Learning Psychotherapy: An Effectiveness Study of Clients and Therapists

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“Psychotherapeutic work is a therapist’s daily occupation, source of livelihood, and personal professional commitment. It involves listening and talking to patients, forming relationships with them, and exercising on their behalf the specialized training, skills, and capacities that therapists have acquired and refined over time.” (Orlinsky et al., 2005, p. 41)
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Abstract

**Background** Many psychotherapy studies with trainees have been conducted, but few have investigated how effective baseline trainee-led psychotherapies are. Baseline trainee-led psychotherapies are often provided by a professional education, and the therapists are often young, untrained and inexperienced. The present study was conducted at the Clinical Psychology Program at Umeå University, in Sweden. The psychology students were in their fourth or fifth year of, in total, five years, and few had practiced therapy before. Clients, students and education providers are interested in the outcome of trainee-led psychotherapies because clients want an effective treatment, and students and the educators want the best education. In research, there is an interest in knowing more about training, how training influences clients’ benefits of therapy, and how training works in regular activity. In the present thesis, we investigate questions related to outcome and how different training factors affect outcome. The overall purpose of the present thesis was to examine 1) the effectiveness of trainee-led therapies in a psychology education setting and 2) if clients’ self-image patterns would predict the outcome 3) if different training conditions covary with treatment outcome 4) how novices develop in their professional characteristics and work involvement styles.

**Methods and Result** The current thesis utilized data from the Swedish naturalistic study Effects of Student Therapies (EUT) at Umeå University. The EUT is a naturalistic psychotherapist research project, which comprises client data from 2003 to 2012. The present study included 235 clients. The mean age of the clients was 31 years ($SD = 9.66$), and 69% of the clients were women. The clients had mixed psychological symptoms and were well functioning. Psychological symptoms were measured by Symptom Check List 90 (SCL-90; Derogatis, Lipman, & Covi, 1973). The patients’ self-image was measured using the Structural Analysis of Social Behavior (SASB), the introject questionnaire (Benjamin, 1974). All therapists were students at the psychology program. In Paper III, 76 therapists participated. The therapists’ mean age was 28 years ($SD = 5.55$), and 71% of the therapists were women. Therapists’ professional characteristics and work involvement styles were measured by Development of Psychotherapists’ Common Core Questionnaire (DPCCQ; Orlinsky et al., 1999).

Four specific objectives have been addressed. The first objective was to investigate the overall effectiveness of treatment. In Papers I and II, the effect sizes implicated that the therapy outcome was moderate. Paper I showed that 67% of the clients were in the dysfunctional domain before therapy compared to 34% after completed therapy. Further in Paper I, it was
found that 42% of the clients had recovered or improved at the end of the therapy, but most of the clients remained unchanged (55%) and a few percent had deteriorated (3%). This result is in line with a Norwegian training study (Ryum, Stiles & Vogel, 2007) but less effective than effectiveness studies have shown with professional therapists (e.g. Hunsley & Lee, 2007). Paper II, where we used a subsample of Paper I’s clients, showed a similar result.

The second objective was to investigate if clients’ self-image pattern (attachment group, disrupted attachment group, self-control and self-autonomy) predicted change in psychological symptoms (GSI: global severity index) and personality symptoms (PSI: personality symptom index). The disrupted attachment group or the clients’ negative self-image had the strongest relationship to outcome and explained 8% vs. 10% in outcome (PSI vs. GSI). Self-control explained a further 3% (GSI) and 4% (PSI) of the result, and self-autonomy added 1% in both GSI and PSI. The result indicates that clients with an increased negative self-image, higher self-control, and lower level of self-autonomy before therapy improve more in both psychological symptoms and personality symptoms than clients with a less negative self-image, lower self-control, and higher level of self-autonomy.

The third objective was to explore if treatment duration (one or two semesters) and training condition (cognitive therapy and psychodynamic therapy) could affect basic psychotherapy outcome. Paper II demonstrated that clients in all training conditions, cognitive therapy two semesters (CT2), psychodynamic therapy one semester (PDT1) and psychodynamic therapy two semesters (PDT2), had significant changes in self-image patterns and symptoms, except for cognitive therapy one semester (CT1). Analyses using clinically significant change demonstrated that fewer clients in CT1 had recovered and reliably improved compared to the other training conditions (in CT1: 20-23%, in PDT1: 27-43%, in CT2: 49-54% and in PDT2: 35-41%). Two hierarchical multiple regression analyses demonstrated that clients’ pre-tests characteristics self-image pattern (affiliation: AFF) and psychological symptoms (global severity index: GSI) explained 34% of the results. Treatment duration and training condition demonstrated an interaction effect between duration and theoretical approach, explaining about 2%. The regression lines for self-image pattern AFF and psychological symptoms GSI showed that clients in CT2 and PDT1 improved more than clients receiving CT1 and PDT2.

The fourth objective was to examine how novice therapists in psychotherapy training develop in professional characteristics and work involvement styles (healing and stressful work involvement styles). The study was longitudinal and therapists were measured at session 2, 8, 16, 22 and endpoint. Mixed model analyses of the Development of Psychotherapists’ Common Core Questionnaire (DPCCQ) (when controlled
for therapists’ age and gender) showed that the therapists’ professional characteristics and work involvement styles changed positively over time in training, except for in-session feelings of anxiety and boredom. The therapists increased most in technical expertise and less in basic relational skill. The result also indicated that the students changed linearly over time.

**Conclusion** The present studies draw attention to the moderate outcome for clients in trainee-led psychotherapy. The novices appear to need time to increase in effectiveness possibly due to the high load of technical training in the beginning of the therapy. However, when exploring different training durations and training conditions, the contexts are shown to influence the outcome. In addition, clients with a more negative self-image pattern, with higher levels of self-control and lower levels of self-autonomy had better outcome, a finding with prognostic value. Finally, the training of students improves both a healing and a stressful involvement style, but in-session feelings of anxiety and boredom are more resistant to change.
List of Papers

This doctoral thesis is based on the following articles.


Abbreviations

ACT  Attachment and Commitment Therapy
ADIS-IV  Anxiety Disorder Interview Schedule
ANOVA  Analysis of Variance
AFF  Affiliation
BAI  Beck Anxiety Inventory
BDI  Beck Depression Inventory
CI  Confidence Interval
CBT  Cognitive Behavior Therapy
CT  Cognitive Therapy
CT1  Cognitive Therapy One Semester’s group
CT2  Cognitive Therapy Two Semesters’ group
DPCCQ  Development of Psychotherapists’ Common Core Questionnaire
DSM-IV  Diagnostic and Statistical Manual of Mental Disorders
ES  Effect Size
EUT  Effekter av Utbildningsterapi [Effects of Student Therapies]
GAF  Global Assessment of Functioning
GSI  Global Severity Index
IIP-64  Inventory of Interpersonal Problems 64
ISDP  The International Study of the Development of Psychotherapists
IDM  Integrative Developmental Model
MANOVA  Multivariate Analysis of Variance
MLM  Multilevel Model
PASW  Predictive Analytics Software
PDT  Psychodynamic Therapy
PDT1  Psychodynamic Therapy One Semester’s group
PDT2  Psychodynamic Therapy Two Semesters’ group
PSI  Personality Symptom Index
QOLI  Quality of Life Inventory
RCT  Randomized controlled trials
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<td>SASB</td>
<td>Structural Analysis of Social Behavior</td>
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<td>SCID-I</td>
<td>Structured Clinical Interview for DSM-IV Axis I Disorders</td>
</tr>
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<td>Symptom Checklist 90</td>
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<td>SD</td>
<td>Standard Deviation</td>
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<td>SE</td>
<td>Standard Error</td>
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<td>SPR</td>
<td>Society of Psychotherapy Research</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>WAI</td>
<td>Working Alliance Inventory</td>
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Sammanfattning på svenska (Summary in Swedish)

Att lära sig psykoterapi: En studie om effekter av klienter och terapeuter

Bakgrund

Syftet

Metoder
Den här studien har använt data från forskningsprojektet Effekter av utbildningsterapier (EUT), vid Umeå Universitet, i Sverige. Effekter av utbildningsterapier är ett naturalistiskt forskningsprojekt som har samlat in data från 2003 till 2012. Den här studien omfattar data från 2003 till 2010 och vi har inkluderat totalt 235 klienter i två studier. Medelåldern på...
klienterna var 31 år (SD = 9.66) och 69% var kvinnor. Klienterna hade en differentierad problematik men i huvudsak ångest-, depressions- och relationsproblem. Klienterna hade milda till moderata psykologiska symtom och de var välfungerande, ofta studenter. Psykologiska symtom mättes med självskaftnings formuläret Symptom Check List 90 (SCL-90; Derogatis et al., 1973). Klienternas självbild undersöktes med formuläret Structural Analysis of Social Behavior (SASB) introjekt formulär (Benjamin, 1974). Terapeuterna i Studie III (N = 76) hade en medelålder på 28 år (SD = 5.55) och 71% var kvinnor. Terapeuternas karaktäristika studerades med hjälp av instrumentet Development of Psychotherapists’ Common Core Questionnaire (DPCCQ; Orlinsky et al., 1999).

Resultat
Fyra huvudfrågeställningar undersöktes i den här avhandlingen. Den första frågeställningen om outcome besvarades i studie I och II, och resultatet visade att klienterna i träningsterapierna hade en moderat symtomminskning och en moderat förbättring av den affekta självbilden. I studie I beräknades att före behandlingen befann sig 67% av klienterna i en dysfunktionell domän och efter behandlingen, var det endast 34% av klienterna som uppskattades befinna sig i den dysfunktionella domänen. Klinisk signifikant förändring beräknat i studie I, visade att 42% av klienterna blev friska eller reliabelt bättre, de flesta klienterna förblev oförändrade (55%) och några få procent blev försämrade (3%). Detta är ett moderat resultat och ett något sämre resultat än vad fältstudier med professionella psykoterapeuter har erhållit.

Den andra frågeställningen undersökte om klienternas självbildsmönster (positiv och negativ självbild, själv-kontroll och själv-autonomi) kunde predicera förändring i psykologiska symtom (GSI: global severity index) och relationssymtom (PSI: personality symptom index). Klienter med en mer negativ självbild fick det bästa utfallet och förklarade 8% i PSI och 10% i GSI. Klientvaribeln själv-kontroll förklarade ytterligare 3% i GSI och 4% i PSI, samt själv-autonomi predicerade 1% i både GSI och PSI. Resultatet indikerade att klienter med en mer negativ självbild, med högre nivåer av själv-kontroll, och med lägre nivåer av själv-autonomi före terapin förbättrades mer i både psykologiska symtom och personlighetssymtom, än klienter med en mindre negativ självbild, lägre själv-kontroll och en högre grad av själv-autonomi.

Den tredje frågeställningen undersökte om behandlingslängd (en eller två terminer) och behandlingsmetod (kognitiv eller psykodynamisk terapi) kunde påverka resultatet i träningsterapierna. Studie II visade att det fanns skillnader mellan träningsförhållanden när man tog hänsyn till längd och metod i behandlingen. Det framkom att alla träningsförhållanden, kognitiv terapi två terminer (CT2), psykodynamisk terapi en (PDT1) och två terminer
(PDT2), fick signifikanta resultat av träningsterapier, men inte kognitiv terapi en termin (CT1). Klinisk signifikant förändring beräknades för de olika grupperna och färre klienter i CT1 gruppen var friska och reliabelt förbättrade efter behandling än i de andra grupperna CT1: 20- 23%, i PDT1: 27- 43%, i CT2: 49- 54% och i PDT2: 35- 41%. Två hierarkiska regressionsanalyser användes för att utforska om behandlingslängd och behandlingsmetoder kunde påverka resultatet. Båda regressionsanalyserna visade att klienternas initiala självbildsmönster och initiala symtom förklarade 34% av symtomen efter behandlingen. Detta stämmer med andra psykoterapatudier (t.ex. Lambert & Ogles, 2004) som visar att klientfaktorer spelar en stor roll för psykoterapiresultat. Behandlingslängd och behandlingsmetoder förklarade inte i sig själva något resultat men interaktionen mellan dem förklarade 2% av resultatet. Regressionsanalyserna visade att klienterna som behandlades i PDT1 och CT2 fick en mer positiv självbild och minskade mer i symtom än vad klienterna i CT1 och PDT2 gjorde. Genom en Ancova beräknades att klienterna i CT2 hade signifikant bättre resultat i den affektiva självbilden än klienterna i alla de andra träningsförhållandena. När det gäller psykologiska symtom beräknades att CT2 klienter hade färre symtom efter behandlingen än vad klienter i CT1 hade, men det var ingen signifikant skillnad mot PDT1 eller PDT2.

Den fjärde frågeställningen tog reda på hur studenter på den grundläggande psykoterapiutbildningen utvecklades i sin professionella karaktäristika och arbetsstil (läkande eller stressande arbetsstil). Detta undersöktes i studie III. Data från terapeuter samlades in vid session 2, 8, 16, 22 och vid avslut av terapin. Multilevel analysmodeller användes för att räkna ut hur och om terapeuterna utvecklades. Resultaten från DPCCQ visade att terapeuterna ökar sin läkande arbetsstil och minskar sin stressande arbetsstil under träningen. De utvecklades dock inte i ångest och utträkningskänslor som de kände under terapiesessionerna. Ett delresultat var att terapeuterna förbättrades mest i sin tekniska skicklighet och mindre i relationssförmågor. Resultatet indikerar också att terapeuterna utvecklas linjärt men ändå något mer under första delen av träningen om man jämför med den andra delen, dock är denna skillnad inte signifikant.

**Slutsatser**

Det verkar som klienterna på psykologprogrammet i Umeå, Sverige, får moderata resultat i terapin och detta ligger i linje med en norsk liknande studie på psykologprogrammet i Norge (Ryum et al., 2007). Resultatet är dock något lägre än vad som framkommit i större effectiveness studier med professionella terapeuter (t.ex. Hunsley & Lee, 2007). Detta kan ändå ses som relativt goda resultat då klienterna inte var så sjuka innan terapin och därmed inte hade potential att förändras så mycket.
En styrka med studien är att vi mätte både symtom och självbild eftersom olika perspektiv på förändring är viktigt. Självbildsförsämringar kan ses som en viktig intern förändring som bidrar till att klienten känner mening och ökar sitt positiva handlande gentemot sig själv och andra. Självbildsförsämringar och symtomförändringarna verkar i stort sett efterlikna varandra i förändringsmönster och forskning har visat att en mer negativ självbild också är relaterad till mer psykopatologi.

Studie I visade att klienter med en mer negativ självbild, högre nivåer av själv-kontroll och mindre nivåer av själv-autonomi är relaterad till ett bättre resultat i utbildningsterapier. En mer negativ självbild är relaterad till psykologiskt lidande och kan motivera klienten att göra något åt sina problem. En mer kontrollerande självbild kan hjälpa klienten att slutföra terapin, göra hemuppgifter och vara noggrann med hur terapin implementeras. Våra klienter hade milda till moderata symtom och var relativt välfungerande, det är inte säkert att vi skulle få dessa resultat om klienterna hade haft mer psykologiska symtom.

När vi undersökte effekten av behandlingslängd och träningsmetod visade det sig att CT2 och PDT1 fick större effekter än CT1 och PDT2. Dessa effekter kan tolkas på många sätt och en förklaring kan vara att tekniktränings är ett viktigt inslag i kognitiva terapier t.ex. agenda, hemarbete, konceptualisering och övningar. Terapeuterna i CT1 var kanske alltför upptagna av tekniktränings och fick därmed ett särre resultat än i CT2 där det fanns mer tid till både tekniktränings och fokus på klienten. Det är svårare att förklara varför PDT1 klienterna fick ett likartat resultat som klienterna i PDT2, men en förklaring kan vara att det beror på att terapeuterna i PDT1 bedriver en terapi där "common factors" t.ex. den terapeutiska relationen får stort utrymme och att klienterna där kände sig förstådda och därmed utvecklades positivt. Detta förhållningssätt tror vi inte räckte till i PDT2 då längre terapier ofta kräver mer av terapeuten, och möjligtvis fattades det mer specifikt till passande terapeutiska metoder, vilket traditionellt sett inte har praktiserats så ofta på grundläggande psykoterapiutbildningar. En annan förklaring kan vara att vi mätter en terapeuteffekt, terapeuterna i PDT1 kommer sen att tränas i CT2, så dessa terapeuter är kanske mer skickliga och/eller mer motiverade än terapeuterna i CT1 och PDT2. En motivationsfaktor skulle kunna vara att kognitiv beteende terapi, för tiden vid studien, var en eftertraktad terapiform pga. att det då efterfrågades evidensbaserade metoder i samhället och kognitiv terapi var mer förknippad med detta än vad psykodynamisk terapi var.

I studie III kom vi fram till att studentterapeuterna utvecklar sig positivt i både sitt läkande och i sitt stressande arbetssätt, men inte i ångest och utträkningskänslor under terapin. De upplever sig mer stödjande och effektiva och använder mer konstruktiva coping strategier efter terapitränningen. Dessutom känner de ett större självförtroende att de gör...
någon nytta för klienten. Det kan vara bekymmersamt att de få studenter som känner ångest och uttråkning, inte utvecklas i träningen. Negativa känslor från terapeuten har visat sig vara relaterade till en sämre allians mellan terapeut och klient och kan i förlängningen leda till ett sämre terapi-resultat. Här föreslår vi att utbildningar ska bli bättre på att ta upp dessa känslor tidigt i handledningen så att studenterna när det sen behövs, kan bearbeta och förhoppningsvis förändra dessa känslor. Resultatet visade också att terapeuterna utvecklades mest i sin tekniska skicklighet och lite mindre i sina relationsförmågor. Troligtvis var det lättare att utvecklas i tekniker än i relationsförmågor därför att studenterna upplevde sig ha lägre metodkunskaper före träningen, medan de skattade sig högre på relationsförmågor. I resultatet framkom även att terapeuterna utvecklades linjärt över tid, vilket motstrider de få teorier som beskriver en terapeut utveckling i stadier eller faser. Dock kan utvecklingsfaser ha ett annat tidsintervall än vad som uppmätts i denna studie och mer forskning behövs på området.
Introduction

The Usefulness of the Trainee-Led Psychotherapy Study

Relatively little is known about the efficacy in treatment outcome of inexperienced therapists carrying out psychotherapy under supervision. There is also a lack of knowledge about the characteristics of novices and how they develop during training. The focuses of the thesis is on the evaluation of the effectiveness of trainee-led therapies, if clients’ self-image patterns would predict the outcome, if different training conditions covary with treatment outcome, and to examine the therapists’ professional development in a 5-year clinical psychologist education at Umeå University, Sweden. The students are undergraduate students during their fourth and fifth year of the training.

A question raised is whether psychotherapy works equally well in routine clinical care compared to experimental conditions (e.g. Lambert et al., 2003) since the internal control is much lower in routine clinical care Effectiveness studies have been carried out to investigate this issue and a few reviews have been published (e.g. Hunsley & Lee, 2007; Shadish, Matt, Navarro, & Phillips, 2000; Stewart & Chambliss, 2009; Westbrook & Kirk, 2005). However, few studies have investigated inexperienced trainees during training (Lappalainen et al., 2007; Ryum et al., 2007; Solem, Hansen, Vogel, & Kennair, 2009; Öst, Karlstedt, & Widén, 2012). Research has shown that the therapist is an important factor (Crits-Christoph & Mintz, 1991; Huppert et al., 2001; Wampold, 2001; Wampold & Brown, 2005) and that the therapist effect on client outcome is larger for untrained and inexperienced therapists than for trained psychotherapists (Crits-Christoph & Mintz, 1991).

Moreover, there has recently been a growing interest in the study of therapists’ general professional development (Bennett-Levy & Beedie, 2007; Orlinsky & Rønnestad, 2005; Sharpless & Barber, 2009; Stoltenberg & McNeill, 2010) as well as an increasing awareness of the need to find answers to how psychotherapy training should best be organized (Boswell & Castonguay, 2007; Carlsson, 2011). The present thesis will contribute to this debate.

The introduction includes three themes and they will be presented in the following order: background information and research related to psychotherapy training, psychotherapy research and outcome, and an introduction about specific methods used in the thesis.
Psychotherapy Training

Psychotherapy Training in Sweden

Training of psychotherapists varies greatly across countries; therefore, a description of the structure of the Swedish system is presented. Psychotherapy training in Sweden is organized at a basic level and at an advanced level.

At the basic level, basic knowledge in psychotherapy is taught for a duration of 1.5 years on part-time basis. The training is provided by the state or at private institutes. Psychology programs that educate licensed psychologists and programs of psychiatric physicians are the only professional educations that provide the course as part of a study program; otherwise it is taught as a separate course. The basic level psychotherapy training is not regulated by law but is provided within an established praxis. Both psychotherapy theory courses and practical training with clients are elements of the course. The exam most often requires 120 hours of supervision in a small group (on the training with a client), 50 hours of individual therapy and individual exams on theory. The examina is influenced by the entry requirements for the advanced level.

The advanced level is the formal psychotherapist exam and extends over three years part-time. Some entry requirements for the advanced level (Swedish National Board of Health and Welfare, 2009) are an exam from a basic level psychotherapy training, a human service profession (psychologist, social worker, physician or other), and two years of psychotherapy practice under supervision. The right to provide the advanced level training is regulated by the government, and the most common approaches are psychodynamic and cognitive behavior therapy although there are a few others (behavior-, child-, family-, group- and systemic- therapy training and one integrative and affect focused training) (Samrådsforum, 2011). The trainings at the advanced level are provided at the University of Umeå, University of Uppsala, University of Linköping, University of Lund, University of Göteborg, and University of Linköping, University of Lund, University of Göteborg, and University of Stockholm and at the Karolinska institute/ Competence Center for Psychotherapy; it is also provided by some private institutes (Swedish National Board of Health and Welfare, 2009). The university based trainings are funded by the government but the private institutes charge the trainees for the costs. Common requirements for a license are fulfilled psychotherapy training with supervision (200 hours in a group), written reports related to the therapy, and video recordings of sessions, written theory papers and individual exams on theory along with individual psychotherapy for 75 hours.
**Definition of Novices**

The therapists in the present thesis are named novices, therapists, students and trainees. In the literature, novices are often named as novices even if they have plenty of experience as therapists (e.g. Santor & Kusumakar, 2001), and the therapists are often termed novices when they are trained in a new treatment. Orlinsky and Rønnestad (2005) defined novices as students that have practiced therapy less than 1.5 years and we consider this a more suitable definition. Some other special circumstances that characterize novice training are that the students work under supervision, and that the clients usually have fewer symptoms than clients at psychiatric out-patient clinics.

**Therapists’ Professional Development**

*What Characterizes Novices in Therapy?*

Orlinsky and Rønnestad (2005) investigated the development of psychotherapists in a large international cohort study. The sample was subdivided into cohorts depending on level of experience (novice, apprentice, graduate, established, seasoned and senior). The 534 novice psychotherapists (students with less than 1.5 years experience) had a mean age of 33 years, 70% were women, and approximately 50% of them were psychologists. A majority of all therapists felt highly committed, involved, skillful and effective but some characteristics separated the novices from the other cohorts. Orlinsky et al. (Orlinsky, et al., 2005) found that 61% of the novices felt somewhat confused in their practice. Confusion decreased across career cohorts but was also experienced by senior therapists (28%). Anxiety (Orlinsky et al., 2005) (in-session feeling) was reported significantly more often by the novices than in the other cohorts. This finding is similar to the high level of anxiety reported by novice therapists in a qualitative study of Rønnestad and Skovholt (2003). Orlinsky and Rønnestad (2005) also demonstrated that beginners (those with less than 5 years in practice) were consistently more likely than the other cohorts to find therapeutic work as a distressing practice (high stress and low healing involvement). Seasoned and senior therapists (those with more than 15 years in practice) were more likely to experience work with clients as an effective practice (low stress and high healing involvement), although, in all cohorts, the experience of an effective practice was the most common finding.
Theories about Psychotherapists’ Development in Training

An understanding of developmental theories is important when considering how novices become psychotherapists. Today, there are only a few developmental theories and there is little empirical support for the existing models (e.g. Rønnestad & Skovholt, 2003; Stoltenberg & McNeill, 2010). Both models that we describe here have some common features about novices in training. The models emphasize the therapists’ focus on themselves as a therapist, their anxiety, and their dependence on their supervisor. They also consider that there is so much to learn for a beginner and that the client is sometimes neglected. The models also highlight the high level of motivation and interest of the beginners.

Rønnestad and Skovholt (2003) have investigated one such psychotherapist development theory through a cross-sectional and longitudinal qualitative study of 100 counselors and therapists. They ended up with a six phase model and a formulation of 14 themes of therapist development. The six phases are the lay helper, the beginning student, the advanced student, the novice professional, the experienced professional, and the senior professional. Identified as central themes in the therapist development is, for example, shifts in attentional focus and emotional functioning, the importance of continuous reflection for professional growth, and a life-long personal/profession integration process. Here, a short description of the six phases is provided with the emphasis on the beginning student phase.

The lay helper phase is described as a phase of a pre-training period. The lay helper often identifies the problem quickly, provides strong emotional support and gives common sense advice based on one’s own experience. The helper’s feelings are natural or authentic when helping. Difficulties that the helper could feel are over-involvement and strong identification.

The authors described the beginning student phase as an exciting and intense challenging period for the student where theories, research, clients, professional elders, peers and the social environment in combination impact and sometimes overwhelm the beginner. The students doubt their ability to manage “this kind of work” and meeting their first client can be critical. They are often occupied by worry over perceived difficulties and have problems to concentrate, focus attention, cognitively process and remember what happened during the therapy session. The anxiety is most often calmed by the positive feedback from the supervisors and by explicit positive feedback from the clients. Negative feedback from the clients brings reactivity in the novice student and is a difficult situation to manage. Beginning students cling on to easily mastered straightforward therapy methods that can be absorbed quickly and hopefully can be applied on all clients. Another way of learning is to find models to imitate.
The advanced student phase is a phase at the end of training. The student or intern is working as a therapist at settings such as internship, practicum or field placement, and is receiving regular and formalized supervision. The aim in this phase is to function at a basic professional level but many students have higher ambitions and strive for perfection. A consequence is that interns often work in a conservative and cautious fashion and are not relaxed and spontaneous. The advanced student may still feel insecure and actively seek confirmation and feedback from seniors and peers.

The next phase, the novice professional phase encompasses the first years after graduation. For most therapists these years are experienced as intense and engaging. Free from the graduate school the new graduate can now, on his or her own, try out the validity of what was learned in training.

The experienced professional phase is described as the phase where the therapist has been practicing for a number of years and has had a wide variety of clients in different work settings. A central developmental task for most experienced therapists is to create a therapy role which is highly congruent with the individuals’ self-perceptions (including values, interests, attitudes), and which makes it possible for the practitioner to practice the competence in an authentic way.

The last phase, the senior professional phase, is a phase when the practitioner is a well established professional who is regarded as a senior by others (20 to 25 years experience). The transition for the experienced therapist is to become a guide for novices in the field, and this is welcomed by some and hesitantly welcomed by others.

The Integrative Developmental Model (IDM: Stoltenberg & McNeill, 2010) is another psychotherapist development model which is based on the mechanistic and organismic models. The mechanistic model adopts a natural science view of the world, which is reductionistic and regards change as continuous, additive, and quantifiable (Lerner, 1986). In the therapy context, this model views development as a continuous adding of skills and knowledge over time that eventually leads to expertise. The organismic model reflects more complex qualitative changes over time. This theory relies on the model of epistemological constructivism, in which the organism plays an important role in constructing knowledge and reality (Baltes, Reese, & Nesselroade, 1977). Stoltenberg and McNeill (2010) summarize that these models together conclude that therapists improve skills and increase knowledge over time.

The IDM model is here shortly described. According to Stoltenberg and McNeill (2010), the model has three levels of development. Each level of development has three overriding structures that provide markers in assessing professional growth. These structures are self- and other-awareness, cognitive and affective, and motivation and autonomy. At level 1,
therapists are typically highly motivated but have limited relevant experience, and their background knowledge is usually limited to an introduction to theories and techniques. Learning new skills, theories and strategies result in considerable confusion and anxiety. At this level, cognitive self-focus or attempt to tap this new information for use in working memory leaves little attentional capacity to consider the client’s perspective. One study (Hale & Stoltenberg, 1988) indicated that this self-focus tends to elicit significant anxiety in the trainee, which can complicate the therapeutic work. Concern about incompetence, a sense of lack of control, or confusion is common and can induce anxiety, fear or sadness. This can motivate a desire to learn or it can lead a trainee to fall back on familiar ways of interacting with people. Novices tend to be considerably dependent on the supervisor which is an appropriate response to their lack of knowledge and experience. When trainees learn more and become more confident the trainee moves into level 2. Here, the awareness switches from the trainee’s own thoughts and performance toward a focus on the client. When the awareness changes from self-preoccupation, the trainee has more attention available for the client, and can begin to more fully understand the client’s world. This shift can confuse the trainee. A trainee in late level 1 position can have a simplistic view of the client and clinical processes, and now these processes may seem complex and overwhelming. The trainee now needs to listen more carefully to the client and the supervisor stimulates more exploration and disclosure. When attending more completely to the client, the trainee becomes more emotionally aware of the clients feelings. This can add considerable depth to the trainees understanding of the client or the trainee can be emotionally overwhelmed. At this level, the trainee longs for more autonomy but still has the need of supervision, and this can lead to a dependency-autonomy conflict. As the level 2 therapist transitions to level 3, more feelings of competence and control will appear, and at the same time a more responsible and autonomous way emerges. The level 3 therapist is more stable, autonomous, and reflective than therapists at earlier levels. The increased experience, reflection on this experience, practice and supervision has enabled the therapist to move toward greater expertise with more functional awareness of the therapy process. Thus, the therapist’s work becomes more efficient and the trainee has a greater understanding of the self as psychotherapist. The trainees can now alternate the focus on the client and themselves, whatever is needed. The motivation is more stable, and therapist’s behavior more congruent and aware, and in synthesis with the self. Once the therapist has reached level 3 in a number of clinical activities, for example, client conceptualization and intervention skill competence, the integration and generalization of this knowledge will continue from one domain to others. All the levels identify important aspects of the
development into a professional psychotherapist, including improved skills and constructive coping, and less perceived difficulties.

**Psychotherapy Research and Outcome**

**Clients’ Outcome in Trainee-Led Therapy**

*Is Psychotherapy Training Worth the Bother?*

Psychotherapy studies have in general included therapists and paraprofessionals with different levels of training. Further, it has been shown that the outcome is influenced by the level of the training and experience.

The first meta-analysis investigating the effectiveness of trained vs. untrained therapists was performed by Durlak in 1979 and included 42 studies. Durlak found that the training had no effect, and that paraprofessionals without training produced equal or better results than professionals. The strongest support for the effectiveness of untrained therapists came from programs directed at the modification of college students’ and adults’ specific target problems, and to a lesser extent, from non-middle-class adults. However, Durlak did not control for training and clinical experience of therapists. Hattie, Sharples, and Rogers (1984) tried to perform a more sophisticated review of the empirical research and came to the same conclusion as Durlak, i.e. that training had no effect. Berman and Norton (1985) criticized the Hattie et al. (1984) study for being unreliable and they excluded 11 problematic studies of the 43 original studies (e.g. the classification of untrained and trained therapists was ambiguous and some of the untrained therapists were, for example, trained social workers). They concluded that trained and untrained therapists were generally equal in effectiveness. Other meta-analyses researchers found the same result (Christensen & Jacobson, 1994; Stein & Lambert, 1984) in that training made no difference. However, in later reviews (Atkins & Christensen, 2001; Stein & Lambert, 1995) where studies were included with more refined methods, another result was presented. Stein and Lambert (1995) reviewed 36 studies and found differences in outcome with different levels of training and experience. They limited the area of therapy to psychotherapy, excluding such things as vocational counseling and academic advice related to, for example, educational problems or learning difficulties. Experience and training were defined in years, and training in levels of education in psychotherapy. A modest but fairly consistent treatment effect size was associated with the training level for a number of measures of client improvement. The effect was strongest for the clients’ report of satisfaction. In addition, the results showed that therapists with less training tended to
have more therapy drop-outs than trained therapists. Atkins and Christensen (2001) reviewed the research literature on the effectiveness of untrained and trained therapists on client outcome, and concluded that existing evidence supports the efficiency of untrained therapists. However, trained therapists were shown to have better outcome in specific areas, such as greater client retention, briefer therapies, and better overall well-being of the clients. The authors discussed methodological difficulties and highlighted well-designed individual studies, for example, Strosahl, Hayes, Bergan, and Romano (1998) who found that trained therapists needed fewer sessions than untrained therapists to reach the same outcome. Another study (Thompson, Gallagher, Nies, & Epstein, 1983) showed that clients’ overall functioning improved more with trained therapists than when psychotherapy was performed by trainees. Thus, the current state of the art is that the more trained therapists have better outcome than untrained.

**The Effect of Trainee-Led Psychotherapy**

There are many empirical studies on training in psychotherapy, described, for example, in Rakovshik and McManus (2010) review, but few have investigated novices with no previous training or experience in psychotherapy. We found four effectiveness studies that are comparable to ours (Lappalainen et al., 2007; Ryum et al., 2007; Solem et al., 2009; Öst et al., 2012) (Table 1). Lappalainen et al. (2007) compared outcome of manualized cognitive behavior therapy (CBT) with acceptance and commitment therapy (ACT) using 14 novice therapists (mean age = 26 years) that were treating 28 undiagnosed clients at a university clinic in Finland. All therapists performed both CBT and ACT. The length of the therapy was around 10 sessions. The novices received 20 hours of theory lessons and 30 hours of supervision in group (3 hours/week). The novice therapists received better results with ACT (a large effect) than with CBT (a small effect). See Table 1 for all trainee studies and results.

Ryum et al. (2007) evaluated treatment effectiveness in 117 outpatients with varying diagnoses at a university clinic in Norway. The therapists were novice students ($n = 117$, 71 % women) at the psychology program. Ryum et al. (2007) described the therapies as eclectic because there had been no requirements for manuals, but the approaches were mainly cognitive, humanistic and psychodynamic. The treatment was planned to reach 15 hours or one semester, but some continued up to 40 hours. The novices received supervision for one hour/week. The therapy had a moderate positive effect for all clients (Table 1), both in symptom (Symptom Check List: SCL-90; Derogatis et al., 1973) and in relationship problems (Inventory of Interpersonal problems: IIP-64; Horowitz, Alden, Wiggins, & Pincus, 2000). For the total sample, the effect sizes was small ($ES = .48$ in SCL-90;
ES = .38 in IIP-64), and clinically significant change showed that 26% of the client had recovered or improved in psychological symptoms and 18% had a clinically significant change in relationship problems and no clients deteriorated. For those clients with affective symptoms (more comparable to our clients) the outcome was higher but still small to moderate (ES = .63 in SCL-90; ES = .37 in IIP-64), and 39% had significantly recovered or improved in psychological symptoms and 14% in relationship problems.

Solem et al. (2009) investigated CBT outcome of 21 obsessive compulsive clients at a university clinic in Norway. The 10 therapists were novice students (mean age = 22, 50% women) at the psychology program. The average number of sessions was 17 and the students received sessions of two hours group supervision (60 hours in total) and one individual hour (30 hours in total) every week. Moderate to large effect sizes were obtained for symptoms and depression (Table 1). The large effect size was obtained with therapist rated assessment (Severity Scale of ADIS-IV; Brown, DiNardo & Barlow, 1994). Sixty-two percent of the clients achieved a clinically significant change on the Obsessive Compulsive Inventory Revised (OCI-R; Foa et al., 2002).

Öst with colleagues (2012) analyzed the outcome of 591 outclients at a psychologist training clinic in Sweden. The clients had mainly anxiety or depression disorders and received CBT treatments for on average 18 sessions. The 294 novice therapists had a mean age of 32 years and were mainly women (69%). The students received in total 120 hours supervision in group and every student received individual supervision of 30 minutes per week. The effectiveness was moderate to large on the symptom outcome measurements used, see table 1. Percentage of clients who had a clinically significant change were 63% as measured by the Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) and 60% as measured by the Beck Depression Inventory (BDI; Beck & Steer, 1987).

In summary, these four studies show a mixed result of novice-led therapies. An observation is that studies using specific manualized treatments (Lappalainen et al., 2007; Solem et al., 2009; Öst et al., 2012) received larger outcome than the study with the eclectic approach (Ryum et al., 2007), with the exception of the CBT approach in Lappalainen et al. (2007) study. However, the Lappalainen and colleagues (2007) study had a small number of clients and few sessions in every condition, and should therefore be interpreted with caution.
Table 1
Outcome of Trainee-led Therapies

<table>
<thead>
<tr>
<th>Study</th>
<th>N clients</th>
<th>Diagnosis</th>
<th>Treatments</th>
<th>Effect Size (pre-post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lappalainen et al., 2007</td>
<td>28</td>
<td>Mixed problems</td>
<td>CBT and ACT</td>
<td>ACT: SCL-90, $d = 1.11$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CBT: SCL-90, $d = .36$</td>
</tr>
<tr>
<td>Ryum et al., 2007</td>
<td>117</td>
<td>Mixed</td>
<td>Eclectic (CT, PDT and humanistic)</td>
<td>SCL-90, $d = .48$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IIP-64, $d = .38$</td>
</tr>
<tr>
<td>Solem et al., 2009</td>
<td>20</td>
<td>Obsessive compulsive disorder</td>
<td>CBT</td>
<td>BDI, $d = .76$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Clinical Severity Scale of ADIS-IV, $d = 2.90$</td>
</tr>
<tr>
<td>Öst et al., 2012</td>
<td>591</td>
<td>Mixed</td>
<td>CBT</td>
<td>BAI, $d = .98$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BDI, $d = .74$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>QOLI, $d = .57$</td>
</tr>
</tbody>
</table>

Note. Abbreviations of treatments: ACT = Attachment and Commitment Therapy, CT = Cognitive Therapy, CBT = Cognitive Behavior Therapy, and PDT = Psychodynamic Therapy. Abbreviations of measurements: ADIS-IV = Anxiety Disorder Interview Schedule (Brown et al., 1994), BAI = Beck Anxiety Inventory (Beck et al., 1988), BDI = Beck Depression Inventory (Beck & Steer, 1987), IIP-64 = Inventory of Interpersonal Problems 64 (Horowitz et al., 2000), SCL-90 = Symptom Check List 90 (Derogatis et al., 1973) and QOLI = Quality of Life Inventory (Frisch, Cornell, Villaneuva, & Retzlaff, 1992).

Factors Affecting Therapy Outcome

The therapy outcome can be affected by different factors related to the client, therapist, therapy process, context, and the interaction between these (Crits-Christoph et al., 2007). Since there is less research about how these factors affects novice therapists, a short review of the state of knowledge, independent of training, is provided.

Clients’ Factors

Some important client factors that impact the therapy outcome are the clients’ problem and functional level. Today, there is a lot of research on client factors but it is difficult to determine its importance. Petry, Tennen and Affleck (2000) argue that this is so because research methods, settings
and measurement instrument have varied so much in different studies, which makes it difficult to compare them. Crits-Christoph et al. (2007) argued that the variations in outcome depend on the factors used in the study and whether they correlate. To summarize some more consistently found relationships between client factors and outcome are as follows: high severity of symptoms (e.g. Ryum et al., 2007), low functional capacity (e.g. Sotsky et al., 1991) and comorbidity (Clarkin & Levy, 2004) have a negative correlation with outcome. Other client variables that are connected to positive outcome are high expectancies, high readiness to change, good ego strength (Clarkin & Levy, 2004) and positive self-image patterns (e.g. Björck, Clinton, Sohlberg, & Norring, 2007).

**How Clients’ Self-image Pattern Affects Outcome**

Client’s self-image pattern has been shown to be an important predictor of treatment result (Björck et al., 2007; Granberg, Armelius, & Armelius, 2002; Halvorsen & Monsen, 2007; Harder, 2006; Svartberg, Seltzer, & Stiles, 1996). Björck and colleagues (2007) found that clients, who had a more negative self-image pre-treatment, had a poorer outcome (end state) three years later than those with a more positive self-image pattern. Self-hate was found to be the most important predictor, followed by occupational status, interpersonal relationships, eating disorder symptoms, self-autonomy, and general psychiatric symptoms. These variables explained 23% of the outcome, of which 11% pertained to a negative self-image and 3% to self-autonomy. Granberg et al., (2002) found that a more negative self-image and higher levels of self-control before treatment predicted a greater change in psychological symptoms for both psychotic and non-psychotic clients. A more negative self-image pattern pre-treatment explained 19% of the outcome. Halvorsen and Monsen (2007) examined how different pre-treatment self-image patterns affected outcome in a heterogeneous out-patient sample. Clients with a more negative self-image before therapy showed the greatest symptom reduction, but also clients with elevated pre-treatment levels of self-control revealed substantial changes. Harder (2006) predicted relief of psychotic symptoms with the perceived best and worst state of the self-image at pre-treatment. She found that clients with a more positive self-image at their best state have a better remission from psychotic symptoms. Svartberg et al. (1996) found that 13 clients with mainly anxiety diagnoses, and had high levels of self-control changed significantly during the treatment. In summary, self-image patterns appear to be an important factor for change in therapy; a negative self-image at pre-test is related to the greater improvements in therapy. Further, self-control has been shown to be associated with symptom decrease (Granberg et al., 2002; Halvorsen & Monsen, 2007).
Therapists’ Factors

Factors related to the therapist and their influence on the clients’ outcome in therapy are quite unknown (Beutler, 1997). However, some important factors were therapists’ competence, training and experience (Beutler et al., 2004; Stein & Lambert, 1995). Stein and Lambert (1995) suggest that it is problematic to show that training influences the therapy outcome because the training often covaries with age, experience, competence and other factors. However, even if it is problematic to show that therapist factors affect the result, therapists are differently skilled to practice therapy (Beutler, 1997; Blatt, Sanislow, Zuroff, & Pilkonis, 1996; Wampold, 2001; Wampold & Brown, 2005). Wampold compared the specific treatment effect and the therapist effect, and concluded that the specific effect did not impact the therapy result when the researcher was controlling for the therapist effect. The therapist factor is, however, not a static condition; the variance accounted by the therapists can decrease through training (Crits-Christoph & Mintz, 1991) and supervision (Atkins & Christensen, 2001).

How Treatment Duration Affects Outcome

Treatment duration has been measured by dose-response research. Dose-response methodology was originally used in the biological sciences but has also been useful in psychotherapy (Howard, Kopta, Krause, & Orlinsky, 1986). It answers the important question: ‘How much therapy is really enough?’ Dose-response research considers the impact on treatment effects of various doses of treatments, which in psychotherapy usually are the number of sessions, (e.g. Hansen, Lambert, & Forman, 2002; Howard et al., 1986; Lambert, Hansen, & Finch, 2001).

The research of dose-response studies started with the exploration of the relationship between the length of time a client spent in therapy and the quality of change the client experienced (Cartwright, 1955; Johnson, 1965; Seeman, 1954; Standal & van der Veen, 1957). Later research found a relationship between more time in therapy and greater treatment outcome (e.g. Orlinsky & Howard, 1978; Steenbarger, 1994). Further, a review (Orlinsky, Grabe, and Parks, 1994) demonstrated that 64% of 156 studies showed a significant positive relationship between time and symptom relief, 32% showed no association, and 6% found a negative relationship. According to Hansen et al. (2002), one of the first to define “dose” as a session of therapy and “response” as the measured outcome was Howard et al. (1986), and the first study to use clinically significant change as the outcome measure was the study of Kopta, Howard, Lowry, and Beutler (1994). Kopta et al. (1994) also showed that different symptoms improved at different
rates, such as acute symptoms, chronic symptoms and characterological symptoms required 5, 14 and 104 sessions, respectively, for a 50% response.

When it comes to dose-response studies with trainees, there are some indications that more untrained therapists need longer time to reach the same outcomes as clients in professionally led therapies (Callahan & Hynan, 2005; Kadera, Lambert, & Andrews, 1996). Thus, it is therefore important to explore the effect of time on outcome.

**Evaluation of Treatment**

**Efficacy and Effectiveness**

Studies measuring clients’ outcome of therapy have been called efficacy or effectiveness studies. The difference between *efficacy* and *effectiveness* studies is that they belong to diverse research methods (Lambert & Ogles, 2004). Efficacy studies are used in evidence based research with clinical trials and are often practiced in a research clinic allowing high control in the study. Such high control is derived from randomization of clients to treatment or control groups, a relatively homogeneous sample of clients recruited specially for the study, the use of therapists trained on specific therapy manuals and the use of adherence forms (Hunsley & Lee, 2007; Lambert & Ogles, 2004). Effectiveness studies are instead used in routine practice or in disseminations studies. Routine studies or dissemination studies typically investigate if randomized controlled trials (RCT) treatments are equally effective in routine care, whether clients and therapists in RCTs are representative for the typical clinical practice or if the use of manualized treatment is necessary (Hunsly & Lee, 2007). Typically, dissemination studies have not preselected clients, treatment dose is not controlled and therapist adherence is most often not monitored (Dennhag, Gibbons, Barber, Gallop, & Crits-Christoph, in press; Lambert & Ogles, 2004). The foci in the different types of methods are disparate. In efficacy studies, the focus is on minimizing threats to the internal validity. In effectiveness studies, the focus is placed on maximizing external validity while maintaining an adequate level of internal validity (Hunsley & Lee, 2007). Other design elements, such as training of therapists, are used in both efficacy and effectiveness studies. Paper I and II is embedded in the effectiveness tradition. These studies are systematic evaluations of treatments in naturalistic settings, where the inclusion criteria are wide and the treatment conditions are less specified.

Today, some effectiveness meta-analyses (e.g. Hunsley & Lee, 2007; Stewart & Chambliss, 2009) and large effectiveness studies have been conducted (e.g. Hansen et al., 2002; Westbrook & Kirk, 2005). These studies indicate that effectiveness studies investigating specific treatments (Hunsley & Lee, 2007; Stewart & Chambliss, 2009; Westbrook & Kirk, 2005) have
larger improvement outcome than studies investigating a broad area of treatments (Hansen et al., 2002). See Table 2 for clients’ pre-post outcome in some large effectiveness studies (Hansen et al., 2002; Westbrook & Kirk, 2005) and meta-analyses (Hunsley & Lee, 2007; Stewart & Chambless, 2009).
<table>
<thead>
<tr>
<th>Study</th>
<th>N clients or studies</th>
<th>Diagnosis</th>
<th>Treatments</th>
<th>Outcome (pre-post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hansen et al., 2002</td>
<td>&gt;6000 adult clients</td>
<td>Mixed</td>
<td>Mixed</td>
<td>35% improved or recovered</td>
</tr>
<tr>
<td>Hunsley &amp; Lee, 2007</td>
<td>35 studies</td>
<td>Adult disorders (n=21)</td>
<td>CT or CBT</td>
<td>Depression: 51% improved or recovered</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child disorders (n=14)</td>
<td></td>
<td>Panic Disorder/Agoraphobia: 63% improved or recovered</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Generalized anxiety disorder: 52% improved or recovered</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Obsessive-compulsive disorder: 64% improved or recovered</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Social phobia: moderate to large effects</td>
</tr>
<tr>
<td>Stewart &amp; Chambless, 2009</td>
<td>56 studies</td>
<td>Various anxiety disorders</td>
<td>CT or CBT</td>
<td>Uncontrolled effect sizes: .92-2.59</td>
</tr>
<tr>
<td>Westbrook &amp; Kirk, 2005</td>
<td>1276 adult clients</td>
<td>Various anxiety, depressive, and eating problems</td>
<td>CBT</td>
<td>BDI: 47.9% improved or recovered</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BAI: 49.5% improved or recovered</td>
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<td></td>
<td></td>
<td></td>
<td>Uncontrolled effect sizes, BAI: .52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BDI: .67</td>
</tr>
</tbody>
</table>

*Note.* Abbreviations of treatments: CT = Cognitive Therapy and CBT = Cognitive Behavior Therapy. Abbreviations of measurements: BAI = Beck Anxiety Inventory (Beck et al., 1988) and BDI = Beck Depression Inventory (Beck & Steer, 1987).
Medical versus Contextual Model

A longstanding debate in psychotherapy research is whether outcome depends on specific ingredients in specific psychotherapy approaches or if outcome is caused by contextual factors such as the client, the therapist or the relationship between them. The status of the debate lies outside the scope of this thesis but some of the background models for this debate are provided here.

Wampold (2001) describes a psychotherapeutic meta-theory including the medical and the contextual models. These models try to explain why psychotherapies are helpful beyond specific psychotherapy theories, and are a philosophical way of describing the outcome. According to Wampold (2001) the medical model has five components: Client disorder, problem or complaint, a psychological explanation for the disorder, a mechanism of change, specific therapeutic ingredients and specificity. A client with a disorder, problem or complaint is the first component of the medical model of psychotherapy. The similarity to the physical medical system is the symptoms/syndromes and diagnoses in Diagnostic and Statistical Manual of Mental Disorders (e.g. DSM-IV, American Psychiatric Association, 1994). The second component is the psychological explanation for the disorder, problem or complaint. The various psychotherapy approaches offer many alternative explanations for the problem. For example, depression can be due to maladaptive thoughts (cognitive therapy) or a lack of positive reinforcement (behavior therapy), unconscious conflicts (psychodynamic) or problems related to interpersonal relations (interpersonal therapy). The third component of the medical model is the mechanism of change. The theoretical mechanism of change or the rational for the change in the different approaches are, for example, cognitive therapists alter maladaptive thoughts, behavior therapists increase the positive reinforces by reinforcement, and psychodynamic therapists make the unconscious conscious. The fourth component is the specific therapeutic ingredients (specific interventions) that are most often described in manuals. The fifth and last component is specificity, which emphasizes that the specific ingredients are assumed to be responsible for client change or progress toward therapeutic goals.

According to Wampold (2001), the contextual models focus on contextual factors of the psychotherapy process. One of the contextual models is developed by Frank and Frank (1991) and consists of four components. The first is the relationship with a helping person, for example, the therapist. The second component is the healing setting, where the client meets a helper that the client trusts and believes can help him or her. The third component is the rationale or myth that provides a plausible explanation for the problem and a solution for them. The rationale needs to be accepted by the client but is not
by definition true. The final component is a ritual or procedure that requires active engagement from both the client and the therapist based on the rationale. Frank and Frank (1991) also discussed six elements that are common to the rituals used by all psychotherapists: a) a good relationship between the therapist and the client combats the client’s alienation; b) the therapist helps the client to keep positive expectations by providing hope for recovery; c) the client experiences something new in therapy; d) the client’s feelings are aroused as a result of the therapy; e) the therapist enhances the client’s sense of mastery in self-efficacy; and f) the therapist offers opportunities for practice.

It is important to emphasize the status of techniques in the medical and in the contextual model (Wampold, 2001). In the medical model, the specific techniques are necessary for the outcome. In the contextual model, the specific techniques are necessary to construct a coherent treatment that therapists have faith in and that provides a convincing explanation to clients.

**Common and Specific Therapeutic Factors**

Common factors or nonspecific factors are those factors that are commonly found in all psychotherapy methods regardless of specificity (Lambert & Ogles, 2004). The factors common to most therapies (such as expectation for improvement, warmth and attention, understanding and encouragement) should not be considered as theoretically inert or trivial. Indeed, these factors are central to psychotherapeutic change and play an active role in client improvement (e.g. Norcross, 2010; Norcross & Wampold, 2011; Wampold, 2001). The contextual model relies heavily on common factors such as agents of change.

Specific factors are those factors that are seen as unique for any psychotherapy approach (such as restructuring maladaptive thoughts in cognitive therapy). These specific factors or specific techniques have been operationalized through therapy manuals. The manuals were developed together with specific treatments for a special diagnosis and the movement of empirically supported treatments. The movement of evidence-based therapies and manuals are based on the assumption that specific interventions are largely responsible for client improvement (Lambert & Ogles, 2004). The medical model relies on specific factors such as agents of change.

Although there are a large number of psychotherapies, each containing its own rationale and specified techniques, there is little evidence to suggest the superiority of one school over another (Lambert & Ogles, 2004). Effectiveness studies comparing alternative therapy approaches (Stiles, Barkham, Mellor-Clark, & Connell, 2008), meta-analyses (Cuijpers, van
Straten, Andersson, & van Oppen, 2008; Leichsenring, 2001), and reviews (e.g., Wampold, 2001) suggest that therapies tend to be equally effective. However, Lambert and Ogles (2004) suggest that the general finding of no difference in the outcome of therapy usually involve highly diverse therapies and, thus, the null findings could have a number of alternative explanations: (a) different psychotherapies can achieve similar goals through different processes; (b) different psychotherapies contents common factors that are curative; and (c) different results do occur but are not detected by past research strategies. Lambert and Ogles (2004) also state that at this point in time any of the above explanations could be true as there is not enough evidence for knowing.

Specific Methods

The Theory behind Structural Analysis of Social Behavior

The Structural Analysis of Social Behavior (SASB; Benjamin, 1974, 1982, 1987, 1993, 1996a, 2000; Benjamin, Rothweiler, & Critchfield 2006) model is used in Papers I and II; therefore, a more thorough description of the theory behind is provided here. The concept of self-image used in the present thesis is embedded in the tradition broadly termed interpersonal psychology and has been operationalized in the SASB model and instrument. The advantage of the SASB model is that it can be applied for a description of the problem as well as for measuring outcome. Benjamin et al. (2006) described how SASB can be used to measure the problem, the treatment and the outcome in the therapeutic work. In the studies reported in this thesis, clients' intrapsychic problems were measured through the introjected self-image and the effect of the therapy was analyzed in terms of change in the self-image and also in symptoms.

The SASB model has its base in object relations theory and the theory of the interpersonal circumplex models (Benjamin, 1993). The object relations theory has contributed to the SASB model with the attachment and the differentiation perspective. Sullivan (Sullivan, 1953) investigated the attachment between parents and children and found that an infant had a basic need for emotional contact with other human beings. He argued that the safest route to security was through the positive attention from a significant other and that the child felt anxiety when the emotional contact was disturbed. Harry Stack Sullivan developed the idea that the individual’s personality or self is affected by the interaction with significant others. Gradually, the child learns through, the contact with significant others that his/her reactions generate different responses from the caregivers. These experiences form the early perception of me. Behaviors that generate positive response are forming the positive me (“good me”), while behaviors
that generate negative feelings are forming the negative me ("bad me"). Behaviors that generate too much anxiety could be perceived as ("not me"). The child’s self is formed through repetitive interpersonal circles where the child acts and perceives the responses from the significant others.

Another important theory for the SASB model is the object relations theory. The psychoanalyst Margaret Mahler (Mahler, 1968) has contributed to the theory and wrote about the concept of “individuation” or “differentiation”. Mahler noted that the child first attaches to the mother and then separates from her in an ambivalent way. If the mother is enough loving and secure, this results in a stable and friendly sense of the self as a separate being from the mother. Mahler focused on love (attachment) and differentiation (independence), whereas Sullivan emphasized on love (emotional contact) and power as the basis of the organization of personality (Benjamin, 1993). Both Sullivan and Mahler saw the human being as basically sociable.

The theory behind the interpersonal circumplex model SASB was mainly based on the works of Harry Stack Sullivan (1953), Henry Murray (Murray, 1938), Timothy Leary (Leary, 1957), and Earl Schaefer (Schaefer, 1965) but also the two earliest research team should be honored (Freedman, Leary, Ossorio, and Coffey, 1951; LaForge, Leary, Naboisek, Coffey, & Freedman, 1954). Inspired by Sullivan, Leary argued that interpersonal behavior should be the basis for psychiatric diagnosis instead of symptoms. Leary utilized Murray’s list of human needs, reduced them and arranged them in a circular form. He thereby proposed a complete interpersonal diagnostic system. This was the first publishing of the Interpersonal circumplex (IPC). Leary (1957) contributed with the basic dimensions Affiliation (hate vs. love; horizontal axis) and Control (submission vs. dominance; vertical axis) to the interpersonal circle. Also Schaefer (1965) contributed to the circumplex model. His empirical research suggested that a parental axis was added. He conducted interviews with mothers in their homes, and with children about their parents’ behavior, and he collected teachers’ ratings of classroom behavior. Schaefer’s version differed from Leary’s model in that it designates autonomy as the opposite of control, rather than submission. The horizontal axis of the model, e.g. hate-love, was maintained.

Later, Lorna Smith Benjamin (Benjamin, 1974) refined Leary’s (1957) and Schaefer’s (1965) circles by developing a three-circumplex model of personality – Structural Analysis of Social Behavior (SASB). The SASB model has a highly explicit structure which defines behavioral opposites, complements and antidotes. Built on the two axes of affiliation and interdependence, the model describes dyadic social interactions in terms of complementary principles. Benjamin (1996b) wrote that the patterns of personality are set by early social learning. Parents, important siblings, or other significant individuals reinforce the patterns out of personality by one
or more of three copy processes. These copy processes are: (1) to identify with your caregiver (identification), (2) to act if your caregiver is still there (recapitulation), and (3) to treat yourself as did your caregiver (introjection). This model involves three surfaces or foci, based on the copy processes, and the model is more complex than the models previously described. According to Benjamin (1974, 1993, 2003), a friendly and moderately controlled or moderately autonomous behavior is normal. It represents an optimal self-image in relation to others. Interpersonal maladaptive problem patterns are characterized by more negative de-attached behaviors, that are rigid and inflexible (Benjamin, 2003). They are accompanied by unpleasant affects and maladaptive cognitive styles. Problem patterns also include extremes of controlling and autonomy behaviors.

**The Theory behind Development of Psychotherapists’ Common Core Questionnaire**

The measurement Development of Psychotherapists’ Common Core Questionnaire (DPCCQ; Orlinsky & Rønnestad, 2005) was used in Paper III, therefore, a summary of the theory behind it is given here. The inventors of the DPCCQ questionnaire wanted to develop an instrument that measured the therapists’ experiences of relating to clients as a helping relationship have a healing influence on the client (Orlinsky, Rønnestad, & Willutzki, 2004). To investigate how the therapists describe themselves, the researchers from the Collaborative Research Network of the Society for Psychotherapy Research (SPR) used the model of Leary (Leary, 1957) and rated relational adjectives. Leary’s (1957) model was circumplex as described above, with two orthogonal bipolar axis, one horizontal (affiliation: hate vs. love) and one vertical (control: submission vs. dominance). The social solidarity (affiliation) and the social hierarchy (control) are viewed as the basic coordinates of interpersonal behavior with great parallels to the analysis of social structure offered by sociologist Emile Durkheim (1897/1951, 1893/1964).

Behavior expressing positive affiliation is generally warm and friendly, and behavior expressing negative affiliation is cold and critical, and the horizontal midpoint is neutrality. The behavior for dominance-control is authoritative and directive, and the behavior for expressing compliance-submission is obedient and receptive with a midpoint of independence.

Other influences to the questionnaire have come from Mihaly Csikszentmihalyi (1990, 1996) who made theoretical and empirical analyses of optimum experience and intrinsic motivation. The researcher distinguished three basic subjective states depending on the relative balance of challenge and skill a person can experience in a particular situation. Feelings of anxiety increase if the skill is insufficient for the situation.
Feelings of boredom are expected to increase if a situation fails to challenge a person’s skills. The optimum state of experience is when a situation matches the person’s skill.

When the researchers of the Collaborative Research Network of the SPR (Orlinsky & Rønnestad, 2005) created the items of difficulties and coping strategies they relied on two qualitative studies (Davis, Elliott et al., 1987; Davis, Francis, Davis, & Schröder, 1987). They assumed that difficulties in practice often arise when the challenges in skills become too difficult. When skills fail, or when therapists are unsure how to use them, difficulties in practice are experienced. The researchers also wrote that when difficulties occur in practice, the therapists may rely on a variety of coping strategies, intentionally or unintentionally, helpful or not.

The researchers of the SPR network (Orlinsky & Rønnestad, 2005) investigated higher order factors by factor analyses and identified two broader factors of therapeutic work experience: healing involvement and stressful involvement. Healing involvement is characterized by high levels of self-estimated relational skills such as the ability to communicate empathy and concern to the client, and to use constructive coping when difficulties arise. On the other hand, stressful involvement contains the experience of frequent difficulties in practice such as frustrating treatment cases and negative personal reactions, and a use of unconstructive coping strategies. All therapists experience both healing involvement and stressful involvement at the same time, but the degree varies across therapists and across time. These factors have been shown to have adequate reliability and validity in the large international study by Orlinsky and colleagues (2005), and in other studies (e.g. Nissen-Lie, Monsen, & Rønnestad, 2010).

The Aims and Hypothesis of the Thesis

The overall aim of this thesis was to examine 1) the effectiveness of trainee-led therapies in a psychology education setting, 2) if clients’ self-image patterns would predict the outcome 3) if different training conditions covary with treatment outcome and 4) how novices develop in their professional characteristics and work involvement style. To accomplish this, four explicit objectives and a number of hypotheses have been formulated.

1) The first objective was to measure treatment outcome, defined as psychiatric symptoms and self-image pattern affiliation, for clients participating in baseline psychotherapy conducted by untrained and inexperienced students. This issue was addressed in Papers I and II.

The hypothesis was that there would be some positive effect in treatment outcome of baseline therapies.
(2) The second objective was to investigate if clients’ self-image patterns would predict the outcome, defined as change in psychiatric symptoms and relationship symptoms. This issue is addressed in Paper I.

The hypotheses were that a negative self-image would be the most important predictor of change in symptoms, and that self-control would be related to greater improvement during therapy.

(3) The third objective was to explore if training duration (one or two semesters) and training conditions (cognitive therapy or psychodynamic therapy) affect treatment outcome, defined as psychiatric symptoms and self-image pattern affiliation, for baseline psychotherapy conducted by novices. This issue was addressed in Paper II.

The first hypothesis was that training duration would be valuable in both training conditions and that more time would lead to better outcome.

The second hypothesis was that training condition would be less important and that the training conditions would produce equal outcomes.

(4) The fourth objective was to examine how novice therapists in baseline training in psychotherapy would develop in professional characteristics and work involvement style. This issue is addressed in Paper III.

The first hypothesis was that novices as a group should experience themselves as becoming more involved in healing involvement and less involved in stressful involvement over time.

The second hypothesis was that technical expertise would improve more than basic relational skills.
Methods

Effects of Psychotherapists in Training

The present thesis uses data from the Swedish study Effects of Student Therapies (EUT) at Umeå University. Clients were recruited through the Psychology Clinic, a non-institutional care psychotherapy clinic offered by the Department of Psychology at Umeå University. The clinic involves clinical psychology students, teachers, researchers, professional clinical psychologists and, last but by no means least, clients seeking help. The Psychology Clinic is an integrated part of the 5-year undergraduate clinical psychology program. The students are at the fourth or fifth year during the psychotherapy training.

Participation in the study was based on informed and signed consent. The project was reviewed and approved by the Swedish regional ethical review board. Enrollment of clients took place from 2003-2010 in two steps. During the first step, 2003-2008 (data presented in Papers I and II), students collected data in a course at the psychology program: the Quality Assurance course. This semester, semester 5 out of 10, was divided into three separate courses: Quality Assurance (5 weeks full time), Psychotherapeutic Procedures: Theory (15 weeks full time), and Student Therapy (one hour once a week for 50 hours). During the Quality Assurance course, students were introduced to the methods used to evaluate therapy, and then applied these techniques at the clinic. In addition, professional psychologists at the clinic assessed some of the data at intake. At the second step, 2008-2010 (data used in Paper III), the research project EUT started and the researchers in the project, who were also psychologists, collected most of the data.

The students performed therapy, starting at the 7th semester and continuing until the 10th and final semester. A semester had a duration of 22 weeks, either during the spring or fall. The Psychology Clinic gave the students clinical training in both psychodynamic and cognitive behavior therapy. Students treated one client once a week for 50 minutes, and the sessions were continued either one or two semesters depending on what was agreed upon in the initial client contract. Sessions were, in general, video recorded so that the student could review each session either individually or with a supervisor. The students had a total of 120 hours of supervision during the education and it consisted primarily of weekly meetings where a group of 3-4 students met a supervisor to discuss the ongoing treatments. The small groups were kept constant throughout the education so that the
students could learn from the other members in the group. The supervisors were specialists in one approach and only supervised in that method.

**Design**

During 2003-2008 the research design was a pre-post longitudinal study and most of the data were collected by students at a Quality Assurance course; some backgrounds data were collected by the regular staff at the clinic. This data assessment was not planned as a research project but in 2008 the data were subsumed to EUT. The quality assurance course used the measurements Structural Analysis of Social Behavior (SASB: Benjamin, 1974) and Symptom Checklist (SCL-90; Derogatis et al., 1973) pre and post therapy. In 2008 a more intense research project started with Helene Ybrandt, PHD, as a project leader. Appendix I presents an illustration of the 2008 year’s research design. The EUT is a naturalistic longitudinal psychotherapy study with a self-referred sample of out clients from the Psychology Clinic at Umeå University. The clients completed a core battery of questionnaires at pre-treatment and during treatment (at session 2, 8, 16, 22, at the end of the therapy and at follow-up). Table 3 shows the research design of Papers I, II, and III.

Table 3

*Design of Papers I, II and III.*

<table>
<thead>
<tr>
<th>Papers I and II</th>
<th>Pre-therapy</th>
<th>Post-therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Intake</td>
<td></td>
</tr>
<tr>
<td>Client Background</td>
<td>SASB</td>
<td>SASB</td>
</tr>
<tr>
<td>Paper III</td>
<td>Sessions</td>
<td>Post-therapy</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Therapist</td>
<td>DPCCQ</td>
<td>DPCCQ</td>
</tr>
<tr>
<td></td>
<td>background</td>
<td>DPCCQ</td>
</tr>
</tbody>
</table>

*Note.* Abbreviations of measurements: DPCCQ = Development of Psychotherapists’ Common Core Questionnaire; SASB = Structural Analysis of Social Behavior; SCL-90 = Symptom Checklist 90.
Participants

Clients

Papers I (N=235) and II (N=187) contained mostly the same clients. See Table 4 for the characteristics in both studies. The reason for excluding clients in Paper II was that 35 clients had therapists in both training conditions and 13 clients had incomplete data. All clients usually came to the clinic by signing up on a website referred by either one of the clinic’s network partners, referred by a friend or acquaintance that had previously received treatment at the clinic, or found their own way to the website. No problem was too small to be considered for treatment but clients with severe eating disorders, severe depressive problems, suicidal problems, chronic problems, severe comorbidity problems, or low functional level were excluded at intake. The clients were between 18 and 70 years of age. Clients were considered to have a mild to moderate level of psychological symptoms and were well functioning. Most of the clients were students because the clinic was located on campus. The cost of the treatment was one-fifth of the ordinary price due to the education circumstance.
Table 4

*Pre-treatment Characteristics of Clients*

<table>
<thead>
<tr>
<th></th>
<th>Paper I (N=235)</th>
<th>Paper II (N=187)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD) %</td>
<td>M (SD) %</td>
</tr>
<tr>
<td>Women</td>
<td>69%</td>
<td>71%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>30.57 (9.66)</td>
<td>30.62 (9.49)</td>
</tr>
<tr>
<td>Main problem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>33%</td>
<td>31%</td>
</tr>
<tr>
<td>Depression</td>
<td>31%</td>
<td>30%</td>
</tr>
<tr>
<td>Relationship problems</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>Other</td>
<td>24%</td>
<td>23%</td>
</tr>
<tr>
<td>Dysfunctional group for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCL-90 GSI Cut off .62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCL-90</td>
<td>.91 (.51)</td>
<td>.93 (.52)</td>
</tr>
<tr>
<td>SASB (AFF)</td>
<td>234.17 (554.70)</td>
<td>220.73 (569.71)</td>
</tr>
<tr>
<td>SASB (AUT)</td>
<td>-245.51 (311.19)</td>
<td>-255.22 (312.67)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/Cohabitant</td>
<td>51%</td>
<td>48%</td>
</tr>
<tr>
<td>Single</td>
<td>49%</td>
<td>52%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Secondary school</td>
<td>26%</td>
<td>27%</td>
</tr>
<tr>
<td>Higher education</td>
<td>71%</td>
<td>70%</td>
</tr>
<tr>
<td>Other education</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Work situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>52%</td>
<td>52%</td>
</tr>
<tr>
<td>Paid work</td>
<td>37%</td>
<td>37%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Sick leave</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

*Note.* Clients in Paper II are also in Paper I.

*Comparisons of the study samples with the group of clients with only pre-test data*

The Psychology Clinic treated around 220 clients every year during 2003 to 2008, so Paper I contained approximately 20% of the clients at the clinic. Pre-test data for clients who participated in the quality assurance course (N=621) were available. Independent t-tests and one chi-square test (gender)
between the study sample from Paper I (N=235) and clients with only pre-test (N=386) showed that the clients in Paper I were representative for the larger group (Table 5), with the exception of age. Most of the clients with only pre-test, were not asked to participate in the post-test, since the post-tests were not included in the quality assurance course in the first years. There were no significant differences in self-image pattern (AFF, AUT) or psychological symptom (GSI) between the samples, except for age. However, the magnitude of the difference was small (Age ES = .22; ES = effect size). Cohen (1988) defines effect sizes >.20 to <.50 as indicating a small effect. Paper II’s clients were also compared with the clients with only pre-test. Paper II’s clients differed significantly in age (the same as in Paper I) but no other differences were significant.

Table 5
Comparisons of the Pre-treatment Characteristics between Clients in Papers I and II, and Clients with only Pre-test.

<table>
<thead>
<tr>
<th></th>
<th>Clients with only pre-test data (N=386)</th>
<th>Clients in Paper I (N=235)</th>
<th>Clients in Paper II (N=187)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD) %</td>
<td>M (SD) %</td>
<td>M (SD) %</td>
</tr>
<tr>
<td>Women</td>
<td>72%</td>
<td>69%</td>
<td>71%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>28.64 (8.36)</td>
<td>30.57 (9.66)</td>
<td>30.62 (9.49)</td>
</tr>
<tr>
<td>SCL-90 GSI</td>
<td>.92 (.53)</td>
<td>.91 (.51)</td>
<td>.93 (.52)</td>
</tr>
<tr>
<td>AFF</td>
<td>164.11 (575.73)</td>
<td>234.17 (554.70)</td>
<td>220.73 (569.71)</td>
</tr>
<tr>
<td>SASB</td>
<td>-237.92 (320.59)</td>
<td>-245.51 (311.19)</td>
<td>-255.22 (312.67)</td>
</tr>
</tbody>
</table>

Note. ** = p < .01.

Therapists

All therapists were students at the psychology program; see Table 6 for some of the characteristics. The students could choose one semester of one approach, and two semester of another approach (CT or PDT). One semester was approximately 22 weeks but most students could practice therapy, at most, for approximately 16 weeks for any semester due to educational circumstances (e.g. preparations). The students selected to be trained longer in what they found to be the most interesting therapeutic approach. Every student treated one client in every approach. There is no additional data on the students in Papers I and II but we know by experience as teachers and by conditions in the Swedish psychotherapist system that the students were
mostly inexperienced and untrained in psychotherapy. The students had an internship at semester 6 (three months) at the psychology program and some of the students had practiced counselling with a few clients. In Paper III (N=76) more data were collected of the therapists. The clinical experience for Paper III's students within the current psychology program was four months (SD=4.11); the overall clinical experience of consultation was nine months (SD=8.06) and they had had in total seven client cases (SD=5.92) covering consultation. The students were all native Swedes. The therapists in Paper III did not differ significantly from therapists in Papers I and II in terms of age and gender.

Table 6

Pre-treatment Characteristics of Therapists

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M (SD)</td>
<td>%</td>
<td>M (SD)</td>
<td>%</td>
</tr>
<tr>
<td>Women</td>
<td>69%</td>
<td>66%</td>
<td>71%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>29.52 (5.01)</td>
<td>29.49 (5.00)</td>
<td>28.16 (5.55)</td>
</tr>
<tr>
<td>Range of age</td>
<td>23-46</td>
<td>23-46</td>
<td>23-51</td>
</tr>
</tbody>
</table>

Note. Therapists in Paper II are also in Paper I.

Attrition

Attrition could be a challenging issue for outcome research because not all clients who are assigned to treatment completed their participation in the study. Mason (1999) found that most researchers can expect nearly 20% of their sample to withdraw or have to be removed as a necessity from the study before it is complete. There are two common ways to handle attrition and that is to calculate with completer data or to do an intent-to-treat analysis (Kendall, Holmbeck, & Verduin, 2004). Completer data is when outcome analyses are run on the completers of the therapy and intent-to-treat analyses is when computations are run on all clients who participated at the time of randomization or had the intention to participate and, thus, were pre-tested. Researchers (Eddy, Dutra, Bradley, & Westen, 2004; Hunsley & Lea, 2007) have reported that intent-to-treat analyses will yield poorer outcome data, approximately 10%, than completer data.

In the present thesis, in Papers I and II, we had poor control over how many of the clients who intended to participate in the Quality Assurance course so we made completer analyses of those clients who had two measurement points, i.e. pre and post. Even if we did completer analyses some clients dropped out earlier than planned. In Paper I (N=235), 11 clients (5%) dropped out from treatment at different time points (Mean sessions=...
4.9 ($SD=5.0$, range 1 to 15.). When we compared the total completer data from data with drop-outs, there was no difference, i.e. 30% showed clinical significant change compared to 30% as measured by SCL-90 GSI. In Paper II ($N=187$), 9 clients (5%) dropped out from treatment (Mean sessions= 5.1 ($SD=4.4$, range 1 to 15). Total completer data did not differ much from data with drop-outs, i.e. 29% were clinical significant changed compared to 28% in SCL-90 GSI. The result may be due to few drop outs and that the reason for the drop outs was not deterioration but was mostly due to changes in the clients' life situation.

We believe that the attrition rate in our studies was representative for the Psychology Clinic since about 5% of the clients usually drop out when they have started treatments. The clients at the clinic were well-informed at intake about the education circumstances, and the most uncertain clients dropped out or were excluded at intake.

Data sets

The Normative Samples

Two Swedish normative samples were used for the calculation of clinically significant change and for comparisons. The normative sample for SASB AFF consisted of 52 subjects, 54% were females, mean age was 33 years with a range of 20 to 56 years (AFF mean (SD) = 665.07 (391.24); Armelius & Granberg, 2000). The normative sample for SCL-90 GSI consisted of 1016 subjects, 73% were females, with a range of 18 to 63 years (Fridell, Cesarec, Johansson & Malling Thorsen, 2002). All subjects were either working or studying and none had any known psychiatric diagnoses when tested (GSI mean (SD) = .40 (.38).

Measurements

The Clients’ Measurements

Symptom Check List 90 (SCL-90)

The SCL-90 questionnaire consists of 90 items (Derogatis et al., 1973) that are grouped into subscales representing nine primary symptom dimensions: somatization, obsessiveness, social insecurity, hostility, phobic anxiety, depression, anxiety, paranoia, and psychotism. Respondents rate to what extent they have experienced each symptom in the past 7 days on a 5-point Likert scale. Each item is answered on a scale between “not at all” (scale point 0) to “very much” (scale point 4). Two indices were used in the present
dissertation: the Global Severity index (GSI) and the Personality Symptom Index (PSI). Global Severity index is the mean score of all responses and measure overall psychological distress. The internal reliability for GSI was shown to be excellent in a Swedish population ($\alpha = .97$; Fridell et al., 2002), and it was also high in the present studies (Papers I and II $\alpha = .91$, Paper III $\alpha = .97$). Personality Symptom Index (PSI) discriminates between clients with different degrees of severity of personality disorder (Karterud et al., 1995) and between clients with and without personality disorders (Fridell et al., 2002). It is the mean score of three subscales: Social Insecurity, Hostility and Paranoia. The internal reliability of PSI in Paper I was good ($\alpha = .78$).

**Structural Analysis of Social Behaviour (SASB)**

Papers I and II used the Swedish version of the long form of SASB (INTREX: INTERpersonal analysis and treatment, an X vowel is added to make it readable) introject (Benjamin, 1974; Benjamin et al., 2006). Respondents answer how they typically act toward themselves. In the SASB model the introject, or the self-image, is measured by 36 items which are rated on a scale between “do not agree” (scale point 0) to “perfect agreement” (scale point 100). The 36 items may be grouped into eight clusters: Self-Autonomy, Self-Affirm, Self-Love, Self-Protection, Self-Ignorance, Self-Hate and Self-Blame with 4 or 5 items in each cluster. In Paper I, clusters Self-Autonomy, Self-Affirm and Self-Love were combined in an Attachment Group (AG). Self-Ignorance, Self-Hate and Self-Blame were clustered in a Disrupted Attachment Group (DAG). In Paper II, the clusters were combined to the orthogonal dimensional scores Affiliation (AFF) and Autonomy (AUT), which are the sum of weighted cluster scores where the weights are set with reference to their position in the model (Pincus, Newes, Dickinson, & Ruiz, 1998). We used the AFF score as an outcome variable in Paper II because it is sensitive to change and has proven to be more normally distributed than other indexes of the model (Pincus et al., 1998). An AFF score above zero means that the sum of the positive components (self-love) is higher than the negative (self-hate). The test-retest reliability for SASB introject is $r=.87$ for both the American (Benjamin, 1987) and the Swedish versions (Armelius, 2001). Internal consistency has been found to be high among normals ($\alpha = .90$), while somewhat lower for schizophrenics ($\alpha = .75$) and borderline clients ($\alpha = .67$; Öhman & Armelius, 1990). Factor analyses have shown that the Swedish translation is consistent with the original model (Armelius & Öhman, 1990).
The Therapists’ Measurement

Development of Psychotherapists’ Common Core Questionnaire (DPCCQ)

The DPCCQ questionnaire (Orlinsky et al., 1999) measures how psychotherapists develop in psychotherapy in work involvement styles and professional characteristics. This self-assessment test contains two second order factors – Healing Involvement and Stressful Involvement, and several first order factors measuring therapists’ work involvement styles. In Paper III, we have used the second order factors Healing Involvement and Stressful Involvement and their specific subscales (see Orlinsky and Rønnestad, 2005, pp.282-4) for the items. We have also used one first order factor when measuring therapists’ technical expertise (Orlinsky & Rønnestad, 2005, pp.228). Items are also shown in Appendix III. All of the DPCCQ scales have shown adequate validity in The International Study of the Development of Psychotherapists (ISDP; see Orlinsky & Rønnestad, 2005), and in other studies (e.g. Nissen-Lie et al., 2010). Back translations from Swedish to English were made to assess the accuracy of all items.

Healing and Stressful Involvement include broader factors of work involvement styles in therapy. Healing Involvement contains current skillfulness (Basic Relational Skill, 4 items), coping strategies (Constructive coping, 6 items), in-session feelings (Flow, 4 items), relational agency (Invested and Efficacious, 4 items each), and relational manner (Affirming, 4 items). Stressful Involvement covers perceived difficulties in therapy (Frequent Difficulties, 8 items), coping strategies (Avoidant Coping, 6 items), and in-session feelings (Anxiety and Boredom, 4 items each). The subscales range from 0 (low) to 5 (high), except for in-session feelings, relational agency and relational manner, which range from 0 (low) to 3 (high). The Healing and Stressful Involvement scales consist of 25 respective 22 items and the scales range from 0 (low) to 15 (high). Orlinsky and Rønnestad (2005) showed acceptable to good internal reliability in Healing Involvement ($\alpha = .69$) and in its subscales (Basic Relational Skill: $\alpha = .79$; Invested: $\alpha = .67$; Efficacy: $\alpha = .59$; Affirming: $\alpha = .69$; Flow: $\alpha = .62$; Constructive Coping: $\alpha = .67$). Likewise, Stressful Involvement ($\alpha = .67$) and its subscales have shown acceptable to good internal reliability (Frequent Difficulties: $\alpha = .81$; Anxiety: $\alpha = .74$; Boredom: $\alpha = .66$; Avoidant Coping: $\alpha = .64$). Paper III received acceptable to good internal reliability in Healing Involvement ($\alpha = .79$) and in its subscales Basic Relational Skill ($\alpha = .65$) and Constructive Coping ($\alpha = .71$), but not in Invested ($\alpha = .52$), Efficacy ($\alpha = .45$), Affirming ($\alpha = .48$) and Flow ($\alpha = .34$). In Paper III, we found acceptable to good internal reliability in the Stressful Involvement scale ($\alpha = .83$) and in the subscales Frequent Difficulties ($\alpha = .78$), Anxiety ($\alpha = .72$) and Boredom ($\alpha = .67$), but not in the Avoidant Coping scale ($\alpha = .55$). The
subscale Technical Expertise (4 items) include how skillful the therapist is in making technically good interventions. The scale ranges from 0 (low) to 5 (high). In the IDSP’s study (Orlinsky & Rønnestad, 2005) good internal reliability in the Technical Expertise subscale ($\alpha = .86$) was found. Likewise, in Paper III, the internal reliability was good ($\alpha = .86$).

In order to test the degree to which the established factor structures from the original ISDP study could be represented in this particular sample, factor analyses of the DPCCQ questionnaires were conducted using principal-axis factoring, varimax rotation. The factor analyses should be carefully interpreted because the number of subjects was limited in the analyses (Tabachnick & Fidell, 2007). The factors were chosen on the basis of examination of Cattell’s scree test, the level of factor loadings, and theoretical understanding. Reliability analyses for these factors were calculated (see Appendix II and III for data on the factor analyses), and only factors with acceptable factor loadings and internal reliability were used in Paper III.

The results of the factor analyses were that most factors (Healing and Stressful Involvement, Basic relational skills, Technical expertise, Constructive coping, Anxiety, and Boredom) were consistent with IDSP’s study, except for the subscales Flow, Avoidant Coping, Invested and Efficacy (Orlinsky & Rønnestad, 2005). Avoidant Coping ($\alpha = .43$), Invested ($\alpha = .55$) and Efficacy ($\alpha = .48$) had unsatisfactory internal reliability and were excluded from further analyses. In Flow, two items were omitted, but because this was the only changed subscale, we decided to use the original scales so comparisons with IDSP’s study easier could be utilized.

**Statistical Analyses**

**Clinical Significant Change**

According to Jacobson and Truax (1991), two conditions should be fulfilled to meet the criteria for clinically significant change. The first condition is that before treatment the client should belong to a dysfunctional domain and after treatment to a functional domain. The second condition is that the change should be reliable. In the present thesis, the cut off score for the functional vs. the dysfunctional domain was calculated with Jacobson and Truax (1991) C criterion ($C = (SD_0^*M_1 + SD_1^*M_0) / (SD_0 + SD_1)$) where $M_0$ = Mean of normative sample, $SD_0$ = Standard Deviation of normative sample, $M_1$ = Mean of outclient sample, $SD_1$ = Standard Deviation of outclient sample). The reliable-change index was computed as $RC = (M_2 - M_1) / SD_{diff}$ where $SD_{diff}$ = square root ($2(SE)^2$) and $SE = SD_1^* (\sqrt{1 - r})$ and r is the reliability of the measurement. Tingey, Lambert, and Burlingame (1996) wrote that the internal consistency could be used if test-
retest reliability was not available. RC with 95% confidence interval assures that the client change is reliable. The classifications that were used for clinical change were as follows: recovered, a reliable change from dysfunctional to a functional group; improved, only a reliable change; unchanged, no reliable change; deteriorated, clients with a negative reliable change.

Hansen et al. (2002) presented several critiques of clinical significance including (1) that it is too stringent to make it practical as it is hard for clients to reach criteria for recovery; (2) the improbability of some clients with chronic conditions to meet this criteria; and (3) the impossibility for less disturbed clients to change significantly due to the limited space of change and that they start the change in the functional domain. Hansen et al (2002) also argue that despite these critiques, the strengths of clinical significance are many, such as its relevance for large effectiveness studies and single-subject designs, and its ability to facilitate meaningful comparisons between studies.

Linear Regression Analysis

We have used two different multiple regressions in Papers I and II – statistical (stepwise) regression and sequential (hierarchical) regression. Differences in the calculations involve what happens to overlapping variability due to correlated independent variables and who determines the order of entry of independent variables into the equation.

In stepwise regressions (Field, 2009), decisions about the order in which predictors are entered into the model are based on a purely mathematical criterion. In the forward method, an initial model is defined that contains only the first predictor, and then the calculator searches for the next predictor of those available that best predicts the outcome variables. The predictor with the highest simple correlation is retained, and then the second, and so on. The second predictor is searched for in the remaining percentage of variability after the first predictor is explained, a semi-partial correlation. Redundant predictors are removed.

In hierarchical regression (Field, 2009), predictors are selected based on past findings and the researcher decides in which order to enter the predictors into the model. As a general rule, known predictors should be entered first.

Multilevel Models

Multilevel models (MLMs) go by a number of different names including hierarchical linear models, mixed models, random regression models, and growth curve modelling. MLMs for longitudinal data analysis have some
advantages compared to repeated measures ANOVA (Tasca & Gallop, 2009). MLMs allow researchers to model change, even if some individuals have missing data, without resorting to listwise deletion or imputation of data (Gueorguieva & Krystal, 2004), assuming that data are missing at random. The models can also model nonlinear change in individuals. Data calculations can be individually calculated of the outcome variable because MLM primarily assesses individual shape and rate of change over time. All individuals do not need to have the same change curvature; this can be particularly useful in naturalistic settings (Tasca & Gallop, 2009) where the number and frequency of sessions may be quite variable across clients and therapists.

There are several important terms to keep in mind as one calculate MLMs. Fixed effects are the structural parameters including the intercept coefficients (e.g. a group mean of the dependent variable skill at the first data point) and the slope coefficients (e.g. the relationship between the independent variable time and the dependent variable skill). The fixed effects imply a single constant value for all units of the sample (Tasca & Gallop, 2009) or in this case, therapists. Random effects refer to covariance components. Covariance components are the complete set of variances and covariances in the model parameters. Initial status (i.e., intercept) and rate of growth (i.e., slope) can, for example, vary across units of the sample or in this case sessions, on the outcome variable. In Paper III, therapists’ skill scores at the second session (intercept) and skill growth rate across 5 time points of therapy (slopes) are assumed to vary randomly between therapists, so therapists’ intercepts and slopes each have variances associated with them.

The MLMs have different levels in longitudinal nested designs, as in Paper III where sessions are nested under therapists/clients. The first level of the model refers to the part of the MLM associated with intra-individual (within-person) change. The second level refers to the parts of the MLM associated with inter-individual (between-person) change. If we use Paper III as an example, the therapeutic skill scores were repeatedly assessed five times at session 2, 8, 16, 22 and at endpoint (Level 1), and they are conceptualized to occur within 76 therapists (Level 2). Variability between the 76 therapists in terms of initial status (intercept) and growth in skill scores are modelled at Level 2 (see Figure 1).

![Figure 1. Schematic illustration of nested longitudinal data in Paper III.](image-url)
Results

Paper I

Title: Self-Image Patterns as Predictors of Change and Outcome of Trainee-Led Psychotherapy

This study examined the outcome of undergraduate trainee-led psychotherapy and how different self-image patterns explain symptom change. Two-hundred-thirty-five clients were assessed pre and post therapy with the Symptom Checklist (SCL-90) using Global Severity Index (GSI) and Personality Symptom Index (PSI), and the long introject form of the Structural Analysis of Social Behavior (SASB). The clients had mild to moderate psychological symptoms, mostly anxiety, depression or relationship problems, but were mainly well functioning. Two normative samples were used for comparisons with the study sample.

The outcome effect size was moderate and in line with a Norwegian trainee-led therapy study that also was done in a similar professional baseline education setting. Clinically significant change in SCL-90 GSI showed that 67% of the clients were in the dysfunctional domain before therapy and 34% were in the dysfunctional domain after therapy. Thirty percent of the clients showed clinically significant change, 12% were reliably recovered, 55% were unchanged, and 3% had deteriorated.

Stepwise linear regression analyses were performed with age, gender, self-autonomy, self-control, attachment group and DAG as predictors, and with psychological and personality symptom change, GSI and PSI, as outcome variables. Disrupted attachment group or the clients’ negative self-image had the strongest relationship to outcome and explained 8% vs. 10% (PSI vs. GSI) in outcome. Self-control explained another 3% (GSI) and 4% (PSI) and self-autonomy added 1% in both GSI and PSI. The result indicates that clients with a more negative self-image, higher self-control, and a lower level of self-autonomy before therapy improved more in psychological and personality symptoms than clients with a less negative self-image, a lower self-control, and a higher level of self-autonomy. The finding that self-image patterns were systematically related to a decrease in severity of psychopathology is in line with other research findings on prediction of self-image patterns on outcome.
Paper II

Title: Baseline Training in Cognitive and Psychodynamic Psychotherapy during a Psychologist Training Program. Exploring Client Outcomes in Therapies of One or Two Semesters

This study explored the outcomes of 187 clients seen by 187 undergraduate students. The clients in Paper II were also in Paper I. The reason for excluding clients in Paper II was that 35 clients had therapists in both training conditions, and that 13 clients had incomplete data on semesters and number of sessions. The therapies were conducted at a psychology program for professional psychologists. The clients had mild to moderate levels of mixed psychological symptoms but were well functioning. The students were mostly untrained and inexperienced and did their baseline training in psychotherapy at semester 7 to 10 out of the total 10 semesters of education. One semester extended over approximately 22 weeks during spring or fall. The baseline training requires the student to conduct 50 hours of client sessions usually divided between two different clients. The students could choose between one semester of one therapy approach and two semester of the other approach. The students were usually more interested in the approach they selected to learn for two semesters but they had to learn the other approach as well. The approaches provided were psychodynamic therapy (PDT) and cognitive therapy (CT). Thus, each student received a combination of one semester of one theoretical approach (PDT1 or CT1) and two semesters (PDT2 and CT2) of the other. The order of the approaches were dependent on available supervisors and clients, and the order was not related to outcome (PDT first vs. CT first) or previous training in the other school (yes vs. no). The mean number of sessions in one semester were 12 and in two semesters were 25.

The outcome showed that all training conditions had significant outcomes except for the CT1 condition. The effect sizes showed moderate (PDT1 and PDT2) to large effects (CT2) between pre and post tests. The results were measured with the Structural Analysis of Social Behaviour (SASB: AFF) and the Symptom Check List (SCL-90: GSI). Clinically significant change showed how many of the clients that were recovered and improved in the different training conditions in CT1: 20- 23%, in PDT1: 27- 43%, in CT2: 49- 54% and in PDT2: 35- 41%.

Two hierarchical multiple regression analyses were used to explore the contribution of the independent variables training approach and number of semesters to the end state of the clients’ self-image pattern, one for AFF and one for GSI. The regression analysis showed that clients’ pre therapy self-image and symptoms explained 34% of variance in outcome, which is in line with other research that have shown that client variables explain a large
amount of variance in results (Lambert & Ogles, 2004). Training conditions and durations did not by themselves explain any significant variance in outcome. Surprisingly, there was a significant interaction effect of duration and theoretical approach explaining about 2% of the outcome. The regression lines for self-image pattern AFF and psychological symptoms GSI showed that clients that received therapy in CT2 and PDT1 had a larger improvement than clients in PDT2 and CT1.

**Paper III**

**Title: Novice Psychotherapists’ Development in Professional Characteristics and Work Involvement Styles in Training**

There is a need to know more about how novice psychotherapists develop in their characteristics and to know if this development happens in leaps or in a linear process. Furthermore, which professional characteristics develop most during psychotherapy training and which characteristics take longer to develop? This study measures novice therapists over a one year baseline psychotherapy education to investigate how they develop in their professional characteristics and work involvement styles (healing and stressful involvement, current therapeutic skills, perceived difficulties, coping strategies and in-session feelings). The 76 undergraduate students were psychology students practicing therapy at the fourth or fifth year of their education, which in total was five years. Seventy-one percent of the students were females. The students were in general relatively young (mean age = 28 years) and inexperienced. Before participating in the present study, they had nine months of overall clinical experience. Thirty-four of the therapists learned cognitive behaviour therapy, and 42 therapists learned psychodynamic therapy. All therapists were investigated as one group because we were interested in the general development. All students received two hours weekly supervision in groups of three.

The results were analyzed with mixed models where measurement occasion (session) was treated as the first level of analysis and therapist (or client) as the grouping variable or the second level of analysis. Therapists were measured at session 2, 8, 16, 22 and endpoint. The result of the Development of Psychotherapists’ Common Core Questionnaire (DPCCQ) (when we controlled for age and gender) showed that therapists’ work involvement styles and current therapeutic skills, perceived difficulties, and constructive coping strategies changed over time in their baseline education. The students changed most in their self-reported technical expertise, and more moderately in basic relational skills. Surprisingly, the students did not change in their feelings of anxiety and boredom during training. Inconsistent with Stoltenberg and McNeill’s (2010) theory of psychotherapists’
development, the students changed linearly in their characteristics and work involvement styles. The progress of a positive and linear development of in session feelings is an important subject for psychotherapy education.
Discussion

Discussion of Main Findings

This thesis addresses the effectiveness of trainee-led therapy, training conditions and how trainees develop their professional characteristics. Strengths of this study involve its naturalistic longitudinal prospective design, two therapeutic approaches, and measures of both the clients’ symptoms or self-image and the therapists’ professional characteristics. These strengths enabled us to investigate important features of psychotherapy training and outcome in a psychologist education. The following discussion will focus on clinical main findings, as well as clients’ self-image pattern and prediction of outcome, and finally novice therapists’ development in professional characteristics. Of course, there are also weaknesses which will be discussed later.

Treatment Outcome in Novice-Led Therapy

As suggested in the introduction, untrained and inexperienced therapists have been shown to be less effective than more trained and experienced psychotherapists. It was hypothesized that during the course of psychotherapy the clients of novice-led therapy will change but the change should be less than obtained by professional therapists.

What appears from the results in Papers I and II is that the general outcome is moderate. The effect is slightly less than that found in larger meta-analyses of psychotherapy in general (Wampold, 2001). Wampold reviewed large meta-analyses (Grissom, 1996; Lambert & Bergin, 1994; Lipsey & Wilson, 1993) and found that therapy in general had a large effect. The present outcome is comparable with other baseline training studies (Lappalainen et al., 2007; Ryum et al., 2007; Solem et al., 2009; Öst et al., 2012) which have shown a moderate to large change, with the exception of one of Lappalainen et al. (2007) therapy approaches, CBT, which had a small effect.

In addition, the clinically significant changes showed that about 42% of the clients in the Paper I showed reliable changes in therapy. The percentages were lower than has been shown in effectiveness meta-analyses (Hunsley & Lee, 2007; Stewart & Chambless, 2009), and in one large effectiveness study (Westbrook & Kirk, 2005) that investigated specific treatments. The result of Paper I was similar to the large effectiveness study that investigated a broad area of treatments (Hansen et al., 2002).
Self-image Prediction of Change in Baseline Therapy

One of the aims in Paper I was to examine the clients’ self-image patterns as predictors of change. The result showed that different self-image patterns explained 13-14% variance of the change in psychological symptoms. A client with a more negative self-image, a higher level of self-control and a lower level of self-autonomy before therapy had the highest rate of improvement in both psychological and personality symptoms.

As suggested in the introduction, self-image is seen as a relatively stable personality structure that develops in relation to significant others and is maintained by relationships in daily life. Self-image has been shown to affect the therapy (Halvorsen & Monsen, 2007) and been identified as an important predictor for outcome (Björck et al., 2007; Granberg et al., 2002). As hypothesized and found in Paper I, the affiliation dimension in the SASB model was a more important predictor of change in symptoms than the interdependence dimension. It appears that change in both GSI and PSI was best explained by a negative self-image before therapy. This finding is in accordance with results of earlier studies (Granberg et al., 2002; Halvorsen & Monsen, 2007). One possible explanation, which is discussed in Paper I, is that clients with a more negative self-image suffer more and are more motivated to change in therapy. However, the question why the clients with a negative self-image refrained from involvement in destructive interpersonal circles with the therapists, which has been shown to lead to small changes in therapy (Henry, Schacht, & Strupp, 1986), is not answered. We believe that the therapists in the clinic received support from the supervisors and were able to withstand the negative “pull” from the clients. In addition, the clients were relatively well functioning, so the “pull” may have been moderate.

The result also indicates that clients with a higher level of self-control had better outcome. This finding is in parallel to the studies of Granberg et al. (2002), Halvorsen and Monsen (2007), and Svarthberg et al. (1996) where all having clients with high levels of self-control who made progress in the treatment.

Petry et al., (2000) emphasized that personality variables do not seem to predict much variance in psychotherapy outcome. However, this may be a precipitated suggestion since a failure to show consistent effects of personality could be explained by researchers’ use of different methods, settings and outcome measures used in various studies. Even if the amount of variance explained is low, it could still be important to know which client factors affect outcome, especially for prognostic use.
Different Training Conditions and Training Durations

In Paper II, a more narrow perspective on outcome was investigated and we divided the sample in groups of training conditions and training durations (one or two semesters). The results revealed a more differentiated outcome pattern. The interaction effect between training conditions and semesters showed that PDT1 and CT2 had a more positive outcome than CT1 and PDT2. There was an outcome difference between one and two semesters for the cognitive training groups but not between the two psychodynamic training groups.

Many factors contribute to an explanation of this finding; however, two in specific are regarded as most plausible. Firstly, the process of learning psychotherapy is different in cognitive and psychodynamic psychotherapy. In cognitive therapy, there are number of techniques to learn and students are engaged in learning those in the beginning of training. They learn, for example, conceptualization, agenda setting, homework and other manual driven interventions. It is logical that clients in two semesters’ treatment have better results than clients in one semester, since these interventions take time to learn. There is also an established fact that more sessions in general are related to larger improvements (e.g. Hansen et al., 2002; Howard et al., 1986; Lambert et al., 2001). Based on this finding we suggest that education providers in CT approach should consider providing training for a longer period of time, not less than 20 therapy sessions, when planning the education.

Secondly, the outcome in the two psychodynamic training conditions is more difficult to explain. Here, longer time had no impact on clients symptom decrease. One explanation we have considered is the use of specific and common factors in the different approaches. In PDT, manuals were more sparsely used, and the manuals the student read in the theoretical class before therapy, for example, Binder (2004), emphasizes the use of common factors. Shortly, the use of common factors in the early stages of therapy should promote a working alliance, but later stages should be guided by manuals to promote the learning of specific therapeutic factors or techniques. More advanced interventions, such as the exploration of core conflictual relationship themes (e.g. Jarry, 2010, Kächele et al, 2010), transference, resistance and defences (Luborsky, 1984) are more rarely used within the basic training program. The sparse use of manuals to promote specific factors within PDT2 could offer an explanation for the lack of progression observed in PDT2.

Another possible explanation for the result is that students were not randomized to the different training conditions. Students at the time of the study may have been more interested in the CT approach because of good job opportunities and the “evidence based movement” in society. Students that
chose two semesters’ CT were also those who got one semester PDT, and these students had good outcomes. This observation is in line with previous research that has shown that the therapist effect account for 5% of client outcome (Wampold & Brown, 2005). Further, the therapist effect is considered to be larger for untrained therapists (Crits-Christoph & Mintz, 1991).

Therapists’ Development in Professional Characteristics and Work Involvement Style

The research literature about therapists’ development of characteristics is sparse (Beutler et al., 2004) and unevenly distributed. There is a large amount of research about therapists’ development of skill in specific therapies but less research on other characteristics. We were interested in both positive and negative characteristics and their relation to the healing processes rather than specific skills, and their change over time. In Paper III, an interesting finding was that the students’ healing involvement style changed more than stressful involvement style decreased over time in training. However, both healing and stressful work involvement styles changed significantly. The students perceived that they were more supportive, more effective, and that they coped more constructively toward the end of the therapy. The novices also felt less stressful involvement and had more self-confidence in their beneficial effect on their client. However, as discussed in Paper III, it is problematic that the in-session feelings of anxiety and boredom did not change. Negative feelings and behaviors towards the clients could be counteractive towards the creation of a good climate in therapy and formation of the therapeutic alliance, and can thus potentially harm the client (Castonguay, Boswell, Constantino, Goldfried, & Hill, 2010). There can be several explanations for the absent decrease in in-session feelings anxiety and boredom. For example, one year of training with one client may not be enough to decrease in-session feelings of anxiety and boredom. A second reason for the result is that the in-session feelings of anxiety and boredom can be expressions for therapists’ personality and stressful life quality or the clients’ problem. A question is how the training should handle the trainees’ personality or the personal life situation which might affect in-session feelings. The training as suggested in Paper III, should perhaps involve more personal therapy or supervision directed against these in-session feelings. For example, an early normalization of anxiety and boredom can open up a dialogue in supervision and potentially leave room for change later in training. In-session feelings can also come from the client’s problem. Those feelings such as counter transference should be recognized in training and the supervisor should show how the feelings can be used in a benefiting way in therapy.
The result also showed that technical skill changed most, and thereafter basic relational skill, constructive coping, perceived difficulties; the in-session feelings anxiety and boredom did not change at all. Therapists with relatively little experience of therapy are typically highly motivated to learn intervention skills and that learning curve is therefore expected to change most (Rakovshik & McManus, 2010). One explanation for the lower increase in relational skills can be that the learning of techniques might attenuate the development of interpersonal skills (Bennett-Levy & Beedie, 2007; Henry et al., 1993). Henry et al. (1993) found that focus on technical aspects of therapy during training can attenuate the development of relational skills.

Another interesting result in Paper III is the investigation of how and when the therapist and the client change in therapy. The therapists’ characteristics changed linearly. The result does not support a stage theory as described, for example, in Stoltenberg and McNeill’s (2010) theory. However, the linear development can be explained by other explanations such as that development stages may require a larger caseload than one year of training with only one client.

Methodological Reflections and Limitations

Validity of the Thesis

In the following section, validity and design issues will be discussed in relation to Cook and Campbell’s (1979) validity system. The word valid is derived from the Latin validus and the meaning is ‘strong’ (Wikipedia, 2012). Shadish, Cook, and Campbell (2002, p.34) refer to validity as the “approximate truth of an inference”, and mean that we make a judgment about the extent to which relevant evidence supports an inference as being true or correct. They state that validity is a property of inference and not a property of designs or methods. Cook and Campbell’s system includes four types of validity: statistical validity, internal validity, construct validity and external validity.

Statistical validity refers to the validity of inferences about the correlation (covariation) between treatment and outcome (Shadish et al., 2002). The sample in Paper I was large, which increased the statistical power. Overall, the statistical tests and effect size calculations delivered significant results. Even with smaller samples as in Papers II and III, the results were significant except for the CT1 group in Paper II. A strength with Paper III was the growth curve measures based on five data points; these calculations yielded a more precise estimate of change than did the Ancovas. However, the results should be considered as preliminary due to limitations with internal validity.
Internal validity refers to the extent to which inferences about a causal relationship can be drawn between the independent and the dependent variables (Shadish et al., 2002). A naturalistic design, as used in the present thesis, has many possible threats to the internal validity (e.g. selection bias, maturation over time, history, regression to the mean, and attrition) which have to be considered. First, the clients or students in the studies were not randomized to the training conditions which open up for selection bias. Therefore, it was particularly important to explore if there were any differences at pre-test among the groups studied. There are many reasons why special clients might have been assigned to a particular group. In Papers I and II, the clients were part of a quality assurance course. We have not found any crucial differences between our samples of clients and the sample with only pre-test at the Psychology Clinic except for a marginal difference in age. In Paper II, there were no initial significant differences between the groups of clients, with the exception of a more positive self-image in PDT1 group. This was considered, and we controlled for initial symptoms. Second, the results could be influenced by maturation over time because we had no control group. This was a limitation in all three studies. Third, the outcome can also be explained by history or things that happen in clients’ or therapists’ life outside therapy. This however, is an unlikely explanation since the results are in line with what are usually also found in controlled studies. Fourth, the regression toward the mean could have influenced the results, especially in Paper II, were the group with most symptoms had the largest changes (CT2); however, they did not differ significantly from the CT1 and the PDT2 groups on the pre-test of symptoms. Fifth, attrition can produce inaccurate effects if such loss is systematically correlated with conditions; however, we did not find any systematic loss in the studies. In Papers I and II, there were lots of clients who were not asked for completion of the outcome measures (clients with only pre-test) because in the first years of the quality assurance course the post-test was only given to some clients. These clients (with only pre-test) were compared on pre-tests with the clients in the studies, and we did not find any significant differences except for age. In Paper III, 76 therapists were measured and 15 of them dropped out. The calculations were however, based on intention to treat analyses, which is a more conservative way of calculating result on than when completer analyses is utilized.

Construct validity refers to the validity of inferences about the higher order constructs that sampling particulars represent (Shadish et al., 2002). The main outcome measures (SCL-90 and SASB) are well established and widely used in psychotherapy research. Development of psychotherapists’ common core questionnaire has been found to have construct validity in studies (e.g. Orlinsky & Rønnestad, 2005; Nissen-Lie et al., 2010).
External validity refers to the validity of inferences about whether the effect relationships hold over variations in persons, settings, treatment variables, and measurement variables (Shadish et al., 2002). The present thesis relies on data from a naturalistic research project in a professional baseline education, which includes a large number of clients with a wide range of symptoms, a large number of therapists, different durations of training conditions, and two training approaches. These features are quite representative for other baseline educations in psychotherapy in Sweden, which strengthens the external validity of our findings. It is however, reasonable to believe that psychology programs in Sweden differ from each other in some aspects, thus so the generalizability of the outcome from this thesis may be somewhat restricted.

**Limitations**

The present studies contain many limitations. First, the naturalistic design of this project provides limited control over confounding variables and it is particularly difficult to control for selection bias, maturation over time, and history. Selection bias in Papers I and II is solved in the present thesis with comparisons with clients from the clinic that only have pre-test data. The absence of significant differences between the samples suggests that the sample is representative for the clinic. In addition, the relative large number of clients contributes to the representativeness. Furthermore, selection bias can be an alternative explanation to the effect of group-comparisons between training approaches and training length in Paper II. However, the use of pre-tests as a control variable reduced the likelihood of this bias. Moreover, missing data can possible have influenced the outcome. Missing data are handled by list-wise deletion in the analyses made in Papers I and II; the advantage with this method is that it does not distort the effect, but a disadvantage is that it decreases power and sample size. However, in Papers I and II, the loss of data was marginal in SASB and SCL-90 and the loss was not systematic. A more conservative method, maximum likelihood, was used in Paper III, where missing data were larger (26% for therapists). Maximum likelihood does not delete a whole person (subject); instead it uses all relevant data that are available. This method does not underestimate the standard errors, and the significant effects are really based on actual data. Quené and Van den Bergh (2004) demonstrated robust effects with maximum likelihood in longitudinal data with 25% missing data.

A control group of clients from the waiting list would have addressed the issue of whether the outcome was maturation over time (a spontaneous remission) or a consequence of history. However, the results in the present study were plausible in relation to other trainee-led therapy results (e.g. Ryum et al. 2007).
The heterogeneity of the clients was obvious in the present study, and this may cause interpretation problems, but on the other hand, this will also strengthen the external validity. The diversity of client complaints and therapeutic goals in this sample was representative for baseline psychotherapy training at a psychology education. Another shortcoming is the lack of control of the independent variable, the training conditions. Because the research project was part of the regular education, a number of treatment manuals or no manuals were in use. On the other hand, we knew more about external factors such as hours of theory before practice, length of training, exams, and hours of supervision thanks to the university educational setting of the studies. However, all these limitations are common in effectiveness research (e.g. Philips, Wennberg, Werbart, & Schubert, 2006)

**Implications and Conclusion**

**Implications for Clinical Practice and Baseline Training**

Kazdin (2008) presented three arguments why treatment should be systematically measured. The first and foremost argument is that systematic evaluation pertains to the primary goal of clinical practice, i.e. to provide high-quality care. Whether a therapist uses evidence based treatment methods or practice according to traditions, one cannot be sure that the therapy is working. Second, it is important to monitor treatment effects continuously to enable informed decision making about continuation, altering or termination of the treatment. Thirdly, systematic evaluation is intended to complement clinical judgment.

The present study provides an example of how education clinics can implement systematic evaluations and (somewhat) fulfill the above arguments made by Kazdin (2008). The use of a quality assurance course for collecting data is practical and informative, but it has its pros and cons. For example, our study involves many students, and some of the students are thorough while others are more careless. With so many students collecting data, the data will be imprecise and the measurement quality uncertain, but hopefully high student number may mean that they are normally distributed in the way they collect data. Another advantage of collecting data during the quality assurance course is that the procedure is cost effective; it was conducted during regular activity by teachers and students.

In Papers I and II, the moderate outcome has been striking, and it seems likely that novice therapists need time to become effective with clients. We recommend that psychotherapy training should consider longer treatment times for their students. This will also increase the benefits for the clients who are necessary for the fulfillment of successful training of therapists.
Another recommendation is that the organizers of the education investigate the underlying factors that influence outcome, e.g. technique training, therapist motivation, and supervision.

Even if the outcome was moderate for the novices, it could be considered as fairly good for the clients with mild to moderate symptoms. Clients with a lower amount of symptoms usually have a lower potential to change than more severely ill clients.

In Paper I, the clients’ self-image at pre-treatment yielded information about the level of severity and prognosis. Interpersonal characteristics may have implications for outcome as well as for the therapeutic process, and can be used, for example, at intake procedures.

In Paper III, therapists’ variables were investigated and in-session feelings of anxiety and boredom were generally not changed in training. We think that these difficulties have to be emphasized in supervision.

Another more general benefit of using the students from the quality assurance course to collect data is that the students learn to evidence base their work, which can contribute to more systematic evaluation of their practice in the future. There is a need for more collaboration between research and clinical practice (Kazdin, 2008), and if more students are in systematically evaluation of the outcome the gap between research and practice, in the long run, might decrease.

Implications for Future Research of Training

It is important to remember that in an education clinic there are always two aims to fulfill. The clients should benefit from the therapy and the students should learn to practice therapy. These objectives may seem obvious but they have not been studied systematically. This thesis contributes to the understanding of aspects of student training and client outcome and their associations, but there is a need to continue this evaluation.

Some unanswered questions have been obvious in our research, for example, we do not know what the underlying factors are that influence clients’ outcome. Systematic evaluations in training can make important and scientifically sound contributions to the knowledge base. The accumulation of students and clients over time, each of which characteristics and progression systematically evaluated, can yield new insights about baseline therapy processes and outcome. The fact that the conditions are not controlled, in the sense of a true experiment, does not preclude their contribution of significant knowledge to this area of research.
Acknowledgements

The last five years, including my writing of this thesis, has been an inspiring and interesting time. It has been a journey in learning and discovering new knowledge. It has been a great start for new adventures in psychological health research.

This thesis was made possible through the generous support by many. First of all, I would like to thank my main supervisor, Prof. Bengt-Åke Armelius, who invited me to the study “Effects of Student Therapies” (EUT) at Umeå University, and who encouraged me to visit the Psychotherapy Research Center in Philadelphia. He has been a great mentor for me; he has shared his extensive research knowledge and mathematical skills, and he has trusted my abilities and made my learning an unforgettable interesting journey.

I want to give my special thanks to my co-supervisor, PhD. Helene Ybrandt, who has been the project leader of the EUT, and who has supported me many times through the years with small and big research issues. I have appreciated her research talents and it has been a scientific adventure to visit two psychotherapy conferences together. The other person that has been involved from the start is Prof. Kerstin Armelius who gave me advice and inspiration throughout Paper I.

I want to express my gratitude to Prof. Paul Crits-Christoph who supervised me in Philadelphia, USA. He gave me a chance to do a research internship and to write two articles together with his excellent team of Prof. Jacques P. Barber, Prof. Mary Beth Connolly Gibbons and Prof. Robert Gallop. The visit in Philadelphia was an exciting and interesting time.

Also, I am so grateful to all who worked at the Psychology Clinic at Umeå University at this time. The Clinic Director Britt Wiberg who gave me inspiration at the Psychology Clinic, and showed me the dynamic field between psychology students, teachers, professional psychologists, researchers and the clients seeking help. Psychologists Torbjörn Jacobson and Gunilla Smedberg-Åman, and the administrators Ann-Louise Söderström, Lena Holmgren, and Maria Lindkvist, and the database expert Björn Andersson, all made my research much easier and they all contributed in different ways.

During the work with this thesis I worked part-time, a few years, as a psychologist at the Psychology Clinic at Umeå University. I am grateful to the administration at the clinic for giving me the opportunity to stay in touch with a psychotherapeutic milieu during the research period. I am also indebted to my dear colleagues – Ingrid, Susanne, Esther, Linus, Anna-Maria, Petra, Niclas, Per, Åke, Camilla, Ulrika, Ann-Britt, Annika, Anna and
others, who have supported and inspired me, and I thank you all for numerous cheerful lunches and coffee breaks.

The greatest thanks go to my love Kjell and my dear children Nils, Maja and Moa, you have always supported me and been there when I needed you, and you give me all those things in life that are beyond the precision of research.

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Inga Dennhag

Umeå, August 2012
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Appendix I-II

Appendix I

Table AI

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Note. Abbreviations of measurements: DPCCQ = Development of Psychotherapists’ Common Core Questionnaire; Common Factors GF = Common Factors Gemensamma Faktorer; CPPS = Comparative Psychotherapy Process Scale; GAF = Global Assessment of Functioning; OQ-45 = Outcome Questionnaire; SASB = Structural Analysis of Social Behavior; SCID = The Structured Clinical Interview for DSM-IV Axis I Disorders; SCL-90 = Symptom Checklist; WAI = Working Alliance Inventory; T= Therapist and H= Supervisor.
**Appendix II**

Table AII

*Original Scales of Healing Involvement and Stressful Involvement: Subscales, Factor Loadings, and Alpha Scores.*

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<td>.71</td>
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<tr>
<td>Affirming</td>
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<td>.48</td>
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<tr>
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<td>.52</td>
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<td>.45</td>
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<tr>
<td>Basic Relational Skill</td>
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<td>-.60</td>
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<td>.78</td>
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<td>Anxiety</td>
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<tr>
<td>Avoidant Coping</td>
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<td>.55</td>
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<tr>
<td>Bored</td>
<td>.46</td>
<td>.67</td>
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Note. N=76.
## Appendix III

### Table AIII

*Items, Factor Loadings, and Alpha Scores of Current Therapeutic Skills, Coping Strategies, In-Session Feelings, Relational Agency, Relational Manner, and Frequent Difficulties.*

<table>
<thead>
<tr>
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<th>Factor loading II</th>
<th>Factor loading III</th>
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<tr>
<td>Current Therapeutic Skills</td>
<td></td>
<td></td>
<td></td>
<td>.86</td>
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<tr>
<td>Technical Expertise</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>How much precision, subtlety and finesse have you attained in your therapeutic work?</td>
<td>.86</td>
<td></td>
<td></td>
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<tr>
<td>How well do you understand what happens moment-by-moment during therapy sessions?</td>
<td>.80</td>
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<tr>
<td>How much mastery do you have of the techniques and strategies involved in practicing therapy?</td>
<td>.77</td>
<td></td>
<td></td>
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<tr>
<td>How confident do you feel in your role as a therapist?</td>
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<td>.48</td>
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<tr>
<td>*Basic Relational Skill</td>
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<tr>
<td>How empathic are you in relating to clients with whom you had relatively little in common?</td>
<td>.74</td>
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<tr>
<td>How natural (authentically personal) do you feel while working with clients?</td>
<td>.72</td>
<td></td>
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<tr>
<td>How effective are you in relating to clients with whom you had relatively little in common?</td>
<td>.63</td>
<td></td>
<td></td>
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<tr>
<td>How effective are you in communicating your understanding and concern to your patients?</td>
<td>.59</td>
<td>.40</td>
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<tr>
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<tr>
<td>Review privately with yourself how the problem has arisen.</td>
<td>.76</td>
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</table>
Try to see the problem from a
different perspective. .76
Discuss the problem with a colleague. .70
Consult about the case with a more
experienced therapist. .56
Just give yourself permission to
experience difficult or disturbing
feelings. .41
See whether you and your patient can
together deal with the difficulty .40 .57

**Avoidant Coping** .43
Criticise a client for causing you
trouble. .64
Show your frustration to the client. .61
 Seriously consider terminating
therapy. .60
Simply hope that things will improve
eventually. .44
Avoid dealing with the problem for
the present .56
Seek some form of alternative
satisfaction away from therapy .56

**In-Session**

**Feelings** .72

**Anxiety**
- Pressured .80
- Anxious .70
- Overwhelmed .69
- Trapped .66

**Boredom** .67
- Bored .81
- Drowsy .77
- Absent .64
- Inattentive .56

*Flow* .70
- Stimulated .86
- Inspired .85
- Engrossed .42
- Stimulated

**Relational**

**Agency** .48

*Efficacious* .48
- Skillful .68
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<td>**Frequent Difficult</td>
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</table>

Lacking in confidence that you can have a beneficial effect on a client.
Unsure how best to deal effectively with a client.
Unable to have much real empathy for a client’s experiences.
Distressed by your powerlessness to affect a client’s tragic life situation.
Unable to generate sufficient momentum to move therapy with a client in a constructive direction.
Demoralised by your inability to find ways to help a client.
Unable to withstand a client’s emotional neediness.
Conflicted about how to reconcile obligations to a client and equivalent

Note. *Subscales used in Healing Involvement scale, **Subscales used in Stressful Involvement scale. N=76.
Papers I – III