal use in evaluating the Family unit's treatment program, the findings are also considered to be useful for therapists and researchers in other couple and family treatment settings. To our knowledge, no similar study has previously been conducted.

Considered as program evaluation, this study demonstrates satisfactory results for the 2001-2003 cohort of the Family unit's patients, showing significant positive change during the treatment period. Except for a temporary relapse in dyadic adjustment at one-year follow-up, the discharge improvements were maintained in the follow-up periods.

In analyses of predictive relationships, we found that positive change in specific process variables (communication and conflict management skills) predicted positive change in insight for both patients and therapists. We also found that during treatment, reduction of depressive symptoms had a positive impact on change in dyadic adjustment. Further, a positive change in dyadic adjustment at discharge seemed to have an impact on continued reduction of depressive symptoms in the follow-up periods.

1.2. List of papers

I Tilden, T. (2008). Integrative Practice: Presentation of an Inpatient Family Therapy Program. *Journal of Family Psychotherapy, 19* (4), 379-403.

II Tilden, T., Hoffart, A., Sexton, H., Finset, A., & Gude, T. (accepted). The role of specific and common process variables in residential couple therapy. *Journal of Couple and Relationship Therapy*.

III Tilden, T., Gude, T., & Hoffart, A. (2010). The course of dyadic adjustment and depressive symptoms during and after couples therapy. A prospective follow-up study of inpatient treatment. *Journal of Marital and Family Therapy, 36*, 43-58.

IV Tilden, T., Gude, T., Sexton, H., Finset, A., & Hoffart, A. (2010). The associations between intensive residential couple therapy and change in a three-year follow-up period. *Contemporary Family Therapy, 32*, 69-85.

V Tilden, T., Gude, T., Hoffart, A., & Sexton, H. (2010). Individual distress and dyadic adjustment over a three-year follow-up period in couple therapy: A bi-directional relationship? *Journal of Family Therapy, 32*, 119-141, published online by April 20th 2010.

1.3. Acknowledgements

An ancient African proverb says “It takes a village to raise a child.” I could say the same thing of my experiences in being “raised” as a researcher. In other words, there are many who have contributed to my growth in achieving this point in my career, so there are many who deserve my gratitude and acknowledgement. On a formal and structural level, the encouraging leadership on all levels at Modum Bad that gave the approval and funding, and facilitated this project, were all prerequisites for its realization. On a personal level, especially at times when progress did not occur, many persons had confidence in me. This has been a moving experience that gave me strength to continue.

First of all, as a clinical study, the access to data was only made possible thanks to all the patients in the Family unit who completed several questionnaires. I owe them my wholehearted gratitude for their agreement to complete and share their assessments for the purpose of this research. For some this has been an effort. Yet I know that many patients expressed appreciation for being invited to share their experiences of treatment that could contribute to improvements in the treatment program of the Family unit, and enhance knowledge in the field of couple and family therapy.

Modum Bad has a remarkable position in psychotherapy research despite its small size. The director, Ole Johan Sandvand, has showed great courage in pursuing this project despite the risk in entering a new research arena. I am grateful to the director who had confidence in me in conducting this study and for his recommendations of financial support from Modum Bad that made this research possible. Several other persons who had vital supportive positions in the Modum Bad organization throughout the project period deserve my thanks:

- The heads on the Family unit, Johan Okkenhaug, Janos Piro, Kåre Thornes and Bente Barstad, who have facilitated this project and my job conditions so that the work could be accomplished.
- The directors at the Research Institute, Egil W. Martinsen, Tore Gude and Leigh McCullough, who partly persuaded, partly challenged me into the field of research.
- The board of the Research Institute and its heads, Odd E. Havik and Arne Holte, who gave priority to couple and family therapy as a subject for research.
- All my colleagues in the Family department who have loyally supported and incorporated the project in their daily demanding work, and also contributed their own data.
- The clinical directors, Per Anders Øien and Tron Svagaard, who facilitated research as an integral part of clinical practice.

- The secretaries at the Family unit, Kristin Hovland and Hanne Sandbæk, who did a tremendous job with the data collection procedures, punching and storing.
- All my colleagues at the Research Institute in general, and my travel companion back and forth while joining the Doctoral Program at the Medical Faculty in Oslo, Karin Rø, in particular.
- The affiliation with the Department of Behavioral Sciences in Medicine, Institute of Basic Sciences in Medicine, Medical Faculty, University of Oslo.
- Astri Johnsen, the daughter of Modum Bad's founder, was one of the first clinicians to conduct a CFT study in Norway (Johnsen, 1988). She has for several years inspired my work.
- The clinic's supervisor of professional development Lisbet Borge, who supported my first hesitating steps into research.
- My proofreader John Roosevelt Boettiger for his excellent work in improving my English and clarifying the content of the papers.
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Last but not least I wish to thank my wife Kari Anne who has patiently walked by my side during my ups and downs in the project period. Being a family therapist studying the impact of stressful events and contexts on couple and family life, it may be a paradox that entering the role as a doctoral candidate contributed to increased stress in my own family. I therefore dedicate this thesis to Kari Anne and to the other two most important persons in my life, our daughters Ingunn and Solveig.

"I am strong, when I am on your shoulders;

You raise me up... To more than I can be." (Brendan Graham)

1.4. Abbreviations

ANOVA	Analysis of variance
BDI-II	Beck Depression Inventory
CCM	Communication and Conflict Management (skills)
CFT	Couple and family therapy
CFTR	Couple and family therapy research
CI	Confidence interval
CS	Clinical significance
DAS	Dyadic Adjustment Scale
EMS	Early Maladaptive Schema
GAF-S	Global Assessment of functioning, symptom subscale
GLM	General Linear Model
ICC	Intraclass Correlation Coefficient
IIP-64-C	Inventory of Interpersonal Problems
MFT	Marital and Family Therapy
PREP	Prevention and Relationship Enhancement Program
RCI	Reliable Change Index
RCT	Randomized Controlled Trial
SCID-I	Structural Clinical Interview for DSM-IV axis I
SCID-II	Structural Clinical Interview for DSM-IV axis II
SCL-90	Symptom Check List, 90 items
SPSS	Statistical Package for the Social Sciences
TEQ	Therapy Evaluation Questionnaire
YSQ-75	Young Schema Questionnaire

2. INTRODUCTION

2.1. What this dissertation is about

The primary aim of this dissertation was to evaluate the treatment program at the Modum Bad Family unit. Because this project also yielded a rich set of data, we extended the aim to also conduct predictive analyses that go beyond program evaluation. Hence a considerable part of this dissertation should be of general interest outside Modum Bad, investigating the relationships between process variables and between individual and relational measurements.

Since it was established in 1968, the Modum Bad Family unit's treatment program has grown and developed, guided by its early premises, the theoretical perspectives of adult and child psychiatry and family therapy models, and by many years of clinical practice. Previous evaluations have been based on regular feedback from the patients, leaving a common impression of successful treatment. However, no systematic empirically based evaluation has previously been conducted, for instance, investigating the long-term effectiveness after treatment. Today's standards require more firm documentation of program evaluation. Hence, the results of this study should both contribute to the Family unit's internal evaluation of the treatment program and to investigate predictors of the course of the main outcome measure in this evaluation, i.e. the Dyadic Adjustment Scale – DAS (Spanier, 1976). This instrument is one of the most commonly used measures worldwide for individuals in a couple to assess their dyadic satisfaction.

Couple and family therapy (CFT), despite being a common therapeutic mode in Norway, has not been systematically investigated through quantitative research in our country. Since the CFT field is thus demonstrably in need of increased empirical knowledge, this naturalistic effectiveness study is a contribution to such an effort. As part of a long-term goal to bring Norwegian CFT research to an international level, we wished to follow recommendations from leading CFT researchers worldwide. Hence, the predictive part of this study was twofold, i.e. to investigate the predictive relationships between common and specific process variables during the residential therapy period with both patients and therapists. Further, we wanted to investigate the predictive relationships between the adult patients' reports on dyadic adjustment and their individual distress levels at admission, discharge, and one- and three-year follow-up.

2.2. Definition of CFT

In the literature, the terms CFT (couple and family therapy) and MFT (marital and family therapy) are often used synonymously (see e.g., Sexton, Alexander, & Mease, 2004). Considered as a professional field, the term 'family therapy' is a wider and more super ordinate construct than is 'couple (or marital) therapy' (Jones, 1995). In the following, I choose to use the term 'CFT'

when presenting the broad professional field. I will explicitly name ‘couple therapy’ and ‘family therapy’ when these are individually presented. Even though this study is conducted within a context of family therapy, suggested as an integrative practice with multiple therapeutic approaches on several system levels (see 3.3.2. and paper I), the objective was to study the adult couples, not including the children as contributors in the data collection. This is why I choose to call this a study of “couple therapy”, and therefore, my major emphasis in the presentation will be on this construct.

2.3. Historical and theoretical background for CFT

Established in the 1960’s, CFT is a young branch on the tree of human helping disciplines. However, several of the ideas included in CFT were already conceptualized and used by community and social workers in the 19th century (Jones, 1995). The development of CFT as a distinct therapeutic mode was inspired by two major influences. One emerged from the psychoanalytically oriented therapists who were dissatisfied with the progress in treating individual patients and therefore started to include family members in the therapy. As they discovered benefits in doing so, they began to study how relational contexts and interaction impacted on the lives and symptoms of individuals. The second influence came from other fields of professional life not intuitively associated with treatment of human beings, e.g., systems theory, cybernetics, mathematics, and biology. Hence, CFT developed as a patchwork consisting of contributions from several sources. The three main “schools” in family therapy were the structural, the strategic, and the “Milano-group”. Later, as part of post-modernist philosophy and the anti-psychiatry movement, the term ‘systemic (family) therapy’ was introduced, including a wide range of approaches, for instance solution-focused, language-focused, narrative, constructivism and social-construction models (Jones, 1995; Pinsof & Lebow, 2005). ‘Systemic therapy’ is considered to be informative because CFT often involves wider systems, treating people in context. Therefore, a systemic approach is essentially a contextual approach (Asen, 2002). Other models within CFT may emphasize emotions, cognitions, and behavior (see Dattilio, 1998, for an overview). Typically, clinicians choose from a variety of methods in an integrating or eclectic way according to their own personal style and theoretical references when they adjust and tailor the treatment to the specific problems and challenges for which their clients are seeking help (Asen, 2002; Pinsof, 1995).

Identified primarily as a field of practice, the growth of knowledge in CFT has mainly emphasized the interaction between practice and theory (Flaskas, 2005). Empirical knowledge has,

at least within parts of the systemic CFT field, been met with skepticism because it was associated with experimental quantitative trials in laboratory settings that CFT clinicians did not identify with or found relevant for concrete CFT contexts (Pinsof & Wynne, 2000; Solem, Tilden, & Thuen, 2008). Moreover, empirical knowledge derived from Randomized Controlled Trials (RCT) has in particular been criticized by many in the CFT field because of the use of standardized treatment manuals and quantitative questionnaires. This is because systemic CFT theory rather emphasizes clients' need for a treatment approach based on the particular "local" knowledge acquired and explored in the unique meetings between clients and the therapists, within a core ethic of closeness (Baklund, 2006). This perspective impacts on the therapist's view of his or her own position and role toward the client, for instance in what is suggested as the 'not-knowing' position (Anderson & Goolishian, 1992; Bagge, 2007; Baklund, 2006). This implies that therapists should be conscious of their susceptibility to pre-judgment, assume a humble attitude, not believing that they are able to assess the client's issues objectively as an expert instructing the clients what to do. Because therapists should regard themselves as part of the system of change, they are influencing on, as well as being influenced by, the system in an inter-subjective way. As a consequence therapists need to observe critically their own participation and change in the system, not only the clients'. This reflects the view that the conduct of therapy should be collaborative and client-guided.

Further, the systemic stance yields consequences for the understanding of relationship attribution. The main concept of this approach is mapping mutual interaction within a system, foregoing linear causality for exploration of reciprocal and circular loops of influence (Jones, 1995). Clinically this may change clients' attribution of the 'identified patient', encouraging reduction of stigma and personification of a problem: instead, problems can be reconceived as patterns of interaction within and between systems. Systemic theories claim that systems contain their own healing potential (*ibid.*). The therapist's task, utilizing the concepts of empowerment and resilience, is mainly to create a climate for clients to communicate about their issues, inviting the participants to share information about themselves so that the interactions in the system can be clarified. Gregory Bateson (1978) has had a great influence in the field by his condensed expression "a difference that makes a difference." Within this concept, the participants in the system becoming aware of new information about themselves and each other may represent a sufficient difference in their understanding of self and other, in turn creating an urge for changes and solutions to be examined that fit them and their system the best.

The importance of introducing a difference in therapy can be illustrated from my own clinical practice. I interviewed a couple about affect consciousness. The wife told us that she

interpreted her husband's withdrawal and silent behavior as an expression of anger. Because she had a traumatic history of an angry father, her husband's behavior triggered her anxiety, resulting in her self-protective withdrawal and silence. Hence, a distance grew between the spouses. When the husband was asked what kind of feeling his behavior expressed, he said that his withdrawal and silence typically happened when he was afraid and sad. This new information had a great impact on his wife; the next time he expressed this behavior, she re-attributed the situation, knowing that she did not need to be defensive. Instead, her empathy and caring/nurturing were mobilized, and in turn this influenced on a more adaptive involvement with her spouse. This can be seen as "a difference that made a difference." Therefore, the therapist's main task is to facilitate this kind of conversation, inviting new information to be shared.

2.4. The historical growth for CFT research

In Gottman and Notarius' (2002) review on couple therapy research, they referred to the first study on marriage, published by Terman, Butterweiser, Ferguson, Johnson, et al. (1938) that investigated what characterized happy and unhappy married couples. The early focus was to investigate whether some individual personality traits were more associated with successful marriages than other factors. Later the focus turned over to investigate the partner's perception of the spouse's personality related to marital satisfaction (Gottman & Notarius, 2002). The paper presenting the double-bind hypothesis (Bateson, Jackson, Haley, & Weakland, 1956) represented a new direction by introducing an interactional perspective on marriage. This also introduced a blend of self-report and observation methods that could control for the halo effect that may threaten self-report procedures. In addition, exploring gender differences and the context of the interaction became part of the research. More sophisticated measurements and ways to analyze data made it possible to measure and describe interaction between people over time. In general, further research did not confirm the previously mentioned hypotheses that troubled families had more frequent double-bind messages and inconsistency between verbal and non-verbal messages than non-distressed families. Rather, it was found that troubled families were more negative in their interaction than in well-functioning families. Hence, this led to focus upon affect and expressed emotion in families, which has resulted in the development of an emotionally focused marital therapy (Greenberg & Johnson, 1988). It was suggested that the most important predictors of health, illness, and longevity were the affective quality of people's closest relationships, particularly their marriages and friendships (Gottman & Notarius, 2002). The CFT research grew along with development of new family therapy theories in the 1960's. A conference was held in

Philadelphia, USA in 1967, between family researchers and family therapists (Framo, 1972) that discussed a new focus in studying the relationship between family interactions and individual family member's psychopathology. In the 1970/80's, research also included focus on power, male and female roles (feminist perspectives), family violence, nontraditional and single-parent families, divorce and remarriage. As technology became more available, for instance to record both audio and video as well as using computer-based programs for analyses, this opened for new possibilities to conduct process research that grasped a greater part of the complexity in human interaction. This opened for a new era of coding systems to be used in analyzing video sessions with couples and families, for instance coding of facial and other emotional expressions, such as heart rate, and finger pulse amplitudes. The study of couples has further focused on developmental transitions, such as the engaged couple, the newlyweds, the new parents, midlife couples, the empty nesters, and the grandparents. For instance, it is shown that couples experience a significant decline in satisfaction after the birth of their first child (Gottman & Notarius, 2002), but by the time the child was five years of age, these couples were no different from the control group.

A disagreement arose between prominent researchers about the interpretation of research findings. Gottman (1999) was critical to what was commonly accepted as helpful in CFT, such as empathetic listening and addressing the risks by partners' mindreading each other. Labeling these as myths without empirical support, he instead found evidenced that couples who ended up in divorce were characterized by negative affects and expressions in their interplay, such as sadness, anger, dominance, criticism, a defensive attitude, contempt toward the spouse, and lack of willingness for dialogue. These couples had less mutual interest, joy, humor, and friendliness, and they showed a maladaptive conflict management. Stanley, Bradbury, and Markman, (2000) criticized Gottman for his interpretation of these findings. They found instead empirical support for the clinical recommendation of active, empathetic listening as crucial in CFT because it enhances the emotional dyadic climate, forming the grounds for an adaptive conflict management.

In contrast to family therapy, couple therapy research has obtained common outcome targets labeled "relationship satisfaction" and "distress" (Sexton et al., 2004). This has allowed the couple therapy field to develop a number of treatment models within a unified domain of practice. It has also allowed couple therapy research to yield more specific levels of evidence than is possible for family therapy. Within family therapy, specific treatment intervention programs have been developed for specific clinical problems rather than for broad approaches directed at general outcomes (such as reduced relationship distress and enhanced satisfaction). In Sexton et al.'s (ibid.) overview, two family therapy approaches are referred as 'evidence based'; Functional

family therapy and multi-systemic therapy. Another two are included as ‘empirically supported treatments’; multi-dimensional family therapy, and structural family therapy.

2.5. The status of CFT research

As earlier mentioned, there has been a gap between CFT research and clinical practice (Pinsof & Wynne, 2000). Douglas H. Sprenkle (2002) puts it this way; “The culture [of MFT] does not support research.” (p. 11). According to Asen (2002), however, most systemic therapists have eventually come to realize that research is necessary in order to prove the effectiveness of their methods in the evidence-based climate. In her review, Susan M. Johnson (2003) points out four areas in the growth of CFT research: (1) studying clinical problems refining the understanding of the nature of relationships distress, (2) studying the process of change in therapy, (3) studying the application of couple therapy as an effective treatment for individual disorders, and (4) integrating CFT research with general research from clinical psychology, human development, and social psychology, all in order to inform, guide, and evaluate interventions with the purpose of reducing the risk of CFT research isolation.

The good news for systemic therapists opening their interest for research is that in a number of studies and meta-analyses, CFT has been found effective alone or in conjunction with other treatments (Asen, 2002; Carr, 2009; Pinsof, Wynne, & Hambright, 1996; Shadish & Baldwin, 2003). Furthermore, CFT is found to be comparable in efficacy to the most reliable and powerful psychological therapies for individual adults (Halford, 2006).

CFT research in Norway has been sparse, mainly qualitative in design (Jensen, 2006). This may reflect, as previously mentioned, that from a systemic, social-constructionistic perspective, quantitative studies are not seen as useful for clinical practice (Cooper, 2007; Skauli, 2009). The current study from Modum Bad finds its place within the historical context sketched above, demonstrating one way of conducting a quantitative study in a natural setting, hopefully contributing to increase the base of knowledge. One may state that this study is anchored in an empiric tradition at Modum Bad: The Family unit was established based on an initial experiment conducted by the founder of Modum Bads Nervesanatorium, Dr. Gordon Johnsen. He invited individual patients’ families to stay in the small cottages on the hospital grounds during the patients’ treatment (Okkenhaug & Piros, 1998). Johnsen noticed that the presence of the patient’s family changed the treatment context, yielding additional therapeutic potential for better individual outcome. After five years of gaining these experiences, it was approved that spouses who took part

in the individual patient's therapy were paid for by public insurance. This was the beginning of what was later opened as a separate Family unit at this hospital in 1968, being the site where the current research has been conducted. Even though the Family unit at Modum Bad represents a local and unique treatment program to be evaluated, our study aims also at viewing the results in the scope of generalizability.

2.6. The paradigm of 'interactive constructivism'

The scientific philosophy and theory underlying this dissertation reflects, for the most part, one of the CFT branches, the Family Psychology Scientific Paradigm, as presented by Pinsof and Lebow (2005). The epistemology of this tradition is called 'interactive constructivism,' which means that we assume the existence of an objective reality, but our ability to perceive and understand it is very limited. Nevertheless, we should always strive to enhance our knowledge of that reality; as such, we search for truth. This framework has a consequence for what is regarded as valid knowledge and how such knowledge is established. Because any single person is only able to grasp parts of the reality, development of knowledge is dependent upon collaboration, wherein all participants share their views in an interactive social process. This clearly affects clinical work as a collaborative effort. It also justifies research as one - among several sources - for creating knowledge. Hence, different participants' perspectives serve as a contribution to the joint effort to build knowledge that reveals and embodies truth and reality as much as possible. Even though using different methodology, clinical work as well as research utilizes constructs and hypotheses that are never definitive. When new knowledge is accumulated, these constructs and hypothesis will be modified and ultimately replaced. Hence the notion of interactive constructivism is a progressive science with relevance for both clinical practice and research (ibid.).

One way of implementing this paradigm is that the clinician should be updated on research literature relevant to his or her professional field. However, the problem is, as Pinsof and Wynne (2000) put it: "Couple and family therapy research (CFTR) has had little, if any, impact on the practice of most couple and family therapists" (ibid, p. 1). Many theorists and clinicians, they argue, perceive research as far too distant from the realities of clinical life, believing that the philosophy of science is not valid for clinical practice. Pinsof and Lebow (2005) therefore pointed out a new way of integrating scientific methodology and clinical practice that has been labelled 'empirically informed therapy,' introducing research methodology as part of daily clinical practice. This includes feedback routines with frequent data collection procedures so that information from

the clients is fed back into real-time therapy for use in ongoing clinical assessments and decisions (Pinssof & Chambers, 2009). In this way, a systemic practice is formalized in addition to assuring the clients' influence in their own treatment. After treatment termination, aggregated data from this practice can be utilized for research purposes, in particular to study the relationship between process and outcome as well as mechanisms of change in CFT. This empirically informed clinical practice should therefore reduce the gap between clinical practice and research, and as such is regarded as one of the most promising roads for future development of CFT (ibid.).

2.7. The significance of close relationships and the relevance for CFT

A stable mutually satisfying couple relationship is one of the most important predictors of good health and wellbeing in adults (Diener, Suh, Lucas, & Smith, 1999; Markman & Halford, 2005). It is associated with resilience to negative life stress (Coie, Watt, West, Hawkins, et al., 1993), fewer health problems both physically (Schmaling & Sher, 2000) and psychologically (Halford, Bouma, Kelly, & Young, 1999), greater career achievement and fewer financial problems (Forthofer, Markman, Cox, Stanley, et al., 1996; Waite & Gallagher, 2000). In contrast, many negative life experiences and problems are associated with relationship problems (Halford, 2006). In terms of prevention, parents' satisfying relationship is associated with children's good mental and physical health, and educational and peer-related adjustment (Coie et al. 1993; Sanders, NicholSEN, & Floyd, 1997). In contrast, when children experience parental conflict, distress and divorce, they are at increased risk for developing depression, withdrawal, conduct disorder, poor social competence, health problems, and academic under-achievement (Amato, 2000; Carr, 2009). Hence, efforts to prevent problems in close relationships and enhance the relationship of struggling couples are important tasks for a society's health system and social services. Because it is a tailored treatment modality specifically targeting such problems and contexts, CFT is central in dealing with those challenges (Ministry of Children and Equality, 2008). CFT serves also as a well-suited treatment intervention for individuals suffering from a variety of psychiatric disorders in combination with relational problems with the spouse or in the family (for instance, anxiety, depression and other mood disorders, alcohol and drug abuse, personality disorders) (Cordova & Gee, 2001). In his review, Carr (2009) finds evidence for the effectiveness of CFT for treating relationship distress, psychosexual problems, domestic violence, anxiety disorders, eating disorders, mood disorders, alcohol abuse, schizophrenia, and chronic physical illnesses. Because many of these disorders traditionally are treated within the context of individual therapy, Snyder and Whisman (2003) claim that these therapists are likely to improve

their success in therapy by incorporating CFT interventions in their practice. A notable advantage of CFT compared with individual modes of treatment is that CFT may also influence the contextual relationships in the patient's interpersonal system and thereby reduce the risk of relapse. Therefore, CFT has great potential as a treatment modality for a large population exposed to marital distress, separation and divorce, as it may contribute in reducing personal (e.g., depressive reactions), relational and public costs. Studies from the United States conclude that CFT is cost-efficient. In families with members at risk for major depression, early CFT intervention can reduce this risk by 30% (Whisman & Uebelacker, 2003). Other American studies have shown that including the family in treatment instead of applying individual treatment approaches only for the "identified patient," health services costs can be reduced substantially (Crane, 2007).

Because a high degree of co-occurrence of relational and individual problems is typical (Whisman, 2001b), clients seeking CFT often present a heterogeneous variety of distress and difficulties relationally and individually. Professionals report that therapy with couples presenting coexisting psychiatric distress and relationship disorders are the most difficult clients they encounter in clinical practice (Snyder & Whisman, 2003). For this reason the treatment prognosis may also be more difficult to predict for CFT compared with individual therapy. For instance, longitudinal studies in couple therapy typically show that the natural course of couple distress is marked by high stability of relationship difficulties, episodic recurrence of intimacy problems, and numerous cases of union dissolution (Bradbury & Karney, 2004). Clinicians need extended knowledge in order to meet successfully these kinds of therapeutic challenges. Research provides one important source of such knowledge, and researchers within the field of CFT have therefore an obligation to supplement the knowledge base for which clinicians ask.

2.8. Established empirical knowledge of couple therapy research

2.8.1. Program evaluation

Great effort and public costs in Norway are spent on couple therapy programs. Clients, therapists and stakeholders have a common interest that these efforts yield lasting help to clients. Because very little systematic evaluation has been conducted within the field of CFT as yet, the Norwegian government has stated that there is need for research-based evaluations of these public services and programs, encouraging greater empirically based knowledge (Ministry of Children and Equality, 2008). Program evaluation needs to reflect the aims and tasks defined by the organization that is responsible for conducting the program, and relevant designs may range from

quality insurance to controlled studies, for instance Randomized Controlled Trials (RCT) (Posavac & Carey, 1992). At Modum Bad, during the time frame of this study, program evaluation is clearly identified as a high priority in the Strategy plan (Modum Bad, 2003-2007), “as a principal and general policy (...) all treatment programs will undergo evaluation and documentation.” (ibid., p. 12, author’s translation).

Within program evaluation, measures to assess outcome have to be contextually determined (Posavac & Carey, 1992). In the literature of couple therapy research, there is no single universally accepted outcome of couple therapy. Some authors have identified increased dyadic satisfaction or termination of the relationship as the two main outcomes (Baucom, Shoham, Meuser, Daiuto, et al., 1998). In some studies, the proportion of separation/divorce after couple therapy termination has been regarded as “hard facts” outcome (Christensen & Heavey, 1999). However, this measure is insecure because therapy that results in separation/divorce still can yield individual improvements (Markman & Halford, 2005). This is of particular relevance when separation is preferred and initiated by only one or both of the partners. And on the other hand, interventions to prevent divorce do not necessarily result in individual happiness (Thuen, 2003). For this reason, relationship dissolution should not automatically be identified as an intervention failure (Christensen & Heavey, 1999). Even though the separation rate could serve as an indication of couple therapy outcome, it is recommended that both relationship and individual measurements should be included when assessing outcome (ibid.; Friedlander & Tuason, 2000; Pinsof et al., 1996; Sexton et al., 2004). In our study we have included both individual and relationship measurements. While we report the proportion of separated/divorced at follow-up, we regard this primarily as a description of the sample, not as therapeutic outcome.

One of the most frequently used measurements worldwide on couple satisfaction and functioning is the Dyadic Adjustment Scale – DAS (Spanier, 1976; Spanier, 2001). This measure has been adopted as the main outcome measure in the Family unit’s program evaluation. Couple therapy outcome research has typically shown an improvement in DAS during therapy, followed by a partial relapse after therapy (Wesley & Waring, 1996) and then a modest mean improvement from pretreatment to one- or two-year follow-up (Christensen, Atkins, Yi, Baucom, et al. 2006). This ‘improvement-relapse-improvement’-pattern may reflect a limitation with the DAS measure. Gottman and Ryan (2005) claim that this instrument mainly taps the level of agreement between the spouses. When training a couple within therapy to disagree in nondestructive ways, their scores on DAS may reflect less satisfaction than given by conflict avoidant couples. So, if the therapy program is successful, “couples would find themselves facing their conflicts more directly and

hence, at least initially, disagreeing more” (p. 67). Therefore, the interpretation of DAS results needs to take these considerations into account.

One limitation of focusing upon mean change is that it does not yield any information about outcome variation, nor does it provide information about the clinical significance of the changes. For instance, the modest mean improvement from admission to follow-up could indicate a variety of outcomes or even possibly dichotomous ones such as improved or unchanged. When only looking at effect-sizes (Cohen, 1988) in meta-analyses showing that CFT is an effective treatment approach, the most tempting conclusion is that the intervention group has a significant better course compared with the control group (Thuen, 2003). Another interpretation may as likely be that the intervention group shows a *less negative* course compared with the control group (ibid.). Hence, a statistical measure is not alone sufficient to assess to which degree the intervention has been helpful for the clients; one needs in addition to assess whether the clients have achieved a clinical significant change, i.e. moved from a category of clinical stressful condition (caseness) into a category of improved or recovered condition (Gottman, 1999). A useful way to conceive outcome is in terms of clinical significance, classifying outcomes (for instance, change in DAS during the period of investigation) as ‘recovered,’ ‘improved,’ ‘unchanged,’ and ‘deteriorated’ (Jacobsen & Truax, 1991; Wesley & Waring, 1996). This way of calculating outcome based on the DAS change has been used in this study.

Further, Wesley and Waring (ibid.) suggested a ‘marital therapy outcome research gold standard’, in which (a) half of the couples accept the therapeutic approach and complete the required course of therapy, (b) half of the completing couples demonstrate subjective and objective improvement on relevant measures, and (c) half of the improved couples maintain this improvement at one-year follow-up. This way of calculating outcome based on DAS change has also been used in this study.

2.8.2. Outcome in effectiveness and efficacy studies

It is well established that CFT research shows overall effectiveness (Carr, 2009; Shadish & Baldwin, 2002; Sprenkle, 2003, for reviews). A number of efficacy studies have also confirmed that couple therapy improved the outcome of dyadic adjustment and satisfaction (Baucom et al., 1998; Christensen & Heavey, 1999; Sexton et al., 2004, for reviews). References to effectiveness studies (also called naturalistic studies; Leichsenring, 2004, meaning research conducted under real therapy settings and conditions (Sprenkle, 2002)) are most relevant for this study. However, in an overview it is also useful to include controlled efficacy studies for the purpose of discussing the

variance, strengths and limitations between different designs (Sprenkle, 2003). CFT efficacy studies are conducted within controlled contexts, for instance by the selection of participants according to homogeneous criteria. Further, such studies were often conducted within universities where the therapists were offered standardized training in delivering manual-based psychological treatments yielding high internal validity. On the other hand, effectiveness studies are typically conducted within naturalistic settings where the variation of clients, contexts and therapists are not controlled for (Halford, 1997, 2006). Thus differences in CFT studies are mainly explained by different study designs. For example, when using effect size in assessing outcome, this varies from high ($\geq .80$) in couple therapy efficacy studies (Shadish & Baldwin, 2002) to small to moderate (.37) in effectiveness studies (Hahlweg & Klann, 1997). Another difference in results between designs is that in efficacy studies the proportion of clients showing reliable improvement in their dyadic adjustment has been 70% - 80% of all cases, which is similar to the best available individual psychological treatments (Halford, 2001). Based on these efficacy studies it is suggested that couple therapy is comparable with the most reliable and powerful available individual psychological treatments for adults (Halford, 2006). By contrast, in effectiveness studies it is found that up to 50% of the couples did not improve in their relationship after couple therapy termination (Jacobson & Addis, 1993). For instance, one effectiveness study in Germany and Austria showed that only 50% of the couples agreed to participate in the follow-up after treatment termination (Hahlweg & Klann, 1997), and only 20% of the clients were in the non-distressed range on dyadic satisfaction at follow-up.

As already indicated, there are several pros and cons in considering effectiveness studies. One advantage is that this type of study could be more representative of the majority of clinical settings in terms of patient variation, staff groups, and treatments that are typical for clinical practice (Leichsenring, 2004). This could increase the external validity that in turn could strengthen the generalizability of the results (Johansson, 2009). In addition, Leichsenring (2004) argues that in order to examine the impact from treatment in real life, field studies are required. For these reasons, one finds strong recommendations to increase the number of naturalistic studies within couple therapy (Sexton et al., 2004). One disadvantage in effectiveness studies is that threats to internal validity may represent a limitation. For instance, the study may have less possibility for controlling the factors influencing outcome apart from therapy (Leichsenring, 2004), making the results very difficult to interpret. Further, comparison with other studies may be difficult or even impossible when they are conducted within different contexts and treatment programs, with different inclusion and exclusion criteria, using different measurements and procedures (Johansson, 2009). And even though one would have been able to control for several

variables while in treatment, the interpretation of whether the achieved results can be maintained during follow-up is weakened severely due to all the other possible variables that may have influenced the participants and their outcome, in particular when they have received some kind of post-treatment therapy.

Based on meta-analyses, Northey (2009) concludes that in general, CFT has an influence, whether the interventions are evidence-based or not. For this reason, Friedlander (2009) assumes that CFT in general is helpful even within areas where research has not yet been conducted. This suggestion is supported by several findings emphasizing common factors that work across all psychotherapy models (Shadish & Baldwin, 2002; Sprenkle & Blow, 2004). Similar to results from comparative studies of models in other psychotherapy research, significant differences are rarely found, as indicated, for example, in a study comparing traditional versus integrative behavioral couple therapy (Christensen et al., 2006). Therefore, it is more often recommended to investigate in detail the common factors and the mechanisms of change in naturalistic studies (Christensen, Doss, & Atkins, 2005; Rønnestad, 2008), rather than pursue research designs comparing models. Johnson (2003) notes however that even though different treatments result in similar mean effects, there is good evidence that hidden within these effects are widely disparate outcomes. Therefore she argues for the need to explore possible differences between treatments.

Because too few studies have been conducted on couple therapy including long-term follow-up, this knowledge is still limited (Christensen et al., 2006; Doss, Thum, Sevier, Atkins, et al., 2005). The current dissertation aims therefore in contributing to increasing this knowledge. An overview of studies on the relationship between relational distress, process variables, individual symptoms, personality distress, and gender will be presented in the following.

2.8.3. Predictions of couple therapy outcome

Pre-therapy conditions may predict couple therapy outcome. For instance, studies of power positions in couple relationships show that wife-dominant couples improved the most in a 12-week marital therapy study (Weiss, Hops, & Patterson, 1973). In a study of the association between ability of self-soothing/spouse-soothing and marital outcomes after six years, Gottman and Levenson (1988) found that the husband's self-soothing predicted positive marital outcomes. These authors found further that the presence of more negativity than positivity in the spousal interaction was the strongest predictor for divorce (Gottman & Levenson, 1992). Later, Gottman (1993, 1994) identified four negative interaction patterns that were highly predictive to divorce; criticism, defensiveness, contempt, and obstruction. As an extension of these findings, Mathews,

Wickrama, and Conger (1996) found that spousal hostility and lack of warmth predicted with 80% accuracy that couples would divorce within a year. Further, Gottman, Coan, Carrère, and Swanson (1998) found positive affect as the only predictor of both stability and happiness in a sample of newlyweds. Within behavior marital therapy (BMT) the level of distress at intake is found to account for up to 46% of outcome variance (Johnson, 2003). In other studies, variables at intake, such as low levels of dyadic satisfaction, negative couple interaction patterns over time, severe problems in managing problems, erosion of positive feelings between the partners, relationship disengagement, low levels of emotional affection, and low frequency of sex, predicted poorer outcome immediately after treatment termination as well as at four years follow-up (Halford, 2006; Snyder, Mangrum & Wills, 1993). In Emotional-focused therapy (EFT), the female partner's belief that her partner still cared for her was found to be the best predictor of therapy success (Johnson, 2003). Other possible predictors that have been tested in couple therapy studies include demographic variables (e.g., age and years married), interpersonal variables (e.g., communication, intimacy, and commitment), intrapersonal variables (e.g., personality and psychopathology) (Atkins, Berns, George, Doss, et al., 2005), preexisting client characteristics of marital satisfaction, depression, problem-solving, and career status (Sexton et al., 2004).

Statistical identification of predictors influencing the course and outcome of CFT could be clinically important. The researcher needs to interpret the findings clinically, and the clinician needs to consider whether the findings on a group level are valid for his or her particular client/couple/family. If so, the therapist should be highly aware how such predicting variables can influence the particular therapy, allowing adjustment and tailoring of the treatment to facilitate optimal outcome. For these reasons we have had as a main focus to investigate possible predictors to the course of marital satisfaction in this study.

Studying predictions implies an idea that one phenomenon occurring at one time point makes it probable for another phenomenon to occur at a later time point. It is within research methodology important to differentiate predictive from causative relationships as these require different research designs and yield different interpretations. Differentiating these concepts also has theoretical and clinical implications. Within family therapy theory, the notion that one phenomenon occurs before another (predictive or causative) has been associated with a linear conceptualization that is believed to increase the risks in couple and family relationships to maintain and reinforce for instance, negative attributions, blaming, guilt, and individual psychopathology (Jones, 1995). Rather, the main CFT focus has been to explore the reinforcing relationships and communications between the members in the system understood in terms of

mutual causality (Pinsof & Lebow, 2005). However, the same authors claim that the systemic concept of mutual causality is problematic because it treats all causal relationships as equally important: “We know that the research clearly does not support these equal contribution or equal effect models.” (ibid., p. 9). Therefore, their expression “differential causality” may be a more precise expression that also captures the different amounts of variance that are revealed in statistical regressions. This view reveals a greater differentiation that is clinically recognizable. For instance, a linear prediction or causality in some situations could yield a more adequate understanding of time-serial processes, for example when the therapist in clinical practice chooses one focus and intervention before another. If a better outcome is experienced when intervention A comes before intervention B, even though the variables A and B are interrelated, this illustrates a clinical relevance of “differential causality.” In other situations we have an ethical obligation to acknowledge phenomena such as violence, harassment, bullying, and abuse as uni-directional. Therefore, searching for extended knowledge about the associations relevant in CFT is needed without being biased by any judgment that these associations are uni-directional or bi-directional (Whisman, 2001b). From a research point of view, this is an empirical question, not a belief question within the scope of ethics or ideology.

2.8.3.1. Process variables associated with couple therapy

Process studies in couple therapy are by Sexton et al. (2004) classified as either examining moderators (predictor variables) or mediators (mechanisms) of clinical change. In this section, the presentation will be limited to the latter construct. ‘Process’ can be defined as what happens and is experienced in psychotherapy sessions (e.g., therapeutic relationship between therapist and client), and the therapeutic events and interactions between the therapy sessions that contribute to the outcome, as experienced and rated by both client and therapist. ‘Outcome’ refers to immediate or long-term changes that occur as a result of therapy (e.g., the client’s decrease in symptomatology) (Hill & Lambert, 2004; Orlinsky, Rønnestad, & Willutski, 2004; Sexton, Coop-Gordon, Gurman, Lebow, et al., 2007). A third expression, ‘progress,’ is suggested to describe the ‘small outcomes’ integrating both process and outcome perspectives (Heatherington, Friedlander, & Greenberg, 2005; Pinsof & Wynne, 2000).

Process variables and principles of therapeutic change are woven together; the principles of change are descriptions of observed relationships where process variables interact (Beutler, 2000). Hence, principles of change are viewed to be more general than techniques and more specific than theories. Beutler (ibid.) proposes four areas influencing therapeutic change: (1) patient

predisposing variables, (2) context of treatment, (3) therapist variables, and (4) match between patient characteristics and type of treatment. According to Doss (2004), principles of change should specify particular therapist actions that lead to particular client responses, which then affect client behaviors outside the session, which in turn affect desired outcomes.

In relation to individual therapy, process variables in CFT tend to increase in complexity. As the number of people participating in the therapy process increases so does the number of relationships. Building on Bordin's (1979) three elements in the working alliance concept of (1) creating a common goal, (2) agreement on tasks for achieving the goal, and (3) establishing an emotional bond in the relationship, Pinsof and Catherall (1986) developed the Integrative Psychotherapy Alliance (IPA) model. This model comprises a perspective on alliance in family, couple, and individual psychotherapy. Within these three levels, the model includes assessments of alliances between the client and the therapist, between the client's significant others and the therapist, and between clients/within the couple or family (Pinsof, Zirbarg, & Knobloch-Fedders, 2008). There is evidence that alliance may play a different role in individual, couple, and family therapy. For instance, in functional family therapy, it is found that family members' alliances with the therapist predicted retention (Robbins, Turner, Alexander, & Perez, 2003). Further, in a study of the relationship between alliance and attachment, Johnson, Ketring, Rohacs, and Brewer (2006) found that mothers who presented higher levels of trust with their oldest child were more likely to report a stronger alliance with family therapists than mothers with lower levels of such attachment. Even though process variables overlap to a great deal between couple and family therapy, Sexton et al. (2004) reveal some differences in their overview. They suggest that mechanisms of change in couple therapy include (a) reduction of negative communication/blaming, (b) facilitating clients' guidance and responsibility in the therapy process, and (c) therapeutic alliance (including fostering hope, avoiding alignment with only one spouse, pacing progress appropriately, normalizing the marital problems, and creating safety and trust). Within family therapy, Sexton et al. (ibid.) suggest the following mechanisms of change: (1) Redefinition of the presented problem, (2) moving from an impasse towards resolution, (3) therapeutic alliance, (4) reduction of within-session negativity, (5) improved interactional and behavioral competency, and (6) therapist's adherence to an empirically supported treatment.

There is empirical support underscoring the crucial importance of the therapeutic relationship for outcome in virtually all approaches within CFT (Escudero, Friedlander, Varela, & Abascal, 2008), highlighting the common factors (e.g., therapeutic alliance, empathy, trust, enthusiasm, optimism) in systemic treatments (Sexton, 2007; Simon, 2007; Sprenkle & Blow,

2004, 2007). In a review of qualitative studies in couple therapy, Friedlander and Tuason (2000) concluded that the key ingredients of successful therapy from the client's perspective were warmth, trust, informality, a sense of safety, and development of clear goals.

Gottman (1999) proposed seven processes to be focused upon in couple therapy that also can be regarded as outcome: (1) Friendship, (2) sexual satisfaction, romance, and passion, (3) constructive versus destructive marital conflict, (4) a shared meaning system, (5) sentiment override (the emotional state influencing on one's perception, evaluation and attribution toward spouse), (6) repair willingness and attempts, and (7) flooding (how partner reacts on issues raised by the other; for instance to flee or to escalate the fight to silence the partner).

Wampold (2001) proposed a contextual model including components common to all therapies: "(a) an emotionally charged confiding relationship with a helping person; (b) a healing setting that involves the client's expectations that the professional helper will assist him or her; (c) a rationale, conceptual scheme, or myth that provides a plausible, although not necessarily true, explanation of the client's symptoms and how the client can overcome his or her demoralization; and (d) a ritual or procedure that requires the active participation of both client and therapist and is based on the rationale underlying therapy." (p. 206).

According to the Prevention and Relationship Enhancement Program (PREP; Markman, Stanley, & Blumberg, 1994; Stanley, Blumberg, & Markman, 1999; Stanley, Markman, & Whitton, 2002), improving the clients' communication and conflict management skills is found to be fundamental to, and predictive of, relationship success in marriage. This is also supported by a meta-analysis finding that emphasis on client skill-building in communication and conflict management was present in two out of three couple treatment models (Dunn & Schwebel, 1995).

In the research on change processes in CFT, it has been recommended to monitor the series of mini-outcomes or micro-mechanisms, each one of them building on the next, paving the way towards larger and more long-lasting changes (Heatherington et al., 2005). Across studies, these authors found the following three clusters of intrapersonal processes that clients consider important for success in therapy and that therefore should be included in future research: (1) emotional experiences, e.g., feeling hope and safety; (2) cognitive change and insight; and (3) a strong connection with the therapist being perceived as caring and empathetic.

Escudero et al. (2008) claimed that only a handful of CFT studies have specifically tested the associations between process and outcome. In a review, Sexton et al. (2004) conclude that previous studies have not yet been able to identify any associations between the outcome of

marital satisfaction (e.g., measured by the commonly used outcome questionnaire Dyadic Adjustment Scale - DAS; Spanier, 1976), on the one hand, and change in the process of dyadic interaction, relationship skill acquisition (e.g., communication skills), or changes in cognitions, on the other.

Even though the above referred discussion on the relevance of process variables and common factors in CFT is ongoing, not yet finding unitary conclusions, many of the referred studies suggest the need for studying process variables in more detail. Based on the above mentioned authors, we wished to study the relationship between the “common variables” (optimism, empathy, safety/trust, insight; Escudero et al., 2008; Friedlander & Tuason, 2000; Heatherington et al., 2005) and “specific variables” (communication and conflict management skills; Markman et al., 1994, Stanley et al., 1999; Stanley et al., 2002) among patients and therapists during the residential treatment period as well as the predictive relationship between the process variables and the outcome (DAS) at follow-up. We assumed that increased knowledge on these associations was clinically relevant because it could guide the therapists on what to emphasize early in therapy as a basis for a good working alliance that in turn predicts good outcome (Lambert, 2007).

2.8.3.2. Individual symptoms associated with couple therapy

As previously mentioned, clinical and research literature documents the frequent co-occurrence of individual psychiatric problems and relationship difficulties in couple therapy (Snyder & Whisman, 2003). Research on variables influencing the relationship between dyadic satisfaction and individual symptoms has so far resulted in contradictory and counterintuitive findings (Atkins et al., 2005). The most documented individual psychiatric symptom related to relationship distress is depressive symptoms or diagnosed depression (Davila, Karney, Hall, & Bradbury, 2003; Denton, Golden, & Walsh, 2003; Karney, 2001; Whisman, 2001a, 2001b). Clinically, these conditions are recognized as co-occurring (Gupta & Beach, 2005; Whisman, 2001b) and it has even been suggested that this relationship may approach the level of comorbidity (Beach & Gupta, 2005). Comorbidity is defined by Wittchen (1996) as “the presence of more than one disorder in a person in a defined period of time” (p. 7). However, which variable influences the other more strongly has so far not been agreed upon. On one side there is evidence that depression leads to relational distress. According to the relational stress generation model (Davila, Bradbury, Cohan, & Tochluk, 1997), depressed individuals tend to seek negative feedback and excessive reassurance, in addition to avoiding conflicts through withdrawal. As a consequence, the

depressed person and the partner increase their interpersonal stress, entering a negative interaction feedback loop that may trigger and maintain depression (Davila et al., 2003; Falicov, 2003; Joiner, 2000; Segrin & Dillard, 1992).

On the other hand, several longitudinal community studies have found that marital dissatisfaction predicted increased depressive symptoms over time (Beach & Gupta, 2003; Beach & O'Leary, 1993; Whisman & Bruce, 1999; Whisman & Uebelacker, 2003). For instance, a critical and hostile dyadic climate constitutes a stressful situation that may foster depressive symptoms in either one or both partners. It has also been found that marital distress increases self-criticism and decreases self-esteem, which again contributes to depression (Whiffen, 2005). This can be explained by attachment theory; when attachment behaviors fail to evoke comforting responsiveness and contact from significant others, a prototypical process of angry protest, clinging, depression, and despair occurs, culminating eventually in detachment (Johnson, 2005). Therefore, depression is a natural response to loss of connection, loss of attachment, and insecurity. If these responses in turn lead to maladaptive ways of regulating the emotion, e.g., anxious hyper-activation or numbing avoidance, this can develop into habitual styles of couple interaction. Hence, key components in emotion-focused couple therapy are to reengage the person withdrawing and to soften the person who blame (*ibid.*).

In Whisman's (2001b) meta-analysis, the direction of the relationship between depressive symptoms and marital dissatisfaction was inconclusive, although it appeared that marital dissatisfaction more often preceded depression than vice versa. In Kung's (2000) review of both retrospective and longitudinal studies with clinical and community samples, the presence of marital discord occurred prior to the onset of depression. It was also found that the change in marital adjustment during treatment, as well as the post-treatment level, significantly predicted levels of depressive symptoms and social functioning at follow-up. In a study of 164 newlywed couples through eight waves of data over four years of marriage, Karney (2001) showed that increases in either marital distress or depressive symptoms were associated with concomitant increases in the other variable. Because there was no difference in the two effect sizes, meaning that marital distress was as likely to influence depressive symptoms as vice versa, Karney suggested a bi-directional relationship between these two variables.

It has been noted that couple therapy improves depressive symptoms and depression to the same degree as individual therapy (Denton et al., 2003) or anti-depressive medication (Leff, Vearnals, Brewin, Wolff, et al., 2000). Because couple therapy enables improvement of the functioning of a couple's relationship, this decreases the likelihood of triggering symptoms that

would arise in an otherwise vulnerable individual. Further, couple therapy that improves the relationship may prevent future relapse in depressive symptoms (Whiffen & Aube, 1999). Therefore, it is generally recommended that when depressive symptoms or depression and relational distress co-occur, clinicians should directly target the relationship, implying CFT as the treatment of choice (Cordova & Gee, 2001). Even though several studies have investigated the relationship between individual symptomatic distress and impaired dyadic adjustment, this overview confirms that no unified conclusion has yet been drawn. So while Karney's (2001) suggestion of a bi-directional relationship between these two variables could serve as a welcome confirmation of the systemic theory claiming a circularity and mutuality of influence, it is recommended that future research should search for extended knowledge about these associations (Whisman, 2001b). Our study has therefore contributed to exploring these associations in more detail.

2.8.3.3. Personality vulnerability associated with couple therapy

Personality vulnerability including maladaptive personality characteristics and traits (e.g., dependence, interpersonal sensitivity) related to personality disorders (Horowitz, 2004) may predispose an individual to interpersonal problems that also influence the couple relationship (Birtchnell, 1988; Dattilio, Epstein, & Baucom, 1998; Fals-Stewart, Birchler, Schafer, & Lucente, 1994; Spotts, Lichtenstein, Pedersen, Neiderhiser, et al., 2005; Young, Klosko, & Weishaar, 2003). Personality is explained as partly a result of a non-shared/shared environment, partly by biology/genes assumed as an approximately 50/50 relationship (Torgersen, 1995). Similarly, McGue and Lykken (1992) found that genetic and non-shared environmental factors accounted nearly equally for the total variance in divorce. Further, it was found that personality traits, such as positive emotionality, negative emotionality, and constraint accounted on much of the genetic influence upon divorce (Jockin, McGue, & Lykken, 1996). Results from the Swedish Twin Mother's Study (Spotts, Neiderhiser, Towers, Hansson, et al., 2004) indicated that genetic influences the relationship between personality and marital quality, hence strengthening the theory that genetically influenced personality characteristics may have an impact on interpersonal relations.

When one or both spouses suffer from personality problems, they could represent a relatively constant stressor throughout their marriage. Because individual personality traits by definition are considered stable and enduring, partly due to the genetic influence presented above, these may be less influenced by therapeutic efforts than, for instance, symptoms and dyadic

adjustment (Horowitz, 2004). Some personality disorders, for example paranoid and anti-social personality disorders, are also characterized as ego-syntonic, i.e. not perceived by the person as problematic (Torgersen, 1995). These individuals' disorders may have a great impact on the surrounding relationships. One suggestion is therefore to investigate personality traits as a class of "third variables" that may contribute to both depression and marital distress (Heene, Buysse, & Van Oost, 2005). For instance, Karney (2001) found that marital distress was more likely to exacerbate depressive symptoms among women rating high on neuroticism than among those rating low on this trait. So personality problems are likely to complicate the progress of couple therapy (Epstein & Baucom, 2002; Fals-Stewart et al., 1994; Young & Gluhoski, 1997), and hence, this objective should be of great interest to address as part of assessment in therapy. Therefore, in this study we have investigated how initial personality characteristics were related to the course of couple therapy. Two models of personality dispositions are seen as appropriate: (1) The Interpersonal model proposes that interpersonal problems can be understood in the light of social interaction based on two orthogonal dimensions that are often called 'affiliation' (the horizontal axis, which ranges from hostile to friendly behavior) and 'dominance' (the vertical axis, which ranges from submissive to dominating behavior) (Horowitz, Wilson, Turan, Zolotsev, et al., 2006). (2) The concept of Early Maladaptive Schemas (EMS) within cognitive schema theory gives emphasis to early origins of psychological problems that are manifested in lifelong characterological themes or patterns leading to interpersonal coping styles that may be maladaptive (Young et al., 2003).

2.8.4. Gender differences in couple therapy

Gender differences in couple therapy outcome have been examined in many studies without clear conclusions. Gottman, Katz, and Hooven (1996) found as a predictor of divorce, when a husband meets his wife's anger with contempt (refusing her influence). This conclusion is criticized by Stanley et al. (2000) who suggested that this finding rather could be interpreted as the husband's lack of ability to tolerate and respond to his wife's expressions of negative affect. Another aspect of gender differences is power between the partners that can be seen in relation to marital typologies, such as the demand-withdrawal pattern (Christensen & Heavey, 1999). This is most commonly observed in wife-dominant marriages where the wife's demand changes through e.g., emotional requests, criticism, and complaints, hence starting the most of the marital conflict discussions. The husbands' typical response is to withdraw through e.g., defensiveness and passive inaction.

Socialized gender differences in our culture seem to be quite manifest, for instance, in different attribution and problem-solving styles for men and women. This may explain why women experience greater risk of depression than men (Tamres, Janicki & Helgeson, 2002). Therefore, when this gender difference is found in CFT research it may be interpreted as a variation within normality (Heene et al., 2005). In other studies, for instance conducted by the Swedish researchers Lundblad and Hansson (2005a, 2005b, 2006), the general impression is that both men and women reported reduced depressive symptoms after couple therapy. Whisman (2001b) found a stronger association between depressive symptoms and marital dissatisfaction among women than men. In a study of couples in which one spouse was identified as depressed and the other not (Heene, Buysse, & Van Oost, 2007), the depressed women attributed their depressions to relational problems, while depressed men attributed their depressions to work-related problems. This may be in line with findings that marriage in general offers health-buffering effects for men, while for women a distressed marriage is more likely associated with health-related problems (Gottman & Notarius, 2002).

Personalities of spouses, regarded as genetic predispositions, have shown different impact on marital satisfaction (Spotts et al., 2005), indicating that wives' aggression and optimism accounted for some of the influences on marital satisfaction more than men's. Markman and Halford (2005) found that when men and women are asked about their major relationship complaints and goals, women generally want to talk more and have more closeness, while men want to fight less. It also seems that men are more sensitive to the presence of negatives, and women are more sensitive to the absence of positives. It has been noted that men in average change more on measures in CFT than women (Gottman & Ryan, 2005). For instance, in light of the demand-withdrawal pattern, it was found that when women's affective behavior drove men's heart rates, this predicted divorce as outcome (Gottman & Levenson, 1992). For these reasons, these authors recommend that changing male spouse should be a major goal in marital interventions. Because female spouses are found to be the initiators in two out of three separations (Thuen, 1997, 2004), the wife more often than the husband may be more satisfied with that outcome. Because the sample in this study contains dual-sex couples, gender is a variable that was included in the analyses, exploring whether this variable affected the results.

2.9. Recommendations for couple therapy research

Research results may yield clinical implications that can guide tailoring of differentiated treatment interventions for specific problems and according to the needs of clients (Nichols, 1998;

Pinsof et al., 1996; Snyder & Whisman, 2003). Examples of relevant topics within CFT research include investigating how the previously mentioned variables are interrelated and can be treated more successfully, who will and who will not benefit from couple therapy, and whether the achieved changes will remain in the long-term (Sexton et al., 2004). This study has taken these recommendations into account in its research questions.

There is an ongoing discussion of which type of research design should be recommended as preferable for couple therapy research. Sexton et al. (2007) point out that “no single standard of methodological excellence exists. Instead, the standard used to evaluate evidence must match the type of study.” (p. 14). These authors emphasize the need for considering diverse methodologies capturing the wide field of clinical practice. Therefore, randomized, controlled trials (RCT) may be the best design for some contexts and research questions, for instance investigating the difference between two treatment conditions, controlling for as many of the influencing factors as possible. In other contexts and research questions, community-based studies and other less stringent designs may be the best options, for instance in line with this statement: “Open clinical trials conducted in clinics that frequently offer couple therapy with experienced professionals carrying caseloads of moderately to severely depressed spouses would certainly be welcomed additions to the empirical literature and should be a priority of public funding agencies.” (Wright, Sabourin, Mandor, McDuff, et al., 2006, p. 315).

A majority of the couple therapy studies has either been cross-sectional or conducted within universities, or both (Halford, 2006). Cross-sectional studies do not capture the change over time, something that is recommended for future research in the field (Sexton et al., 2004). Studies maximizing the control of the treatment conditions by standardized training of the couple therapists delivering manual-based psychological treatments, often individually supervised and carefully monitored, may obtain high internal validity, as in efficacy studies. In most clinical settings, however, the therapists rarely deliver such standardized treatment (Halford, 1997). Therefore, the generalizability of efficacy studies for everyday clinical practice is difficult due to low external validity, hence increasing the gap between couple therapy research and clinical practice (Halford, 2006; Pinsof & Wynne, 2000). Even though the ideal design is to satisfy criteria for both high internal and high external validity, most researchers are forced to prioritize one or the other. Therefore, within the field of couple therapy research it is most commonly recommended to conduct longitudinal, naturalistic effectiveness studies prioritizing high external validity that optimizes the generalizability and clinical relevance of the results (Christensen & Heavey, 1999;

Leichsenring, 2004; Sexton et al. 2004; Sexton, Kinser, & Hanes, 2008; Whisman, 2001b; Wright et al., 2006).

As previously mentioned in 2.8.3.1., with the emphasis upon common factors in psychotherapy and CFT research (see for instance, Orlinsky et al., 2004; Sexton, 2007; Sprenkle & Blow, 2004, 2007), further research on process and change mechanisms associated with outcome is strongly recommended. Of particular interest here is the research that includes clinical feedback within the concepts of “progress research”, “client-focused research”, and “empirical-informed practice” (Pinsof & Chambers, 2009; Pinsof & Wynne, 2000). In our study we have developed an on-site questionnaire intended to monitor these process variables among patients and therapists during the residential treatment both for clinical and research purposes. This objective is described in paper II.

As previously noted, it is clearly established that individual depressive symptoms and dyadic distress are interrelated (Snyder & Whisman, 2003). Because the bi-directional association suggested by Karney (2001) in other researchers’ view is considered as an equivocal conclusion (Heene, Buysse, & Van Oost, 2003), it is suggested that future research should investigate the directional effects between depressive symptoms and marital distress, preferably in longitudinal clinical studies (Beach & Gupta, 2005; Sexton et al., 2004). It is also useful to go beyond this bi-directional paradigm, searching for a class of “third variables” (for instance personality traits) that may contribute to both depression and marital distress (Heene et al., 2005). More knowledge around the associations between these variables would clinically imply a differentiation when tailoring the treatment, for instance whether a diversity of relationship distress and impaired mood combinations imply specific and adjusted treatment approaches. As previously mentioned, this is an important objective in our study.

Because the nature of dual-sex couple therapy includes both sexes within each couple, gender is a variable that needs to be included in CFT research (Whisman, 2001b). Therefore, gender is a variable that has been included in the analyses in this study.

2.10. Aims of the present dissertation

The aims in this dissertation were two-fold: (1) Within the context of program evaluation (Posavac & Carey, 1992) we wished to investigate whether adult patients at the Family unit suffering from both individual symptoms and relational distress reported positive change during the residential treatment, and whether this was maintained in the follow-up reports. These findings should form the basis for the Family unit’s evaluation of and – if necessary – adjustments to

improve the therapy program. (2) Secondly, we wished to investigate the predictive relationships between (a) common and specific process variables among both patients and therapists during the treatment period, and (b) individual and relational problems during treatment and at one- and three-year follow-ups after therapy termination and whether there was an influence from therapy upon that outcome.

This dissertation consists of five papers that include aims and research questions as follows (see also Figure 1):

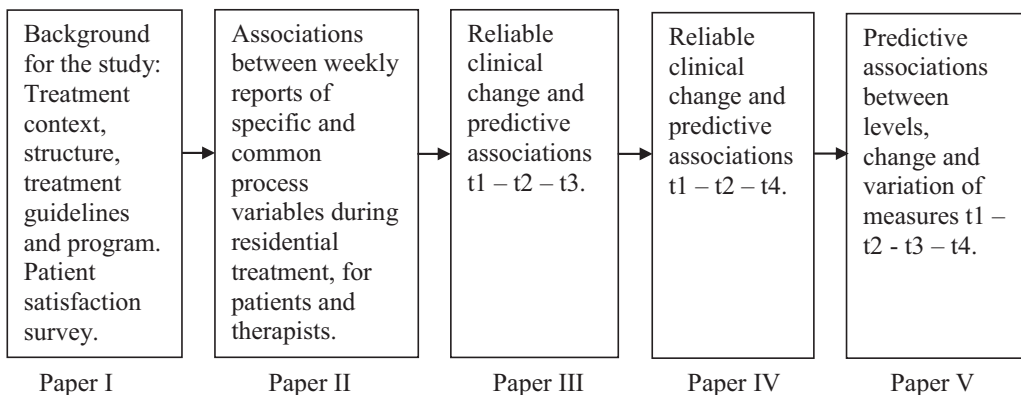
- Program evaluation:

- The Family unit's history, context, program, structure, and treatment guidelines will be presented and described, showing an example of how treatment can be conducted, and referring to a patient satisfaction survey. (Paper I)
- The levels of and change in dyadic adjustment during and after treatment, and the distribution into groups according to clinical significance criteria will be investigated. (Papers III and IV)

- Research aims beyond program evaluation:

- *Prediction 1:* What was the course of - and predictive associations between - common process variables (optimism/hope, empathy, safety/trust and insight) and specific process variables (communication and conflict management - CCM) rated weekly from both the patients' and therapists' perspectives during residential couple therapy? (Paper II)
- *Prediction 2:* What was the course of - and predictive associations between - dyadic adjustment, symptomatic distress, and personality problems in residential couple therapy from admission to discharge to one- and three-year follow-up? (Papers III, IV and V)

Figure 1: Model of the study (Admission = t1, discharge = t2, 1-year f-up = t3, 3-year f-up = t4)



3. MATERIAL AND METHODS

3.1. Participants

Modum Bad Family unit is the only institution organized within adult psychiatry in Norway that accepts couples and families from all regions of the country into residential treatment. The admission criteria were threefold. The whole family had to be referred, the problems for which treatment was sought were clearly associated with the parents (either one or both having psychiatric distress or diagnosis), and the couple also had serious problems with their relationship. Patients were excluded to the Family unit if they were potentially psychotic or suicidal, had disruptive tendencies or suffered from primary substance abuse. Families were referred mainly from their local physicians, psychologists, local outpatient psychiatric units, or family counseling agencies via an assessment from a psychiatric outpatient clinic. Previous attempts at outpatient therapy were inadequate. After receiving the application, a correspondence with the family started in order to decide if it was appropriate to accept them for treatment according to the admission criteria. Normal waiting list time was 3-6 months.

The families were in residence during treatment, and those patients who were employed were placed on sick leave during their stay. All participants but one were Norwegian. While entire families were the subjects of treatment, only the adults were participants in this study. Written informed consent was obtained from all participants, and the study was approved by the Regional Committee for Medical Research Ethics and the Personal protection ombudsman on behalf of the Norwegian Data Inspectorate. Because all measures were needed as part of the clinical assessment, all patients were expected to fill out the questionnaires as part of the treatment.

Except for papers I and II, the cohort included in this thesis is from the years 2001 – 2003. There is a partial overlap among the participants in these five papers (see Table 1). The variation in the number of participants across the papers included in the analyses is due to the fact that there were different numbers of responders at one- and three-year follow-ups. Because participants responding at one- and three-year follow-ups had a partial overlap, this explains why the number of separated/divorced varies. Attrition analysis is accounted for in sections 3.5 and 4.8.

In retrospect, it is obvious that the procedure of handling the participants' data should have been more thorough. Papers III, IV and V, based upon the 2001-2003 sample, should have yielded the correct and consistent number of 220 eligible participants. There is a printing error in paper III where the correct number as basis for the analyses was 196 participants, not 194. The reason why the number of eligible participants varies in the papers was (1) by the time we started gathering of data, we missed to get DAS admission data from 16 participants, and (2) eight participants either withdrew their consent or dropped out of treatment. This is summed up to 220 eligible participants

that are correctly referred to in paper V. It is regrettable that this procedure was not introduced from the beginning of the study, something that could be reflected in a consistent flow-chart for all three papers. When using 220 as the proper number of eligible participants, the correct percentages who answered at follow-ups are 60.4 (133/220 at one-year follow-up) in paper III, 53.2 (117/220 at three-year follow-up) in paper IV, and 61.4 (135/220 at three-year follow-up) in paper V. With these corrections in mind, the following presentation of participants in the sub-studies will however be in agreement with what is presented in the respective papers.

Even though couples and families represent the units for establishment of treatment aims in the Family unit, we have chose the individuals as units for research aims in this study. This is because individual change can be a significant outcome even without achieving improvement as a couple (Christensen & Heavey, 1999). In this dissertation, I use the term ‘client’ concerning help-seeking people in general, and ‘patient’ concerning the population of Family unit patients, and the studied sample in particular. The participants are labeled ‘patients’ because the Family unit is part of Modum Bad that is a psychiatric hospital.

Paper I includes 175 patients (years 2001-2004 - there is a printing error in paper I saying 2006) who answered a patient satisfaction survey at discharge and at one-year follow-up. (Table 1.)

Paper II includes 352 consecutive patients (176 couples) and their 14 therapists during the years 2001 – 2006. The period of observation was during residential treatment. The therapists consisted of seven family therapists and seven psychiatric nurses.

Paper III includes 122 consecutive patients. The sample was generated from 196 eligible participants, and of these, 133 (67.8 %) completed mailed questionnaires at one-year follow-up. Eleven did not have complete data sets at all three data points, thus constituting 122 as the sample to be studied. At one-year follow-up 12 were separated or divorced.

Paper IV includes 117 consecutive patients who were part of a total sample of 212 participants. Of these, 12 had incomplete data, and four either withdrew from consent or had died at three-year follow-up. The number who responded at three-year follow-up through mailed questionnaires was 117/196 (59.7 %), and among these, 15 were separated or divorced.

Paper V includes 135 consecutive patients who were part of a total sample of 220 eligible participants. At three-year follow-up, four were dead or withdrew their consent, and 135 (62.5 %) replied. 29 respondents were separated or divorced at three-year follow-up.

Table 1: Flowchart of participants in the four papers.

	Paper I	Paper II	Paper III	Paper IV	Paper V
Treatment period	175 patients	352 patients 14 therapists	194 eligible patients	212 eligible patients	220 eligible patients
Years	2001-2004	2001-2006	2001-2003	2001-2003	2001-2003
1-year follow-up	175 patients		133 answered 11 incomplete 122 to be analyzed 12 separated / divorced		4 dead or withdrew their consent = 216 patients 135 answered 29 separated / divorced
3-year follow-up				4 dead or withdrew their consent = 208 patients 12 incomplete data = 196 remaining 117 answered 15 separated / divorced	4 dead or withdrew their consent = 216 patients 135 answered 29 separated / divorced

3.2. Design

This study was initiated as a program evaluation (Posavac & Carey, 1992) for the purpose of exploring and documenting the outcome of patients in the Family unit so that the findings could form the basis for revision of the treatment program, if necessary. During the process the purpose grew to adding a second aim, a naturalistic prospective effectiveness study with patient self-report assessments upon admission, discharge and at one- and three-year follow-ups. One may state that this study investigates the effectiveness of the interventions that clients undergo during the treatment in the Family unit. This will depend upon the definition for an intervention study being used. With the definition whether one specific intervention is better than another related to a specific outcome, this study does not fulfill the criteria of an intervention study (Benestad & Laake, 2004). The same questionnaires used during treatment were mailed to all patients at follow-

ups. Up to two mailed reminders were sent to increase the response rate. In retrospect, some kind of reward (e.g., Lotto-coupons) should perhaps have been offered the participants answering the follow-ups as an effort to increase the response rate.

According to the levels of evidence in marriage and family therapy, defined by the Family Psychology Task Force (USA) on Evidence-based treatments (Sexton et al., 2008), we consider this study's evidence for the treatment consonant with Level 1 - Evidence-informed interventions/treatments - the lowest and most basic level of evidence-based treatments. In relation to Leichsenring's (2004) criteria for levels in effectiveness studies, this study is likely consonant with "Level II: Clinical trials with some traits of Level I missing (e.g., no comparison group, no use of matching or stratifying)." (p. 145).

3.3. Treatment context and intervention guidelines

3.3.1. The Family unit, Modum Bad

This study was conducted within the Family unit at Modum Bad, a national psychiatric center in Norway. Ten families are in treatment at the Family unit at the same time, following consecutive admission. They live in separate houses, which together form a small village on the hospital grounds. It is a short walk from their houses to the treatment facilities, therapist offices and a community house for social activities and occupational therapy. Kindergarten and school, as well as leisure time activities are available on site for children up to 16 years old. The duration of treatment is normally 12 weeks. The Family unit is presented in more detail in paper I.

3.3.2. The Family unit's treatment approach

The treatment philosophy of Modum Bad and the Family unit is based on a holistic principle that is expressed on different system levels in the Family unit's treatment program defined as the physical, psychological, social/contextual, spiritual/existential and aesthetic dimensions of human nature (Okkenhaug & Piros, 1998). The levels of these systems include: (1) The external system consisting of the physical treatment context, structure, program, treatment guidelines, and how the different professionals cooperate in a variety of arenas, (2) the interpersonal interplay between the individual participants and the couple and/or family system, and the professional system, and (3) the intrapsychic dynamics within the individual, such as feelings, cognitions, and personality that also reacts, responds and influences with others in the system. One central systemic concept is that any change within one part of the system may influence the rest of the system, and that new information that disturbs the previous ideas and understandings of the problem within one part of the system may be utilized by the whole system

for the purpose of its improvement.

The Family unit's theoretical basis may most correctly be characterized as 'integrative practice' with several sources of influence (Flaskas, 2005), and the therapy methods described in the study of Lundblad and Hansson (2006) is highly recognizable. Being organized as a part of a psychiatric hospital, reflected in the admission criteria, the patients' problems represent a complex blend of individual psychiatric symptoms/disorders and relational distress. For this reason the Family unit has retained the psychodynamic influences that can be recognized within Schibbye's (2002) dialectical relational model and in Jenkins' (2006) transgenerational model, both integrating systemic and psychodynamic perspectives. A similar point of view is presented by Pinosof (1995) in his problem-centered integrative model emphasizing the need of many different theoretical approaches, underlining the importance of being conscious of when to make use of which model. Several other authors in the field support Pinosof's perspective claiming that psychotherapy integration - together with eclecticism - has become the dominant approach in therapeutic practice (Lambert, Bergin, & Garfield, 2004; Larner, 2004; Roth & Fonagy, 2005).

The empirically confirmed process mechanisms of change in couples and families are implemented in the Family unit's integrative practice. These mechanisms include reduction of negative communication and blaming within the couple, therapeutic co-operation and alliance, redefining the presenting problem, being solution-focused, and improving interactional and behavioral competence (Sexton et al., 2004). Although the Prevention and Relationship Enhancement Program, PREP (Markman et al., 1994) was not designed for psychotherapy, parts of it are very relevant and therefore integrated in the treatment approach. Further, the therapeutic attitude is influenced by the principles of empowerment (Rabin, 1996) and resilience (Rutter, 1990). Because parts of the treatment are conducted within a group context, theories of group dynamics are required (Donovan, 1995).

Based on the findings that individual depressive symptoms/diagnostic depression and marital dissatisfaction often coexist (Davila et al., 2003; Denton et al., 2003; Whisman, 2001a, 2001b), MacFarlane's (2003) bio-psychosocial integrative model based on the work of Engel (1977) is relevant because it yields several perspectives for understanding the origins of depression, such as responses to loss, to psychosocial stressors, to psychological and family of origin factors, and to biological vulnerabilities. A combination of these factors often provides a multi-faceted picture of the client's clinical situation. MacFarlane (2003) suggests a variety of possible interventions that fall into systemic, narrative, cognitive, biological, and psychoeducational categories, a variety that is recognizable within the integrative practice in the Family unit. Further details of the treatment approach are presented in paper I.

3.3.3. Structure of treatment program

The treatment context and program schedule in the Family unit naturally translate to specific guidelines such as the stages throughout therapy and a weekly plan. These guidelines make effective use of the contextual potential and reflect the shared treatment philosophy. However, approaches are also tailored and adapted to the clients' needs and aims, based on weekly feedback routines throughout therapy, as well as the therapists' areas of competence and theoretical orientation. Two professionals (one family therapist and one psychiatric nurse) per couple were responsible for the couple therapy sessions that were given three times a week. An occupational therapist, the school and kindergarten staff (depending on the children's age) collaborated with the therapists in tailoring the treatment. Other professionals on the staff who were responsible for parts of the program, for instance, a child psychologist, psychiatrist and pastoral counselor, were available to be included in the team. Therapy sessions with the entire family were conducted every fortnight or more often when needed. The intervention 'reflecting team' (Andersen, 1994) was frequently used in couple therapy sessions, in one-way mirror sessions and in supervision. In the study there were seven family therapists (two psychologists, two clinical social workers, one physician, one psychiatric nurse, one integrative therapist) and seven psychiatric nurses. Their age range was 35-60, and gender distribution was four men and ten women. All the professionals had additional training and certification, such as in adult and child/adolescent psychiatry, couple and family therapy, expressive art therapy, and integrative therapy. Their professional experience as couple therapists varied from one to 27 years with mean 8.64 years (SD: 7.68). They received internal collegial as well as external supervision. Medication was prescribed as part of treatment based on clinical assessment including the patients' self-report questionnaire of depressive symptoms, Beck Depression Inventory (BDI-II, Beck & Steer, 1987; Beck, Steer & Brown, 1995) and the guidelines from evidence-based knowledge (Aarre, 2000). Diagnoses were established by consensus, using structural interviews (SCID-I: First, Spitzer, Gibbon, & Williams, 1995, and SCID-II: First, Spitzer, Gibbon, Williams, et al., 1995) when needed. Further details of the structure of the treatment program are presented in paper I.

3.4. Instruments

Papers II-V in this dissertation are based upon patient self-report questionnaires. The questionnaires are presented here, and Table 2 specifies the collecting points at which they are assessed for the respective papers. See Table 3 for Cronbach's alpha on all measures.

The Dyadic Adjustment Scale, DAS (Spanier, 1976, 2001) is a widely used 32-item questionnaire

providing a global measure of couple satisfaction. Total DAS scores range from 0-151, with a higher score representing better adjustment. This measure has a commonly accepted cut-off at 97, representing about one standard deviation below the mean for non-distressed couples (Christensen & Heavey, 1999). The main outcome measure – and dependent variable – in this study was the DAS at discharge, and at one- and three-year follow-ups.

The Beck Depression Inventory, BDI-II (Beck & Steer, 1987; Beck et al., 1995) is a 21-item (scale 0-3) questionnaire that assesses cognitive, affective, motivational, and physiological symptoms of depression. The total score from 0-63 indicates the degree of distress, the higher the more distressed level, and with a sumscore of 10 representing the clinical cut-off level.

The Symptom Check List 90, SCL-90 (Derogatis, Lipman, & Covi, 1973) measures symptom levels and change on 90 items that are rated on a scale from 0 to 4. The higher mean-score the more distressed, considering 1 as the cut-off level. The mean of the depression sub-scale (SCL-D), which consists of 13 items, was used in this study.

The Inventory of Interpersonal Problems, IIP-64-C (Horowitz, Rosenberg, Baer, Ureño, et al., 1988; Pedersen, 2002) measures general relationship problems. It consists of 64 items that are scored on a scale from 0 to 4. The mean-score was used in this study, and the higher score, the more distressed.

Young's Schema Questionnaire, YSQ-75 (Young, 2003; Young & Brown, 2001) consists of 75 items and investigates the presence of early maladaptive schemas (EMS). Each item is a statement of a character issue that the patient scores on a scale from 1 (does not fit) to 6 (fits perfectly). Five items are grouped into one EMS that is grouped into the following domains: Disconnection, Impaired autonomy, Exaggerated standards, and Impaired limits (Hoffart, Sexton, Hedley, Wang, et al., 2005). The mean-score was used in this study, and the higher score, the more distressed.

Global Assessment of Functioning, GAF, split version (Pedersen, Hagtvet, & Karterud, 2007), is a standard method for representing a therapist's judgment of a patient's overall level of psychosocial functioning. Only the symptom scale (GAF-S) was used in this study. The rating is made on a scale from 1 to 100, with low ratings indicating severe impairment, and high ratings indicating superior functioning.

The Therapy Evaluation Questionnaire, TEQ, is a self-report questionnaire developed on-site by the candidate and colleagues at the Family unit, and is used in paper II. The questionnaires for the couple and their therapists had the same content from four perspectives, representing the members of the therapy system - the male partner, the female partner, the family therapist, and the nurse therapist. With the exception of the first question about optimism/hope that was asked identically and personally of all participants, the items were addressed to the clients' experience and

perception rated by themselves. In addition, the therapists were asked to rate their assessments of the clients' experience and perceptions. The items were rated on seven-point verbally-anchored scales from "not at all" to "very much". The questions focused on optimism/hope, empathy, safety/trust, communication and conflict management skills, and insight. The background for choosing these TEQ variables and sorting them into common and specific process variables is presented below.

Common process variables: (1) Optimism/hope may be low or absent in psychologically distressed people, due to psychiatric symptoms or relational discord or both. Generating optimism/hope is regarded as an important therapeutic intervention generally, and in particular it is commonly recommended that a therapist's obligation is to stimulate elevation of this level in cases where the client feels hopeless (Frank, 1974; Garfield, 1994). (2) Empathy is defined as the therapist's effort to get inside the client's frame of reference, to see the client's world through the client's eyes, to sense and share what the client is feeling, thinking, and experiencing (Mahrer, 1997). When the client feels understood, a safe environment opens up for client self-disclosure. (3) Safety and trust alternate between the support factor of therapist's reassurance, facilitating client vulnerability and disclosure on the one hand, and the action factor of a therapist's encouragement to - and client willingness to - take risk on the other hand (Lambert & Ogles, 2004). Safety in couple therapy may include client perception and feeling of safety and security in interaction and in commitment (Stanley et al., 2002). (4) Insight is identified as a learning factor that promotes better client self-understanding (Lambert & Ogles, 2004). In controlled studies with distressed couples, interventions aiming at increasing clients' insight into their relationship patterns demonstrated better results than skill-based communication interventions (Snyder, Wills, & Grady-Fletcher, 1991).

Specific process variables: In the Prevention and Relationship Enhancement Program (PREP; Markman et al., 1994; Stanley et al., 1999, 2002), improving clients' communication and conflict management skills was found to be fundamental to relationship success in marriage. In couple therapy, improvement in communication and conflict management and commitment to the partner contribute to a sense of safety in intimate relationships. In a meta-analysis, emphasis on client skill-building in communication and conflict management was found in two out of three couple treatment models to improve dyadic satisfaction (Dunn & Schwebel, 1995). In our treatment program, the PREP-influenced skill-building in communication and conflict management was integrated and emphasized as a means of increasing dyadic satisfaction in the couple's relationship. For this reason, Communication and Conflict Management skills (CCM)

were chosen as specific process variables in this study (Halford, Sanders, & Behrens, 1993). We view this as consonant with the term ‘progress’ or as a ‘small outcome’ (Pinsof & Wynne, 2000) that can be fed back, informing an understanding of whether therapy is contributing to the client’s improvement or not. Hence, we anticipated that both common and specific process variables would be correlated with the main outcome measure in the study, the Dyadic Adjustment Scale (DAS; Spanier, 1976).

As shown in Table 2, the data serving the papers were collected at specified time-points during the observation period.

Table 2: Data collection at time points during the course of observation

	Admission	Weekly evaluations	Discharge	One-year follow-up	Three-year follow-up
Paper I			Patient satisfaction *	Patient satisfaction *	
Paper II	TEQ DAS	TEQ	TEQ DAS		
Paper III	DAS BDI-II SCL-90 IIP-64 YSQ-75 GAF-S		DAS BDI-II SCL-90 IIP-64 YSQ-75 GAF-S	DAS BDI-II SCL-90 IIP-64 YSQ-75	
Paper IV	DAS BDI-II IIP-64 YSQ-75		DAS BDI-II IIP-64 YSQ-75		DAS BDI-II IIP-64 YSQ-75
Paper V	DAS BDI-II IIP-64 YSQ-75		DAS BDI-II IIP-64 YSQ-75	DAS BDI-II IIP-64 YSQ-75	DAS BDI-II IIP-64 YSQ-75

* Note: Patient satisfaction questionnaire was developed on-site. The items were rated on seven-point verbally-anchored scales from “not at all” to “very much” for assessing the parts of the treatment program. Additional comments (qualitative data) could also be included. TEQ = Therapy Evaluation Questionnaire. DAS = Dyadic Adjustment Scale, BDI-II = Beck Depression Inventory. SCL-90 = Symptom Check List. IIP-64 = Inventory of Interpersonal Problems. YSQ-75 = Young Schema Questionnaire. GAF-S = Global Assessment of Functioning – Symptom Scale.

Table 3: The measures Cronbach's alpha and test-retest correlations (Pearson's *r*) in paper V which includes all registration points.

	Cronbach's alpha t1	Cronbach's alpha t2	Cronbach's alpha t3	Cronbach's alpha t4	Test-retest <i>r</i> : t1 - t2	Test-retest <i>r</i> : t2 - t3	Test-retest <i>r</i> : t3 - t4
DAS	.92	.91	.92	.93	.54**	.45**	.54**
SCL-90	.97	.97	.98	.96	.72**	.71**	.66**
BDI-II	.89	.91	.93	.93	.68**	.69**	.58**
IIP-64	.94	.97	.96	.97	.68**	.64**	.66**
YSQ-75	.96	.97	.97	.97	.74**	.80**	.75**

Note: t1 = Admission, t2 = Discharge, t3 = 1-year follow-up, t4 = 3-year follow-up.

** = Correlation is significant on the .01 level (two-tailed).

DAS = Dyadic Adjustment Scale, BDI-II = Beck Depression Inventory. SCL-90 = Symptom Check List. IIP-64 = Inventory of Interpersonal Problems. YSQ-75 = Young Schema Questionnaire.

3.5. Statistical analysis

Data-analyses were performed with SPSS versions 13.0 - 15.0. Correlations were computed with Pearson's *r*, means were used to calculate pair-wise t-tests, Oneway ANOVA and GLM repeated measures, two-tailed tests were used, Cronbach's *alpha* was used to measure the internal consistency of the instruments, and a *p*-value of < .05 that was required for statistical significance were used in all papers.

A central issue in analyzing couple therapy data is how to deal with the interdependence of spousal data. Several researchers (e.g., Lundblad & Hansson, 2005a, 2005b, 2006; Doss et al., 2005) have chosen to conduct separate analyses for men and women. In our study, we chose to combine these data in line with Atkins et al. (2005): "Rather than splitting our sample in half and analyzing husbands and wives separately, spousal data were combined in a single model that controlled for the interdependence of their data." (p. 902).

Because the analyses are based on correlated measures (within-group design), effect size was determined by $d = t_C[2(1-r)/n]^{1/2}$ (Dunlap, Cortina, Vaslow, & Burke, 1996) in all papers. As with Cohen's *d*, < .2 indicate no effect, 'small' effect-size is .2 - .49, 'moderate' is .5 - .8, and 'large' is > .8 (Cohen, 1988). DAS was defined as the Family unit's main outcome measure. The following supplementary information applies to the studies as indicated.

Paper I:

The statistical analyses used in the patient satisfaction survey were average (Mean) and One-way ANOVA. In addition some qualitative data are reported.

Paper II:

Mixed (random effects) model analysis (Fitzmaurice, Laird, & Ware, 2004) was used to examine the effect of common process variables upon the specific process variable (CCM) within the Therapy Evaluation Questionnaire (TEQ). Because clients' and therapists' CCM constitutes averaged pair-wise perspectives in the therapy system, data dependency within couples and co-therapists were considered, but not found to be of overriding concern in the analyses. We examined whether ongoing process (weekly fluctuations in the common process variables from the pair-wise perspectives in the therapy system) predicted the subsequent weekly fluctuations in CCM (i.e., week three predicting week four, week four predicting week five, etc.) to determine if there were significant relationships between the common process variables and the CCM over time. Subsequently we examined whether CCM one week predicted the common process variables the following week.

Paper III:

A mixed model analysis (Fitzmaurice et al., 2004) was conducted to investigate change of DAS and BDI scores during the observation period as well as to examine possible pretreatment predictors (gender and initial levels of IIP and YSQ). Unlike traditional models for repeated measures, multilevel models can effectively manage unequal numbers of observations and missing data in the repeated measure, taking into account and adjusting for any bias in standard errors and statistical tests resulting from the interdependence (autocorrelation) of observations, and it can control for elevated correlations (co-linearity) among the predictor variables. We used both constant variables and lagged variables (the previous measure point) to predict the subsequent measurement points. Both the constant and the time-varying aspects of change were studied.

The Jacobsen and Truax (1991) criteria were used to evaluate the clinical significance (CS) of patient improvement on the DAS. Clinical significance is demonstrated when two criteria are fulfilled: (1) the patients are not distinguishable from a relevant non-clinical reference group after treatment (Kendall & Grove, 1988), and (2) the change due to treatment can be demonstrated to be reliable (Jacobsen & Truax, 1991). The Reliable Change Index (RCI) was computed by dividing the difference between pre- and post scores by the standard error of the difference between the two scores. Individuals were classified into one of the four categories on the basis of their DAS follow-

up scores: *deteriorated* (deterioration from admission to follow-up \geq RCI, which in paper III was 2.16), *unchanged* (improvement or deterioration from admission to follow-up $<$ 2.16), *improved* (improvement from admission to follow-up \geq 2.16 and DAS at follow-up \leq 97), and *recovered* (improvement from admission to follow-up \geq 2.16 and DAS at follow-up $>$ 97).

Logistic regression analysis was used to examine possible pretreatment predictors (gender and initial levels of IIP and YSQ) for those belonging to these categories.

Paper IV:

This study investigated the treatment period from admission to discharge, and three-year follow-up. As in paper III, criteria for clinical significance (CS) were used to evaluate patient improvement on the DAS.

Before running linear regression analysis, we needed to explore the correlations in the data between the outcome measures; the change in DAS from admission to discharge and one- and three-year follow-ups, and the variables defined as predictors (BDI, IIP, YSQ) both at admission and discharge as well as the difference scores. One-way ANOVA was used to make group-wise comparisons, and logistic regression analysis was used to examine which variables could predict belonging to groups of intact or separated/divorced at three-year follow-up.

The proportion of who maintained what was improved and recovered during treatment was designated by any classification other than deteriorated from discharge to three-year follow-up (Christensen et al., 2006).

Paper V:

This study investigated the treatment period from admission to discharge, and one- and three-year follow-ups. A mixed (random effects) models (Fitzmaurice et al., 2004) analysis was used to analyze the data, examining for possible predictors (see presentation of mixed model in papers II and III previously). After first examining whether lagged BDI, IIP and YSQ could predict DAS, we also investigated whether lagged DAS could predict BDI, IIP and YSQ.

Attrition analysis:

A crucial concern in conducting longitudinal research is the risk for drop outs during the course of observation. Hence, those participating towards the end of the study may not be representative for those who started. Therefore, drop outs represent a limitation in the interpretation of results. Attrition analysis is an effort to control for whether the final results would have been influenced if those who dropped out had completed the study. Even though one of the strengths with multilevel models is that participants do not need to be excluded for missing data,

procedures should be conducted in order to investigate the types and mechanisms of missing data (Atkins, 2005). In addition to simple One-way ANOVAs for testing possible differences on measures during treatment between non-responders and those who responded at follow-ups, Atkins (ibid.) proposes more comprehensive analyses based on the use of multilevel models. Missing data can be divided into three types and mechanisms; Missing Completely at Random (MCAR), Missing at Random (MAR), and Nonignorable (NI). MCAR implies that a completely random process led to the missing data. However in longitudinal studies, missing data tend to be clustered within a small percentage of participants, something that is not a random process. Considering MAR, one needs to investigate whether there are patterns in the data that may predict non-responding. If neither MCAR nor MAR mechanisms can be identified, the missing data can no longer be ignored (NI), hence they have likely influenced on the results.

4. SYNOPSIS OF PAPERS

4.1. Paper I

An in-patient family therapy program for treating complex combinations of individual, couple, and family problems is presented within a treatment framework suggested as ‘integrative practice’. The treatment context and scheduled program form treatment guidelines, and the single case treatment approach may be tailored. A case vignette illustrates how theories and methods from both the individual and systemic therapy traditions are implemented as integrative practice, enabling synergistic effects. The treatment program is evaluated throughout the therapy and at follow-up. Consumer satisfaction results at discharge showed on a scale from 1 (not satisfied at all) to 7 (very satisfied), a mean score on 6.09 (SD: .92). Women ($n= 89$) were significantly more satisfied than men ($n= 86$) (6.28, SD: .89, and 5.90, SD: .91, respectively, $F = 8.03, p= .005$). These levels of satisfaction were maintained at one-year follow-up.

4.2. Paper II

In a sample of 176 couples in a residential family therapy program, the relationship between common process variables (optimism/hope, empathy, safety/trust and insight) and specific process variables (communication and conflict management - CCM) from both the patients’ and therapists’ perspectives were studied. A Therapy Evaluation Questionnaire (TEQ) developed on-site was used for data registration on a one-week interval from admission to discharge. The correlations between change in the overall outcome measure, the Dyadic Adjustment Scale, and change in process variables were for optimism .26, communication .41, and

conflict management .38.

In a mixed models analysis, the main finding was that CCM predicted insight the next week reported from both the patients' and therapists' perspectives. From the therapists' perspective, CCM also predicted optimism, empathy and safety/trust, while empathy was the only variable that yielded an independent contribution predicting CCM ($t = 4.41, p < .001, d = .40$). Finally, patients' optimism was found to predict therapists' optimism and not vice versa. One clinical implication may be that training in specific CCM skills in couple therapy facilitates common process factors.

4.3. Paper III

A clinical sample of adult patients ($N = 122$) suffering from relational distress and concurrent psychiatric symptoms was followed from admission, through residential couple therapy, to one-year follow-up. At follow-up, 9.8% were separated. There was a significant improvement on all measures during therapy that was maintained at follow-up, except from a relapse in dyadic adjustment for the intact couples. A subgroup of 25% of the positive treatment responders was responsible for this relapse, reporting deterioration to below their admission levels of dyadic adjustment. Analyzing the association between dyadic adjustment and depressive symptoms, and the distribution in outcome categories (Recovered, Improved, Unchanged, Deteriorated), no predictors were found except for higher YSQ level at admission predicting more increase in the DAS between admission and follow-up. Contrary to expectation, the deteriorated group showed significantly less distress both in depressive symptoms and in one early maladaptive schema (YSQ) domain – Impaired Autonomy - at admission, when compared with the rest of the sample.

4.4. Paper IV

The aim of this study was to explore the course of depressive symptoms, interpersonal problems and dyadic adjustment during treatment and over a three-year post-treatment period. A further aim was to examine the impact from admission levels as well as change in depressive symptoms and interpersonal problems during residential couple therapy upon change in dyadic adjustment in the three-year follow-up period ($N = 117$). Possible predictors for whether couples became separated/divorced at follow-up were also investigated. All measures indicated significant positive change ($p < .001$) between admission and discharge (effect sizes .25 - .67, $n = 95 - 103$), and this positive change was maintained at three-year follow-up (effect sizes between admission

and three-year follow-up was .47 - .76, $n = 95 - 103$). Considered as program evaluation, we found that discharge levels and follow-up levels were highly correlated. The proportion of recovered patients during treatment was stable at follow-up. Initial levels of Inventory of Interpersonal Problems (IIP) predicted dyadic adjustment change in the follow-up period. None of the available variables predicted whether couples would be separated/divorced at follow-up. It is suggested that initial levels of IIP should be assessed during treatment as an important factor having significant predictive power for the follow-up change in dyadic adjustment.

Originally our plan was to investigate predictive associations from process variables (paper II) and three-year outcome in paper IV. Due to lack of psychometric properties on the process measurement TEQ in paper II, this part of the planned model in paper IV was omitted.

4.5. Paper V

This study examined the relationship between depressive symptoms and dyadic adjustment, as well as between interpersonal problems and dyadic adjustment, during residential couple therapy and at one- and three-year follow-up ($N = 135$). Mixed models were used in the analyses. Significant positive change ($p < .001$) occurred on all measures from admission to discharge (effect sizes .27 - .83) and from admission to three-year follow-up (effect sizes .52 - .79). During the observation period, we found that variations in BDI predicted variations in DAS at the subsequent time point ($t(247) = -2.11, p = .035, d = .19$). Further, BDI admission level predicted DAS levels from admission, through discharge to three-year follow-up ($t(447) = -2.03, p = .043, d = .19$), and BDI discharge level predicted the DAS level from discharge to three-year follow-up ($t(441) = -2.39, p = .018, d = .22$). Further, DAS discharge levels predicted BDI change (slope) across discharge, one- and three-year follow-up ($t(461) = 1.99, p = .048, d = .18$). There were only modest associations between personality variables and dyadic adjustment. The clinical implication is that in couples suffering from co-existing relational and symptomatic distress, couple therapy should include the aim to lower the depressive symptoms.

4.6. Addendum to paper III

In paper IV we reconsidered our previous solution in paper III about the Clinical significance criteria and thus the distribution into RCI-groups. We have in both papers made use of the same criteria of clinical significance: (1) the change after treatment can be demonstrated to be reliable (Jacobsen & Truax, 1991), established by computing a Reliable Change Index – RCI (ibid.), and (2) the patients are not distinguishable from a relevant non-clinical reference group after treatment (Kendall & Grove, 1988). Instead of interpreting these criteria as equally important

(paper III), we developed a better understanding of these criteria in paper IV: The first point should be regarded as an inclusion criterion. If this is met, then the next criterion is asserted. We have therefore redone the distribution into the groups of Recovered, Improved, Unchanged, and Deteriorated for paper III according to our new understanding of the criteria. Figures 2 and 3 demonstrate the old and new versions of the distribution between the categories on paper III. Figure 4 shows the similar distribution on paper IV.

Figure 2: Distribution of RCI-groups, old version for paper III

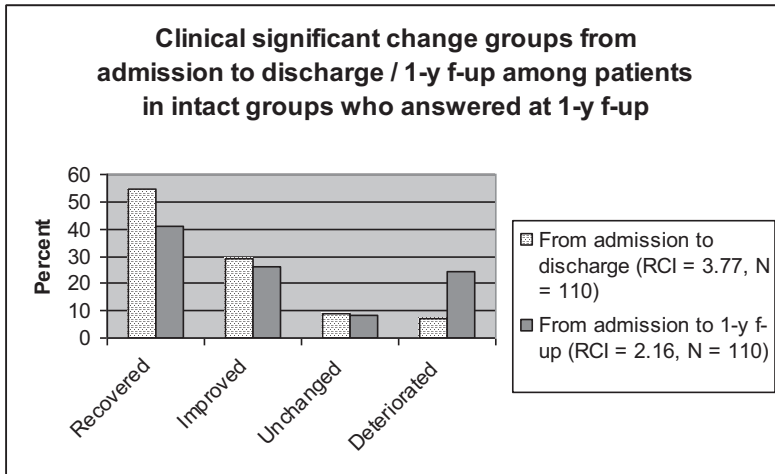


Figure 3: Distribution of RCI-groups, new version for paper III

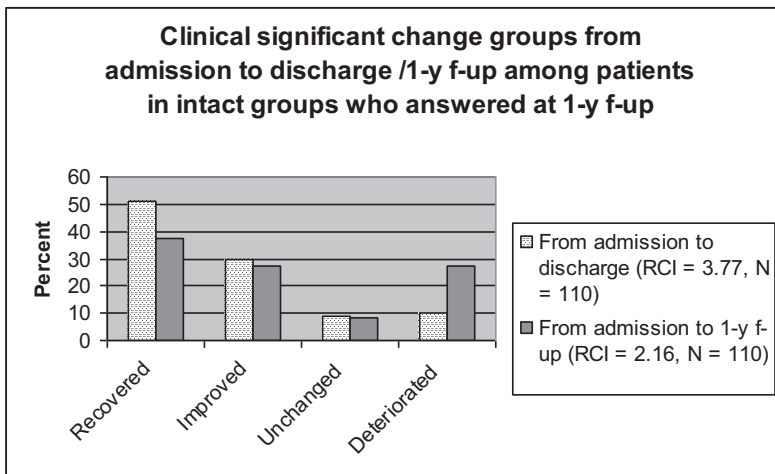
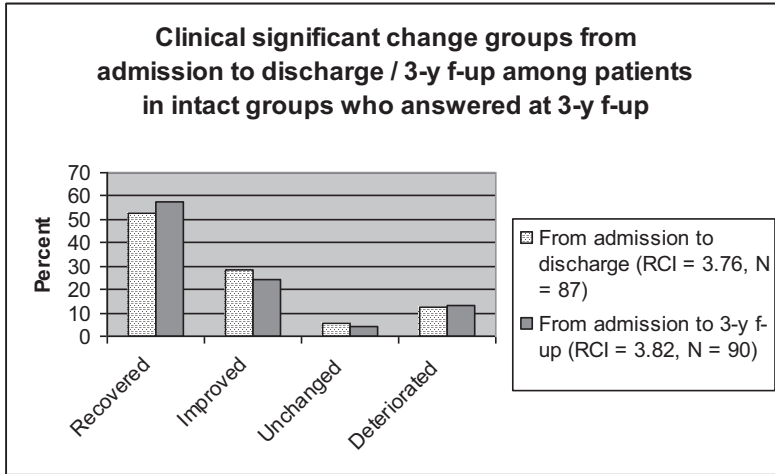


Figure 4: Distribution of RCI-groups according to paper IV



Further, we reran the analysis in paper III, so that the following text substitutes for the original (under “Results, page 15, paper III).

The proportion recovered at discharge still being recovered at one-year follow-up, corrected version (*italicized numbers from the original paper III for comparison*).

Clinical significance (CS) methodology based on DAS cut-off and Reliable Change Index (RCI score ≥ 2.16 between admission and follow-up) indicated that 37.3% (41/110) (*40.9%, 45/110*) recovered, 27.3% (30/110) (*26.4%, 29/110*) improved, 8.2% (9/110) (*8.2%, 9/110*) were unchanged, 27.3% (30/110) (*24.5%, 27/110*) deteriorated. In the group of Recovered from admission to discharge ($n = 56$), this was the distribution at one-year follow-up: Recovered 48.2% (27/56), Improved 19.6% (11/56), Unchanged 7.1% (4/56), and Deteriorated 25.0% (14/56). In a cross-tabulation analysis we found a significant difference between those who at discharge belonged to the group of Recovered compared to those who still remained in this group at one-year follow-up (Chi-Square, continuity correction = 4.93, $p = .026$). Examining the possible pretreatment predictors (gender, initial levels of DAS, BDI, IIP and YSQ), we found by One-way ANOVA that those who belonged to the deteriorated group were less distressed on DAS, BDI, YSQ total and YSQ domain of Impaired Autonomy at admission compared to the rest of the sample. However, when running logistic regression multivariate analysis with these admission variables (gender, age, BDI and YSQ total and thereafter the YSQ domain Impaired Autonomy) as predictors, and with the Deteriorators versus the rest of the group as dependent variable, we found that Impaired Autonomy yielded close to a significant contribution ($p = .062$).

4.7. Comparing this study's measurement levels with other studies

Table 4 presents levels on the instruments in our study together with other relevant studies in the USA (Doss et al., 2005), in Sweden (Lundblad & Hansson, 2006), and at Modum Bad's Individual unit (Hoffart & Martinsen, 1991; Hoffart, Versland, & Sexton, 2002).

Table 4: Comparison of questionnaire scores between studies

	Admission		Discharge		One-year follow-up		Two-year follow-up		Three-year follow-up	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
DAS our sample (N = 82)	84.52	(18.66)	98.74	(12.88)	94.26	(19.70)			98.58	(18.16)
DAS (Doss et al., 2005) (N = 268)	84.60	(14.50)	98.10	(17.80)	95.00	(18.86)	96.66	(16.65)		
DAS (Lundblad & Hansson, 2006)	91.55	(19.05)	105.6	(19.9)			105.6	(20.85)		
BDI our sample (N = 97)	15.78	(9.24)	11.56	(9.72)	10.31	(10.46)			9.66	(9.98)
BDI (Hoffart & Martinsen, 1991) (N = 85)	22.85	(8.00)	12.75	(8.60)	13.95	(11.65)				
IIP our sample (N = 89)	1.39	(.53)	1.16	(.56)	1.27	(.53)			1.09	(.57)
IIP (Hoffart et al., 2002) (N = 35)	1.68	(.56)	1.63	(.63)	1.33	(.69)				
YSQ our sample (N = 93)	2.26	(.69)	2.06	(.69)	1.95	(.66)			1.91	(.63)
YSQ (Hoffart et al., 2002) (N= 35)	2.85	(.89)	2.68	(.94)	2.38	(.97)				

In relation to the Swedish sample (Lundblad & Hansson, 2006) which culturally should be close to our sample, we see that our sample is more distressed during the course of observation. The difference in admission criteria and treatment setting may explain these differences. The Swedish study was conducted within family counseling agencies, while our study was conducted within a psychiatric hospital where the admission criteria imply more severe levels of distress individually and relationally. Another striking difference is that BDI yielded considerably lower levels of distress in our sample compared to a sample consisting of patients in the Individual unit at Modum Bad (Hoffart & Martinsen, 1991). This difference may be explained by different

admission criteria, as previously mentioned, illustrated by the distribution of diagnoses of the Individual unit's sample: Dysthymia ($n = 20$), Major depression ($n = 26$), Major depression and Agoraphobia ($n = 17$), and Agoraphobia ($n = 22$). Our sample reported considerably less distress on IIP and YSQ both at admission and discharge in comparison to a study on the Individual unit at Modum Bad (Hoffart et al., 2002) for patients suffering from panic disorder with agoraphobia (91% diagnosed) and personality disorders (46% diagnosed). The diagnostic differences between these two samples may explain the differences in levels of IIP and YSQ.

5. DISCUSSION

5.1. Discussion of method

Initiated as a program evaluation (Posavac & Carey, 1992), we wished to investigate the Family unit's program within a naturalistic design. The use of the Jacobsen and Truax (1991) criteria in evaluating clinically significant change is a commonly used method considered to be reliable (see Christensen et al., 2006). Hence, the method should yield a fairly good picture of the distribution of groups that changed during treatment and to what extent the same participants remained in these groups at the two follow-ups (papers III and IV). Even though there may be several other explanations why these participants maintained what was achieved during treatment, thus warning against drawing firm conclusions, this method is the most suitable we found for the purpose of program evaluation.

Because the treatment program was not manualized, we did not have the requisite conditions to conduct a controlled intervention trial, so the internal validity in this study is considered low. However, judged as a longitudinal, naturalistic effectiveness study, it may meet the criteria for high external validity yielding clinically relevant findings (Christensen & Heavey, 1999; Leichsenring, 2004; Sexton et al. 2004; Sexton et al., 2008; Whisman, 2001b; Wright et al., 2006). A limitation, as discussed later, is the unique context, and thus the selection of participants from the Family unit, that may reduce the generalizability of results.

Despite the good results in the consumer satisfaction survey in paper I, these cannot be considered as statistically valid results due to the instrument developed on-site and the lack of stringent research procedures, for instance we have no control of this instrument against valid research instruments. These results may be limited by the state of gratitude by the time of treatment termination (Christensen et al., 2006), hence a halo effect of general satisfaction due to their investment of time, effort and perhaps money can have influenced the level of satisfaction

(Gottman & Notarius, 2002). Satisfaction surveys may in general suffer from a method limitation because the clients are not used to complain, they wish to be polite, and they may be worried that their answers will not remain anonymous (Holand, Hoxmark, & Martinussen, 2000).

The choice of instruments used in this study was determined by the need to investigate individual, relational and dyadic distress (Christensen & Heavey, 1999). Since SCL-90 and BDI assess individual symptomatic distress, and IIP and YSQ assess relational problems, it is necessary to investigate how the instruments correlate. If they correlate $> .80$, this indicates that they investigate much of the same phenomena. For this reason we chose to omit SCL-90 in some of the papers, preferring BDI as a more specific indicator of depressive symptoms. Tables 5 and 6 show the correlations between the instruments (except TEQ) on admission and discharge.

Table 5: Correlations at admission

	SCL-90	BDI-II	IIP-64	YSQ-75
DAS	-.15	-.18	-.18	-.10
SCL-90		.79	.62	.71
BDI-II			.48	.58
IIP-64				.74

DAS = Dyadic Adjustment Scale, BDI-II = Beck Depression Inventory. SCL-90 = Symptom Check List. IIP-64 = Inventory of Interpersonal Problems. YSQ-75 = Young Schema Questionnaire.

Table 6: Correlations at discharge

	SCL-90	BDI-II	IIP-64	YSQ-75
DAS	-.16	-.23	-.06	-.09
SCL-90		.78	.69	.77
BDI-II			.55	.62
IIP-64				.80

DAS = Dyadic Adjustment Scale, BDI-II = Beck Depression Inventory. SCL-90 = Symptom Check List. IIP-64 = Inventory of Interpersonal Problems. YSQ-75 = Young Schema Questionnaire.

5.1.1. Validity and reliability

The main questions to be asked when assessing *validity* are: “Do we measure what we intend to measure?” and “To what extent can evidence support the inferences as true or correct?” These questions refer to the specificity and sensitivity of the questionnaires as well as the

measurement procedures (Benestad & Laake, 2004). There are in particular four types of validity to be considered (Shadish, Cook, & Campbell, 2002): statistical conclusion validity, internal validity, construct validity, and external validity. I will in the following exemplify possible threats to these types of validity in this study. (1) *Statistical conclusion validity* could be threatened, for example, by not using the correct effect size estimation. Because our data were correlated based on repeated measures, we needed to use a more sophisticated effect size estimation (Dunlap et al., 1996) than what is most common (Cohen, 1988). Another hazard is the Type II-error, for example, when we did not find any difference between the groups of intact and separated/divorced participants in the follow-up reports. Because the group of separated/divorced was so small, this yielded low statistical power, indicating that there was no significant difference between the groups. This does not necessarily imply that a potential difference did not exist. A competing interpretation could be that the statistical power due to low N was not able to identify it. In other words, we could hypothesize that a difference actually could have occurred had the group been larger. A third hazard is that some of our findings may be false positive (Type I-error). We have tried to minimize this hazard by using appropriate alpha levels (.05). To reduce this hazard even more, we should ideally have run a power of the test. A fourth hazard is due to attrition that in this study was 31.5% at one-year follow-up and 40% at three-year follow-up. Even though attrition analysis was conducted to examine whether this threatened the validity of our conclusions, it still represents a limitation in interpreting the results. (2) *Internal validity* could have been threatened by the possibility that during the longitudinal observation in the study, other historical events could likely occur concurrently with the treatment and follow-up periods (in particular if participants continued in some other type of therapy in the follow-up period) that could have influenced the reports without this being related to the residential treatment. A similar phenomenon is that natural maturation also can represent a possible explanation of the changes that were reported. (3) *Construct validity* could be threatened because all operationalizations used the same method (e.g., only one source of information by using self-report questionnaires) implying that this method was part of the construct actually studied. A combination, for instance with interview and observational data, would have increased this validity. Another possible threat could be that because the questionnaires also were used as a clinical tool (admission levels were informing patients during initial therapy, and process variables (TEQ) were informing patients and therapists every week throughout therapy), this could influence participant responses and ratings. (4) *External validity* could be threatened by the uniqueness of the Family unit's treatment context and selection criteria of participants. Hence, the results from this study may be closely connected to this specific setting and may therefore not hold in other kinds of settings.

The papers presented in this dissertation were based on a core number of instruments and procedures in assembling data. Mainly self-report questionnaires have been used. Except from paper II that included an instrument developed on site as the main measure (TEQ), we have in all papers made use of internationally well-validated and reliable instruments that have been found acceptable for research purposes. These have been translated into Norwegian according to recommended translation protocols and we have used the same cut-off limits as established in international literature. Considering response bias, self-administered questionnaires are found to be less influenced by socially desirable responses when compared to face-to-face situations (Moum, 1998).

The *reliability* is measured in two ways; (1) the Cronbach's alpha which is an index for internal consistency, and (2) test-retest correlation. Cronbach's alpha shows how each item within a questionnaire is correlated to the average of the rest of the items. A high alpha indicates that each item is highly related to the rest of the items, meaning that all items are measuring different aspects that are linked together as part of the same phenomena that the instrument aims to map. Characteristics of the instrument, participant, and the testing situation are aspects that may have affected reliability in the present measures. Cronbach's alpha is reported in all papers. Because paper V includes all four measurement points -- admission, discharge, 1- and 3-years follow-ups -- this paper's Cronbach's alpha is shown in Table 3, demonstrating a satisfactory level of $\geq .89$ for all instruments at all registration points.

Test-retest correlation is the second way to assess reliability. This demonstrates the instrument's stability over time, indicating that the same persons should perceive the questions similarly from one assessment point to another, despite the possible changes they experience during the course of observation that they report. In Table 3 all correlations were significant on a .01 level. In total, both the internal consistency and test-retest correlation indicate that the measures listed here were reliable when applied on our data-sets.

Validity and reliability of TEQ

The core instrument in paper II was the Therapy Evaluation Questionnaire (TEQ) that was developed on site by the candidate and colleagues at the Modum Bad Family unit and Research Institute. The background for establishing this instrument was that we did not find any suitable instrument that fit our context and needs by the time we prepared the study (2000). In agreement with many family therapy and general system theories -- for instance in using feedback routines in empirically informed treatments (Pinsof & Chambers, 2009) -- we wished to collect multiple perspectives (male and female patient, family therapist and psychiatric nurse) of the same

phenomenon. Multiple perspectives also yield more robust data when investigating if the client perceives the therapist's action in harmony with the therapist's intention (Busby & Gardner, 2008). Literature search on potential process variables showed remarkably consistent results across studies, many referring to Bordin's (1979) concept of therapeutic working alliance that includes collaborative agreement on goals and tasks as well as establishing an emotional bond between client and therapist. This and other variables, such as optimism/hope, sense of safety, and insight are recommended to be included in future research (Heatherington et al., 2005; Sprenkle & Blow, 2004). As presented in the Method section, we selected the following variables for this study: optimism/hope, empathy, safety/trust and insight as 'common process variables' (Christensen, Russell, Miller, & Peterson, 1998), and communication and conflict management skills (CCM) of the couple as 'specific process variables' (Halford et al., 1993).

Because the TEQ instrument consists of single-question variables, it was not possible to conduct psychometric tests such as factor analysis, Cronbach's alpha and test-retest analysis of the sub-categories. However, three of the four common process variables (optimism, empathy, and insight) were in a previous study rated by both clients and their therapists and thereafter psychometrically evaluated (Hoffart & Sexton, 2002; Hoffart et al., 2002). In these studies, the clients' test-retest correlations were .72 for optimism, .69 for empathy, and .51 for insight, and for the therapists they were .58, .63, and .41, respectively. For the clients, optimism correlated with the Credibility Scale (Borkovec & Nau, 1972), a measure of credibility and optimism ($r(17) = .66$; $p < .001$). Self-understanding/insight correlated with the task impact subscale of the Session Impact Scale (Elliot & Wexler, 1994), which measures insight into self, other, or problem solution ($r = .88$, $p < .001$). The therapists' ratings for empathy correlated with the Empathy Scale – Therapist's Version (Burns & Nolen-Hoeksema, 1992) with $r = .71$ ($p < .001$).

An attempt to validate the TEQ was conducted by running a correlation analysis between pretreatment client registrations of all six TEQ process variables and the difference scores between admission and discharge in the overall outcome measure DAS. We found that only items 4 and 5 (communication and conflict management skills) were significantly (on a .01 level) correlated with DAS ($r = -.21$ and $-.20$, $n = 303$). Pearson's r between communication and conflict management skills within each part of the therapy system (male and female client, family therapist and psychiatric nurse) ranged from .78 to .87. Further, the ratings on communication and conflict management skills from the four participants were moderately to highly inter-correlated, Pearson's r ranging from .56 to .71. For this reason we decided to combine the variables of communication and conflict management skills into one new variable to be called CCM (communication and conflict management). Because the Intraclass Correlation Coefficient (ICC) was .70 between male

and female CCM, and .70 between family therapist and psychiatric nurse CCM, we decided to average the scores for two pair-wise combined perspectives, the couples' CCM and the therapists' CCM. This combination of data into two perspectives was implemented in order to create more robust variables. While we did not conduct psychometric testing of the TEQ, we considered the sample size and the selected advanced statistical method to outweigh the limitations so that the data still could be valid for research purposes.

5.1.2. Strengths and limitations

We consider the design a strength in our study, following the recommendations from several authors that future couple therapy research should choose longitudinal, naturalistic effectiveness designs (Christensen & Heavey, 1999; Sexton et al. 2004; Whisman, 2001b), and further that the relationship between process and outcome should be explored more in detail (Miller, Duncan, & Hubble, 2004; Pinsof & Chambers, 2009). Also, we have conducted a study combining assessments on the levels of individual problems and individual perceptions of the dyadic relationship, something that captures a wide range of characteristics of distress levels and change in the sample during the observation period. Further, a strength of this study was the reasonably large clinical sample and the use of a variety of advanced statistical analyses. In particular, the use of mixed model in papers II, III, and V creates advanced models of integration among variables. Unlike traditional models for repeated measures, multilevel models can effectively manage unequal numbers of observations and missing data in repeated measures. Multilevel models can also take into account and control for elevated correlations (co-linearity) among the predictor variables. It can also adjust for any bias in standard errors and statistical tests resulting from the interdependence (autocorrelation) of observations that could represent a limitation because analyzing spouses as independent observations tends to inflate test statistics (Kurdek, 2005). In addition, we conducted control analyses investigating the course of DAS using pairs as observational units. The results of these control analyses corresponded well with the results for the whole sample, indicating a pattern of congruence between the two analyses.

The uniqueness of the treatment context can be regarded as a strength because the field asks for clinical research that is conducted within a variety of settings (Wright et al., 2006). Therefore, this study demonstrates Modum Bad Family unit as one type of therapeutic setting among a variety of couple therapy settings. As a naturalistic study, this dissertation in general, and paper II in particular, including ratings from both couples and therapists on the relationship between common and specific process variables in the TEQ instrument, may contribute to bridging the gap between couple and family therapy practice and research (Pinsof & Chambers, 2009;

Sexton et al., 2008). While there are research limitations in developing an instrument on-site, the intention was initially to create a clinically useful tool for information feedback from the participants into real time therapy for the purpose of treatment improvement and increasing the patients' experience of influence in their own process. This implies many problems in relation to research criteria, for instance how to deal with social desirability bias. Using a research instrument as feedback to both patients and therapists informing the participants about the therapy as it proceeded may have impacted on the next report from these participants because they learned each other's evaluations. Hence, the interpretation of the results can be limited because the exchange of information may have contaminated the participant's ratings due to a 'common method problem'. This limitation was reduced by the use of lagged procedures within mixed model analysis. A growing literature on this type of research design labeled "client focused research" or "empirically informed research" (Pinsof & Chambers, 2009; Pinsof & Wynne, 2000) is supportive of our choice in making use of this kind of instrument and procedures for research purposes.

When studying the course of DAS in relation to psychiatric distress and disorders, a limitation in this study was the procedure for deciding diagnoses. Making use of diagnosis as a variable in the analysis could have strengthened the design, but if so, deciding the diagnosis should have undergone a more strict and reliable procedure. Further, as previously mentioned, the DAS instrument may represent a limitation because it mainly taps the level of agreement between the spouses (Gottman & Ryan, 2005). This limitation is in particular relevant when the aim in couple therapy is to enhance the partners' ability for constructive conflict management that for a while may result in reduced agreement. Hence, that kind of treatment success can be reflected in a temporal deterioration on DAS levels.

Even though the sample in total was reasonably large, dividing into subgroups (intact and separated/divorced couples) yielded smaller groups to be compared, representing a limitation. For instance, when exploring predictions on the group of separated couples (papers III and IV), type II-errors due to low N may explain the non-significant results.

Interpreting whether the three-year follow-up results can be confidently related to what was achieved during therapy is very difficult (paper IV). The fact that more than half of the sample continued in some kind of therapy during the follow-up period makes it difficult to identify what influenced the change in the follow-up period. However, the analyses did not demonstrate differences between the group that continued and those who did not continue in therapy, suggesting that one cannot neglect the possibility that the three-year follow-up results can be related to what was achieved in therapy.

The lack of previous descriptions and the lack of validity and reliability examinations of the TEQ instrument in paper II represent a central limitation of this paper. With reference to what I previously have accounted for, however, we have sought to increase the validity of the use of this instrument.

A crucial concern in conducting longitudinal research is the risk for drop outs during the course of observation, impacting on the study's representativeness and limiting the interpretation of results. For this reason, a weakness in the study is response-rates of 60.4 % at one-year follow-up (paper III) and 61.4% at three-year follow-up (paper V), although a response-rate of 60% is regarded as typical for population-based studies (Sundet, Magnus, Kvaalem, Samuelsen, et al., 1992). Attrition analysis is an effort to control for whether the final results would have been influenced if those who dropped out had completed the study. Attrition analysis (One-way ANOVA) showed that there were no discernable differences in levels and changes in the instruments during the treatment period between those answering at follow-up and those who did not. In addition we studied possible mechanisms of missing data according to Atkins (2005) as presented in section 3.5. In our study, one likely assumption is whether there is an association between levels and change in the main outcome measure, the DAS, during the treatment period, and missing data at three-year follow-up. One assumption could be that the less satisfied the partners were, and the less change in DAS during the treatment, predicted missing data at three-year follow-up in the group of still intact couples. We therefore conducted several One-way ANOVA analyses comparing the group not answering at three-year follow-up but who still was in intact couples (N = 18) with the rest of the participants answering at three-year follow-up, still in intact couples (N = 88). As long as at least one of the partners answered at three-year follow-up, we got information about both partners' civil status. In this way we could enter the proper code for the missing partner. We found that the intact couple group with missing data had a significant smaller change between admission and discharge than the rest of the participants (M: 3.61, SD: 12.20, and M: 13.72, SD: 16.49, respectively) ($F = 6.07, p = .015$). This analysis points to the possibility that low DAS change during treatment may predict missing data at three-year follow-up for those who are still in intact couples. Even though we cannot for sure overlook the possibility that missing data represent a bias to the statistics used, this possibility is reduced because we found one possible predictor for missing data that includes the main outcome measure used in all the analyses. According to Atkins (*ibid.*), a MAR assumption within the use of multilevel models implies that the missing data in the study can be ignored, meaning that they are not likely influencing the existing results.

5.1.3. Representativeness and generalizability

The selection procedure with the use of inclusion and exclusion criteria that the patients underwent during the application process is unique for the treatment context of the Family unit. This represents a limitation because the selection of patients as well as the program within a residential treatment context is not comparable with other couple therapy settings, something that limits both the representativeness of patients and generalizability of results. Based on the inclusion and exclusion criteria presented in 3.1., we assume that the patients in the Family unit share similarities with clients both within outpatient psychiatric clinics and with clients in family therapy agencies. Because the admission criteria state that it is sufficient that only one of the adults suffer from individual psychiatric distress, the spouse may not suffer from such distress. Therefore, as a mean, the levels of individual psychiatric distress will naturally be less severe when compared with individual therapy units. Investigating the level of depressive symptom distribution within couples showed that within 18.5% of the couples, both partners reported a level above the BDI admission median of 13.

The *representativeness* of our sample can be assessed by the levels the patients scored on the questionnaires seen in relation to other studies. As presented in Table 4, the levels on the questionnaire scores in our sample are presented together with other relevant samples from USA (Doss et al., 2005), Sweden (Lundblad & Hansson, 2006), and at Modum Bad's Individual unit (Hoffart & Martinsen, 1991; Hoffart et al., 2002). The design of this study does not make it easy to compare the results with other clinical studies or normative samples. However, Table 4 can to a certain degree put this study's results in some perspective. As previously noted in 4.7., the differences in these samples may be explained by differences in the treatment setting, yielding different admission criteria. Our results in relation to the other studies described above may contribute to benchmarking the levels and improvement rates in CFT research.

The representativeness of patients seeking this treatment may also depend upon the knowledge they previously had about the Family unit's treatment program. If the potential patients knew about this program in advance they may have asked their local professional to be referred. I experience the level of information and knowledge about our treatment program to vary both in public and among professionals. Therefore, the inflow of applicants to the program would also depend upon the knowledge within the referring institutions (local physician, psychologists, family counseling agencies, outpatient psychiatric clinics) about the Family unit and whether they assessed the patients to be candidates for this treatment and whether it was worth the effort to apply. These conditions may have impacted on who applied for participating in this program

compared to seeking alternative treatment. Hence, the population of patients accepted for treatment, from which this sample was selected, implies that the representativeness of this population and sample in relation to the population of all Norwegian couples seeking couple therapy is somewhat unclear. Rather, one may assume that the sample selected for this study was representative for the population of couples who usually apply to the Family unit of Modum Bad for treatment. Even though we do not have other samples from the Family unit to compare, we ran attrition analysis to control for those who did not answer the follow-up questionnaires in the study. Our findings indicate that those who completed the questionnaires at follow-up, thus constituting our sample, were representative for all participants who completed the questionnaires during treatment.

The main question in generalizability is whether findings from this sample can be generalized to a broader population (Shadish et al., 2002). The following Table 7 shows confidence intervals (CI) suited for interpretation of generalization from sample results to a population (Aalen, Frigessi, Moger, Schell, et al., 2006). The width of CI above and below the sample's mean indicates the range of what the population would have reported, had they been asked. Multiple measurement points enables investigation of overlap from one measurement point to another. No overlap indicates small CI ranges, so the sample's mean can be identified as close to the population's real level, thus indicating high generalizability.

Table 7: Confidence intervals for measures in this study reported by patients on admission (T1), discharge (T2), one- (T3) and three-year (T4) follow-ups.

	N	Mean	SD	CI
DAS T1	193	84.77	19.19	82.06 – 87.48
DAS T2	196	96.88	15.50	94.71 – 99.05
DAS T3	152	90.38	23.22	86.69 – 94.07
DAS T4	122	99.78	19.98	96.23 – 103.33
BDI T1	215	14.16	9.25	12.92 – 15.40
BDI T2	209	10.36	9.07	9.13 – 11.59
BDI T3	166	9.64	9.74	8.18 – 11.10
BDI T4	134	9.03	9.56	7.41 – 10.65
IIP T1	213	1.29	.51	1.22 – 1.36
IIP T2	209	1.06	.56	.99 – 1.13
IIP T3	158	1.12	.58	1.03 – 1.21
IIP T4	132	1.03	.59	.93 – 1.23
YSQ T1	214	2.16	.68	2.07 – 2.25
YSQ T2	208	1.95	.64	1.86 – 2.04
YSQ T3	165	1.91	.63	1.81 – 2.01
YSQ T4	131	1.87	.63	1.76 – 1.98

This table shows that there is no overlap in CI between DAS admission and discharge, and between DAS admission and three-year follow-up. In BDI there is no overlap between admission level and any of the following measurement points. In IIP there is no overlap between admission level and discharge level, and between admission level and one-year follow-up level. In YSQ there is no overlap between admission level and any of the following measurement points. In sum, this

supports the previously mentioned findings that the sample could be generalized in relation to the population of couples seeking help at the Family unit.

5.2. Discussion of main findings

5.2.1. Program evaluation

Initiated as program evaluation (Posavac & Carey, 1992), one objective in this study was to gain knowledge of whether the patients reported significant positive change during and after their residential couple therapy, and if so, to what extent the treatment program can be understood as contributing to this positive change. The general finding is that on all measures in papers II - V, there has been a significant positive change during the treatment period which was maintained at one-year follow-up, except the DAS relapse. On three-year follow-up all the discharge levels were maintained, demonstrating that the one-year DAS relapse was temporary. According to Cohen's criteria (1988) on effect-sizes, the main measure in this study, the DAS, showed moderate effect-sizes from admission to discharge (.67) and from admission to three-year follow-up (.76) (paper IV). In relation to international studies, this is close to controlled efficacy studies showing effect-size $\geq .8$ (Shadish & Baldwin, 2002), and it is larger than naturalistic effectiveness studies that showed small to moderate effect-size (.37) (Hahlweg & Klann, 1997; Halford, 2006). The naturalistic design of our study implies comparison to other naturalistic effectiveness studies. However, due to the Family unit's unique context, including selection of patients into residential treatment, the range of effect-size in our study is as expected, finding its position between the above mentioned efficacy and effectiveness studies.

While we still have no valid explanation of the DAS relapse on one-year follow-up, this phenomenon is also found in other studies. We were concerned that the main contribution in this relapse was that one-quarter of the participants reported change to below their admission level. As shown in paper III, we could not identify any predictors for who would end up in this group at one-year follow-up. Even though negative change is a normal variation in all psychotherapy research, we still find this proportion to be higher than expected, something that calls for future research. The pattern of negative DAS change in the whole sample after discharge and then a slight positive change towards three-year follow-up is in line with the 'hockey-stick model' shown by Christensen et al. (2006). An interpretation of this pattern suggested by these authors is that the discharge level may have been inflated due to the patients' feelings of gratitude at the end of therapy. We believe that this is a possible explanation for our findings as well.

According to emotion-focused couple therapy (Johnson, 2003), therapy aims to improve the attachment between the partners so that they are comforted and reassured connection particularly in times of stress. Thus, each new episode of stress should be experienced as strengthening their relationship trust and security, hence continuing to enhance satisfaction. Relapse after therapy termination can therefore be interpreted in the way that therapy did not teach the partners good enough that times of stress should not be attributed as a threat to their attachment and bonding to the spouse.

Another interpretation of this DAS relapse is relevant according to the previously presented limitation of this instrument, claiming that DAS mainly taps the level of agreement between the spouses (Gottman & Ryan, 2005). One likely aim in the couple therapy, that the participants in the project underwent at the Family unit, was to enhance the partners' ability for constructive conflict management and tolerating more disagreement without interpreting this as a threat for relationship dissolution. In line with Gottman and Ryan's suggestion (*ibid.*), this may temporarily lead to reduced agreement. Hence, this kind of treatment success is not captured within the DAS instrument. Because other findings in our study showed that the improvement achieved during the treatment on measures of individual distress were maintained at follow-ups, one may interpret the DAS relapse in line with this suggestion. One may therefore assume that the participants earned skills and found individual strength to enhance constructive conflict management as couples. This interpretation implies that enhanced constructive conflict management likely results in a temporary state of more disagreement between the spouses, reflected in the DAS relapse.

Concerning the addendum to paper III, close to similar results were found by running new analyses in line with the procedures in paper IV. The proportion of Recovered was reduced significantly from the treatment period (admission - discharge) to the follow-up period (admission – one-year follow-up) indicating that the achievements determining membership in the group of Recovered during treatment were not stable enough to resist the one-year follow-up negative change. However, when we in paper III investigated how many of the Recovered during treatment were still members of the same group at one-year follow-up, it was close to half (48.2%, 27/56). This finding can be seen in relation to the Wesley and Waring (1996) 'marital therapy outcome research gold standard': (a) half of the couples accept the therapeutic approach and complete the required course of therapy, (b) half of the completing couples demonstrate subjective and objective improvement on relevant measures, and (c) half of the improved couples maintain this improvement at one-year follow-up. With respect to the possibility that the selection procedures to the Family unit reduced the dropout rate and offered treatment to more motivated applicants, paper

III demonstrates that the two first criteria are fulfilled in this sample. Concerning the last criterion, close to half remained in this group between admission and one-year follow-up. Taken together with the other measurements showing that the achieved positive changes during treatment were maintained at one-year follow-up, we regard these results as close to the Wesley and Waring (ibid.) criteria. When including the three-year follow-up in paper IV, demonstrating that the DAS level became tangent to the discharge level, and that the proportion of Recovered that still was recovered at three-year follow-up increased to more than half (57.8%), this fulfils the third Wesley and Waring (ibid.) criterion by a good margin. We also found that 64.2% maintained their membership in the groups of Improved and Recovered designated by any classification other than deteriorated from discharge to three-year follow-up for those who had improved or recovered during treatment (Christensen et al., 2006). This is a lower percentage than what Christensen et al. (ibid.) found in their efficacy study when comparing traditional versus integrative behavioral couple therapy (71.8% on average between the two treatments). In addition, we found that the proportion of Recovered during treatment was not different from this proportion during the admission to three-year follow-up period. Even though more than half of the sample continued in some kind of therapy during the three-year follow-up period, making it difficult to identify what influenced the change in the follow-up period, we did not find any differences between the group that continued and those who did not continue in therapy. In sum, these findings make it probable that the three-year follow-up results can be related to what was achieved in therapy. Thus, in total, our conclusion is that these results from the Family unit study at Modum Bad are in line with international CFT studies documenting satisfactory results.

5.2.2. Predictive associations between process variables

In paper II we studied common and specific process variables for a large patient sample also including the therapists. The main instrument for data collection was the TEQ – the Therapy Evaluation Questionnaire, developed on-site. Despite the previous mentioned research limitations in developing a new instrument, we notice that this way of monitoring clinical practice using feedback so that the therapy becomes empirically informed, represents cutting edge clinical practice and research in line with prominent psychotherapy and CFT researchers (Lambert, 2007; Pinsof & Chambers, 2009). The main finding was that for both patients and therapists, positive change on patients' specific process variables (communication and conflict management skills – CCM) one week predicted increased insight with the patients the following week. We also found that for the therapists, CCM predicted all the other common process variables; optimism, empathy,

and safety/trust. Analyzing these associations the other way around, we found that the patients' perceived optimism predicted CCM the subsequent week, while for the therapists, believing that the patients perceived them as empathetic, predicted CCM the next week. Because optimism was the only variable that both patients and therapists were asked to report from a subjective perspective, this association was explored, with the finding that patients' optimism predicted the therapists' optimism. The clinical implications of these findings could be that emphasis on learning skills (specific process variables) may facilitate common process variables more than the other way around. This can be explained by hypothesizing that learning specific communication and conflict management skills has an impact on gaining a tool for sharing of the difficulties that were associated with the development of their relational problems, and hence, this increased their insight. As part of this 'learning skills-hypothesis' one may assume that the patients were motivated for this type of learning, since patients in the treatment program were selected based on, among other variables, their motivation for learning and change. As such, this association may be tautological. However, motivation could be explained as an adjuvant factor associated with learning these specific skills. This finding may be in harmony with the literature on the PREP program suggesting that the couple's skills in CCM are fundamental to relationship success in marriage (Markman et al., 1994; Stanley et al., 2002).

Finding that specific process variables predict common process variables is in contrast to what is commonly found and theorized in the discussion of common factors and therapeutic alliance, suggesting that these factors may mediate or foster therapeutic change and predict satisfaction and stability as outcome in couple therapy (Escudero et al., 2008; Sexton, 2007; Sexton et al., 2004; Simon, 2007; Sprenkle & Blow, 2004, 2007; Wampold, 2001; Weiss, 2005). Our findings may indicate an alternative path to supplement this discussion, suggesting that a skill-based focus early in couple therapy can be formative for the therapeutic alliance because this demonstrates therapists' competence and willingness to point out some directions for the couple therapy.

The relationship between optimism and CCM was reported differently by patients and therapists. Patients reported optimism to predict CCM, while therapists reported CCM to predict optimism. While some interpretations are presented in paper II, we see this finding supportive of the association between these variables, suggesting that patients and therapists may experience this association to occur in opposite order according to their different perspectives. This may reflect the fact that the therapists have an earlier, more deliberate, intentional conceptualization of CCM and

a clearer predisposition to regard its teaching as therapeutic, forming the base of its likely predictive value for optimism.

In contrast to what is often regarded as the therapists' obligation to foster hope/optimism, our findings show that the patients' optimism predicts the therapists' optimism more than vice versa. In interpreting this finding one needs to consider that the patients' mean level of optimism at admission was larger than medium (4.71 on a scale from 1 = low/not at all to 7 = high/very much). A therapist who at admission is informed that the patient's optimism is at this level, and who weekly is updated that the patient's level is quite constant or improving, will likely consider this patient not to be in need of any particular interventions in order to enhance this level. During the course of therapy it is common to work through many stressful situations, memories and conflicts. The patient-therapist relationship can also be temporary threatened and ruptured, needing to be repaired so that patient trust and confidence to the therapist is reestablished. When the therapist is informed through feedback that the patient's level of optimism is not deteriorating despite the patient's efforts in working through these stressful moments in therapy, it is likely that this can have a predictive influence on the therapist's own optimism. Taken together, we can assume that when the patients increased their insight due to positive change in CCM skills, their optimism for the therapy and its promise for their relationship were enhanced. Hence, this may, in turn, have increased their motivation for the treatment program that among other foci included learning CCM skills. This relationship may imply that different processes occur in order.

5.2.3. Prediction of outcome

The most important predictive finding in this study was that variations in BDI on a previous time point predicted variations in DAS on the subsequent time point (paper V). When the depressive symptoms were positively changed during therapy, this predicted positive change on DAS in the follow-up period. An additional finding was that the DAS level at discharge predicted the BDI change in the follow-up period. This means that if a patient at discharge reports positive change in dyadic adjustment, this predicts a likelihood that this patient will report positive change in depressive symptoms in the follow-up period. The first finding is in line with – and an extension of – a previous study on parts of the same sample showing that positive change on depressive symptoms during treatment correlated with positive change on DAS (Nordby* & Gude, 2003). Clinically, these findings yield implications on what should be emphasized as foci in therapy

* Identical with author

during the residential treatment period. Because positive change on depressive symptoms during treatment predicts improvement on DAS, which in turn is associated with continued positive change on BDI in the follow-up period, reducing the individuals' levels of depressive symptoms during therapy should be an explicit aim. These associations may be identified as a distress relapse-prevention function in the long run for both the individual and the couple. Because many patients seeking couple therapy in general, and in this sample in particular, suffer from a combination of individual psychiatric distress (often depressive symptoms within the mild range) and relational discord, this finding should have a distinct relevance for the field of couple therapy practice. We therefore reiterate that couple therapy should be the treatment of choice when those conditions co-occur (Beach & Gupta, 2005). A limitation in interpreting this finding is the modest levels of both dyadic adjustment (DAS) and depressive symptoms (BDI) with means from 84.77 and 14.78 (Table 7) at admission, respectively. Whether the association between BDI and DAS would have been different given more pronounced suffering in both individual and relational measures is an empirical question that calls for more research.

As previously mentioned, no unequivocal conclusion is found in the literature whether there is an uni-directional or bi-directional association between depressive symptoms (or diagnosed depression) and dyadic distress. In Whisman's (2001b) already mentioned meta-analysis, marital dissatisfaction appeared more often to precede depression than vice versa, while Karney (2001) suggested a bi-directional relationship between these two variables. In contrast, we suggest from our results that an improvement in depressive symptoms during the treatment period may be the prior aim as this seems to facilitate improvement in dyadic adjustment that in turn is predicting improvement in depressive symptoms. Even though this direction also is found in other studies (see e.g., Davila et al., 2003), our findings may be controversial, and thus, calling for further research.

This dissertation does not yield predictive findings on who has an increased risk for separation or divorce after residential couple therapy termination. Not surprisingly, there is a trend that positive change on DAS into the non-clinical range during treatment can indicate a disposition away from separation and divorce in the follow-up period. Yet, I warn against too much emphasis on this predictor as a criterion of therapy success, as many patients may report individual positive change and treatment satisfaction even when separation or divorce became the couple relationship outcome. This may in particular be the case when this is the preferred outcome for one or both of the partners (Christensen & Heavey, 1999; Thuen, 2003).

In line with the main objective for the Family unit that was to improve the relationship within the couple and among family members, DAS was the main outcome measure in this study. Hence, we had special interest in identifying possible predictors of change in DAS levels during and after treatment. In paper III we were surprised to find that a more distressed YSQ level at admission predicted positive change in the DAS between admission and one-year follow-up. We had instead expected that maladaptive personality characteristics in one or both of the spouses would have a negative influence on one's ability to improve on dyadic adjustment. No obvious interpretation on this finding can be rendered from our data. One possible explanation may however be that the YSQ mean level at admission (2.16 (SD: .68), Table 7) was not severe enough to impact on DAS as we expected. Another explanation can be that the YSQ distress level at admission was optimal and motivational for the partners to work with their relational issues.

In paper IV we found that initial level of IIP predicted less DAS change from discharge to three-year follow-up. Clinically, this means that individuals entering residential couple therapy with an elevated level of interpersonal problems (IIP) have a reduced chance of positive DAS change in the three-year follow-up period. Therefore the clinician should be aware of the patient's admission level and investigate how these interpersonal problems that are linked to personality traits may influence the interpersonal relationship in general, and that with the spouse in particular. When addressing this topic in therapy, the couple could be guided by the therapist to explore how these issues influence their relational problems and hence, how they can be worked on in treatment.

6. General conclusions

This study has confirmed previous studies finding associations between individual's depressive symptoms and dyadic distress. A novel finding in this study is that during treatment, reduction of depressive symptoms has an impact on reduction in dyadic distress. Further, a less distressed level of dyadic adjustment at discharge was found to have impact upon continued positive change in depressive symptoms in the follow-up period.

This study also confirms previous studies finding associations between common and specific process variables. A novel finding in this study is that positive change in specific process variables (communication and conflict management skills) predicted positive change in one common process variable – insight - for both patients and therapists.

Considered as program evaluation, this is the first study to examine the treatment program at the Family unit of Modum Bad. As such, it demonstrates quantitative research to be conducted

within a CFT setting in Norway, and that this is a suitable design for program evaluation. This study reveals satisfactory results in the 2001-2003 cohorts of the Modum Bad Family unit's adult patients. In general, all the measures showed significant positive change during the treatment period, change that was maintained in the follow-up periods. Effect sizes on the main outcome measure DAS were moderate from admission to discharge (.67) and from admission to three-year follow-up (.76). No obvious weaknesses were found in the evaluation of this treatment program. However, because the treatment setting makes it difficult to compare this study with other studies internationally, it should be replicated for a within-context comparison.

Admission levels on personality variables (interpersonal problems/maladaptive coping strategies) had some predictive influence on the course of dyadic adjustment, but not as much as we had expected. While personality variables are regarded as relatively stable despite therapeutic efforts, these variables showed positive change in line with the other measurements during the course of this project.

7. Theoretical and empirical implications

Finding that change in depressive symptoms influences dyadic adjustment more than the other way around deviates from the more common conclusion positing a bi-directional relationship (Karney, 2001). Based on our finding that there is likely a sequential change for couples with combined depressive symptoms and couple distress who seek CFT, I suggest that the first aim during couple therapy where both conditions co-occur is to focus on reducing the individuals' depressive symptoms that in turn may facilitate reduced dyadic distress. When this positive change is maintained after therapy termination, the risk of depressive symptoms' relapse also is reduced. However, this finding still supports the recommendation, consistent with previous research, that couple therapy is the best approach when individual symptoms and dyadic distress co-occur (Cordova & Gee, 2001). The above mentioned sequential change model for couples with co-occurring depressive and dyadic distress calls for further research. If this hypothesis holds true within our context, it may not be generalizable to different contexts. Even though controlling for similar burdens of distress, it is likely that couples seeking help within an outpatient facility may differ from couples seeking to the Family unit at Modum Bad within at least three areas: (1) The Family unit's admission criterion states that previous help (e.g., from outpatient services or clinics) has been inadequate. The Family unit's sovereignty to accept or dismiss treatment applications could likely impact on the clients' motivation for treatment and change. (2) When patients enter the Family unit, many of the daily, domestic areas of stress are not any longer present. This may release energy, stimulating the patients to open up for working with their potential individual

vulnerability to a greater extent than if they saw an outpatient unit. In sum, the Family unit patients may in general be in a better position to focus on and work with their given depressive symptoms.

(3) The staff's training and the hospital's organizational belonging to adult psychiatry makes it more likely that the patients' psychiatric distress has been addressed as part of the treatment philosophy.

Finding that the patients' hope/optimism predicted therapists' hope/optimism is also somewhat unexpected. Usually, a therapist's obligation has been to instill hope in the depressed patient (Frank, 1974). With respect to the mean BDI level at admission, our sample is not representative of typical depressed patients seeking psychiatric help. However, this finding is interesting in contemplating the interaction between patient and therapist. There is a large psychodynamic literature on how the therapist is affected by the patient (e.g., transference, projective identification; Schibbye, 2002) that applies, as well, to positive feelings such as hope/optimism. It is therefore reasonable to assume that when the therapist perceives the patient as optimistic, this affects the therapist's level of optimism. The interaction between patient and therapist may therefore be mutually reinforcing leading to a desired outcome in therapy. In contrast one may assume that the same mechanisms are present when the patient lacks optimism. Because this may affect the therapist in losing hope/optimism as well, this points out a more crucial therapeutic challenge of how the therapist can manage to instill hope in the patient when the therapist himself or herself does not experience that feeling. In situations like this, supervision for the therapist is required.

8. Clinical implications

Given that the patients in the Family unit still have similar characteristics as the subjects in this study, no adjustments or changes in the treatment program seem to be required. Thus, the clinical staff should be confident that their skills, treatment model and program are well suited for being helpful for the patients seeking help.

Reducing the level of depressive symptoms during treatment is suggested as a main emphasis when such symptoms occur simultaneously with dyadic distress. Because couple therapy is found to be one of the best means of reducing an individual's depressive symptoms when they occur within a distressed couple relationship, this should be the preferred treatment for couples that suffer from this combination of distress.

The findings support to a certain degree the advantage of monitoring initial levels of personality variables (interpersonal problems/maladaptive coping strategies) during the early stages of therapy. It is likely to assume that a positive change on these variables during treatment

may have a positive impact on the post-treatment level of dyadic adjustment.

This study demonstrates that an early focus in couple therapy on teaching and improving specific skills can be beneficial. Given that the patients score at least medium on the hope/optimism-scale, it is suggested that improving the skills in communication and conflict management can be emphasized without any previous focus on improving common process variables. Our findings imply that when patients experience positive change on specific skills, positive change in common process variables – in particular insight – is facilitated as well.

9. Reference list

- Aalen, O. O. (red.), Frigessi, A., Moger, T. A., Scheel, I., Skovlund, E., & Veierød, M. B. (2006). *Statistiske metoder i medisin og helsefag*. Oslo: Gyldendal.
- Aarre, T. F. (red.) (2000). *Stemningslidelser - kliniske retningslinjer for utredning og behandling*. Utredningsserien 3:2000. Oslo: Statens helsetilsyn.
- Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and the Family*, 62, 1269-1287.
- Andersen, T. (1994). *Reflekterende prosesser: Samtaler og samtaler om samtalerne*. København, Danmark: Dansk psykologisk forlag.
- Anderson, H. & Goolishian, H. (1992). The client is the expert: A not-knowing position approach to therapy. In: S. McNamee & K. J. Gergen (eds.), *Therapy as social construction* (pp. 25-39). London: Sage Publications Inc.
- Asen, E. (2002). Outcome research in family therapy. *Advances in Psychiatric Treatment*, 8, 230-238.
- Atkins, D. C. (2005). Using multilevel models to analyze couple and family treatment data: Basic and advanced issues. *Journal of Family Psychology*, 19, 98-110.
- Atkins, D. C., Berns, S. B., George, W. H., Doss, B. D., Gattis, K., & Christensen, A. (2005). Prediction of response to treatment in a randomized clinical trial of marital therapy. *Journal of Consulting and Clinical Psychology*, 73 (5), 893-903.
- Bagge, R. F. (2007). Refleksjoner omkring begrepet "ikke-vitende posisjon". *Fokus på familien*, 35, 113-126.
- Baklund, L. (2006): Sant, godt eller virksomt? Etik, vitenskapsteori og familierapi. I: I. Halvorsen, I. Ropstad, B. R. Rund, W. J. Seltzer, (red.), *Foreldre og fagfolk i samspill. Behandling av psykiske vansker hos unge og barn* (s. 39-57). Stavanger: Hertzberg forlag.
- Bateson, G. (1979). *Steps to an ecology of mind: Collected essays in anthropology, psychiatry, evolution, and epistemology*. London: Paladin/Granada Publishing.
- Bateson, G., Jackson, D. D., Haley, J., & Weakland, J. H. (1956). Toward a theory of schizophrenia. *Behavioral Science*, 1, 251-264.
- Baucom, D. H., Shoham, V., Meuser, K. T., Daiuto, A. D., & Stickle, T. R. (1998). Empirically supported couple and family interventions for marital distress and adult mental health problems. *Journal of Consulting and Clinical Psychology*, 66, 53-88.
- Beach, S. R. H., & Gupta, M. (2003). Depression. In: D. K. Snyder & M. A. Whisman (eds.), *Treating difficult couples. Helping clients with coexisting mental and relational disorders* (pp. 88-113). New York: The Guilford Press.

- Beach, S. R. H., & Gupta, M. E. (2005). Marital discord in the context of a depressive episode: Research on efficacy and effectiveness. In: W. M. Pinsof & J. L. Lebow (eds.), *Family psychology: The art of the science* (pp. 451-470). New York: Oxford University Press.
- Beach, S. R., & O'Leary, K. D. (1993). Marital discord and dysphoria: For whom does the marital relationship predict depressive symptomatology? *Journal of Social and Personal Relationships, 10*, 405-420.
- Beck, A. T., & Steer, R. A. (1987). *Manual for the revised Beck Depression Inventory*. San Antonio, TX: The Psychological Corporation.
- Beck, A. T., Steer, R., & Brown, G. (1995). *Beck Depression Inventory-II Manual*. San Antonio, TX: The Psychological Corporation.
- Benestad, H. B., & Laake, P. (2004). *Forskningsmetode i medisin og biofag*. Oslo: Gyldendal
- Beutler, L. E. (2000). Can principles of therapeutic change replace the need for manuals? *The Clinical Psychologist, 55*, 3-4.
- Birtchnell, J. (1988). Depression and family relationships: A study of young, married women on a London housing estate. *British Journal of Psychiatry, 153*, 758-769.
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research and Practice, 16*, 252-260.
- Borkovec, T. D., & Nau, S. D. (1972). Credibility of analogue therapy rationales. *Journal of Behavior Therapy and Experimental Psychiatry, 3*, 257-260.
- Bradbury, T. N., & Karney, B. R. (2004). Understanding and altering the longitudinal course of marriage. *Journal of Marriage and Family, 66*, 862-879.
- Burns, D. D., & Nolen-Hoeksema, S. (1992). Therapeutic empathy and recovery from depression in cognitive-behavioral therapy: A structural equation model. *Journal of Consulting and Clinical Psychology, 60*, 441-449.
- Busby, D. M., & Gardner, B. C. (2008). How do I analyze thee? Let me count the ways: Considering empathy in couple relationships using self and partner ratings. *Family Process, 47*, 229-242.
- Carr, A. (2009). The effectiveness of family therapy and systemic interventions for adult-focused problems. *Journal of Family Therapy, 31*, 46-74.
- Christensen, A., Atkins, D. C., Yi, J., Baucom, D. H., & George, W. H. (2006). Couple and individual adjustment for 2 years following a randomized clinical trial comparing traditional versus integrative behavioral couple therapy. *Journal of Consulting and Clinical Psychology, 74*, 1180-1191.

- Christensen, A., Doss, B. D., & Atkins, D. C. (2005). A science of couple therapy: For what should we seek empirical support? In: W. M. Pinsof and J. L. Lebow (eds.), *Family Psychology. The Art of Science* (pp. 43-64). New York: Oxford.
- Christensen, A., & Heavey, C. L. (1999). Interventions for couples. *Annual Review of Psychology*, *50*, 165-190.
- Christensen, L. L., Russell, C. S., Miller, R. B., & Peterson, C. M. (1998). The process of change in couples therapy: A qualitative investigation. *Journal of Marital and Family Therapy*, *24*, 177-188.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)* Hillsdale, NJ: Lawrence Earlbaum Associates.
- Coie, J. D., Watt, N. E., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., Ramey, S. L., Shure, M. B., & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist*, *48*, 1013-1022.
- Cooper, G. (2007). Do therapists know the research? *Psychotherapy Networker*, *2* (March).
- Cordova, J. V., & Gee, C. B. (2001). Couples therapy for depression: Using healthy relationships to treat depression. In S. T. H. Beach (ed.), *Marital and family processes in depression: A scientific foundation for clinical practice* (pp. 185-203). Washington, DC: American Psychological Association.
- Crane, R. D. (2007). Research on the cost of providing family therapy: A summary and progress report. *Clinical Child Psychology and Psychiatry*, *12*, 313-320.
- Dattilio, F. M., Epstein, N. B., & Baucom, D. H. (1998). An introduction to cognitive-behavioral therapy with couples and families. In F. M. Dattilio (ed.), *Case studies in couple and family therapy. Systemic & cognitive perspectives* (pp. 1-36). New York: The Guilford press.
- Davila, J., Bradbury, T. N., Cohan, C. L., & Tochluk, S. (1997). Marital functioning and depressive symptoms: Evidence for a stress generation model. *Journal of Personality and Social Psychology*, *73*, 849-861.
- Davila, J., Karney, B. R., Hall, T. W., & Bradbury, T. N. (2003). Depressive symptoms and marital satisfaction: Within-subject associations and the moderating effects of gender and neuroticism. *Journal of Family Psychology*, *17*, 557-570
- Denton, W. H., Golden, R. N., & Walsh, S. R. (2003). Depression, marital discord, and couple therapy. *Current Opinion in Psychiatry*, *16*, 29-34.
- Derogatis, L. R., Lipman, R. S., & Covi, L. (1973). An outpatient rating scale – preliminary report. *Psychopharmacology Bulletin*, *9*, 13-28.

- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being. Three decades of progress. *Psychological Bulletin*, *125*, 276-302.
- Donovan, J. M. (1995). Short-term couples group psychotherapy: A tale of four fights. *Psychotherapy*, *32*, 608-617.
- Doss, B. D. (2004). Changing the way we study change in psychotherapy. *Clinical Psychology: Science and Practice*, *4*, 368-386.
- Doss, B. D., Thum, Y. M., Sevier, M., Atkins, D. C., & Christensen, A. (2005). Improving relationships: Mechanisms of change in couple therapy. *Journal of Consulting and Clinical Psychology*, *73*, 624-633.
- Dunlap, W. P., Cortina, J. M., Vaslow, J. B., & Burke, M. J. (1996). Meta-analysis of experiments with matched groups or repeated measures designs. *Psychological Methods*, *1*, 170-177.
- Dunn, R. L., & Schwebel, A. I. (1995). Meta-analytic review of marital therapy outcome research. *Journal of Family Psychology*, *9*, 58-68.
- Elliot, R., & Wexler, M. M. (1994). Measuring the impact of sessions in process - Experiential therapy of depression: The Session Impacts Scale. *Journal of Counseling Psychology*, *41*, 166-174.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, *196*, 129-136.
- Epstein, N. B., & Baucom, D. H. (2002). Addressing individual psychopathology, unresolved issues, and interpersonal traumas within couple therapy. In: N. B. Epstein & D. H. Baucom (eds.), *Enhanced cognitive-behavioral therapy for couples: A contextual approach* (pp. 441-473). Washington, DC: American Psychological Association.
- Escudero, V., Friedlander, M. L., Varela, N., & Abascal, A. (2008). Observing the therapeutic alliance in family therapy: associations with participants' perceptions and therapeutic outcomes. *Journal of Family Therapy*, *30*, 194-214.
- Falicov, C. J. (2003). Culture, society and gender in depression. *Journal of Family Therapy*, *25*, 371-387.
- Fals-Stewart, W., Birchler, G. R., Schafer, J., & Lucente, S. (1994). The personality of marital distress: An empirical typology. *Journal of Personality Assessment*, *62*, 223-241.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. (1995). *Structured clinical interview for DSM-IV axis I disorders – patient edition (SCID-I/P), (Version 2.0)*. New York: New York State Psychiatric Institute.

- First, M. B., Spitzer, R. L., Gibbon, M., Williams, J. B., & Benjamin, L. (1995). *Structured clinical interview for DSM-IV (SCID-II), (Version 2.0)*. New York: New York State Psychiatric Institute.
- Fitzmaurice, G. M., Laird, N. M., & Ware, J. H. (2004). *Applied longitudinal analysis*. Hoboken, New York: Wiley-Interscience.
- Flaskas, C. (2005). Psychoanalytic ideas and systemic family therapy: Revisiting the question 'Why bother?'. *Australian and New Zealand Journal of Family Therapy*, *26*, 125-134.
- Forthofer, M. S., Markman, H. J., Cox, M., Stanley, S. M., & Kessler, R. C. (1996). Associations between marital distress and work loss in a national sample. *Journal of Marriage & The Family*, *58*, 597-605.
- Framo, J. L. (1972). *Family interaction. A dialogue between family researchers and family therapists*. New York: Springer Publishing Company, Inc.
- Frank, J. D. (1974). Psychotherapy: The restoration of morale. *American Journal of Psychiatry*, *131*, 271-274.
- Friedlander, M. (2009). Addressing systemic challenges in couple and family therapy research: Introduction to the Special Section. *Psychotherapy Research*, *19*, 129-132.
- Friedlander, M. L., & Tuason, M. T. (2000). Processes and outcomes in couples and family therapy. In S. D. Brown & R. W. Lent (eds.), *Handbook of counseling psychology* (pp. 797-824). New York: Wiley.
- Garfield, S. L. (1994). Research on client variables in psychotherapy. In S. L. Garfield & A. E. Bergin (eds.), *Handbook of psychotherapy and behavior change* (4 ed., pp. 190-228). New York: Wiley.
- Gottman, J. (1999). *The marriage clinic. A scientifically based marital therapy*. New York: W. W. Norton & Company.
- Gottman, J. M. (1993). The roles of conflict engagement, escalation or avoidance in marital interaction: A longitudinal view of five types of couples. *Journal of Consulting and Clinical Psychology*, *61*, 6-15.
- Gottman, J. M. (1994). *What predicts divorce: The relationship between marital processes and marital outcomes*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gottman, J. M., Coan, J., Carrère, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family*, *60*, 5-22.
- Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology*, *10*, 243-268.

- Gottman, J. M., & Levenson, R. W. (1988). The social psychophysiology of marriage. In: P. Noller & M. A. Fitzpatrick (eds.), *Perspectives on marital interaction* (pp.183-200). San Diego: College Hill Press.
- Gottman, J. M., & Levenson, R. W. (1992). Marital processes predictive of later dissolution: Behavior, physiology, and health. *Journal of Personality and Social Psychology*, *63*, 221-233.
- Gottman, J. M. & Notarius, C. I. (2002). Marital research in the 20th century and a research agenda for the 21st century. *Family Process*, *41*, 159-197.
- Gottman, J., & Ryan, K. (2005). The mismeasure of therapy: Treatment outcomes in marital therapy research. In: W. M. Pinsof & J. L. Lebow (eds.): *Family Psychology. The art of the science* (pp. 65 – 89). New York: Oxford University Press.
- Greenberg, L. S., & Johnson, S. M. (1988). *Emotionally focused marital therapy*. New York: Guilford Press.
- Gupta, M., & Beach, S. R. H. (2005). Understanding and treating depression in couples. *Journal of Family Psychotherapy*, *3*, 69-83.
- Hahlweg, K., & Klann, N. (1997). The effectiveness of marital counseling in Germany: A contribution to health services research. *Journal of Family Psychology*, *11*, 410-421.
- Halford, W. K. (1997). Empirically validated psychological treatment: What does it mean in the domain of relationship problems? *Behaviour Change*, *14*, 9-14.
- Halford, W. K. (2001). *Brief couple therapy*. New York: Guilford.
- Halford, W. K. (2006). Strength in numbers: The couple relationship in adult therapy. *Behavior Change*, *23*, 87-102.
- Halford, W. K., Bouma, R., Kelly, A., & Young, R. M. (1999). The interaction of individual psychopathology and marital problems: Current findings and clinical implications. *Behavior Modification*, *23*, 179-216.
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (1993). A comparison of the generalization of behavioral marital therapy and enhanced behavioral therapy. *Journal of Consulting and Clinical Psychology*, *61*, 51-60.
- Heatherington, L., Friedlander, M. L., & Greenberg, L. (2005). Change process research in couple and family therapy: Methodological challenges and opportunities. *Journal of Family Psychology*, *19*, 18-27.
- Heene, E., Buysse, A., & Van Oost, P. (2003). A categorical and dimensional perspective on depression within a nonclinical sample of couples. *Family Process*, *42*, 133-149.

- Heene, E., Buysse, A., & Van Oost, P. (2005). Indirect pathways between depressive symptoms and marital distress: The role of conflict communication, attributions, and attachment style. *Family Process, 44*, 413-440.
- Heene, E., Buysse, A., & Van Oost, P. (2007). An interpersonal perspective on depression: The role of marital adjustment, conflict communication, attributions, and attachment with a clinical sample. *Family Process, 46*, 499-514.
- Hill, C. E., & Lambert, M. J. (2004). Methodological issues in studying psychotherapy processes and outcomes. In: M. J. Lambert (ed.), *Bergin and Garfield's Handbook of psychotherapy and behavior change* (5th ed., pp. 84-135). New York: Wiley.
- Hoffart, A., & Martinsen, E. W. (1991). Causal attributions in clinical subtypes of depression: A longitudinal study of inpatients. *Journal of Psychopathology and Behavioral Assessment, 13*, 241-256.
- Hoffart, A., & Sexton, H. (2002). The role of optimism in the process of schema-focused cognitive therapy of personality problems. *Behaviour Research and Therapy, 40*, 611-623.
- Hoffart, A., Sexton, H., Hedley, L. M., Wang, C. E., Holthe, H., Haugum, J. A., Nordahl, H. M., Hovland, O. J., & Holte, A. (2005). The structure of maladaptive schemas: A confirmatory factor analysis and a psychometric evaluation of factor-derived scales. *Cognitive Therapy and Research, 29*, 627-644.
- Hoffart, A., Versland, S., & Sexton, H. (2002). Self-understanding, empathy, guided discovery, and schema belief in schema-focused cognitive therapy of personality problems: A process-outcome study. *Cognitive Therapy and Research, 26*, 199-219.
- Holand, U., Hoxmark, E., & Martinussen, M. (2000). Klientenes vurdering av behandlingstilbudet ved Voksenpsykiatrisk poliklinikk i Tromsø. *Tidsskrift for Norsk Psykologforening, 37*, 724-731.
- Horowitz, L. M. (2004). The interpersonal view of psychopathology. In: L. M. Horowitz (ed.), *Interpersonal foundations of psychopathology* (pp. 253-263). Washington, DC: American Psychological Association.
- Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureño, G., & Villaseñor, V. S. (1988). Inventory of interpersonal problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology, 36*, 885-892.
- Horowitz, L. M., Wilson, K. R., Turan, B., Zolotsev, P., Constantino, M. J., & Henderson, L. (2006). How interpersonal motives clarify the meaning of interpersonal behavior: A revised circumplex model. *Personality and Social Psychology Review, 10*, 67-86.

- Jacobson, N. S., & Addis, M. E. (1993). Research on couples and couple therapy. What do we know? Where are we going? *Journal of Consulting and Clinical Psychology, 61*, 518-522.
- Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*, 12-19.
- Jenkins, H. (2006). Inside out, or outside in: Meeting with couples. *Journal of family therapy, 28*, 113-135.
- Jensen, P. (2006). Hvordan kan "den store psykoterapidebatten" påvirke forståelsen av familierapiforskningen? Hvilken terapeut har det beste tilbudet til hvilken klient? *Fokus på familien, 34*, 91-106.
- Jockin, V., McGue, M., & Lykken, D. T. (1996). Personality and divorce: A genetic analysis. *Journal of Personality and Social Psychology, 71*, 288-299.
- Johansson, H. (2009). Do patients improve in general psychiatric outpatient care? Problem severity among patients and the effectiveness of a psychiatric outpatient unit. *Nordic Journal of Psychiatry, 63*, 171-177.
- Johnsen, A. (1988). *En forløpsstudie av en gruppe familier tilbudt korttidsfamilierapi*. Monografi nr. 10. Norsk Psykologforening.
- Johnson, L. N., Ketring, S. A., Rohacs, J., & Brewer, A. L. (2006). Attachment and the therapeutic alliance in family therapy. *The American Journal of Family Therapy, 34*, 205-218.
- Johnson, S. (2003). The revolution in couple therapy: A practitioner-scientist perspective. *Journal of Marital and Family Therapy, 29*, 365-384.
- Johnson, S. M. (2005). Emotion and the repair of close relationships. In: W. M. Pinsof & J. L. Lebow (eds.): *Family Psychology. The art of the science* (pp. 91 – 113). New York: Oxford University Press.
- Johnson, S. M., Hunsley, J., Greenberg, L., & Schindler, D. (1999). Emotionally focused couples therapy: Status & challenges. *Clinical Psychology: Science & Practice, 6*, 67-79.
- Joiner, T. E. Jr. (2000). Depression's vicious scree: Self-propagating and erosive processes in depression chronicity. *Clinical Psychology: Science and Practice, 7*, 203-218.
- Jones, E. (1995). *Familierapi i systemperspektiv. Utviklingstendenser innen systemisk terapi etter Milano-modellen*. København: Dansk psykologisk Forlag.
- Karney, B. R. (2001). Depressive symptoms and marital satisfaction in the early years of marriage: Narrowing the gap between theory and research. In S. R. H. Beach (ed.), *Marital and family processes in depression* (pp. 45-68). Washington, DC: American Psychological Association.
- Kendall, P. C., & Grove, W. M. (1988). Normative comparisons in therapy outcome. *Behavioral*

- Assessment, 10*, 147-158.
- Kung, W. W. (2000). The intertwined relationship between depression and marital distress: Elements of marital therapy conducive to effective treatment outcome. *Journal of Marital and Family Therapy, 26*, 51-63.
- Kurdek, L. A. (2005). Gender and marital satisfaction early in marriage: A growth curve approach. *Journal of Marriage and Family, 67*, 68-85.
- Lambert, M. (2007). Presidential address: What we have learned from a decade of research aimed at improving psychotherapy outcome in routine care. *Psychotherapy Research, 17*, 1-14.
- Lambert, M. J., Bergin, A. E., & Garfield, S. L. (2004). Introduction and historical overview. In: M. J. Lambert (ed.), *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change* (5th ed., pp. 3-15). New York: John Wiley & Sons, Inc.
- Lambert, M. J., & Ogles, B. M. (2004). The efficacy and effectiveness of psychotherapy. In M. J. Lambert (ed.), *Bergin and Garfield's Handbook of psychotherapy and behavior change* (5th ed., pp. 139-193). New York: John Wiley & Sons, Inc.
- Larner, G. (2004). Family therapy and the politics of evidence. *Journal of Family Therapy, 26*, 17-39.
- Leff, J., Vearnals, C., Brewin, C. R., Wolff, G., Alexander, B., Asen, E., Dayson, D., Jones, E., Chrisolm, D., & Everitt, B. (2000). The London depression intervention trial. Randomized controlled trial of antidepressants v. couple therapy in the treatment and maintenance of people with depression living with partner: Clinical outcome and costs. *British Journal of Psychiatry, 177*, 95-100.
- Leichsenring, F. (2004). Randomized controlled versus naturalistic studies: A new research agenda. *Bulletin of the Menninger Clinic, 62*, 137-151.
- Lundblad, A-M., & Hansson, K. (2005a). Outcomes in couple therapy: Reduced psychiatric symptoms and improved sense of coherence. *Nordic Journal of Psychiatry, 59*, 374-380.
- Lundblad, A-M., & Hansson, K. (2005b). Relational problems and psychiatric symptoms in couple therapy. *International Journal of Social Welfare, 14*, 256-264.
- Lundblad, A-M., & Hansson, K. (2006). Couples therapy: Effectiveness of treatment and long-term follow-up. *Journal of Family Therapy, 28*, 136-152.
- MacFarlane, M. M. (2003). Systemic Treatment of Depression: An Integrative Approach. *Journal of Family Psychology, 14*, 43-61.

- Mahrer, A. R. (1997). Empathy as therapist-client alignment. In A. C. Bohart & L. S. Greenberg (eds.), *Empathy reconsidered: New directions in psychotherapy* (pp.187-213). Washington, DC: American Psychological Association.
- Markman, H. J., & Halford, W. K. (2005). International perspectives on couple relationship education. *Family Process, 44*, 139-146.
- Markman, H. J., Stanley, S. M., & Blumberg, S. L. (1994). *Fighting for your marriage: Positive steps for a loving and lasting relationship*. San Francisco: Jossey Bass, Inc.
- Matthews, L. S., Wickrama, K. A. S., & Conger, R. D. (1996). Predicting marital instability from spouse and observer reports of marital interaction. *Journal of Marriage and the Family, 58*, 641-655.
- McGue, M., & Lykken, D. T. (1992). Genetic influence on the risk of divorce. *Psychological Science, 3*, 368-373.
- Miller, S. D., Duncan, B. L., & Hubble, M. A. (2004). Beyond integration: The triumph of outcome over process in clinical practice. *Psychotherapy in Australia, 10*, 2-19.
- Ministry of Children and Equality (2008). [Barne- og likestillingsdepartementet], St.prp. nr. 1 (2008-2009).
- Modum Bad (2003-2007). *Strategiplanen for 2003-2007*. Internt dokument.
- Moum, T. (1998). Mode of administration and interviewer effects in self-reported symptoms of anxiety and depression. *Social Indicators Research, 45*, 279-318.
- Nichols, W. C. (1998). Integrative marital therapy. In: F. M. Dattilio (ed.), *Case studies in couple and family therapy: Systemic and cognitive perspectives* (pp. 233-256). New York: Guilford Press.
- Nordby, T. T., & Gude, T. (2003). Depresjonens betydning for utfall i parterapi. En forløpsstudie av innlagte pasienter ved Familieavdelingen, Modum Bad. *Fokus på familien, 31*, 90-104.
- Northey, W. F. (2009). Effectiveness research: a view from the USA. *Journal of Family Therapy, 31*, 75-84.
- Okkenhaug, J. L., & Piros, J. (1998). Familieavdelingen ved Modum Bads Nervesanatorium 30 år. *Fokus på familien, 26*, 195-200.
- Orlinsky, D. E., Rønnestad, M. H., & Willutski, U. (2004). Fifty years of psychotherapy process-outcome research: Continuity and change. In: M. J. Lambert (ed.), *Bergin and Garfield's Handbook of psychotherapy and behavior change* (5th ed., pp. 307-389). New York: Wiley.
- Pedersen, G. A. (2002). Norsk revidert versjon av Inventory of Interpersonal Problems – Circumplex (IIP-C). *Tidsskrift for Norsk Psykologforening, 39*, 25–34.

- Pedersen, G., Hagtvet, K. A., & Karterud, S. (2007). Generalizability studies of the Global Assessment of Functioning - split version. *Comprehensive Psychiatry*, *48*, 88-94.
- Pinsof, W. M. (1995). *Integrative problem-centered therapy. A synthesis of family, individual and biological therapies*. New York: Basic Books.
- Pinsof, W. M., & Catherall, D. R. (1986). The integrative psychotherapy alliance: Family, couple, and individual therapy scales. *Journal of Marital and Family Therapy*, *12*, 137-151.
- Pinsof, W. M., & Chambers, A. (2009). Empirically informed systemic psychotherapy: Tracking patient change and therapist behavior during therapy. In J. Bray & M. Stanton (eds.), *The Wiley-Blackwell handbook of family psychology* (pp. 431-446). New York: Wiley-Blackwell.
- Pinsof, W. M., & Lebow, J. L. (2005). A scientific paradigm for family psychology. In W. M. Pinsof and J. L. Lebow (eds.), *Family Psychology. The Art of Science* (pp. 3-19). New York: Oxford.
- Pinsof, W. M., & Wynne, L. C. (2000). Toward progress research: Closing the gap between family therapy practice and research. *Journal of Marital & Family Therapy*, *26*, 1-8.
- Pinsof, W. M., Wynne, L. C., & Hambright, A. B. (1996). The outcomes of couple and family therapy: Findings, conclusions, and recommendations. *Psychotherapy*, *33*, 321-331.
- Pinsof, W. M., Zinbarg, R., & Knobloch-Fedders, L. M. (2008). Factorial and construct validity of the Revised Short Form Integrative Psychotherapy Alliance Scales for Family, Couple, and Individual Therapy. *Family Process*, *47*, 281-301.
- Posavac, E. J., & Carey, R. G. (1992). *Program evaluation: Methods and case studies*. New Jersey, USA: Prentice Hall, Englewood Cliffs.
- Rabin, C. (1996). *Equal partners, good friends: Empowering couples through therapy*. London: Routledge.
- Robbins, M. S., Turner, C. W., Alexander, J. F., & Perez, G. A. (2003). Alliance and dropout in family therapy for adolescents with behavior problems: Individual and systemic effects. *Journal of Family Psychology*, *17*, 534-544.
- Roth, A., & Fonagy, P. (2005). *What works for whom?* (2nd ed.). New York: The Guilford Press.
- Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. Rolf & N. Garmezy (eds.), *Risk and protective factors in the development of psychopathology* (pp. 181-214). Cambridge: Cambridge University Press.
- Rønnestad, M. H. (2008). Evidensbasert praksis i psykologi. *Tidsskrift for Norsk Psykologforening*, *45*, 444-454.

- Sanders, M. R., Nicholsen, J. M., & Floyd, E. J. (1997). Couples' relationship and children. In: W. K. Halford & H. J. Markman (eds.), *Clinical handbook of marriage and couples intervention* (pp. 225-253). Chichester: Wiley.
- Schibbye, A-L. S. (2002). *En dialektisk relasjonsforståelse i psykoterapi med individer, par og familie*. Oslo: Universitetsforlaget.
- Schmaling, K. B., & Sher, T. G. (eds.) (2000). *The psychology of couples and illness*. Washington, DC: American Psychological Association.
- Segrin, C., & Dillard, J. P. (1992). The interactional theory of depression: A meta-analysis of the research literature. *Journal of Social & Clinical Psychology, 11*, 43-70.
- Sexton, T. L. (2007). The therapist as a moderator and mediator in successful therapeutic change. *Journal of Family Therapy, 29*, 104-108.
- Sexton, T. L., Alexander, J. F., & Mease, A. L. (2004). Levels of evidence for the models and mechanisms of therapeutic change in family and couple therapy. In: M. J. Lambert (ed.), *Bergin and Garfield's Handbook of psychotherapy and behavior change* (5th ed., pp. 590-646). New York: Wiley.
- Sexton, T. L., Coop-Gordon, K., Gurman, A. S., Lebow, J. L., Holtzworth-Munroe, A., & Johnson, S. M. (2007). Evidence-based treatments in couple and family psychology. *Report of the Task Force on Evidence-based Treatments in Family Psychology*. Division 43, Family Psychology American Psychological Association.
- Sexton, T. L., Kinser, J. C., & Hanes, C. W. (2008). Beyond a single standard: levels of evidence approach for evaluating marriage and family therapy research and practice. *Journal of Family Therapy, 30*, 386-398.
- Shadish, W. R., & Baldwin, S. A. (2002). Meta-analysis of marriage and family therapy. In D. H. Sprenkle (ed.), *Effectiveness research in marriage and family therapy* (pp. 339-370). Alexandria, VA: The American Association for Marriage and Family Therapy.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. New York: Houghton Mifflin Company. Alexandria, VA: American Association for Marital and Family Therapy.
- Simon, G. M. (2007). The heart of the matter: continuing the conversation. *Journal of Family Therapy, 30*, 100-103.
- Skauli, G. Ø. (2009). *Evidensbasert praksis i familievernet. En litteraturgjennomgang av forskning på parterapi*. Oslo: Barne-, ungdoms- og familiedirektoratet.

- Snyder, D. K., Mangrum, L. F., & Wills, R. M. (1993). Predicting couples' response to marital therapy: A comparison of short- and long-term predictors. *Journal of Consulting and Clinical Psychology, 61* (1), 61-69.
- Snyder, D. K., & Whisman, M. A. (2003). Understanding psychopathology and couple dysfunction. Implications for clinical practice, training, and research. In M. A. Whisman and D. K. Snyder (eds.), *Treating difficult couples. Helping clients with coexisting mental and relationship disorders* (pp. 419-438). New York: The Guilford Press.
- Snyder, D. K., Wills, R. M., & Grady-Fletcher, A. (1991). Long-term effectiveness of a behavioral versus insight oriented marital therapy. *Journal of Consulting and Clinical Psychology, 59*, 138-141.
- Solem, M-B., Tilden, T., Thuen, F. (2008). Å ta empirien på alvor: Er forskningsbasert kunnskap relevant for systemiske familiebehandlere? *Fokus på familien 36*, 88-106.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15-28.
- Spanier, G. B. (2001). *Dyadic adjustment scale (DAS). User's manual*. New York: Multi-Health Systems Inc.
- Spotts, E. L., Lichtenstein, P., Pedersen, N., Neiderhiser, J. M., Hansson, K., Cederblad, M., & Reiss, D. (2005). Personality and marital satisfaction: A behavioural genetic analysis. *European Journal of Personality, 19*, 205-227.
- Spotts, E. L., Neiderhiser, J. M., Towers, H., Hansson, K., Lichtenstein, P., Pedersen, N. L. & Reiss, D. (2004). Genetic and environmental influences on marital relationships. *Journal of Family Psychology, 18*, 107-119.
- Sprenkle, D. H. (2002). Editors's introduction. In D. H. Sprenkle (ed.), *Effectiveness research in marriage and family therapy* (pp. 9-25). Alexandria, VA: The American Association for Marriage and Family Therapy.
- Sprenkle, D. H. (2003). Effectiveness research in marriage and family therapy: Introduction. *Journal of Marital and Family Therapy, 29*, 85-96.
- Sprenkle, D. H., & Blow, A. J. (2004). Common factors and our sacred models. *Journal of Marital and Family Therapy, 30*, 113-129.
- Sprenkle, D. H., & Blow, A. J. (2007). The role of the therapist as the bridge between common factors and the therapeutic change: more complex than congruency with a worldview. *Journal of Family Therapy, 29*, 109-113.

- Stanley, S. M., Blumberg, S. L., & Markman, H. J. (1999). Helping couples fight for their marriages: The PREP approach. In: R. Berger & M. T. Hannah (eds.), *Preventive approaches in couples therapy* (pp. 279-303). Philadelphia, PA: Brunner/Mazel.
- Stanley, S. M., Bradbury, T. N., & Markman, H. J. (2000). Structural flaws in the bridge from basic research on marriage to intervention for couples. *Journal of Marriage and the Family*, *62*, 256-264.
- Stanley, S. M., Markman, H. J., & Whitton, S. W. (2002). Communication, conflict and commitment: Insights on the foundations of relationship success from a national survey. *Family Process*, *41*, 659-675.
- Sundet, J. M., Magnus, P., Kvalem, I. L., Samuelsen, S. O., & Bakketeig, L. S. (1992). Secular trends and sociodemographic regularities of coital debut age in Norway. *Archives of Sexual Behavior*, *21*, 241-252.
- Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review*, *1*, 2-30.
- Terman, L. M., Butterweiser, P., Ferguson, L. W., Johnson, W. B., & Wilson, D. P. (1938). *Psychological factors in marital happiness*. Stanford CA: Stanford University Press.
- Thuen, F. (1997). *Livet etter skilsmissem. Psykologiske reaksjoner på samlivsbrudd*. Universitetet i Bergen: Hemil rapport nr. 1.
- Thuen, F. (2003). Samlivsbrudd og psykisk helse: Forebyggende tiltak. *Tidsskrift for Norsk Psykologforening*, *40*, 12-22.
- Thuen, F. (2004). *Livet som deltidsforeldre*. Bergen: Fagbokforlaget.
- Torgersen, S. (1995). *Personlighet og personlighetsforstyrrelser*. Oslo: Universitetsforlaget.
- Wait, L. J., & Gallagher, M. (2000). *The case for marriage*. New York: Double Day.
- Wampold, B. E. (2001). *The great psychotherapy debate. Models, methods, and findings*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Weiss, R. L. (2005). A critical view of marital satisfaction. In W. M. Pinsof & J. L. Lebow (eds.), *Family psychology, the art of the science* (pp. 23-41). New York: Oxford.
- Weiss, R. L., Hops, H., & Patterson, G. R. (1973). A framework for conceptualizing marital conflict. In: L. A. Hamerlunck, L. C. Handy, & E. J. March (eds.), *Behavior change: Methodology, concepts, and practice* (pp. 229-271). Champaign, IL: Research Press.
- Wesley, S., & Waring, E. M. (1996). A critical review of marital therapy outcome research. *Canadian Journal of Psychiatry*, *41*, 421-428.

- Whiffen, V. E. (2005). Disentangling causality in the associations between couple and family processes and depression. In W. M. Pinsof & J. L. Lebow (eds.), *Family psychology: The art of the science* (pp. 375-395). New York: Oxford University Press.
- Whiffen, V. E., & Aube, J. A. (1999). Personality, interpersonal context and depression in couples. *Journal of Social and Personal Relationships*, 3, 369-383.
- Whisman, M. A. (2001a). Marital adjustment and outcome following treatments for depression. *Journal of Consulting and Clinical Psychology*, 69, 125-129.
- Whisman, M. A. (2001b). The association between depression and marital dissatisfaction. In S. R. H. Beach (ed.), *Marital and family processes in depression: A scientific foundation for clinical practice* (pp. 2-24). Washington, DC: American Psychological Association.
- Whisman, M. A., & Bruce, M. L. (1999). Marital dissatisfaction and incidence of major depressive episode in a community sample. *Journal of Abnormal Psychology*, 108, 674-678.
- Whisman, M. A., & Uebelacker, L. A. (2003). Comorbidity of relationship distress and mental and physical health problems. In: M. A. Whisman & D. K. Snyder (eds.), *Treating difficult couples. Helping clients with coexisting mental and relationship disorders* (pp. 3-26). New York: The Guilford Press.
- Wittchen, H-U. (1996). What is comorbidity – fact or artefact? *British Journal of Psychiatry*, 168 (suppl. 30), 7-8.
- Wright, J., Sabourin, S., Mondor, J., McDuff, P., & Mamodhoussen, S. (2006). The clinical representativeness of couple therapy outcome research. *Family Process*, 46, 301-316.
- Young, J. E. (2003). *The Young schema questionnaire: Short form*. New York: Schema Therapy Institute. Retrieved August 24, 2006, from <http://www.schematherapy.com/id55.htm>
- Young, J. E., & Brown, G. (2001). *Young Schema Questionnaire: Special edition*. New York: Schema Therapy Institute.
- Young, J., & Gluhoski, V. (1997). A schema-focused perspective on satisfaction in close relationships. In: R. J. Stenberg & M. Hojjat (eds.), *Satisfaction in close relationships* (pp. 356-381). New York: Guilford Press.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. New York: Guilford Press.

10. Appendix, Papers I - V

