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TRANSFER OF TRAINING AND THERAPIST FACTORS IN COGNITIVE BEHAVIOUR THERAPY

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This thesis is dedicated to thelate

Professor I. R. H. Falloon (DSc).

He is remembered here for his unwavering

commitment to the competent delivery of evidence-based treatments for mental illness

ABSTRACT

There is a call for the training of greater numbers of therapists in the use of Cognitive Behaviour Therapy (CBT) in order to meet the needs of growing populations worldwide. However, issues relating to transfer of training and therapist competence have been noted following the training process (Beidas & Kendall, 2010; Carroll, Martino, &Rounsaville, 2010; Kendall et al., 2004). To date, research investigating the impact that therapist characteristics, or effects,may have on therapist competence hasfocused on demographic data(McManus, Westbrook, Vasquez-Montez, Fennell, &Kennerley, 2010), with limited attentiongiven to therapist factors that may have a theoretical or empirical association with competence.To date, studies have reported mixed results concerning the relationshipbetween observed competenceand therapist self-confidence in using CBT (Brosnan, Reynolds, & Moore, 2006; Beidas & Kendall, 2010), anda positive relationship between observed competence and current practice (Mannix et al., 2006). Studies investigating therapy behaviours have suggestedpositive relationships between observed competence and career growth (Orlinsky&Rønnestad, 2005), and negative relationships with organisational barriers (Fadden, 1997; Kavanagh et al.,1993).

The present study is an exploratory investigation of therapist competence and therapist factorsboth during and following postgraduate diploma training in CBT.Therapist factors investigated in the present study were therapist self-confidence in using CBT, current CBT practice, perception of career growth, and perception of organisational barriers.

Two separate studies were conducted.Study One employed a longitudinal design.Competence and therapist factorswere assessedfor trainees (*N*=16) at three time points during the diploma practicum. Training transfer was measured at 12 months follow-up.Study Two employed a cross-sectional design to investigate relationships between competence and therapist factorsfollowing training.Study Two participants were 20 postgraduate practitioners who had

completed the practicum1 to 9 years prior to assessment within the present study.

Results showed that 94% (*N*=16) of Study One participants were rated competent at the end of the practicum. Two of the nine participants who completed Study One showed evidence of training transfer at 12 months follow-up. Positive relationships between observed competence, self-confidence, and career growthwere consistently found throughout the training. However, at the end of training participants rated as more competent reportedpractice with fewer clients and a greater perception of organisational barriers. Results for Study Two showed65% of participants were rated competent 1-9 years following training. All relationships between observed competence and therapist factors were negative 1-9 years following training. Also, more competent participantsreportedlower self-confidence, less career growth, and practice with fewer clients, while the opposite was found for participants rated as less competent.

These findings suggest that supervised practicum training in CBT increases trainee observed and self-reported competence, although the maintenance of training gains appears problematic. The implications of the findings are discussed and recommendations made for further research.

ACKNOWLEDGEMENTS

This research would not have been possible without the generous participation of the CBT practitioners who gave their time to complete and submit questionnaires and recordings for this study. To the trainees of the PGDipCBT, in particular, my sincere thanks for agreeing to participate during your practicum year when time was so precious. To the graduates who stepped up and participated 2-9 years after completing the training, I truly appreciated your contribution also.

Many thanks to my supervisors, most especially Mei Williams and Bev Haarhoff who have guided my efforts with good humour and considerable patience. Also to NikKazantzis,who reframed my questions relating to therapist competence and helped me to finally get started.

Belated thanks to Ian Falloon who passed away just as I was beginning this project. It was Ian who first introduced me to the reality thatthere are effective interventions formany mental illnesses. However, limited access to clinicians whoare competent in the delivery of these interventionscurrently prevents too many individuals from experiencing their benefits.Thus, I must also thank the many clients and their families who welcomed me into their homes over the past twenty years. Their stoic endurance of illnesses that are treatable has continued to provide the motivation to undertake and complete this project. I sincerely hope that the results reported here help facilitate a time when access to effective treatment rapidly and routinely follows the first signs that „something is not quite right".

Others who have supported my efforts and encouraged me to continue include my friends and colleagues Ann Elborn and Naomi Cowan. Many, many thanks to you both for your forthright opinions and novel yet practical solutions to the myriad of issues I have raised.

And finally I must thank my mother and my children for their forbearance of my absence from their lives at a time when they each required more support than I could give. But mostly, overwhelmingly, I must thank my husband Paul without whom I could not have managed any part of this project. He has provided a listening ear, encouragement, many takeaway dinners and endless cups of tea well into the night. But most importantly he has provided me with the support to continue across the years of this project, and he has done so without complaint. Thank you Paul, you are my partner, my friend, and my companion. And you can book the cruise now.

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Chapter One

INTRODUCTION

"Everyone is entitled to mental health treatments that are accessible, accountable, and affordable; but most of all they are entitled to treatments that are effective"

(Professor I.R.H Falloon – at the initial Integrated Mental Health Care training course, Greenlane Hospital, Auckland, 1993)

1.1 Introduction

Lifetime prevalence statistics estimate that the incidence of anxiety and mood disorders is nearing epidemic proportions (Moussavi, Chatterj, Verdes, Tandon, Patel, &Ustun, 2007), with New Zealand estimates reported as 24.9% and 20.2% respectively (Oakley-Browne, Wells, & Scott, 2006). As corresponding international figures are 17% to 25% for anxiety, and 15% to 19.5% for mood disorders (World Health Organisation, 2000), it is clear that there are many New Zealanders currently experiencing the debilitating effects of these illnesses. The burden associated with depression alone has been found to exceed that of other chronic illnesses such as angina, arthritis, asthma and diabetes (Moussavi et al.), and the combination of anxiety and mood disorders has been reported to account for more than half of the total burden associated with mental illness in Australia alone (Andrews, Sanderson, Slade, &Issakidis, 2000). Further, economists in the United Kingdom have calculated the cost of mental illness as £17 billion (Layard, 2006), while mental ill-health has overtaken unemployment as the United Kingdom‟s greatest social issue. This has prompted the call for the training of a further 10,000 CBT therapists to help reduce the financial and personal cost associated with these disorders (Layard, 2006).

CHAPTER 1

Cognitive Behavioural Therapy (CBT; Hollon& Beck, 2004) is recommended as an evidence-based treatment of choicefor major depression and anxiety disorders by professional associations such as the British Psychological Society, the Royal College of Psychiatrists (Kendall, Pilling, Pettinari, & Whittington, 2004), the American Psychological Association (Chambless&Hollon, 1998), and the American Psychiatric Association (Torrey et al., 2001).

However, as with other psychotherapies, little is known about the specific factors that contribute to improved outcomes in CBT. This is currently an area of considerable debate in the literature, with client and therapist factors (Lambert, Garfield, & Bergin, 2004), and the therapy alliance (Elvins& Green, 2008) highlighted as areas of major importance. Research suggests that the activities of therapists, in particular, may contribute as much as 9% to 17% of the total variance in outcomes (Blow, Sprenkle, & Davis, 2007). Cognitive therapist, author, and researcher Robert Leahy adds that “assuring the use of cognitive therapy techniques and improving the therapeutic alliance may provide the optimal treatment” (Leahy, 2008, p.770).

However, it has become apparent that the current contribution of cognitive therapy techniques to client outcomes may be considerably less than ideal, simply because „assuring the use“ of these techniques at the community level is proving to be difficult to achieve (Andrews, et al., 2000; Cahill, Foa, Hembree, Marshall, &Nacash, 2006; Wells, 1999). Reviewers report that few individuals diagnosed with major depression and anxiety disorders actually receive CBT (Shafran et al., 2009), as there are too few trained therapists(Otto, 2006; Tarrier, Barrowclough, Haddock, & McGovern, 1999). Furthermore, those who are available appear to use what they were taught only to a moderate degree in their day-to-day-practice following training (Roth & Pilling, 2008; Stein & Lambert, 1995;Taylor & Chang, 2009). Others have raised concerns about the poor use and maintenance of CBT skills and competencies following training (Beidas & Kendall, 2010; Carroll, Martino, &Rounsaville, 2010; Kendall et al.,

2004),thelack of evidence-based training in evidence-based practices (Herschell et al., 2010; Weissman et al., 2006; McManus, Westbrook, Vasquez-Montez, Fennell, &Kennerley, 2010), andthe continued use of training methods for which there is little evidence of sustained transfer (Herschell, Kolko, Bauman, & Davis, 2010). Thus, difficulties in disseminating evidence-based therapies into the community settings where they are needed continue to persist (Cahill, Foa, Hembree, Marshall, &Nacash, 2006; Andrews, et al., 2000; Wells, 1999).

Efforts to understand the reasons for the moderate transfer of training at the community level have yet to result in any definitive answers. Therapist surveys highlight interpersonal factors, such as working directly with clients and undertaking formal supervision, as facilitating development as a therapist (Orlinsky&Rønnestad, 2005). Other researchers have called for studies to clarify the role that intrapersonal factors, such as therapist cognitions and emotional responses, may have in this area (Bennett-Levy &Beedie, 2007).Therapists, however, highlight external factors such as insufficient resources and high caseloads, as barriers to training transfer (McFarlane, McNarry,Dixon, Hornby &Cimett, 200l). In addition,studies continue to report results for small numbers of therapists who demonstrate transfer despite working in the same environments as their peers, for whom transfer may have been modest or not occurred at all (Fadden, 1998; Kavanagh, et al. 1993).

In summary, the need for therapists who are competent in the delivery of CBT techniques is growing at an alarming rate. The ability of health care providers to meet this need is limited not only by a lack of therapists, but also by the lack of therapists transferring CBT skills and competencies into their everyday clinical practice following the completion of training.

The aim of this thesis, therefore, is to investigate the role that therapist factors may have on transfer of training, during and following training in a one year CBT

scholar-practitioner diploma course. Furthering our knowledge in this area may enable therapists, their supervisors, and health providers to maintain gains in therapist competence, and improve the availability of CBT in the community.

1.2 Thesis Outline and Content

The content of this thesis is divided into three major sections. The first section contains a review of the literature in the area of transfer of training, focusing in particular on those aspects that have empirical support in the general literature (Chapter Two). Section one also contains a review of transfer of training in the psychotherapies, drawing on the literature relating to the dissemination of empirically supported therapies where relevant. Section one concludes with the study aims and hypotheses (Chapter Three).

Section two contains chapters that focus on the study methodology (Chapter Four) and results for the research question relating to relationships between transfer of training and therapist characteristics. Results areaddressed through two studies (Study One: Chapters Five and Six; Study Two: Chapter Seven).

Section three addresses research findings focusing on similarities and differences that result from discussion of the two studies, as these pertain to the research question. Finally, study limitations, recommendations and conclusions are presented (Chapter Eight).

Chapter Two

TRANSFER OF TRAINING: AN OVERVIEW OF THE GENERAL LITERATURE

This chapter presents a general overview of factors influencing training transfer, models of transfer, and limitations of the research in the general literature. Workforce performance continues to be a major issue as organisations strive to provide measurable outcomes, with training being the primary method employed to improve employee knowledge and skills. There is a sizeable body of literature addressing training issues including cumulative reviews (Aguinis&Kraiger, 2009; Campbell, 1971; Latham, 1988; Salas & Cannon- Bowers, 2001, Tannenbaum&Yukl, 1992; Wexley, 1984) and meta- analyses (Arthur, Bennett, Edens, & Bell, 2003; Burke & Day, 1986; Colquitt, LePine ,&Noe, 2000). The focus of this thesis is primarily on therapist factors that may influence training transfer and therapist competence in the psychotherapies. However, the extensive efforts made by researchers from other fields has much to offer in terms of highlighting factors that may impact on training transfer generally, irrespective of area of interest.

2.1 Transfer of Training: training design, organisational factors and trainee factors

There are varied reports regarding the overall success of training transfer in the general literature. The annual cost of training and development in the United States alone has been estimated between $126 billion (Aguinis&Kraiger, 2009) to $200 billion (Salas & Cannon-Bowers, 2001), with an estimated 10% of training resulting in changes to everyday practice (Georgensen, 1982). Survey data reported by Saks (2002) suggested 40% of trainees fail to implement training content following training, with 70% failing at 12 months and only 50% of the original training investment ultimately resulting in some benefit to the organisation or individual. Further, the issue is believed to be so extensive it is

suggested it would be rare to find a training situation where transfer problems did not exist (Holton, Bates, &Ruona, 2000). Conversely, in a meta-analysis of 397 effect sizes from 162 sources, Arthur, Bennett, Edens, and Bell (2003) found a mean effect size of .62 when investigating the benefits of training compared to no training. Thus, the large amount of research and ensuing recommendations that the issue continues to generate in the literature would infer that the poor return from training continues to be of concern (Burke & Hutchins, 2007).

Transfer of training – a definition

Transfer of training has been defined as the generalization and maintenance of new information, knowledge, attitudes and skills into the everyday practice of trainees (Baldwin & Ford, 1988). While this brief definition highlights desirable training outcomes, its simplicity belies the reality that many issues need to be considered for successful transfer to occur. Of particular note within the definition are references to the generalization and maintenance of training materials in the workplace. That is, it is implied that successful transfer occurs when trainees incorporate new skills and competencies into the day-to-day functioning of work environments, and are able to maintain these across time.

2.2 Factors that Influence Transfer of Training

In a seminal article reviewing transfer of training and directions for future research, Baldwin and Ford (1988) proposed three primary factors as influencing training transfer. These factors are: the design of training programmes, organisational environments and trainee factors. Within their model these factors are understood as contributing to the learning and retention of information, which in turn leads to generalisation and maintenance of the new material.In their review of the literature Baldwin and Ford also highlighted methodological limitations of many transfer studies, including thelack of theoretical frameworks to guide research andinadequate criterion measures of

transfer. To address these issues the authors recommended the systematic development, testing, and empirical revision of models, plus the use of independent measures of training transfer as opposed to solely relying on trainee self-report.Adoption of the factors and recommendations proposed by Baldwin and Ford has been widespread, and subsequent reviews have focused on updating empirical support foreach of the three factors, as well as reporting the efforts of researchers to address the study limitationsidentified in the original review.Further discussion of the Baldwin and Ford model can be found in numerous reviews of the literature in this area (see Aguinis&Kraiger, 2009; Ford &Weissbein,1997).

Findings of one recentreview of the Baldwin and Ford (1988) model are presented here. The review focusedspecifically on empirical support for each of the three factors: training design, organisational environment, and trainee factors (Burke & Hutchins, 2007). Literature included in this review was limited tometa-analyses and/or two or more empirical studies from peer- reviewed journals.

Training design

Training design variables found to be strongly to moderately related to transfer of training have been identified as clear learning goals, relevant training content, practice and feedback, behaviouralmodelling, and the use of error-based examples. Mixed support was found for relapse prevention (preparing trainees to manage challenges to the use of training material in the workplace) and active learning (involving students in discussion about the training material during lectures). Needs analysis and technological support were also recognised as requiring further research.

CHAPTER 2

Organisational environment

Aspects of the organisationalenvironment that were found to have a strong to moderate impact on transfer of training included the transfer climate (a positive climate provides cues that prompt the use of the training, and consequences for using or not using the training), peer and supervisor support, and the opportunity to use the training in the workplace. Burke and Hutchins (2007) also recommended further research relating to accountability, the transfer climate, and the influence of the strategic link between training content and organisational goals.

Trainee factors

Trainee factors, such as cognitive ability, self-efficacy, pre-training motivation, anxiety, openness to experience, perceived utility of the training materials, perceived contribution to career planning, and organisational commitment, were found to have a strong to moderate relationship with training transfer. There was mixed support for trainee external or internal motivation, conscientiousness, and locus of control. Further, minimal research was found that addressed motivation to learn, motivation to transfer, and extroversion.The authors called for more research to clarify roles of these latter variables in particular (Burke & Hutchins, 2007).

Transfer criteria: the evaluation of training transfer

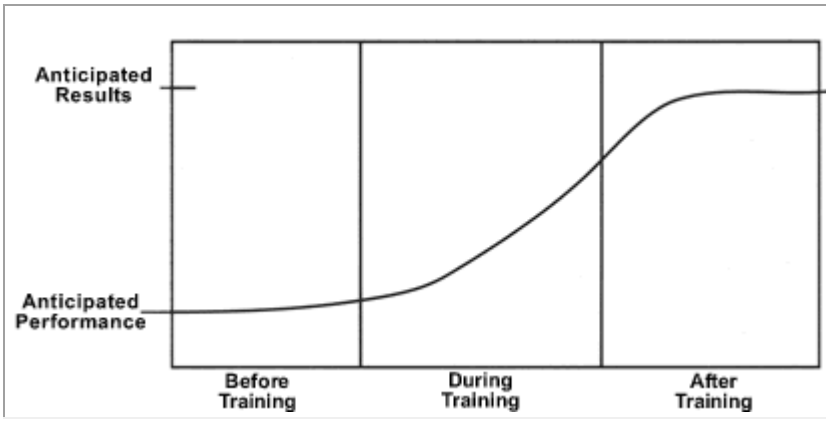
The most common means of evaluating transfer are presented in Kirkpatrick"s (1996) four-level framework of training criteria. The four levels are: *reaction criteria* or trainee reactions to the training programme, *learningcriteria* being learning or knowledge gained, *behaviour criteria* or changes in work-related behaviours, and *results criteria* being the usefulness of the programme to the organisation.

Reaction criteria are typically trainee reported assessments of the training process and content, and are undertaken immediately at the end of training. As noted by Baldwin and Ford (1988), reaction criteria represent the most commonly employed means of measuring success of training. For example, a 2002 survey undertaken by the American Society of Training and Development found that 78% of organisations reported using reaction criteria as their sole measurement of training outcome (Van Buren & Erskine, 2002). *Learning* criteria are typically pen-and-paper knowledge tests undertaken following training. Learning criteria are not recognized as measures of job performance, and are understood as insufficient for behaviour change (Tannenbaum&Yukl, 1992). Behaviour criteria typically represent supervisor ratings, or other objective measures of the impact of the training on trainee performance in the work environment. Although it would appear that learning and behaviour criteria should be conceptually related, there is a lack of empirical research supporting this link (Colquitt et al., 2000). Finally, results criteria have been described as the most removed from the training and transfer process, and are largely defined in the general literature as increases in profit or in service-user domains as a result of investment in employee training.

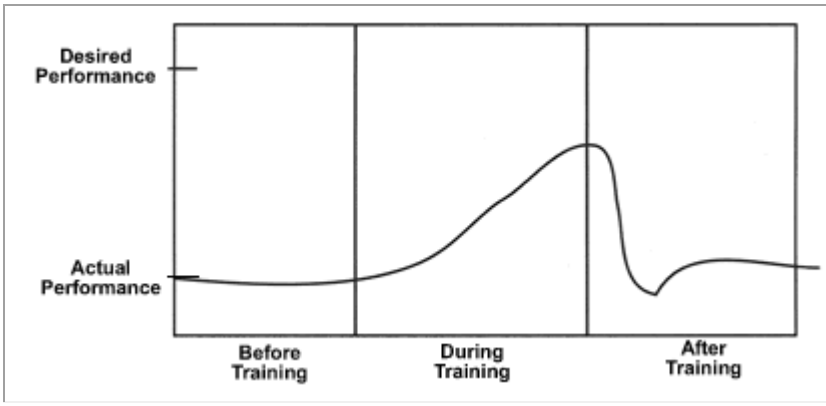
Kirkpatrick‟s framework for evaluation criteria were used by Arthur et al. (2003) in their meta-analysis of the effectiveness of training. Using 397 effect sizes from 162 sources, the authors found large to moderate effects ranging from .63 for learning criteria, to .62 for behaviour and results criteria. The results for reaction criteria at .60, were notable as these have not been linked to learning, behavioural change or organisational results in other studies (Arthur et al., 2003). However, in those studies where learning criteria were used in addition to either behaviour or results criteria, there was a decrease in effect sizes between the secondary criteria and learning of as much as .77.

Finally, Arthur et al. (2003) computed mean days between completion of training and collection of outcome data for each criterion. The authors found no delay between training and training effectiveness using *reaction* criteria, as trainee reactions were always collected at end of training (post-training). However, mean days to data collection (follow-up) for the remaining criteria were 26.34 for *learning* (*SD* = 87.99), 133.59 days for *behavioural* (*SD* = 142.24), and 158.88 days for *results* (*SD* = 187.36). In their conclusion, Arthur et al. (2003)noted that differences in follow-up time intervals were not significantly related to criteria effect sizes,

The findings of Arthur et al. (2003) would infer that post- training outcomes may be maintained for up to six months. Recommendations for studies to incorporate follow-up periods of 12 months or greater have appeared regularly for the past two decades (Baldwin & Ford, 1988; Beidas & Kendall, 2010, Burke & Hutchins, 2007),however few studies report follow-up periods of this length. Finally, while the results of Arthur et al. are widely reported in the general literature as highlighting the success of training programmes (Aguinis&Kraiger, 2009; Burke & Hutchins, 2007), the understanding that anticipated increases in performance do not match actual performance following training continues to persist (Holton et al., 2000; Saks, 2002), and is demonstrated in Stolovich (2000) (see Figure 2.1).



Performance increases expected from training.



Performance results frequently experienced from training.

Note 1: Adapted from Stolovich (2000).

*Figure 2.1*Anticipated and actual trainee performance before, during and following training.

2.3 Models of Training Transfer

Models seeking to explain training transfer may focus on the impact of one or more of the factors identified by Baldwin and Ford (1988). In addition, models may highlight distal (indirect) and/ or proximal (direct) relationships between variables of interest and transfer. Examples of transfer modelsthat integrate a number of factors include a partially-mediated model of training transfer (Colquitt, Le Pine, &Noe, 2000), a model investigating trainee self-reported skill

transfer with trainee mastery and performance goal orientation, perceived supervisor and peer support, and self-efficacy (Chiaburu&Marinova, 2005), a model investigating trainee self-efficacy and motivation, training materials, trainee autonomy, and management support (Axtel&Matliss, 1997), and finally, the Learning Transfer System, a model investigating the impact of organisational type on all aspects of training transfer (Holton, Bates &Ruona, 2000).

Colquitt et al. (2000) presented an integrative and partially-mediated model of training transfer that focused primarily on the influence of trainee factors and organisational variables as identified through a comprehensive meta-analysis of the transfer literature. Within this model, the trainee factors of pre-training self-efficacy, valence (the perceived usefulness of outcomes to be gained from the training), job involvement (organisational commitment, career commitment, planning, and exploration), and personality variables (locus of control, conscientiousness, and anxiety) were theorised as contributing to motivation to learn, and therefore as having a distal relationship with actual transfer. Motivation to learn was understood as contributing directly to learning outcomes (declarative knowledge, skill acquisition, post-training self-efficacy, and trainee reactions to the training) which then contributed to training transfer. Cognitive ability was placed within the Colquitt et al. model as having an effect on both pre-training self-efficacy and learning outcomes. Situational variables (organisational climate, manager and peer support) were understood as having a proximal (direct) relationship with transfer. The results of this meta-analysis revealed that pre-training self-efficacy and valence contributed significantly to training outcomes of declarative knowledge, skill acquisition, and post-training self-efficacy. The authors concluded that both individual and organisational characteristics may be critical to successful training transfer before, during and following training.

The model developed by Chiaburu and Marinova (2005) sought to extend the work of Colquitt et al. (2000). Chiaburu and Marinova proposed that organisational variables of supervisor and peer support, plus trainee factors of goal orientation and self-efficacy, have a distal relationship with skill transfer through pre-training motivation. Within this model goal orientation was based on the mastery-performance conceptualization (Elliot & McGregor, 2001). Mastery-oriented individuals are understood to focus on increasing knowledge and competence and persist in the face of challenges, while performance-oriented individuals pursue task-competence in order to receive positive feedback, and may decrease efforts and avoid challenges in order to avoid negative feedback following failure. Following a survey of 186 employees the authors found peer support to be directly and moderately correlated with *self-reported* skill transfer. Both a mastery-oriented approach and training self- efficacy were correlated with pre-training motivation as hypothesised. The relationship between pre-training motivation and skill transfer was small but significant. The authors recommendedthat the selection of trainees based on self-efficacy,and the development of strategies to improve self- efficacy, may act to enhance transfer. Further, the enhancement of peer support by rewarding knowledge sharing was also suggested as a means of optimizing training outcomes.

Self- efficacy featured again in the investigation of immediate transfer and maintenance of transfer by researchers Axtell and Maitlis (1997), who proposed a model of transfer in which trainee factors (self-efficacy and motivation), training characteristics (perceived relevance of training materials), and organisational variables (management support and trainee autonomy), would have a direct impact on training transfer at one month following training. In addition, both trainee factors and organisational factors would continue to have a direct impact with maintenance of transfer at 12 months. Further, it was proposed that the effect of course characteristics at the 12 month follow-up would be moderated by training transfer at the one month assessment.

CHAPTER 2

Correlations between manager-rated use of skills and trainee-rated use of skills were present at both one and 12 month assessments. However, only 27 of 45 managers provided data at one month follow-up, and 12 of 45 at the 12 month follow-up. Neither self- efficacy nor trainee perception of organisational support was found to be related to transfer.

A further model, the Learning Transfer System (Holton, Bates, &Ruona, 2000), focused on training transfer systems (being all factors within the person, organisation, and training that influence job performance).Holton et al.also proposed that self-efficacy leads to motivation to transfer. When combined with organisational factors, motivation to transfer then results in successful learning and performance outcomes. Additional factors influencing outcome within the model include learner readiness, the validity of course content, opportunity to use the new material, and personal capacity to generalize the training into everyday practice. Holton et al. administered an inventory based on the Learning Transfer System to 1,616 trainees from a range of organisationsand identified three main factors as a result: organisational climate, perceived job utility, and rewards. Further use of the inventory included an assessment of transfer systems within organisations (Holton, Chen, & Naquin, 2003). Data relating to trainee factors, perceived organisational environment, motivation, and ability were submitted by 1,099 employees from 15 organisations. Study results revealed that private sector employees reported believing that a change in performance would lead to positive outcomes and that they would have the opportunity to use the training back in the workplace. Public sector employees reported that they were likely to encounter more supervisor opposition to use of the new material, and more resistance to change in the workplace. Finally, not-for-profit employees reported more supervisor support and higher motivation to transfer the training than either public or private sector employees.Holton et al.concluded that different types of organisations may require different interventions to facilitate transfer of training. They also acknowledged that data

relating to actual transfer outcomes, as opposed to employee perception of likely outcomes, would be required to confirm this hypothesis.

Finally, Weissbein, Huang, Ford, and Schmidt (2011) provide an example of a single factor model. Within their model, the factor „therapist characteristics" was represented by two variables: locus of control and motivation to learn. Weissbein et al. proposed that distal relationships between locus of control and therapist motivation to learn would in turn influence proximal relationships between motivation to learn and transfer of training. Findings from their study established that a pre-training intervention influenced trainee attributional beliefs (success is achieved through persistent effort and correct use of strategies) which impacted on trainee motivation to learn and, following completion of the training, trainee knowledge and observed practice.

In summary, models of training transfer highlight the diversity of variables associated with each of Baldwin and Ford"s (1988) factors (training design, therapist characteristics and organisational factors). Despite the wide range of variables that might be investigated, empirical studies frequently focus on the trainee characteristics of self-efficacy and trainee motivation, as well as organisational factors.

Empirical studies and transfer of training: some examples

Self-efficacy was understood to have a proximal relationship with transfer in a study reported by Gaudine and Saks (2004), who investigated transfer outcomes following training in a hospital setting. Within their study in-patient nurses (n = 118) attended a two-day workshop on the McGill Model of Nursing (Gottlieb &Rowat, 1987), an intervention about which they had little or no knowledge prior to the training. The workshop consisted of lectures, discussions, roleplays, group activities, and videos of assessment and actual cases. Transfer criteria for the study included self-efficacy, as well as self-rated and supervisor-rated changes in behaviour. Follow-up at two months post-

training showed significant increases in self-efficacy as well as self-rated and supervisor-rated behaviour change. Improvements were maintained at six months. Further, post-training self-efficacy predicted both self-rated and supervisor-rated behaviour at two and six months follow-up. The authors offered a number of reasons to explain successful transfer in this study. First, a committee of staff nurses representing most units within the hospital was charged with choosing an appropriate model for family involvement, subsequently adopting the McGill Model of Nursing. Second, there was consultation between the nursing committee and nursing union representatives about the suitability and financial cost of adopting the model. Finally, the director of nursing was a McGill University graduate, and acted as a „champion" for the intervention. Champions are described as key individuals within organisations who *„assume responsibility for faithfully learning a behavioral innovation and for subsequently introducing the innovation into their treatment setting'* (p.208, Liberman& Corrigan, 1994). Champions are commonly professionals with clinical or administrative roles who serve to train and supervise others in the innovation, ensuring maintenance and quality of training transfer. The presence of a champion when disseminating an intervention represents organisational support in providing appropriate supervision, opportunities to practice, and cues to practice.

A study employing a mixed methods design found trainee perception of environmental support and aspects of the training design to be associated with lack of transfer (Clarke, 2002). Fourteen social care workers who attended a two-day course in risk assessment were assessed for knowledge and skills pre-, post, and at five months after the training finished. In addition, a semi-structured interview was conducted six months post-attendance. Clarke found that the training had resulted in minimal on-the-job behavior change. Further, thematic analysis of the interview transcriptions suggested that trainees identified work environment factors and the length of training to be responsible for the lack of

transfer. Specifically, trainees reported the duration of the training had been too short to truly master new skills, limited opportunities to use the skills back in the work environment, and a lack of supervisor support to implement the new strategies. Clarke also reported the finding that 78% of trainees in the sample had viewed the value of in-service training as enhancing personal development, which also seemed to be associated with poor transfer. Similar studies of social service agencies in the United States also found trainees to report limited opportunity to use skills, poor supervisor support (Gregoire,1994), and high caseloads (Rooney,1985) as reasons for poor training transfer.

Trainee perception of organisational factors in training transfer wasalso addressed in ananalysis of a training programme relating to the development of management skills (Nikandrou, Brinia, &Bereri, 2009. Trainees (*N*=44) within the study were engaged in the development of the content and design of the programme in an effort to meet individual learning needs. Traineesinitiated activities such as performing literature reviews, interviews with business executives, surveys of management practices in various organisations, case studies, and field research. However, transfer of training at the 1 year follow-up was virtually non-existent (2% of trainees had implemented the training material), with trainees reporting organisational issues as the major barriers to implementation.Further, at follow-up nearly half of the trainees in this study reported they were not thinking of their current position when they entered the programme, and had participated with the goal of developing knowledge and skills for future employment. Nikandrou et al. concluded that trainee perception of organisational support for the training (whether or not they would be actively encouraged to use the new skills) was instrumental in determining transfer of training. However, these results also suggest thatthe high motivation to learnshown by trainees was associated with a desire to enhance traineeprofessional development. That is, to secure knowledge and skills offered by the training programme for use at some time in the future.While resultsof the

Nikandrou et al. study may have arisen for any number of reasons, they raise further questions relating to trainee motivation. Further, resultsprovide some support for the findings of Clarke (2002),in that trainees may undertake training for reasons other than use in their current area of employment, even though the training may be particularly relevant in their current area of employment.

Finally, trainee perception oforganisational factors as barriers to transfer has been estimated to account for 42% of inhibiting factors in training transfer generally (Foxon, 1993).

Limitations

A review by Baldwin and Ford (1988) concluded that the design of many training programmes limited the ability to generalise study findings. Programmes focused on training outcomes for short term simple tasks, as well as poorly defining the criterion as to what actually represented training transfer. Learning and short term retention of information were frequently presented as the sole outcomes, with little measurement of competence in using skills and the retention of skills over time. In addition,Baldwin and Ford found a general lack of theoretical models leading research in this area, further exacerbating the difficulties in generalizing results to organisational training situations.Other limitations include the suggestion that Kirkpatrick‟s framework for guiding evaluation is no longer sufficient, and that more diagnostic and rigorous assessments of outcomes are now required during and following the training process (Salas & Cannon-Bowers, 2001). Finally, the lack of standardized measures has also been highlighted as resulting in misinterpretation of findings and measurement error(Holton III et al., 2000).

Practical examples of the limitations of transfer studies can be found. In a search for empirical evaluations of in-service training conducted within a public service agency in the United Kingdom, Clarke (2001) could identify only 20

studies despite an annual training and development budget of £80 million. Of the 20 studies identified 50% reported positive outcomes, a further 45% reported mixed outcomes, and one study reported no change. Several studies measured trainee satisfaction, knowledge gain, or self-reported changes in behaviour as the sole indicators of training transfer. Only six studies used a follow-up time series in the study design. Results from studies that used objective measures to determine transfer of training were also limited in that effect sizes were either significant but too small for practical significance, or no behaviour change was found. The author concluded when using trainee self reported data as the sole measure of transfer,in-service training in the social services would appear to be effective. However, when using more objective measures only tentative conclusions could be drawn. Finally, authors of the reviewed studies also reportedthat they were uncertain of the practical significance of their findings (Clarke, 2001).

A similar review conducted within the gerontology literature found only 17 of 48 studies included details of follow-up assessments(Aylward, Stolee, Keat, &Johncox, 2003). Eleven studies reported sustained trainee improvement at follow-up, with one study also reporting improved client outcomes. Others reported increased knowledge but no improvement in skills. Further, Aylward et al. reported that no organisational attempts were made to facilitate transfer following training.

As part of their review, Burke and Hutchins (2007) offered three suggestions to further guide researchers and help overcome research limitations. The first of these highlights difficulties with the „transfer" criterion. The authors suggest that future research should directly address „transfer" through multiple sources in order to overcome issues of validity that arise when outcomes are derived from a single source. In addition, they advised extending the follow-up period for

assessment of maintenance and retention to 12 months. The second suggestion calls for closer collaboration between organisations and researchers, in order to validate within-organisation transfer practices, as well as inform researchers about organisational requirements. The reviewers‟ final suggestion highlights the need for research theories and assessment methods that reflect transfer of training as a multidimensional construct influenced by multiple factors.

2.4 Summary: General Overview

Transfer of training is understood as the generalisation of new material into the everyday practice of trainees in the workplace.Models of transfer have investigated the roles of a wide variety of variables associated with three specific factors: training design, therapist characteristics, and organisational factors, as facilitating or inhibiting transfer. The therapist characteristics of self-efficacy and motivation to transfer have featured oftenas facilitating transfer in both models of transfer and empirical studies in this area. Organisational factorsare most frequently reported in empirical studies as inhibiting transfer, withtrainees reporting high work loads, limited opportunity to practice,minimal expectations from managers, plus absence of the organisational cues necessary to prompt transfer. Organisational constraints may also result in training becoming a personal development option, rather than enhancing trainee work-related goals. Training duration has also featured as problematic for trainees learning new and complex skills. However, transfer has been successful when trainees participate in choosing training content, have clear organisational support and the presence of a training champion. Data relating to reasons for poor training transfer have largely been drawn from the report of trainees, highlighting a major gap in the literature in this area. Further, what is known about training transfer is tempered by the poor design of many studies, including small sample sizes, a lack of control groups, unstandardised measures, poor definition of the criterion for transfer, and lack of follow-up. Suggestions for future research include employing a numberof sources to determine both effective transfer and reasons for a lack of transfer, use of

standardized measures, follow-up periods of 12 months or greater, and closer collaboration between researchers and organisations.

This chapter has presented a brief overview of transfer of training from the general transfer literature, with a focus on the influence of transfer factors and their associated variables. The following chapter will address the influence of transfer factors in the psychotherapy literature, to further identify variables that act to enhance or inhibit transfer in this area.

CHAPTER 2

Chapter Three

TRANSFER OF TRAINING IN PSYCHOTHERAPY

The previous chapter highlighted the influence of multiple factors on training outcomes as identified within the general literature. These factors were: training design, work environment and trainee factors. To understand more about the issues facing trainees and trainers in psychotherapy, the first part of this chapter will focus on three models of therapist learning during and following training as a psychotherapist: the Declarative Procedural Model (Bennett-Levy, 2006; Bennett-Levy, McManus, Westling, & Fennell, 2009),Influences on Self-Perception of Competence (Bennett-Levy & Beedie, 2007), and the Systems-Contextual Model (Sanders & Turner, 2005). This is followed by a review of the psychotherapy literature where study designs have incorporated one or more of Baldwin and Ford‟s (1987) three factors: training effects, work environment effects, and trainee factors. Study hypotheses are presented in the final part of this section.

3.1 Training Models

Declarative-Procedural-Reflective (DPR) Model

The Declarative-Procedural-Reflective model has been described as „comprehensive framework‟ through which therapists acquire, refine, and conceptualise therapy skills required to be a cognitive therapist (Bennett-Levy, 2006). The model describes how therapists continue to adapt their practice through personal use of skills (self-practice) and self-evaluation (self-reflection) across time. The self-practice/ self-reflection process is understood to facilitate the transfer of training material into a therapist‟s everyday practice.

The DPR model is based on the concepts of declarative and procedural information processing (Binder, 1999), whereby knowing something factual (knowing „what‟) is understood to involve the declarative system (D), while knowing how to do something involves the procedural system (P). These two

information systems are understood to facilitate different types of learning. For example, learning that is associated with passive exposure to new information such as attending a lecture, reading, and observing others involves the declarative system of information processing. Taking an active part in role plays and direct clinical practice with feedback, involves the procedural system.

While an understanding of knowledge concepts plus practice contributes in the development of procedural competence, it is understood that procedural competence is more difficult to acquire. Knowledge relating to skills and competencies is most commonly gained through the declarative information processing system, with attempts to apply or use that knowledge resulting in procedural learning and a greater understanding of the therapy process. In this way procedural competence is eventually characterized by knowing not only *how* to use specific skills and competencies, but *when* to use them (when-then rules). Procedural competence may be aligned with „intervention competence" as described by Sharpless and Barber (2009), who used this term to describe therapist understanding of „when - then" behaviours.

The third component of the DPR model, reflection (R), has an important role in the continual development and expansion of the learning process. The concepts of therapist self-reflection (SR) and self-practice (SP) represent a link between *trainer*-directed declarative and procedural learning, and *self*-directed learning. Therapists practice skills and competencies and then reflect on personal progress in using them. During this process they are encouraged to consider the role that personally held attitudes and beliefs about therapy (self-schema) might play in their practice.

Self reflection and self practice have long been accepted as desirable therapist behaviours, and many European countries include self-reflection in the form of personal counselling as a necessary component of the clinical registration process (Laireiter&Wilutzki, 2003). However, Bennett-Levy (2003) argues that

self-reflection need not be seen as synonymous with personal therapy, that it can be effective in the form of personal reflection on clinical and personal practice of skills and competencies. Further, Bennett-Levy (2006) suggests that reflective supervision, reflective reading, and reflective writing also represent strategies that facilitate therapist learning.

In summary, the DPR model posits that therapist learning takes place within the interaction of three major components; declarative information processing („knowing that"), procedural information processing („how" and ultimately „when" to use which skills and competencies), and reflection (self reflection on personal reactions, attitudes and beliefs in clinical and personal practice). The relationships between these three factors facilitate the continued development of therapists from novice to experienced practitioners, the latter being characterized by their increasing ability to choose from an extensive repertoire of when-then rules, plans, and procedures, to effectively manage novel and difficult situations in the therapy setting.

There is some evidence for the Declarative-Procedural-Reflective model in the existing literature. Declarative learning ("knowing that") may be understood as didactic learning delivered through passive training strategies, such as lectures, watching DVDs, observing role plays and reading content relevant material. Didactic instruction, without the addition of other training modalities, has been reported as insufficient to achieve transfer of training (King, Davidson, Taylor, Haines, Sharp, & Turner, 2002; Rakovshik & McManus, 2010; Sholomskas, Syracuse-Siewert, Rounsaville, Ball, Nuro, & Carroll, 2005). However, in at least one study where experienced CBT practitioners received supervision and case reviews but were not exposed to any didactic instruction, patient outcomes for CBT were poorer than for the comparison treatment (Dimidjian et al., 2006). This suggests that some didactic or declarative input (relating to underlying theory, disorder formulation, specific aspects of treatment) is necessary even for experienced therapists (Herschell et al., 2010). This is supported by the findings

of Arthur et al. (2003) who reported training using lectures achieved small to large effect sizes in their meta-analysis of training design and training outcome.

Procedural learning strategies are those where trainee therapists actively engage in role playing, review of in-session videotapes, plus receiving and acting on feedback. Courses using these strategies, plus manuals, supervision, and extended training (over 100 hours), have reported increased therapist competence and improved client outcomes (McManus et al., 2010).

Longer courses, such as many diploma courses, also allow for the third part of the DPR model; reflection (Bennett-Levy, 2006). Learning new information, skill sets and competencies takes place over time, and the very act of reflection requires experience in both the personal and clinical use of skills before the individual has sufficient material to reflect upon.

There have also been a number of direct attempts to apply the DPR model in training settings. In a study featuring declarative and procedural learning strategies, diploma trainees were required to rate their own progress (competency) at six time periods throughout the year(Bennett-Levy & Beedie, 2006). Where their progress differed from the previous rating, trainees were asked to record the reasons why their perceived competence might have changed. At the end of the course self-efficacy was found to „closely mirror" observed ratings of competence. In addition, qualitative analysis of the written responses provided the authors with the basis of a second model conceptualising the relationship between self-reflection and self-efficacy (discussed further within this section).

A further study evaluated the effect of self practice and self reflection during case conceptualization training as part of a CBT diploma course. Results included an increase in trainee self-perceived competence relating to a number of therapy learning processes. Self-perceived theoretical understanding of the

model, empathy, self-awareness, adaptation of clinical strategies, and being able to conceptualise the therapy process, improved following exposure to a self-practice/ self-reflectionmanualised training intervention (Haarhoff, Gibson, &Flett, 2011).

In yet another CBT diploma study, significant increases in perceived competence (self-efficacy) were again noted following a four year CBT course which incorporated self reflection and self practice into individual (40 hours) and group (40 hours) supervision (Niemi&Tiuraniemi, 2009). In addition to the supervision components within this study, trainees were asked to write reports identifying their learning orientation (what they believed they needed to learn) as well as the domain focus of their self-reflections. Of particular note is that trainees were found to focus mostly on, and report the most gains in, conceptual and technical domains such as technical knowledge, skills, and strategic procedures. Interpersonal, perceptual, and relational skills were mentioned infrequently. Further, conceptual and technical domains were the foci of their self-reflections at the beginning of the course, and remained the foci of their self-reflections across the period of assessment. The authors concluded that trainees may tend to focus their self-reflective learning on those aspects of therapy that they feel they need to learn, while ignoring aspects where they feel sufficiently competent due to prior learning (Niemi&Tiuraniemi, 2009).

Finally, computer aided self-reflection through the use of blogs was found to enhance self-practice and self-reflection in a study training allied health professionals in five core CBT skills over a three week period(Farrand, Perry, &Linsley, 2010). Trainees were required to post at least one blog per therapy skill. In a focus group two months post training trainees reported that they had found the blogging experience to increase their understanding of the need for self-practice and self-reflection, both through their own blogs and those of other trainees. The transparency of reporting self-practice and self-reflections about practice on the blog resulted in peer pressure to participate and the shared

understanding that many difficulties in learning CBT skills and competencies are commonplace. The authors did not use role plays as a training strategy, relying instead on the blog experiences of trainees to provide a pseudo-experiential component to the training. Trainees, however, reported that this was insufficient as a means of learning the correct use of techniques and requested that further training include the opportunity for observed practice and feedback.

The findings of Farrand et al. (2010) in particular, highlight the value of the Declarative-Procedural-Reflective model as a means of helping trainers to develop appropriate means to maximize the learning of different types of information. For example, practice and feedback are acknowledged as having a strong to moderate effect on training transfer (Burke & Hutchins, 2007) and role playing is a well accepted method used to enable practice and feedback to occur (Bennett-Levy, et al, 2009; Sholomskas et al., 2005). Thus, while observing role plays modeled by experienced therapists and reading about the experiences of peers may facilitate declarative learning, trainee therapists still need to undertake the role of the therapist to begin to appreciate and understand how to actually use the skill set involved (procedural learning), as well as receiving feedback about their performances from skilled supervisors.

The DPR model presents a conceptual means of understanding therapist learning and development within the therapy role, with the self-practice/ self-reflection components explaining in particular, the process of therapist development from adequate to expert. Limitations of the model are that to date research linking the model to improvements in trainee competence has been restricted to trainee self-report (Haarhoff et al., 2011; Niemi&Tiuraniemi, 2009) or has been limited to observed measures of competence at the end of training only (Bennett-Levy & Beedie, 2007), with no indication of the maintenance of self-practice/ self-reflective behaviours or therapist competence following training. Further, as model developers, Bennett-Levy and Beedie may have

introduced bias,suggestinga need for caution in the interpretation of their results.

Influences of Self-Perception of Competence model

The Influences of Self-Perception of Competence model is an extension of the Declarative-Procedural-Reflective model developed by Bennett-Levy (2006). The model represents the results of a studyundertaken during a CBT postgraduate diploma course. Trainees (*N*=24) were asked to self rate their competence six times across the 12 months of the course, and then to reflect in writing upon any major changes to the previous rating and the reasons for these. Results of the study formed the basis of the Influences on Self-Perception of Competence model. Differences between the two models include a focus on identifying variables that may influence self-reflection, which then impacts on*self-perception* of competence.

Development of theSelf-Perception of Competence model using the results of the qualitative analysis revealed three major areas as influencingself perceived competence in using CBT skills and competencies. The first of these, Learning Opportunities, was understood as the acquiring of knowledge through teaching, study, practicing and experimenting, getting external feedback, plus positive or negative experiences with clients. The second, Emotional State, was characterized by emotional memories invoked by recent sessions and associated feedback, plus the emotional impact of work, home, and course related stressors. The final factor, Cognitive Impact, involved reflection on the outcomes of Learning Opportunities within the context of current Emotional State (work and home-based stressors, feedback on recent sessions) leading to trainees‟ Self-Reflection of Performance (including reflection on progress in relation to peers and supervisors). Trainee self- reflection of performance was found to relate directly to Self Perception of Competence, as well as to Standards Required of a Cognitive Therapist.

A further finding from the research that informed the development of the model was that most trainees rated themselves as less competent on at least one item at some point during the study. In all cases the emotional impact of work, home, and course related stressors were associated with decreases in trainee self-ratings of competence. It was suggested that the targeted focus on self reflection increased trainee awareness of the standards required of cognitive therapists, and reminded them that the end of training was approaching at a time when their perception of their own competence was still low (Bennett-Levy & Beedie, 2006).

The Influences of Self-perception of Competence model is important within the transfer of training field for a number of reasons. Firstly, trainees involved in the development of the model reported variables *other than organisational factors* as responsible for decreases in their performance of CBT skills and competencies. This finding is of note as trainees in numerous studies in this area have tended to report poor use of skills as being solely due to the impact of organisational factors (Fadden, 1997; Kavanagh et al., 1993; Clarke, 2001). Secondly, trainee recognition that variables associated with other factors (training design and therapist characteristics) could impact on their competence is likely to be a result of engagement in the self reflection exercise included in the study design. This would suggest that the practice of recording self-reflectionsrelating to competence may act to enhance trainee self-awarenessof competence. A third reason is that Bennett-Levy and Beedie‟s (2007) study is one of few studies in the psychotherapy literature to find a relationship between therapist self-perception of competence and observed competence, which further supports the suggestion that the study methods facilitated trainee self-awareness. The value of therapist self-awareness is that itmay act as a prompt for therapists to engage in supervision, and to seek the support of peers and expert clinicians when encountering difficulties with the therapy process.

Systems-Contextual Model (SC)

The DPR and Influences of Self-Perception of Competence models incorporate variables associated with training design, organisational factors, and therapist characteristics *as perceived* by trainees.In contrast, the Systems-Contextual model posits that interactions between these factors, client variables, communication strategies, and aspects of consumer advocacy facilitate the implementation of interventions. The model was developed specifically to implement the behavioural family intervention; Triple-P Positive Parenting Programme (Sanders & Turner, 2005; Turner & Sanders, 2006). Training variables included within the model were training processes and the provision of resources (manuals, handouts) for therapists and clients. Organisational variables were availability of adequate supervision, line management support, and adequate funding to implement the programme. Therapist or practitioner variables included self-efficacy in programme implementation, experience, knowledge of the intervention, low perception of barriers, and exposure to training. Client variables were severity of presentation, risk, and protective factors.Communication strategies incorporated liaison with the media, while consumer advocacy involved access to advocate services and support. The model was based on self-regulatory approaches involving self-directed learning, personal goal setting for skill development, self evaluation of progress, and problem solving of issues impeding implementation.

A meta-analysis of studies investigating the effectiveness of Triple P Level 4 programme (8-10 sessions of intensive training in positive parenting skills) found long term support for the Triple-P intervention (de Graff, Speetjens, Smit, de Wolff, &Tavecchio, 2008). Further, brief General Practitioner training in the Triple P program resulted in increased post training competence (Sanders, Tully, Turner, Maher, & McAuliffe, 2003b), and a self-audit completed by General Practitioners at two weeks follow-up also showed improvement in interview and intervention skills.

CHAPTER 3

Although the Systems-Contextual model was developed to enhance dissemination and implementation of the Triple-P Programme, the approach was also used to critique research relating to the effectiveness of therapist training in evidence-based practices (Beidas & Kendall, 2010). Beidas and Kendall focused specifically on therapist variables, organisational support, training design and client variables, and argued that efforts to understand relationships between training and training transfer must be considered within the context of the system in which the training occurs. The authors reviewed 32 studies in which service providers (psychologists, psychiatrists, social workers, nurses, substance abuse counselors, secondary school staff and master"s level clinicians) were trained in evidence-based psychotherapies (EBP). Inclusion criteria were that studies included at least one measure of therapist variables (attitudes, clinical experience, theoretical orientation), and/or organisational support (provision of supervision, support of consultants), quality of training (described training characteristics sufficiently), and/or client variables (severity of illness presentation, risk factors, resilience). Results were reported in terms of learning criteria (gains in knowledge, trainee attitudes, trainee satisfaction), behaviour criteria (competence in use of skills), and results criteria (change in client presentation).

The authors concluded that generally self-reported and observed knowledge improved after training in an evidence-based practice, irrespective of differences in treatment modalities or type of therapist. However, overall self-reported change in therapist behaviours did not match actual behaviour change irrespective of treatment modality. Even when using the most effective training methods (workshop, manual and brief supervision) therapists frequently failed to reach proficiency (attaining 80% of the total possible score) in adherence, competence, and use of skills following training. Further, there was insufficient information to suggest how therapist and organisational characteristics influenced this outcome. Provisional evidence suggested that only when studies are designed to address training, organisation, therapist, and client variables are

trainees likely to attain observable proficiency (adherence and competence), with this being particularly true of studies in cognitive behavior therapy. A further theme within their review related to the quality of the studies included. Few were random controlled trials and many were convenience samples with low participant numbers. Further, a number of studies employed learning criteria (trainee satisfaction and knowledge gains) as the only outcomes measured, and employed trainee self report as the only means of measuring outcome. Finally, few studies in their review employed a follow-up time series in the study design (Beidas & Kendall, 2010).

Summary

Models of training transfer in psychotherapy each address training, organisational, and therapist characteristics to some degree in their attempts to explain training outcomes. The Declarative-Procedural-Reflective (DPR) model provides a framework for understanding how training content is processed by trainees through passive (declarative) and active (procedural) learning. This model also provides a means of understanding the generalization and maintenance of new skills and competencies post-training, through the processes of therapist self-practice and self-reflection. The Influences on Self Perception of Competence model posits that training and work related learning opportunities interact with trainee emotional responses to work/ personal stressors and external feedback. Both the DPR and the Self Perception of Competence models are cognitive models based on trainee information processing related to the variables of interest. In contrast, the Systems-Contextual model specifically focuses on interactions between organisational, training, therapist and client variables as major determinants of training transfer. There is some empirical evidence to support the DPR and Influences on Self-Perception of Competence models at the end of training (post-training), but no follow-up data is available. Also there is some provisional evidence that training

transfer is less likely to occur when training issues, therapist, organisation, and possibly client characteristics are not addressed in the design of studies.

3.2 Training Design

Clinical trials seeking to establish the effectiveness of psychotherapeutic interventions have employed aspects of the Baldwin and Ford (1988), the DPR (Bennett-Levy, 2006) and systems contextual (Beidas & Kendall, 2010) models of training transfer. Researchers select motivated and committed staff, use manuals, didactic and active learning (role plays, practice), and ensure therapists participate in intensive supervision of at least one case (Elkin, 1999). Further, competence in the use of the strategies is measured through supervisor/observer ratings, thus certifying that transfer of training occurred (Sholomskas et al., 2005).

Many of the attempts to disseminate psychotherapies in the community are rarely conducted with the rigor of a clinical trial. Instead, training is offered as brief workshops relating to specific aspects of a treatment, or longer courses (100 hour plus) aimed at the dissemination of a full intervention. Many of these studies use quasi-experimental, pre-post, convenience sample designs, and thus contribute to what is known about transfer of training in psychotherapy, as well as helping to indicate directions for further research. However, investigations into the effectiveness of actual training design, processes, and practices on training outcomes are not well represented in the literature at this time. For this reason, researchers have focused on the particular characteristicsof the training programme, organisations, and trainees that impact on the transfer of training.

Length of Training

The impact of training length in CBT was addressed in some detail in a recent review of the training literature (Rakovshik & McManus, 2010). Study strength

within the review was categorised. Categories were based on behaviour (therapist competence) and results (client outcomes) criteria. Category I studies referred to investigations where therapist competence or patient outcome was equal to or exceeded that of efficacy trials (*n* = 19, *M* = 199 hours, *SD* = 104). Category II referred to studies that reported positive results in either therapist competence or client outcomes, but *did not* reach the set criteria (*n* = 13, *M* = 93 hours, *SD* = 59), and Category III studies did not demonstrate significant effects for therapist competence or client outcomes (*n* = 5, *M* = 33 hours, *SD* = 32). Rakovshik and McManus (2010) acknowledged that there was considerable overlap between study categories. However, while there were a number of Category 1 studies with fewer hours of training, there was only one example of a study with high training hours resulting in poorer outcomes (Rakovshik & McManus, 2010). In addition, significant improvement in competence levels for less experienced trainees following extensive training (that is, greater than 137 hours of training) was found.

However, shorter courses may also demonstrate training effects and transfer of training. A two-day, 12 hour workshop reported in Simons et al. (2010) included role plays, group activities, an intensive focus on CBT specific skills and competencies, as well as themes such as Socratic methods, collaboration, homework methods, and strategies to enhance client learning. Results suggested that gains in competency post-workshop (after only 12 hours of intensive training) were maintained at 12 months follow-up. However, these results may also have arisen from extended training in the form of frequent group telephone consultations that continued 3-weekly for the 12 months between post-training and follow-up. Further, the content of group consultations was decided in advance and based on written questions submitted by trainees prior to each three weekly consultation.

In addition, although longer courses may be more likely to report observer-rated changes in trainee competence at the end of training (Bennett-Levy & Beedie,

2007; Morganstern, Morgan, McGrady, Keller, & Carroll, 2001, Mathieson et al., 2009), one study reported trainees did not reach proficiency after 50 weeks of two-hour didactically presented training sessions plus supervision (Bein, et al., 2000).

Course content

Clearly, shorter courses have less time in which to deliver course content, and as such may be limited to skills training in exact competencies. Examples of exact competencies include training that focuses on aspects of treatment for a specific disorder, such as contingency management for substance abuse in adolescent populations (Henggeler, Sheidow, Cunningham, Donahue, & Ford, 2008), or teaching clinicians to question, persuade, and refer in the prevention of youth suicide (Cross, Matthieu, Cerel, & Knox, 2007). Longer courses may allow for more comprehensive training content, including an emphasis on the presentation of supportive literature and a wider variety of disorder specific skills and competencies.

Manualised delivery of training content also features consistently in psychotherapy research as part of the „gold standard" for training design (Sholomskas et al., 2005). The literature on the issues associated with manualised training is extensive and is beyond the scope of this review (see Chambless&Hollon, 1998; Goldfried& Wolfe, 1998). However, support for the use of manuals continues to feature (Herschell et al., 2010; Rakovshik & McManus, 2010), and the finding that adherence to manuals has been associated with poor therapeutic relationships seems confined to a limited number of studies (Henry, Schacht, Strupp, Butler, & Binder, 1993).

Multiple components (training strategies)

In a review of 55 studies Herschell et al. (2010) investigated the efficacy of six specific training methods. Methods were reading written materials (for example

a training manual), self-directed training techniques (for example, web-based learning, videos), workshops, workshops plus follow-up (for example, provision of feedback, supervision, role-plays), training-the trainer or pyramid training, and multi-component training packages. Herschell et al. found the most common training strategies were reading materials on the training topic or attending a workshop on the topic, neither of which had much support in the literature regarding training transfer. Further to the review by Rakovshik and McManus (2010), Herschell et al. also found that training programmes that incorporated a number of different training strategies such as treatment manuals, multiple days of training, taped sessions with clients, supervisor training, booster sessions, and one or more training cases, were more likely to demonstrate training effects.

Types of interactional strategies, such as roleplays and small-group activities, represent an „active" learning format, and are highlighted as being effective in enhancing the learning of specific skills (Alberts& Edelstein, 1990; Bennett-Levy et al., 2009), as well as providing opportunities for feedback (Goldstein & Ford, 2002). However, Saitz, Sullivan, and Samet (2000) reported no appreciable pre-post change in knowledge and confidence for a cohort of trainees following a three hour workshop in motivational interviewing, despite utilising roleplays with feedback. These results suggest that there may be a minimum length for training, even in courses that include multiple training strategies in the training design.

Trainer characteristics

The influence of the trainer as a variable was addressed as part a 24 month study of time-limited dynamic psychotherapy training (TLDP, Henry et al., 1993). Training within the study was conducted in 50 two-hour training sessions over 12 months, with a 12 month follow-up. Training components involved readings from the treatment manual, didactic presentations covering principles and techniques, plus clinical examples presented in either audio or visual format.

Trainees (eight psychiatrists and eight clinical psychologists) also received small-group supervision of one training case. However, despite a seemingly comprehensive training format, a post-study review of the 32 clinical cases revealed that 72% of the therapists involved within the study had failed to achieve basic competence at TLDP (Bein et al., 2000). Both Henry et al. and Bein et al. concluded that study outcomes were related to the impact of trainer style on trainee learning. That is, significant differences in the effects of training were found between the two trainee groups that were directly attributable to the two trainers, with those trained and supervised by Trainer A showing higher levels of change in interviewing style and use of specific strategies. Trainer A used a directive style, focused on specific learning tasks, and prompted therapists to engage in meta-cognitive behaviours, as well as continually reviewing core concepts while listening to therapists‟ taped sessions. Trainer B was less task-specific and would prompt therapists to develop their own questions after listening to taped segments. Further, Trainer A focused more on interventions relating to client dynamics, while Trainer B discussed client dynamics in the context of the entire treatment. Finally, Trainer A was more likely to be specific about useful therapist behaviours, direct in challenging less useful behaviours, and continued to highlight to trainees that they, including experienced psychotherapists, were all novices to TLDP. Trainer B tended to avoid confrontation, be more respectful of trainee autonomy, and tended to interact with trainees as a consultant to experienced professionals rather than to novices. Henry et al. suggested that when training experienced professionals in a new approach, the training will be more effective if they are treated as novices to the intervention. Bein et al. concluded that supervision of one training case may be insufficient for trainees to overcome their use of „customary‟ treatment methods in order to achieve mastery of new treatment models.

A further study measured the impact of experience on trainer effectiveness in the delivery of cognitive-behavioural stress management training (de Jong &Emmelkamp, 2000). Researchers employed either clinical psychologists who

were experienced in stress management training, or employees of the organisations involved (police departments, schools, and a general hospital) who were not experienced trainers. Inexperienced trainers received two days of training in specific stress management techniques, while experienced trainers (clinical psychologists) received no additional training. No effect for prior training experience was found, suggesting that the training could be effective when offered by professional groups other than clinical psychologists.

Summary

Multi-component courses (multiple training strategies) that are of 100 hours or greater have been associated with increased therapist competence post-training. Short courses have also reported sustained increases in therapist competence where these have included multi-component training strategies and involved training-focused contact with trainers following completion of the course. In addition, short courses may also be effective when training is restricted to discrete skills. Finally, the influence of trainer style may have more impact on outcomes than trainer experience.

3.3 Organisational Factors

Generally, organisational variables understood to facilitate training transfer include having the opportunity to practice, environmental cues to prompt practice, plus the presence of consequences for either practicing or not practicing new skills in the workplace (Burke & Hutchins, 1997). In addition, research from the general literature suggests training transfer may differ significantly between workplace type, with trainees from public, private, and not-for-profit organisations reporting different levels of confidence in organisational support for the transfer of training materials (Holton III et al., 2003).

Successful transfer of training has been noted where there is an overall organisational expectation that training transfer will occur, all levels of

stakeholders are involved in the implementation process, and multiple staff receive both training and training-specific supervision. Evidence to support this integration of multiple factors can be found in the positive outcomes reported in behavioural family intervention studies in which training design, trainee factors, and organisational variables were all addressed (Gaudine& Sachs, 2004; Grawe, Falloon, Widen, &Skogvoll, 2006; McFarlaneet al.,2001; Sanders & Turner, 2005).

However, similar attempts to train teams of mental health professionals in behavioural family interventions within services have also reported poor implementation, with only 18% of participants engaging three or more families post training in one study (Kavanagh et al., 1993), and8% of therapists (N=86) engaging 40% of the families seen in another (Fadden, 1996). Further, in this second example, an average of only 1.7 families were seen per therapist up to three years post training. Therapists in this study reported thatreasons for the poor engagement of families included insufficient time, too many clients, and afterhours scheduling (Kavanagh et al.), as well as a lack of suitable clients and prioritising crisis work over preventative therapies (Fadden, 1996).

Limited workplace support, poor access to supervision, and high caseloads also featured in two New Zealand surveys of CBT diploma graduates (Kennedy-Merrick, Haarhoff, Stenhouse, Merrick, &Kazantzis, 2008; Mathieson, Beaumont & Barnfield, 2010), with graduates in the Mathieson et al. study also reporting that having a case management role was a barrier to CBT use. Finally, a survey of psychiatrists (*N* =22) 3 to 6 years following post-graduate training revealed that not having enough protected time and CBT not in the job description, featured most highly as the reasons for poor transfer (Whitfield, Connolly, Davidson, & Williams, 2006).

In keeping with the general literature, it has been suggested that poor transfer of training in mental health may occur when organisations fail to provide the conditions necessary (time, facilities, cues to encourage practice) for staff to use new learning in the workplace. In addition, despite having resourced staff training (time away from work, course fees) there may be no organisational expectation that trainees will actually use new learning intheir practice following training (Fadden, 2006). The pressure on mental health organisations to meet output and outcome targets, restructure existing services, develop new services, and focus on the structure of teams as opposed to strategies delivered by teams, may explain the lack of expectations. These observations again support the concept that organisational environments may facilitate or inhibit training transfer, and suggest that some responsibility for transfer lies within the organisational role.

Trainee *perception* of workplace place factors as barriers to practice may also be understood as a trainee factor, in that issues reported as limiting the practice of some trainees may not be perceived as barriers by others. In both Fadden (1997) and Kavanagh et al.(1993), the small number of trainees who demonstrated transfer of training worked within the same environments as those who reported being unable to transfer training due to organisational factors. In addition, Nikandrou et al. (2008) reported only one of 44 trainees implemented a training package that trainees had themselves developed as a group to meet their own learning needs. Half of the trainees within this group reported undertaking the training despite an awareness that they were not going to try to use it in the workplace due to organisational barriers. Thus, there are trainees who are successful in their efforts to use training materials despite perceived organisational constraints. Further, little is known about the characteristics of those trainees who are more likely to transfer training, and/or are more likely to report workplace factors as barriers to transfer.

CHAPTER 3

Supervision

Supervision is included alongside peer and managerial support as an organisational variable that has a significant impact on training transfer generally (Burke & Hutchins, 2007; Al-Eisa, Furayyan, &Alhemoud, 2008). Skill-specific consultation with supervisors, plus peer and computer based support may act as cues to facilitate the use of newly learned materials pre- and post training(Beidas & Kendall, 2010). Further, results from a small number ofstudies suggest that trainees who continue to have supervision as part of the study protocol following training may maintain some gains at three months (Sholomskas et al., 2005; Smith et al., 2007), six months (Mannix et al., 2006) and 12 months follow-up (Miller, Yahne, Moyers, Martinez, &Purritano, 2004; Simons et al., 2010).

Despite a strong understanding that supervision is an essential part of training in psychotherapy, and the reality that almost all training in psychotherapy includes a supervision component, there is little consistent evidence available to support current models in this area (Holloway &Neufeldt, 1995; Milne, 2008; Milne, Aylott, Fitzpatrick, & Ellis, 2008; Stein & Lambert, 1995). In a review of 24 studies Milne et al. (2008) reported supervision outcomes to include attitude change, affective awareness and motivation/ reinforcement, general learning and self-monitoring, reflection (self-awareness and positive and negative evaluation), plus increased attention to goals, conceptualizing, and experimenting (exposure). However, Holloway and Neufeldt (1995) found the availability of objective evidence to be minimal when reviewing the effectiveness of supervision with regard to trainee attitude, beliefs and skills, client change, trainee performance in the therapy role, and interactional events during the supervision process. The authors concluded that supervisors appear to be influenced more by the trainee‟s interpersonal involvement during supervision than by client outcome. This conclusion was endorsed by Worthern and Lambert (2007), who reported that both trainees and supervisors were found to over-estimate client outcomes and under-estimate client deterioration.

A lack of supervisor training and supervisor manuals may also result in supervisor characteristics having an influence on training and supervision outcomes (Holloway &Neufeldt, 1995; Milne & Reiser, 2011). These authors noted that interactional events during the supervision process were closely linked to supervisor instructional characteristics, most specifically during the provision of feedback. The influence of interactional events on training transfer was reported by Henry et al. (1993) in their study of time-limited dynamic psychotherapy (see Trainer Characteristics- this section). Within this study participants supervised by Trainer A demonstrated significantly greater improvement in interview style and technical adherence. Trainer A utilised more directive, event and behavior focused methods to highlight specific aspects of therapy, and validated particular therapist behaviours as opposed to providing more global support. Trainer B, however, spent less time commenting on specific therapist behaviours, focused more on client dynamics, and provided more global feedback.

The issue of supervisor style also arose in a case study relating to supervision and parallel processes (Friedlander, Siegel, &Brenock, 1989). These authors used sequential analysis of verbal communication patterns across nine concurrent supervision-counselling sessions, concluding that therapy and supervision may mirror each other in terms of verbal interactional patterns. Their conclusions were further supported by Milne (2008), who found CBT supervisors to demonstrate poor adherence to the CBT model and suggested that the gap between theory and research in the area of supervision may be filled by supervisors using the same techniques in supervision that they do in therapy, as well as providing supervision in the same manner that they themselves receive it.

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Peer supervision

Peer supervision may facilitate transfer of training in that it can provide cues for trainees to practice skills and competencies (Burke & Hutchins, 2007). Peers may be the only source of supervision in numerous mental health service settings. In the social services area it has been suggested that peers may have as much influence over individuals as formal supervisors, due to the complex nature of the work involved, increased autonomy in decision- making, and reduced access to supervision (Clarke, 2002). The positive influence of peer supervision is supported by studies where the training of teams has facilitated transfer of training. Experienced peers in these situations prompt discussions regarding skills and competencies, thereby providing on-going practice and reflection cues. However, issues associated with relying on peers as the major source of supervision are highlighted by Rakovshik and McManus (2010), who suggest that during the period of attaining and consolidating competencies, peer or non-CBT specialist supervision may not be sufficient to facilitate transfer of training, and expert CBT supervision is likely to be pivotal at this time.

Summary

Characteristics specific to organisational type may explain poor transfer in some service settings where organisation and management priorities may be focused more on the structure of services rather than on the quality of service delivery. Despite the role that organisational factors may have in facilitating or inhibiting transfer of training, there is evidence that trainee perception of factors as barriers to practice may differ, even between individuals in the same workplace. Perception of organisational barriers may also, therefore, be understood as a therapist characteristic (therapist factor).

Organisational characteristics that may facilitate transfer include the expectation that trainees will use new skills, plus work-based opportunities and cues to do so. In addition, training-focused supervision has been associated with improved

training transfer in some studies. Peer support may also be of particular importance in social services where increased autonomy in decision making acts to increase the influence of peers, but it may not be an effective substitute for expert training-focused supervision immediately following training. Further, there is some evidence that many supervisors may not adhere closely to the CBT model, while the individual self-report of trainees and supervisors does not appear to be correlated with positive outcomes.

3.4 Therapist factors

During the past few decades research into the role of therapist factors in study outcomes was supplanted by the strong emphasis on the development and delivery of evidence-based practices in psychotherapy research (Beutler et al., 2004). The topic has re-emerged recently as the reality of minimal outcome variance attributable to differences in therapies has become increasingly apparent (Brown, Lambert, Jones, & Minami, 2005). Variance attributable to therapist factors has been acknowledged as consistently contributing to clinical outcomes (Anderson, Ogles, Patterson, Lambert, &Vermeersch, 2009). Estimations have ranged from 8% (Kim &Wampold, 2006), 0% to 50% (Crits-Christoph et al., 1991), and 1% to 18% (Huppert, Bufka, Barlow, Gorman, Shear et al., 2001).

However, a number of researchers continue to argue that therapist factors can be attributed to outliers, or small numbers of therapists who perform much better or much worse than other study participants (Elkin, Falconnier, Martinovich, & Mahoney, 2006). Further, it has been argued that methods used to estimate the impact of therapist factors (small sample sizes, measures employed), plus the inclusion of only those studies with significant therapist differences, may have inflated these claims (Crits-Christoph& Gallop, 2006). Never-the-less, the presence of therapist factors found in research involving large datasets suggests that while mechanisms for differences in therapist effectiveness remain unclear, there is evidence that differences do exist. Further, differences

between therapists have been noted in clinical trials where therapists have been carefully selected, rigorously trained, and supervised with strict adherence to therapy manuals (Anderson et al., 2009).

Relationships between therapist demographics and competence.

Most of the research relating to therapist factors represents demographic data, for example: age, gender, years of experience, professional background, or training. There are mixed reports of the relationships between these characteristics and therapist competence. No relationships were found between therapist competence and prior qualifications, professional background or training (Davidson & Scott, 2009), years practicing in mental health (Brosnan et al., 2006; Kennedy-Merrick et al., 2008), knowledge of depression or attitudes towards treatment (King et al., 2002), or frequency of supervision and accreditation (Brosnan et al., 2006).

However, James et al. (2001) found years of experience with CBT and gender (male trainees improved at a greater rate than females) to be moderators of competence in a 1 year CBT diploma study. Further, Brosnan et al. (2006) reported therapists with formal post-qualification training in cognitive therapy demonstrated greater competence in their use of CBT skills than therapists who had received basic CBT training as a part of their professional qualification. Finally, in a recent review of trainee competence at completion of a 12 month diploma course, age and professional background were found to impact on CBT competence levels in an evaluation of 278 trainees (McManus et al., 2010). Within this study the majority of trainees achieved the criteria for competence post-training. However, older trainees performed less well and clinical psychologists demonstrated the highest levels of competence.

In a meta-analysis of 30 studies, Stein and Lambert (1995) concluded that improved outcomes for clients treated by psychotherapists who had attended graduate school may relate to the tendency of clients to remain engaged with more trained and experienced therapists. Therapist experience was also related to outcome differences between sites of the Treatment of Depression Collaborative Research Project (TDCRP), where more experienced therapists produced better clinical outcomes than those with less experience (De Rubeis, Brotman, & Gibbons, 2005).

In an effort to address methodological issues relating to study designs (low participant numbers, no control groups, use of non-standardised measures, no follow-up period) researchers have investigated therapist factors using much larger sample sizes, such as those found in naturalistic settings (managed care and large practice networks). In a managed care data set of 1,198 clients and 60 therapists, up to 17% of the rate of client improvement was attributed to therapist factors (Lutz, Leon, Martinovich, Lyon, & Stiles, 2007). In a further study involving a managed care practice, data for more than 5,000 clients seen by 71 therapists were examined for differences in client outcome that could be attributed to differences in therapist characteristics (Okiishi, Lambert, Nielsen, & Ogles, 2003; Okiishi, Lambert, Eggett, Dayton, &Vermeersch, 2006). The authors reported that although no differences were found for gender, theoretical orientation, and level or type of training, there were significant outcome differences found for clients seen by the top 10% and bottom 10% of therapists within the practice. Outcomes included number of sessions, speed of improvement and overall amount of pre- and post-therapy change in clinical presentation. Additional investigations using a proportion of the Okiishi et al. dataset (n = 1,141 clients and n = 25 therapists) found age to be a factor in therapists‟ use of facilitative interpersonal skills, with older therapists demonstrating a greater ability to handle challenging interpersonal encounters (Anderson et al., 2009).

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There has been a call for studies that move beyond the measurement of therapist demographics to the investigation of therapist variables that have been highlighted by theoretical or empirical research (Anderson et al., 2009). Studies that have attempted to do so include therapist use of interpersonal skills (Anderson et al.), the relationship between self-efficacy and therapist competence (Beidas & Kendall, 2010; Bennett-Levy & Beedie, 2007, Mathieson et al., 2009; Westbrook, Sedgwick-Taylor, Bennett-Levy, Butler, & McManus, 2008), and the relationship between professional development and the affective training climate of psychotherapy training programmes (Wilson, 2008).

It is these latter characteristics, self-efficacy and perceived professional development that form the basis for the present study, and are addressed in the remainder of this section.

Self-efficacy: self perception of competence/confidence in using clinical skills

Self-efficacy has been defined as an individual"s belief in his or her ability to succeed in specific situations, and influences how individuals approach goals, tasks, challenges and difficulties. Individuals with high self-efficacy are understood to set more challenging goals for themselves and persist in pursuing these even when faced with difficulties (Bandura, 1986).

Self-efficacy has been reported as a strong indicator of performance, and has repeatedly been highlighted as having a positive relationship with transfer of training in the general literature (Burke & Hutchins, 2007; Chaiburu& Lindsay, 2008; Colquitt et al., 2000; Gaudine& Saks, 2004; Merriam & Leahy, 2005; Salas & Cannon-Bowers, 2001). Studies demonstrating that increased trainee self-efficacy leads to greater transfer of training have included an observer-rated proof reading task (Mathieu, Tannenbaum, & Salas, 1992), a timed computer

task (Ford, Smith,Weissbein, Gully, & Salas, 1988), a confederate-rated negotiation skill task (Stevens & Gist, 1997), and supervisor-rated, in-patient training of nurses in the involvement of families (Gaudine& Saks, 2004). This last example has clear similarities to training in the psychotherapies, in that it involves a clinical population and the training of clinical staff in a psychotherapeutic intervention (the McGill Model of Nursing- see Gottlieb &Rowat, 1987).

The use of self-efficacy as an outcome criterion in *psychotherapy research* has been common practice (Beidas & Kendall, 2010). The relationship between self-efficacy and observer-rated competence has also received some attention. However, unlike the general literature, studies in this area frequently report either no relationship, or report less competent therapists as over-estimating their self-competence (Brosnan et al., 2006; Buckley, Conte, Plutchik, &Karasu, 1981; Miller et al., 2004), as well as over-estimating the progress and involvement of clients in therapy (Lafferty, Beutler, &Crago, 1999).

A small number of studies have found a positive relationship between observed and self-reported competence. Supervisors of substance abuse counselors found 90% of trainee counsellors to reach at least adequate levels of CBT skillfulness following 100 hours of intensive training and supervision over a five month period (Morganstern et al., 2001). Almost all counsellors within this study also reported confidence in their ability to deliver manual-guided CBT skills following training. In addition, a positive relationship was found between observed and self-reported competence in a cross-sectional study of experienced CBT therapists (Brosnan et al., 2008). However, therapists tended to rate themselves significantly higher than they were rated by experts, and those who were rated as less competent were more likely to have over-estimated their ability to a greater degree than those therapists who met the study criteria for competence.

The tendency for trainees to rate themselves higher than supervisors was also noted by Mathieson et al. (2009). These authors found positive but non-significant correlations between independently-rated, supervisor-rated, and trainee-rated competence following a 30 week post- graduate level CBT diploma course (*N*= 35). Supervisors within this study were asked to rate competence in a variety of skill areas, as well as comment on trainee strengths and weaknesses. Independent raters were asked to rate a single, videotaped therapy session for each trainee at 2 and 6 months during training. The authors reported independent and supervisor ratings of competence were more highly correlated than independent and trainee ratings.

Increases in competence using the Cognitive Therapy Self-Rating Scale (CTSS) and the assessor-rated Cognitive Therapy Scale were reported in a 12 month CBT diploma study (Bennett-Levy & Beedie, 2007). These authors found supervisor ratings to „mirror" trainee self-ratings of competence post-training, although no statistical relationship was reported (*N* = 24). In addition, supervisor ratings of competence were again lower than trainee self-rated competence.

With few exceptions, research investigating the relationship between therapist self-efficacy and observed competence has focused on pre- and post-training designs. The extent of the relationship *at some timefollowing* training has not been widely researched. Where this has occurred results have not been consistent (Beidas & Kendall, 2010). This is particularly notable where training has involved brief workshops (Herschell et al, 2010; King et al., 2002; Walters, Mateson, Baer, &Ziedonis, 2005).

One exception to the lack of correlation between observed and self-reported competence at follow-up was a study of CBT training for palliative care practitioners(Mannix et al., 2006). Trainees demonstrated significant gains in both variables at the end of 6 months of training in CBT. Observed-competence

increased and self-reported competence gains were maintained for those participants who received a further six months of supervision following training. However, those trainees who were randomized to a no-supervision group following the post-training assessment were found to have decreased in both confidence and competence at the 6 month follow-up. Within this study, observer-rated competence was assessed using a scale adapted from the CTS-R (Blackburn et al., 2001) and self-reported competence was assessed using current practice of specific CBT skills.

The issue of therapist over-confidence in their own competence may be of concern where over-confidence results in poor decision-making, and/or therapists decline to seek further instruction in order to maintain and improve their practice over time (Mathieson et al., 2009). Some evidence of this can be found in Brosnan et al. (2006, 2008) who reported a number of study participants actually scored below the criterion for basic competence, despite the fact that they were accredited cognitive therapists who had been practicing for some time. Further, the least competent therapists within this study over-rated their competence to a greater degree than therapists that were rated as competent.

One reason for the lack of clarity relating to the relationship between self-efficacy and competence may lie with the measurement tools used to assess self-efficacy in psychotherapy research. In a number of studies self-reported competence has been measured using adaptations of observed measures of competence, most commonly, the Cognitive Therapy Scale (CTS: Young & Beck, 1980). As mentioned earlier in this section, the CTS was adapted as the Cognitive Therapy Self-Rating Scale (CTSS) to enable self-assessment of taped sessions (Bennett-Levy & Beedie, 2006; Westbrook et al., 2008). No significant correlation was found between these two measures by Westbrook et al., who concluded the measures may not have been assessing the same dimensions. A further adaptation of the CTS for use by trainees was undertaken by Mathieson

et al. (2009) who developed the Student Self-Rating Form (SSRF). The authors reported a weak relationship between the SSRF and supervisor ratings of competence, but also suggested that the two measures may have not have been measuring the same dimensions. Finally, when the Cognitive Therapy Scale (CTS) was used by therapists to rate themselves following a single session in a self evaluation study, a moderate relationship was found. However self-rated CTS scores were reported as being significantly higher than observer-rated scores (Brosnan et al., 2008).

In summary, the relationship between therapist self-efficacy and observer-rated competence in psychotherapy research is not clear. The majority of studies have found no relationship, often when using the same instrument, a disparity that has prompted researchers to question whether trainees and observers are actually measuring the same variables. A few studies have found small non-significant relationships, with therapists tending to rate their competence more highly than observers. Further, what is known about the relationship between therapist self-efficacy and observed competence is largely limited to the end of training, with little known about the development of the relationship following training. Finally, where trainees and therapists are unaware of a lack of competence they may not seek the support of supervisors or peers, and may engage in making clinical decisions that place themselves and clients at risk.

Therapist professional development

Therapist characteristics that may have an impact on transfer of training of CBT competencies also include the perception of professional development. Career exploration or professional development, is understood to involve an individual"s self-assessment of skill strengths, weaknesses, and goals in relation to their career, as well as their pursuit of job-related information from others (peers, supervisors, friends). Professional development has been theoretically linked to trainee motivation in management and organisational psychology literature

(Colquitt et al., 2000). Trainee motivation has, in turn, been strongly linked to trainee-reported transfer of training (Colquitt et al., 2000; Burke & Hutchins, 2007).

Research from the Collaborative Research Network of the Society for Psychotherapy Research (SPR CRN,Orlinsky& Rønnestad, 2005) also highlighted the importance of therapist perception of career development. Within this study researchers engaged more than 4,000 psychotherapists worldwide to complete the 400 item DPCCQ (Development of Psychotherapists Common Core Questionnaire) in order to identify factors influencing psychotherapist development (Orlinsky, Bottermans, &Rønnestad, 2001). Respondents of the DPCCQ represented most theoretical orientations, with analytic-dynamic therapists comprising more 50% of the total group, and CBT therapists comprising approximately 25%.

The Development of Psychotherapists Common Core Questionnaire directly addressed the degree of influence participants associated with each of 14 factors that may have facilitated or hindered their development as a therapist. Factors included interpersonal activities (experiences with clients, interaction with supervisors, personal therapy, experiences in personal life outside of therapy), as well as learning behaviours (reading material relevant to practice, attending seminars and courses, and observing other therapists on tape or in role plays).

The results suggested that interpersonal activities such as working directly with clients, receiving formal supervision, and undertaking personal therapy or counselling were the three most important factors in facilitating professional development for therapists of most therapeutic orientations (Orlinsky, Bottermans, &Rønnestad, 2001). CBT therapists also rated working with clients and receiving formal supervision as the first and second most important influences on their development as therapists, with attending courses or

seminars rated third, and undertaking personal therapy rated seventh. The authors suggested that although their results were obtained using a subjective measure, the fact that so many therapists engaged in responding, and the uniformity of their responses, lent considerable strength to results.

The Development of Psychotherapists" Common Core Questionnaire also enabled the authors to identify the major dimensions of therapist development(Orlinski&Rønnestad, 2005). As a result they further refined the original questionnaire into two scales to help psychotherapists self-monitor their own progress. The *Work Involvement Self-Monitoring Scale* (WIS) addressed therapist self-perception of their current in-session effectiveness, manner with clients, difficulties, coping strategies, as well as emotional engagement with the therapy process. The *Professional Development Self-Monitoring Scale* (PDS) focused on therapists" cumulative and current sense of career development as being positive (career gain) or negative (career loss).

There has been some research to date investigating the relationship between these self-report scales and transfer of training. In a review of professional learning outcomes during a four year diploma course in cognitive therapy, Niemi and Tiuraniemi (2009) found increases in self reported competence and in basic relational skills (a component of the Work Involvement Scale). A study of the relationship between the affective training climate of teaching programmes and the professional development of doctoral, counselling and clinical psychology students, found that openness and co-operation in the training climate explained a significant proportion of variance in trainee development using the Professional Development Scale (Wilson, 2008).

To date there appears to be no research investigating relationships between self-reported professional development and observed development (observed competence over time) as a psychotherapist. Further information about the

relationship may help to understand the interactions between therapist observed and self-reported competence, therapist characteristics, and transfer of training.

Summary

Trainee factors including self-efficacy, pre-training motivation, career planning and organisational commitment have been posited as significantly impacting on transfer of training (Burke & Hutchins, 2007), although debate continues as to whether effects are limited to study outliers (Elkin et al., 2006), or act to consistently explain a significant percentage of outcome variance (Anderson et al., 2009). Similarly, the psychotherapy research relating to self-efficacy is also unclear with a small number of studies finding a relationship between therapist self-efficacy and observed competence, while the remainder report no relationship between the two. Finally in this section, there has been a call for research to focus on therapist characteristics that are underpinned by theory, as opposed to investigations of relationships between demographic data and study outcomes.

3.5 Transfer of Training

A number of reviewers have noted that studies may prematurely report successful transfer from results determined at the end of training (Baldwin & Ford, 1988; Burke & Hutchins, 2007). These authors have consequently called for follow-up periods of 12 months or greater as a way of measuring the transfer of knowledge and skills into trainees‟ everyday practice. Others have expressed concern that transfer is often measured solely by therapist self-report (Beidas & Kendall, 2010; Milne, Gorenski, Westerman, Leck, & Keegan, 2000), and have suggested that the addition of objectively-rated data is needed to supplement results in this area.

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In a recent review investigating training transfer, Beidas and Kendall (2010) identified 14 of 32 studies (44%) that included follow-up periods ranging from 6 weeks to 12 months. Eleven of the 14 studies also included observer-rated follow-up data. Of these, six studies reported an improvement in observer-rated measures at follow-up (19% of the original sample). Further, some studies reported that outcomes were maintained when trainees continued to have training-specific supervision as part of the study protocol following training.

For example, 33 hours of CBT training using multiple training strategies (including 3 hours of telephone supervision following training) was found to improve CBT post-training observer-rated competence in community-based clinicians (*n* = 24), with gains maintained at three months follow-up (Shalomakas et al., 2005). In a further study of community-based clinicians, frequency counts of therapist Motivational Interviewing behaviours were reported as having improved at post-training and 3 months follow-up, after a two-day workshop (Smith et al., 2007). Within this study supervision was provided following training via telephone. Supervisors were able to *listen in* on five therapy sessions, providing feedback both during and following each session. Observer-rated competence in using CBT was again found to be improved or maintained for palliative care practitioners at 6 months follow-up after a 6 month CBT course (12 days equivalent). Within this study, supervision was provided by independent supervisors between post-training and follow-up. Supervisors adhered to the CBT model while trainees were encouraged to submit recorded work samples for supervision purposes (Mannix et al., 2006). Finally, two studies have reported maintenance of some post-training gains at 12 months follow-up. Both Miller et al. (2004) and Simons et al. (2010) found observer-rated competence 12 months following training to be higher than at baseline in Motivational Interviewing (*n* = 8) and CBT for depression (*n* = 12), respectively. Miller et al. reported „coaching" of trainees following training, through the provision of six telephone consultations of 30 minutes each. While Simons et al. reported „extended" training after a two-day workshop that

consisted of conference calls with course trainers every 3 weeks between post-training and follow-up.

To date there appear to be no findings published that relate to training transfer following post-graduate diploma training in CBT. However, many studies are not published if results are negative, and the use of follow-up assessments may be more or less widespread than is apparent from the literature (Easterbrook, Gopalan, Berlin, & Matthews, 1991). In addition, studies reporting the dissemination of cognitive behaviour therapy and transfer of training are also likely to be compromised by the same methodological issues raised in the general transfer literature. Small sample sizes, use of non-standardised measures, lack of objective measurement of outcome, lack of control groups, and poor definition of outcome criteria are also commonly reported within the psychotherapy literature in this area (Alberts& Edelstein, 1990; Beidas & Kendall, 2010; Herschell et al., 2010; McManus et al., 2010).

In summary, few studies have focused on actual training transfer following training. The majority of those that have reported successful transfer have included provision for training-focused supervision between the end of training and follow-up in their study methodology.

3.6 Overall Summary and Areas for Further Research

To date, research into the effects of training suggests that courses of more than100 hours duration that use multiple training strategies are likely to be more effective (Herschell et al., 2010). However knowledge about the impact of work environment variables continues to rely on therapist self-report. In addition, research investigating the influence of specific therapist factors other than demographic variables has also been limited, despite therapist factors consistently accounting for a percentage of the variance in outcome studies (Anderson et al., 2009). Finally, little is known about the extent to which knowledge and skills transfer into therapist everyday practice *following* training.

Only a small number of studies have included follow-up periods in study designs, few have employed objective measures of transfer, and even fewer have included an additional focus on empirically-derived therapist factors.

Thus, there are a number of gaps in the psychotherapy transfer of training literature. The most notable is the lack of studies addressing actual transfer of skills and competencies into therapists‟ everyday practice following training.Further studies in this area will help to inform therapists, trainers, and organisations about factors thatfacilitate the generalisation and maintenance of competence following the completion of training, and which trainees may benefit from what types of training. More research in this area may also increase knowledge relating to thosefactors that act to inhibit transfer.

A second area requiring further research is the association between self-efficacy and observer-rated competence. The relationship between the two concepts during training remains unclear, with even less known about the interaction following training. Understanding more about the impact of self-efficacy on therapist behaviours during and following training is likely to be of value where therapists are unaware of their actual levels of competence, and are thus unaware that they may be unable to provide effective interventions.

In addition, professional development has been linked to self-efficacy in the general literature and practice with clients in the psychotherapy literature. However, little is known about empirical relationships between perception of professional development and observed competence during and following training in psychotherapy. There is also empirical and theoretical support for the role of organisations in facilitating training transfer. However, knowledge about the impact of organisational barriers on therapist competence during training and transfer following training is limited, as is information about those trainees who transfer training irrespective of barriers.

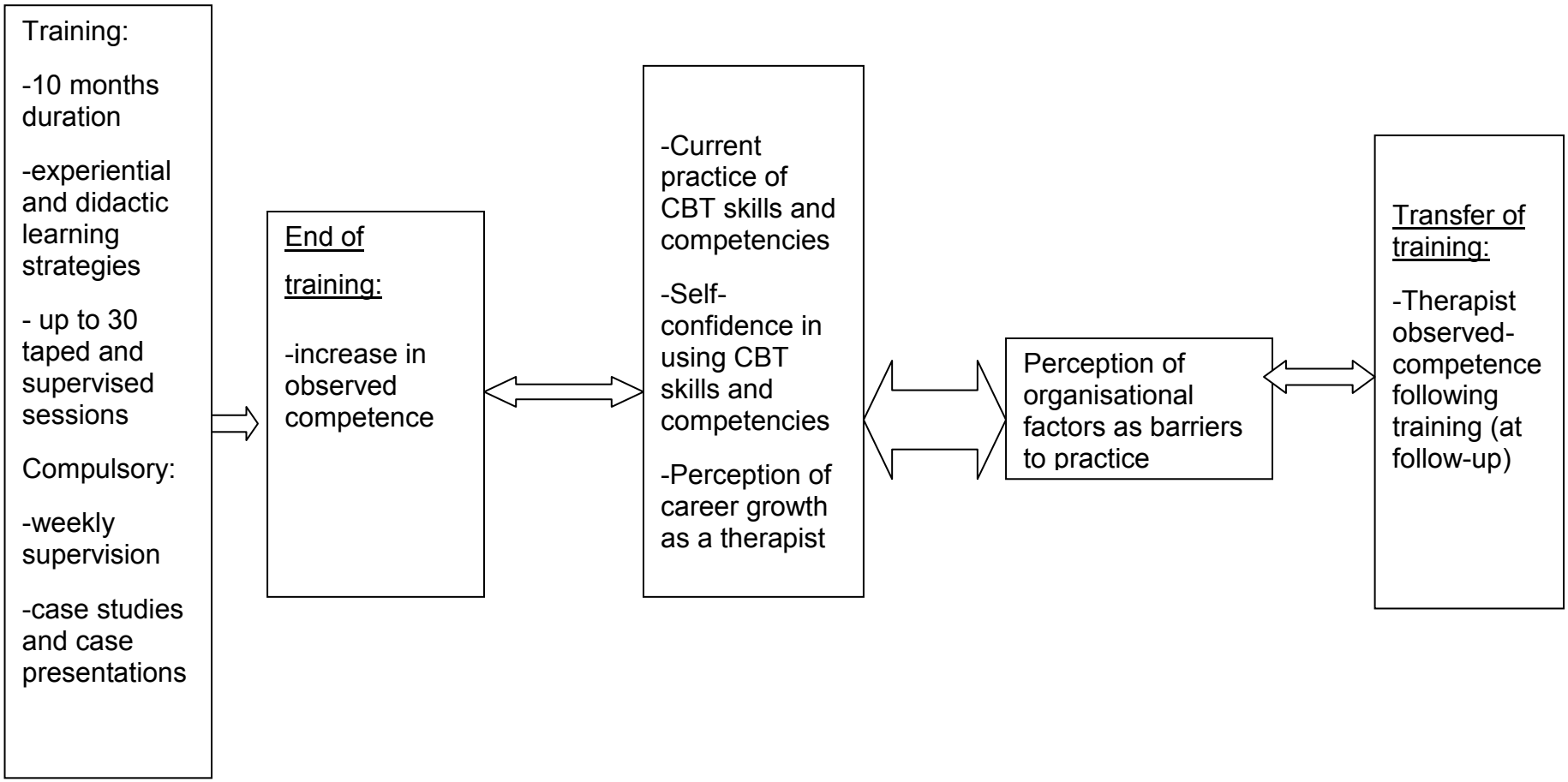
3.7 The Present Study: Transfer of Training and Therapist factors

The present study is an investigation of relationships between transfer of training and therapist factors. Within the present study observer-rated competence (*observed competence)* represents training effects *during training* and transfer of training at *1 year follow-up*. Trainee factors are *current practice*using CBTskills and competencies, *self-confidence* in using CBT skills and competencies, currently experienced career growth as a therapist (*CEGAIN*), and perception of organisational factors as barriers to practice (*Organisational Barriers*).

The study differs from others in this area in that a follow-up assessment of observer-rated competence is included as part of the study design. In addition, relationships between trainee factors that have theoretical links to outcomes are explored. These include investigation of the relationships that self-efficacy, organisational barriers, and perception of career growth have with observed competence during and following training.

Figure 3.1 shows hypothesised relationships between all variables and observed competence. It is hypothesised thatas trainees improve in their use of CBT skills and competencies during the training process, they will become more self-confident in their use of CBT, and will also use CBT skills and competencies with greater numbers of clients. In addition, as their observed competence, self-confidence and current practice of CBT increase, trainees will feel an increased sense of professional growth.It is hypothesised thatthose trainees who are rated as less competent will perceive organisational factors in the workplace as limiting their CBT practice, will feel less confident in their use of CBT, will use CBT skills and competencies with fewer clients, and will report a lower sense of professional growth.Finally, it is hypothesised that these relationships will also be found for past trainees two or more years following training.

Figure 3.1 *Hypothesized relationships between trainee factors and training effects during and following training*



3.8 Study hypotheses

Training effects: Observed competence

Increases in observer-rated competence have been reported as evidence of training effects in similar studies employing multiple training strategies, and extended training of 9 months duration or longer (Bennett-Levy & Beedie, 2007; McManus et al., 2001; Mathieson et al., 2009; Morganstern, et al., 2001; Westbrook et al., 2008).

Hypothesis 1.1 Training effects will present as improvements in trainee observed competence in using CBT skills and competencies. Trainee competencewill be greater at the end of training than at the beginning of training.

Studies that have reported successful transfer of training at follow-up are less common (Beidas & Kendall, 2010), with follow-up periods of six (Mannix et al., 2009) and 12 months (Simons et al., 2010).

Hypothesis 1.2 Training will have transferred into therapist practice at 1 year following training. Observer-rated competence using the Cognitive Therapy Scale will be higher at follow-up than at the baseline assessment.

Trainee factors:Current Practice and Self-Confidence

A small number of studies reported a positive relationship between self-efficacy and transfer of training within the psychotherapy literature (Brosnan, 2006; Mathieson et al., 2009; Morganstern et al., 2001). In addition, therapists surveyed in the Collaborative Research Network of the Society for Psychotherapy Research reported that practicing directly with clients was one of the three highest ranking activities influencing their professional development (Orlinsky et al., 2001). Further, Mannix et al. (2009) reported using current practice of specific CBT skills as a measure of therapist self- efficacy in their transfer of training study with palliative care practitioners.

Hypothesis 2: Self-reported current practice and trainee self- confidence in using CBT skills and competencies will be positively related to observed competence during and following training.

Professional Development

Career development has been identified as a factor influencing transfer of training in the management and organisational literature (Burke & Hutchins, 2007). A number of researchers have included professional development in models of training transfer generally (Colquitt et al., 2000), and in psychotherapy (Bennett-Levy & Beedie, 2007; Orlinsky&Rønnestad, 2005).

Hypothesis 3: Professional development as measured by currently experienced growth as a therapist will be positively related to observed competence, current practice and self-confidence in using CBT skills and competencies, during and following training.

Organisational Barriers

Organisational factors have been found to impede or facilitate transfer of training through cues to practice, opportunity to practice and feedback from peers, managers and supervisors (Burke & Hutchins, 2007; Colquitt et al., 2000). Kavanagh et al. (1993), Fadden (1996; 2006), and Lewis and Simons (2010) also found therapists to report a variety of organisational factors as impeding transfer of training.

Hypothesis 4: Observed competence will be negatively related to perception of organisational barriers. Further, organisational barriers will be negatively related to current practice and self-confidence in using CBT skills and competencies, and currently experienced growth as a therapist during and following training.

This chapter has presented what is known about transfer of training as reported in the psychotherapy literature. Theoretical and empirically determined relationships between

training effects, therapist and organisational effects during and following training have been discussed. Gaps in the literature are presented as the rationale for the present study. The following chapter will focus on the study design and study methods employed to address specific hypotheses.

Chapter Four

METHODOLOGY

4.1 Introduction

The present study investigated training effects (therapist observed competence) during and following a postgraduate diploma in CBT. In addition, relationships between therapist factorsand training effects during and following training were also investigated. Therapist factors included: therapist perceived professional development, current practice and self-confidence in using CBT skills and competencies, and perception of organisational factors as barriers to practice.

Two studies were undertaken: the first study investigated trainee factors during training, and training effects during and following training. Participants of the first study were trainees engaged in the practicum component of a two-year CBT diploma course. Trainee outcomes used a repeated measures design with a follow-up assessment 1 year following the completion of training.

The second study further investigated relationships between training and trainee factors as identified in Study One. Participants within the second study were past trainees of the same CBT diploma course, assessed at one single time point 1-9 years following graduation. This chapter presents details of the research settings, study participants, measures, procedures and statistical methods of analysis for Studies One and Two. Details for each study are presented separately.

Consent

Ethical consent to conduct the study was obtained from the Massey University Human Ethics Committee (MUHEC 08/ 070). MUHEC consent was also obtained for the audio and audiovisual taping of clients. Workplace and client consent was obtained by

therapists where appropriate. Please refer to Appendices A to A-5 for participant information letters and consent forms.

4.2 Research Setting: The Post Graduate Diploma in Cognitive Behaviour Therapy (PGDipCBT)

All study participants were trainees (Study One) or past trainees (Study Two) of the Post Graduate Diploma in Cognitive Behaviour Therapy (PGDipCBT). The PGDipCBT has been offered at Massey University, Albany Campus since 2000. Entry requirements include a Bachelor"s Degree or equivalent in a related field, plus relevant clinical experience. Prior CBT experience is not an entry requirement. PGDipCBT trainees are typically from the disciplines of psychiatry, psychology, psychiatric nursing, occupational therapy and social work.

The Diploma represents a two year course of study. The first year of the diploma addresses theoretical issues and involves the completion of four papers each delivered in a one week block (a total of 160 hours of training): Theory and Practice of CBT, CBT for Depression, CBT for Anxiety, and CBT for Chronic and Complex Problems. During each block of training, trainees attend lectures, workshops, and engage in experiential activities (roleplays, feedback, discussions).

The second year of the PGDipCBT is the clinical practicum. The practicum is based on assessment and treatment of two cases using Cognitive Behaviour Therapy. The practicum is completed over two semesters with supervision continuing throughout break periods. Training methods during the practicum involve a guidebook, workshops, and approximately 30 individual supervision sessions. All case sessions are recorded for supervision and assessment purposes. Assessment procedures involve use of the Cognitive Therapy Scale (Young & Beck, 1980) to rate eight self-selected videotapes or DVDs (four from each of the two cases) across the practicum year. In addition, assessment includes the written and oral presentation of casework for two case studies and an oral exam. Supervisors are all clinical psychologists and Massey University staff members involved in teaching the PGDipCBT. All trainers and supervisors are qualified

and experienced CBT practitioners and lecturers (School of Psychology, Massey University, 2009).

Further information relating to the Post Graduate Diploma in Cognitive Behaviour Therapy can be accessed at http:/psychology.massey.ac.nz.

Terms and investigation of hypotheses

Within the present study reference to training effects and trainee factors*during* training refers to data gathered at baseline, mid-training, and at the end of training in Study One. Further, reference to training effects and therapist factors *following* training refers to data gathered after completion of the diploma practicum. In addition, *training effects* refers to changes in therapist competence.

Table 4.1 shows how data from each time point was used to investigate training effects (Hypotheses 1.1 and 1.2) and hypothesised relationships between training effects and therapist factors (Hypotheses 2, 3, and 4).For example, Hypothesis 1.1 investigates changes in competence during training, and therefore involves data gathered during training only. Hypothesis 1.2 relates to transfer of training, and thus involves data gathered at baseline and follow-up only.

As approximately half (*n*=7) of the Study One group did not complete the study, it is questionable that the data provided by Study One completers were representative of the trainee group, thus limiting the usefulness of any findings at follow-up. Therefore, investigation of relationships between training effects and therapist factors were limited to Study One results *during* training and Study Two results *following* training. Study One *follow-up* data relating to therapist factors was instead combined with data from the past trainee group, in an investigation of these relationships 1-9 years following training.

However, observed competence scores for Study One completers represented the only data available to allow the investigation of training transfer, which requires baseline and

follow-up data. Therefore, observed competence scores for Study One completers at baseline and 1 year follow-up were used to enable discussion relating to transfer of training within the present study (see Table 4.5).

Table *4.1.Investigation of hypotheses: use of data collected at each time point during studies One and Two*

	Study One (*N*=16)				Study Two (*N*=20)
Hypotheses	Baseline	Mid	End -	1 year following training (*n*=9)	1-9 years following training
1.1	X	X	X		
1.2	X			X	
2	X	X	X		X
3	X	X	X		X
4	X	X	X		X

Note 1: Mid(mid-training), End(end of training). Note 2: x=data from this assessment period was used to investigate this hypothesis.

4.3 Study One: Trainee Competence and Therapist Factors During Training

Measures

In Study One *observed-competence* was measured by the Cognitive Therapy Scale (CTS: Young & Beck, 1980). Therapist current practice of CBT and self-confidence in usingCBT skills and competencies were measured using the Current Practice and Self-Confidence subscales from the Survey of Past Trainees of the Post-Graduate Diploma in CBT (SPT-PGDipCBT: Kennedy-Merrick et al., 2008). *Professional Development* was measured using the Currently Experienced Growth subscale (CEGAIN) from the Professional Development Scale (Orlinsky&Rønnestad, 2005). Finally, *Organisational Barriers* inhibiting use of CBT skills and competencies were measured using a subset of items from the SPT-PGDipCBT External Barriers subscale (Kennedy-Merrick et al.).

Observed Competence: The Cognitive Therapy Scale (CTS).

The initial 11- item version of the Cognitive Therapy Scale (Young & Beck, 1980) was used as the sole measure of observed competence in the present study (see Appendix B-1). The CTS was developed to evaluate therapist competence in the delivery of CBT strategies and competencies in the treatment of depression, and has been used as the primary measure of therapist observed competence in the practicum year of the Post Graduate Diploma in Cognitive Behaviour Therapy since its inception in 2000.

The initial 11 item version of the CTS is divided into two sections: General Skills (General Therapeutic Skills) and Specific Skills (Conceptualisation, Strategy and Technique). General Skill items include setting an appropriate agenda, eliciting and responding to feedback, using listening skills to gain an empathic understanding of the client‟s situation, displaying appropriately professional warmth and genuineness, collaboration and efficient use of time to pace the session. Specific skills include the use of guided discovery to explore and understand client issues, the identification of client behaviours relevant to problem areas, the identification of CBT strategies to effect change, the skilful application of strategies, and the setting and review of between-session homework. The differentiation of items into three subscales has also been used (Westbrook et al., 2008). Subscales were General Interview skills which included four items (setting an agenda, eliciting client feedback, collaboration and pacing), Interpersonal skills which included 2 items (empathy and understanding, interpersonal effectiveness and professionalism, and Specific CBT techniques which included the remaining six items as above.

Each CTS item is measured on a 7-point Likert scale with ratings from 0 to 6, giving a total possible score of 66. Item descriptors are provided for alternate points. That is, directions for rating each item are confined to the 0, 2, 4 and 6 points of the rating scale. Further, directions for rating items on a 0-poor to 6-excellent scale are offered as an alternative for raters where descriptions for given items do not seem to apply.

Scores for competence differ. *Item* competence has been defined as a score of 2 or above (Westbrook et al., 2008). *Total* scale scores between 30 and 39 have been reported as reflecting competency for novices (Weerasekera et al., 2003), and a score of 40 has been reported as adequate (Dobson & Shaw, 1988). In an investigation of the psychometric properties of the CTS a mean of 38 was described as being in the low range, 45 in the low-medium range, 54 in the medium-high range, and 60 and above in the high range (Vallis et al., 1986). A score of 40 or above is accepted as the cut-off score for competence within the present study, being one standard deviation below the mean score for experienced and certified therapists (Shaw, 1984). Although this does not represent an empirically supported parameter for therapist competence in CBT, it is the cut-off score for competence used in the setting of the present study, the Post-Graduate Diploma of Cognitive Behaviour Therapy, Massey University.

The CTS has strong internal consistency with an alpha coefficient of .95 and an average item-total correlation of .72 (Dobson, Shaw, & Vallis, 1985). Reliability statistics for the present study were an alpha coefficient of .93 (N=16), and an average item-total correlation of .73 (range .51 - .84). A high degree of convergence between items has been noted as a feature of the measure, plus high inter-rater reliability for total scores. Dobson et al. (1985) advise caution when using the ratings of individual items for predictive validity due to the degree of variance in inter-rater reliability of individual items within their study (.54 to .87).

The CTS was one of several measures used to assess therapist competence in the Treatment of Depression Collaborative Research Program (TDCRP). The TDCRP is one of the largest depression studies to have been conducted to date (Elkin, Parloff, Hadley, & Autry, 1985). Results showed the CTS to differentiate between the delivery of acceptable and unacceptable CBT. Therapist competence as rated by the CTS has been associated with improved client outcomes in an increasing number of studies (Kingdon, Tyrer, Seivewright, Fergusson, & Murphy, 1996; Milne, Baker, Blackburn, James, &Reicheldt, 1999; Simons et al., 2010; Trepka, Rees, Shapiro, Hardy,

&Barkham, 2004). In a review of the relationships between competence measures and therapy outcomes the CTS predicted improvement in both depression and personality disorders (Barber, Sharpless, Klosterman, & McCarthy, 2007). These authors also noted that the CTS continues to be the most widely used measure of competence within random controlled trials.

Concerns that the CTS achieved only moderate inter-rater reliability as well demonstrating an overlap between items (Vallis, Shaw & Dobson, 1986) resulted in the development of a revised 13 - item version, the CTS-R. However, inter-rater reliability for individual raters still fluctuated widely (.42 to .67), even with a number of modifications to the structure and content of the measure (Blackburn et al., 2001). Further criticism of the CTS has focused on scoring issues (only alternate points within the 7 point scale are defined), and the degree of inference required of raters. However both versions feature as measures of competence in cognitive behaviour therapy, within both training and research settings (Bennett-Levy & Beedie, 2007; Mathieson et al., 2009; Simmons et al., 2010; Trepka et al., 2004).

Current Practice and Self-Confidence: The Survey of Past Trainees of the Post Graduate Diploma in Cognitive Behavioural Therapy (SPT-PGDipCBT)

Current Practice and Self-Confidencewere measured using subscales from the Survey of Past Trainees of the PGDipCBT (Kennedy-Merrick et al., 2008). Subscales were adapted for the purposes of the present study. The original version was in itself an amalgamation and adaptation of several questionnaires, including The Measure of Generalization (Myles, Smith, & Shires, 2000), Barriers to Change Questionnaire (Corrigan, Kwartarini, &Pramanan, 1992), and the Survey of Past Cognitive Therapy Trainees (Williams, Ashworth, & Blackburn, 1999).

The survey has eight sections addressing general information about the diploma, therapist experience of the diploma, professional development following completion of the diploma, personal and professional characteristics, and suggestions for

improvement. Sections incorporated qualitative and quantitative items. Subscales *Current Practice* and *Self-Confidence* in using specific CBT skills and competencies, and *External Barriers* to practice were included to demonstrate the level to which therapists reported the PGDipCBT training as transferring to practice, and perceived barriers to transfer. Finally, a 19 item subscale relating to the use of homework, and a cognitive behaviour therapy knowledge quiz were also included. The Survey of Past Trainees of the Post Graduate Diploma in Cognitive Behaviour Therapy was used in a study involving PGDipCBT Massey University graduates (*N*=73) (Kennedy-Merrick et al., 2008). There was no attempt to gather psychometric data relating to the internal reliability of subscales within the original survey.

The Survey of Past Trainees of the Post Graduate Diploma in Cognitive Behaviour Therapy was adapted for the present study to focus on current practice of CBT skills and competencies, self-confidence in using CBT skills and competencies, and perception of barriers to transfer (The Adapted Survey of the PGDipCBT, see Appendix B-2). Sections on general information, therapist experience of the diploma, therapist personal use of CBT skill and competencies, supervisor focus on CBT skills and competencies, the homework subscale, and the CBT knowledge quiz, were not included in the present study.

Current Practice and Self-Confidence

Trainee current practice and self confidence in using CBT skills and competenciesare measured within the present study using subscales fromthe Adapted Survey of the PGDipCBT. The original versions of each subscale were comprised of a list of 16 items relating to skills and competencies that are specific to CBT, and thus differentiate CBT from other psychotherapies. Examples include „use a 5-part model", „use a Visual Analogue Scale", „use an activity schedule", „use a thought record". Each subscale is comprised of identical lists, and prefaced with a single question to guide trainee responses, being *'to what extent do you do the following in your current practice?',* and *„please rate your confidence in using the following concepts in your current practice'*

respectively. The use of a list of CBT skills and competencies to measure self-reported competence has been employed in a similar study involving CBT diploma trainees (Mathieson et al., 2006) andas a measure of competence in using CBT for palliative care practitioners (Mannix et al., 2009).

For the purposes of the present study a further seven identical items were added to both subscales. Four of the additional items were drawn from the General Skills section of the Cognitive Therapy Scale (Young & Beck, 1980). These items related to interpersonal skills, and were „encourage clients to take an active role in therapy by offering choices", „focus on an appropriate pace for the session and limit discussion about peripheral issues", „use active listening and empathy skills (verbal and non-verbal)", and „use language that reflects genuineness and professionalism". A further three items were added to both Current Practice and Self-Confidence to reflect current practice and self-confidence in designing, assigning and reviewing homework. Thus, the subscales reflect a comprehensive list of skills and competencies routinely used by CBT therapists at various stages of therapy (see Appendix B-2). The additional items lifted the total items in each scale to 23. Instructions for the completion of additional items were the same as for other items in each scale.

Each subscale was rated using a 5 point Likert scale (range 1-5). Descriptions for each point of the Current Practice subscale were: 1 (*never: used with 0% of clients*), 2 (*rarely: used with approximately 25% of clients*), 3 (*sometimes: used with around 50% of clients*), 4 (*often: used with around 75% of clients*), and 5 (*almost always: used with nearly 100% of clients*). Ratings for Self-Confidence ranged from 1 (*not at all confident*), 2 (*slightly confident*), 3 (*moderately confident*), 4 (*very confident*), and 5 (*I feel completely confident about using this concept in my practice*).

Internal consistency for Current Practice and Self-Confidence scales was high. Reliability for Current Practice was α= .91, with item-total correlations ranging from r = -.09 to r = .81. Reliability for the Self- Confidence scale was α = .85, with item-total correlations ranging from r = .07 to r = .88. It is suggested that items with an item-total

correlation of below .20 may need to be removed from the measure due to the lack of an apparent relationship between the item and the construct measured by the scale (Streiner& Norman, 2003). Removal of two Current Practice items that fell below the recommended .20 increased Cronbach"s alpha to .92. Removal of Self-Confidence items that fell below .20 increased Cronbach"s alpha to .87. All items were retained within the present study as they represented behaviours that were of interest in further analyses of the data, and removing them from the scales made little difference to the internal validity of each measure.

Barriers to use

Items from the External Barriers subscale of the AS-PGDipCBT were also used in the present study. The subscale was originally adapted from the Barriers to Generalization Scale (Corrigan et al., 1992) and contains 16 items measuring trainee perception of factors inhibiting use of CBT skills and competencies. Nine items relate to supervision issues and the remaining 7 items address workplace or organisational issues. In their survey, Kennedy-Merrick et al. (2008) reported organisational issues as ranking in the first six positions of the External Barriers subscale, with the final organisational item ranked ninth. In the present study only those items representing organisational barriers were used(see Appendix B-2, items in bold). Items were „there are too many clients", „there are insufficient resources to help clients", „the way that client care is organized is too restrictive", „using CBT does not fit with my job description", „other staff will not support me if I use CBT with clients", „I lack adequate supervision", and „ I lack colleagues who also practice CBT".

These seven items were combined in the present study to form the Organisational Barriers subscale. All items are measured on a 5 point Likert scale from 1 (not a barrier at all) to 5 (an insurmountable barrier). Reliability of the Organisational Barriers scale using Cronbach"s alpha coefficient was a = .89. Item-total correlations ranged from *r* = .55 to *r* = .81. No items fell below .20.

Professional Development

Therapist professional development was measured using the Professional Development Scale (PDS) from the Development of Psychotherapists Common Core Questionnaire (DPCCQ, Orlinsky&Rønnestad, 2005). The DPCCQ was developed by the Society for Psychotherapy Research‟s Collaborative Research Network to gather information from almost 5,000 psychotherapists worldwide. The DPCCQ was a ten section, 392 item self-report instrument that surveyed psychotherapists‟ understanding of how attitudes, experiences and current practice influenced their professional development. The survey was developed and administered by the Collaborative Research Network over a decade. The authors gathered sufficient demographic data to allow results to be reviewed in terms of psychotherapist theoretical orientation, experience, career, and professional cohorts. Survey results led to the development of two scales, the Professional Development Scale and the Work Involvement Scale. The scales were intended to help therapists and supervisors identify therapist current work morale and sense of growth within the psychotherapy role. Items within each scale were derived directly from the DPCCQ. Only the Professional Development Scale was used in the present study to investigate the relationships between currently experienced growth as a therapist, and observed and self-reported competence.

Professional Development Scale

The Psychotherapist Professional Development Scale (PDS, Orlinski&Rønnestad, 2005) is a 22 item scale divided into three major subscales, Currently Experienced Growth (CEGAIN), Currently Experienced Depletion (CELOSS), and Overall Career Development (CARDEV).Only the subscale CEGAIN was used in the present study as it was felt that the items contained within the measure (see below) provided the best reflection of therapist perceived professional development,as addressed within the study hypotheses.

The CEGAIN subscale consists of six items prefaced by the prompt *„in your recent therapeutic work, how much do you… .'*(see Appendix B-3, items 12, 13, 15, 16, 17, 18). Items directly focus on therapists‟ views relating to their current development in

terms of growth within the psychotherapy role. Items are „… do you feel you are changing as a therapist", „does this change feel like progress or improvement", „do you feel you are overcoming past limitations as a therapist", „do you feel you are becoming more skilful in practicing therapy", „do you feel you are deepening your understanding of therapy", and „do you feel a growing sense of enthusiasm about doing therapy". Internal consistency of the Currently Experienced Growth (CEGAIN) subscale was reported as α = .86 (Orlinsky&Rønnestad, 2005). Within the present study a similar alpha of α = .87 was found for the subscale, with an item-total scale correlation of .91.

The Professional Development Scale was used as a criterion measure in an investigation of the relationship between the affective climate of doctoral counselling and clinical psychology programmes, and student affect and self-reported professional development (Wilson, 2008). In a sample consisting of 301 participants, Wilson found that an open and cooperative affective training climate in APA accredited programmes, explained a significant amount of the variance reported by doctoral students in overall career development, currently experienced career growth and currently experienced career depletion.

Study One Participants

A total of twenty four mental health professionals were enrolled as trainees in the PGDipCBT clinical practicum in 2009. Trainees were approached at the beginning of the first semester of the clinical practicum. Two trainees failed to return any data. The final sample (N=16) represented 67% of the original group.

Table 4.1 shows 50% of trainee participants were aged between 50 and 59. Most trainees were female (n=14, 87%). This matches the gender difference found in a study of New Zealand counselors (N=123; Kazantzis, Calvert, Orlinsky, Rooke, Ronan, & Merrick, 2009), and is a somewhat larger than that reported in similar studies where women have comprised more than two thirds of participants (Barnfield et al., 2007; Bennett-Levy & Beedie, 2007; Kennedy-Merrick et al., 2008; McManus et al., 2010).

Sixty two percent of participants (n=10) were psychiatrists or psychiatric nurses, with one registered psychologist. Approximately 70% of participants reported between one and ten years of experience in the mental health area. Seventy five percent of trainees were employed by District Health Boards.No differences were found between participants for age, professional group, and years of practice.

Nine trainees submitted follow-up data 8 -12 months following completion of the course. Seven trainees failed to submit data at the follow- up assessment and thus did not complete the study. Reasons for non-completion included trainees not currently practicing, not having sufficient time to participate, being unable to find a suitable client, and clients would not agree to being taped. One trainee left the country and another was unable to be contacted. A further trainee submitted data, however the tape could not be marked due to recording issues. Therefore the total number of trainees who submitted data at all four assessment periods during Study One was nine.

Attrition of therapists at follow-up was also noted in a study investigating transfer of training of motivational interviewing techniques(Miller et al., 2004). At 12 months follow-up 55% of therapists in this study did not return a usable taped session despite being offered $50 to do so.

Demographic data for the nine Study One Completers can be seen in Table 4.2. Significant differences were found for years of practice between those who completed the study (M = 13.11, SD = 7.29), and those who did not (n = 7, M = 6.29, SD = 2.98), t (14) = -2.31, $p < .05$. No further demographic differences were found between study completers and non-completers. Those who completed the study were psychiatrists (33%), psychiatric nurses (44%), one psychologist, and one counsellor.

CHAPTER 4

Table*4.2.Summary of Study One participant demographics (N=16) including Study One completers (n=9)*

	***N*=16**	**Study One Completers (*n*=9)**
Gender		
Male	2 (13%)	1 (11%)
Female	14 (87%)	8 (89%)
Age band		
30-39	3 (19%)	1 (11%)
40-49	5 (31%)	3 (33%)
50-59	8 (50%)	5 (56%)
Professional Group		
Registered Psychologist	1 (6%)	1 (11%)
Counselor	1 (6%)	1 (11%)
Psychiatrist	5 (31%)	3 (33%)
Psychiatric Nurse	5 (31%)	4 (45%)
Social Worker	2 (13%)	0.00
Unspecified	2 (13%)	0.00
Employer		
District Health Board	12 (75%)	7 (78%)
Department of Corrections	2 (12.5%)	2 (22%)
Non-Government Organisation	2 (12.5%)	0
Years of Practice		
1-5	4 (25%)	1 (11%)
6-10	7 (43%)	3 (33%)
11-15	2 (13%)	2 (22%)
21-26	3 (19%)	3 (33%)

Note 1: percentages in parentheses

Procedure: Data collection

All client sessions within the practicum year were videotaped. Formal assessment of the PGDipCBT required each trainee to select eight of these tapes as work-samples for assessment purposes. The self-selection of tapes for assessment is understood as resulting in the filtering out of less competent performances. The use of self-selection of tapes for assessment has also been used in other CBT diploma studies (Brosnan, 2006; McManus et al., 2010). Submission of tapes for assessment was split between the two cases treated during the practicum year (see Table 4.3). Tapes were rated by course trainers and supervisors as part of the PGDipCBT practicum protocol. Ratings of the first, fourth and eighth tapes (Tape no.1, Tape no.4, and Tape no. 8) were made available to the researcher within the present study as part of the study protocol.

Table4.3Tapes used in present study from the schedule of tapes submitted for assessment during the practicum (N=16)

Assessment tape number:	**1**	2	3	**4**	5	6	7	**8**
Client	**1**	1	1	**1**	2	2	2	**2**
Rating used in study	**Y**	N	N	**Y**	N	N	N	**Y**
Questionnaires submitted	**Y**	N	N	**Y**	N	N	N	**Y**

Note 1: Bolded items indicate data and client representation in the present study. Note 2: Y=tape and questionnaire responses used in the present study. N= tape and questionnaire responses not used in present study.

Submission of *self-report measures* for the present study was timed to coincide with trainee submission of the first, fourth and eighth tapes. Trainees were requested to complete self-report measures as they prepared to submit each of these three tapes. Self-report measures were the Adapted Survey of the Post-Graduate Diploma in CBT and The Professional Development Scale. Measures required 20 to 30 minutes for completion.

Variations in the timing of data submission were apparent both within and between trainees throughout the clinical practicum. This variation was expected as part of research conducted in a „real world" setting (Westbrook et al., 2008). Delays were largely reported as resulting from difficulties in engaging suitable clients. Further, some effort was required by the researcher to ensure that questionnaires were returned. The Wilcoxon signed ranks test was used to investigate time variations in data submission between assessment periods. No significant differences were found for start of training (end February) to baseline (*Md* = 107, *M* = 89.00, *SD* = 37 days), baseline to mid-training (*Md* = 88, *M* = 100.00, *SD* = 33 days), and mid- to post-training (*Md* = 106, *M* = 109.00, *SD* = 50 days).

Follow-up

Study One protocol included a six month follow-up period. Trainees were asked to submit a set of questionnaires, and one tape of a therapy session that demonstrated their current level of competence in using CBT skills and competencies. Trainees were also asked to complete the questionnaires immediately following taping of the work sample.

Reminders were emailed and posted two months beforehand. Incentives were offered in the form of feedback on the taped session, plus a $10 donation to charity. Email and phone contact continued until all data was submitted from those trainees who consistently reported that they would complete the study. Tapes and questionnaires were returned for 56% of trainees (n=9) between 8 and 12 months following the end of training (also referred to as 1 year following training)(*M* = 309 days, *SD* = 60.67).

4.4 Study Two: Graduate Competence and Therapist Factors Following Training

Study One used a repeated measures design to investigate relationships between training effects, transfer of training and trainee factors during, and1 year following training in CBT. Study Two was a cross-sectional investigation of relationships between training effects and therapist factors 1-9 years following training in CBT.

Study Two Participants

A total of 88 past trainees were listed as having graduated from the PGDipCBT between 2001 and 2008. This represented the total population available to participate in the study. Attempts were made to contact all past trainees. No current contact information was available for 25% (*n*= 22) of all past trainees. A further 17% (*n*= 15)of past trainees were reported by family and work colleagues to be overseas.

Telephone or email contact was made with 58% (n = 51) of past trainees. Thirty nine percent of past trainees (*n* = 20) within this group reported that they were not currently practicing. Reasons given for this were that CBT was not in their job description (*n* = 2), working in management positions in District Health Board and Non-Government Agencies (*n* = 3), working/ teaching in mental health with no current caseload (*n* = 3), on maternity leave (*n* = 2), employed in settings where only group work was encouraged (*n* = 2), or working in other areas of healthcare (*n* = 2). The remaining 12% (*n* = 6) offered no explanation as to why they were no longer practicing.

The remaining 53% (*n* = 31) of past trainees who were able to be contacted by telephone or emailreported they were practicing CBT, and were approached to participate in the study. Of this group, six past trainees declined, with three offering no reason and the remainder reporting that they lacked the time or would not be able to secure workplace consent. Twenty five past trainees agreed to participate. Thirteen past trainees, however, did not submit any data despite repeated contact with the researcher across a 10 month period. Reasons offered by these past trainees included no suitable clients (n = 3), looking for another position (n = 4), clients would not consent (n = 2), workplace would not consent (n=2), chronic illness or left the country (n = 2). Twelve past trainees finally returned questionnaires and tapes, and one set could not be included due to audio issues. Data from eleven (*N*=11) past trainees was suitable for use in Study Two. This figure represented 35% of past trainees who were known to be currently practicing.

Participant engagement in the present study is similar to that reported by Shafer, Rhode, and Chong (2004) and Brosnan et al. (2006). Brosnan et al. approached 238 therapists by letter and a further 3,000 by email using the BABCP website (British Association for Behavioural and Cognitive Psychotherapies). Participants were required to submit one tape and a set of questionnaires. Thirty one therapists agreed to participate following the mail-out, and a further 16 agreed following the email, totalling 47 therapists. Data was received from 24 therapists, being 51% of those who had been sent the study pack. Shafer et al. reported that 23 of 30 participants agreed to submit tapes at three observation points, including a 4 month follow-up. However, at follow-up only nine trainees (39%) of the recruited sample complied.

In the present study, low numbers of past trainee participants (*N*=11) and the large attrition rate from Study One (*n*=7), prompted the decision to combine past trainees and Study One completers (*n*=9) into a single graduate group (*N*=20). Thus, the Study Two group consisted of therapists who had completed the diploma between 1 to 9 years prior to assessment. It was understood that combining the groups would preclude statistical comparisons between with Study One data due to the lack of independence between groups. Never-the-less, the increase in sample size was understood as compensating for this disadvantage. Therefore, the final graduate group was comprised of past trainees (*n*=11), and Study One completers *(n*=9), providing a total group (*N*=20), who were 1 to 9 years post-graduation from the diploma.

To check that the two groups came from the same population, Wilcoxon Mann-Whitney U tests were performed using medians for comparison. The Wilcoxon Mann-Whitney U test is a non-parametric test that can be used to compare two independent groups when dependent variables are comprised of continuous data and the independent variable has two levels (Pett, 1997). No significant differences were found, $p > .05$ between the two groups for age, gender, professional group, employer, years of experience, or frequency of supervision. There was a significant difference between Study Completers and Past Trainees for workshop days, $p = 01$. Most Study One completers reported not having attended a workshop during the year since graduation.

Table 4.4 presents means and standard deviations for the Cognitive Therapy Scale, Current Practice, Self-Confidence, Currently Experienced Growth, and Organisational Barriers for past trainees (*n* = 11), and Study One completers *(n* = 9). Past graduates scored higher than Study One completers on mean CTS total scale and General Skill scores, and were slightly higher on mean Specific Skills and Current Practice. Study One completers scored higher on CEGAIN and Organisational Barriers. Mean self-confidence scores were very similar between the two groups. Results of Wilcoxon Mann-Whitney U tests also found no significant differences between the two groups for observed and self-reported competence, CEGAIN or Organisational Barriers.

Table *4.4.Descriptive statistics for Study One completers and Past Graduates 1-9 years following training.*

	Study One Completers (n=9)		Past Trainees (n=11)	
	Md	Mean (SD)	Md	Mean (SD)
CTS-total scale	41.00	40.11 (12.50)	52.00	46.00 (15.31)
General Skills	4.25	3.94 (1.00)	5.00	4.43 (1.17)
Specific Skills	4.00	3.33 (1.37)	4.00	3.83 (1.66)
Current Practice	4.00	3.77 (0.92)	4.00	4.14 (0.55)
Self-Confidence	4.00	4.12 (0.79)	5.00	4.11 (0.60)
CEGAIN	4.00	3.76 (0.77)	4.00	3.40 (0.72)
Organisational Barriers	1.00	1.94 (0.84)	1.00	1.60 (0.48)

Note 1: CTS=Cognitive Therapy Scale, CEGAIN= currently experienced growth. Note 2: SD=standard deviation, Md=median

Table 4.5 shows demographic data for the final graduate group (*N*=20). Females comprised 85% of the group (*n*=17). Most graduates were between 40 and 59 years of age (75%, *n*=15). Psychologists comprised 25% of the graduate group (*n* =5). A further 15% of graduates were psychiatrists (n=3), and 25% were psychiatric nurses (*n*=5). The remaining 35% of graduates *(n*=7) reported generic professional backgrounds. Sixty percent of graduates were employed by District Health Boards (*n*=12), and a further

25% (*n*=5) were self-employed or employed in the private sector. Approximately half of the graduate group reported less than 10 years experience as a psychotherapist. Ninety percent of the graduate group reported receiving supervision, with 65% attending supervision monthly or more frequently. Seventy percent of graduates reported being able to access a CBT supervisor, with 65% receiving CBT or mixed supervision. Forty percent of the group reported no workshop attendance.

Table *4.5 Summary of Study Two participant demographics (N = 20)*

	Graduates (N=20)	**Percentage**
Gender		
Male	3	15%
Female	17	85%
Age band		
30-39	3	15%
40-49	6	30%
50-59	9	45%
60-69	2	10%
Professional Group		
Clinical Psychologist	3	15%
Registered Psychologist	2	10%
Counselor	2	10%
Psychotherapist	1	5%
Occupational Therapist	2	10%
Psychiatrist	3	15%
Psychiatric Nurse	5	25%
Social Worker	2	10%
Employer		
District Health Board	12	60%
Private Practice	5	25%
Department of Corrections	3	15%
Years of Practice		
1-5	4	20%
6-10	7	35%

11-15	4	20%
16-20	2	10%
21-26	3	15%
Frequency of Supervision		
No supervision	2	10%
Less than monthly	5	25%
Monthly or more	13	65%
Workshop days		
None	8	40%
3 or less	7	35%
4 or more	5	25%
Supervision	18	90%
CBT	7	35%
Mixed	6	30%
Other	5	25%

Measures

Graduates were asked to complete and submit one set of questionnaires. Questionnaires were the same measures that were employed in Study One: the Adapted Survey of the Past Graduates of the PGDipCBT and The Professional Development Scale. Observed competence was again measured by the Cognitive Therapy Scale.

Procedure

Contact details for PGDipCBT graduates were obtained from the Massey University School of Psychology. Graduates were sent a study pack containing an information letter about the study, consent forms, one set of questionnaires and two blank audio/videotapes. The study protocol was initially for the submission of one set of questionnaires plus 2-3 videotapes for one or more clients. One reply was received. The protocol was then amended to the submission of one set of questionnaires plus one audio or videotape from one client. Graduates were asked to tape a therapy session that demonstrated their current level of competence in using CBT skills and

competencies. Graduates were also asked to complete the questionnaires immediately following taping of the work sample.

4.5 Taping of work samples

Audiotaped work samples of a single therapy session provided data for the rating of observed therapist competence in Study Two. It has been suggested that videotapes of sessions provide the most information with regard to the assessment of competence (Waltz, Addis, Koerner, & Jacobson, 1993). Graduates within the present study were initially asked to submit videotaped sessions. Although audiotaping is not as comprehensive as videotaping as a means of measuring competence, it has been found to result in the submission of taped work samples in situations where therapists do not routinely tape sessions for supervision purposes (Moyers et al., 2008; Shafer et al., 2004).

It has also been suggested that assessments of competence using a single taped session draw on limited data, and may be unable to capture variations in therapist competence that are apparent across multiple sessions (Mathieson et al., 2009; Trepka et al., 2004). In addition, results using a tape of a single session may be compromised by client factors (Rakovshik & McManus, 2010). However, numerous studies in this area have continued to use tapes of a single session as the sole measure of therapist competence (Trepka et al., 2004; Brosnan et al., 2006). This may be due to difficulties in engaging therapists as study participants when the study methodology involves the taping of work samples, plus increased financial costs associated with the administration of multiple work samples.

Inter-rater reliability

Tapes received from graduates were rated by the senior trainer and supervisor from the Post-Graduate Diploma in CBT, Massey University, Albany (Rater 1). This experienced rater had been training and supervising trainees for ten years, and was involved in teaching, supervising and rating work samples for many past trainees during their

diploma training. As Rater 1 was not blind to stage of training of participants a random sample of four tapes (20%, see Newman et al., 2011) was also rated by an independent rater (Rater 2), an experienced CBT therapist who was familiar with the CTS. Both raters were blind to therapist variables of interest within the study.

Inter-rater reliability was assessed using the intraclass correlation coefficient (ICC, Shrout& Fleiss, 1979). The ICC is suggested as an appropriate statistic for measuring the reliability of multiple observations of the same variable (Streiner& Norman, 2003). The consistency agreement option was used to determine the level of agreement between raters, with a two way mixed model as taped work samples were randomly selected from the total sample (Streiner& Norman, 2003).

Ratings for taped work samples were analysed through PASW 18 (SPSS). Results found inter-rater agreement of $\alpha = .82$(substantial, see Shrout, 1998). Further, little variation was found between the two raters (Rater 1, M = 4.3, SD = 1.7, Rater 2, M = 3.6, SD = 1.8). These findings suggest that the differences found between participants are valid.

4.6 Methods of Data Analysis

The present study was exploratory with small sample sizes. Also, normal distribution of the data could not be assumed as participants were not randomly chosen, and represented a small proportion of the total population. Further, most variables were measured using Likert scales and ordinal data. Therefore, non-parametric statistics were chosen to analyse results. Non-parametric tests do not assume normality of data, can be used with small sample sizes as well as categorical and ordinal-level data, and are well suited for hypothesis-testing (that is, where population parameters are unknown (Pett, 1997; Whitley & Ball, 2002).

Means and standard deviations were calculated to describe the data. Univariate data gathered at baseline, mid- and post-training were analysed using the Friedman test, a

non-parametric test that assesses for change over more than two time periods using median scores. Critical assumptions for the Friedman test are that data are continuous, that participants contribute data only once at each time point across two or more time periods, and are from the same randomly selected sample (Pett,1997).

Bivariate data were analysed using the Spearman Rank-Order Correlation Coefficient (Spearman"s rho). Assumptions for Spearman"s rho are that variables are randomly selected and observations are paired, plus variables are continuous with at least an ordinal level of measurement (Pett,1997).

Visual analysis associated with single case designs was also used for both studies One and Two. Visual analysis involves the visual inspection of graphed data for differences in individual performance, where participants act as their own controls in studies using a repeated measures design(Busse, Kratochwill, &Elliott , 1995). Advantages of visual inspection are that differences can be detected with smaller sample sizes, allowing the rapid analysis of hypotheses and conclusions. Further, visual inspection is easily and quickly performed and requires little statistical transformation. Disadvantages are that although visual inspection is straightforward when effects are relatively large it is insensitive to small changes, increasing the possibility of Type II error. Also, researchers may report results inconsistently as changes between time periods may be difficult to interpret. Finally, using visual inspection means it may be difficult to compare results to those of other studies, and when results are presented alone they may be perceived as lacking clinical or practical significance.

This chapter presented the design and methodology of the present study. This included the study setting, participant details, measures employed, and statistical analyses. The following chapters will present results for studies One and Two.

Chapter Five

STUDY RESULTS

5.1 Introduction

The aim of the present study was to investigate relationships between transfer of training effects and therapist factors, during and following training. Results are reported as two separate studies. Training for both studies was provided through the Post-Graduate Diploma of Cognitive Behaviour Therapy (PGDipCBT), Massey University, Albany.

Study One data presents training effects, trainee factors,and transfer of training (N=16). Study Two presents relationships between observed competence and trainee factors (N=20). Study Two is based on cross-sectional data gathered at one time point from past PGDipCBT trainees (2-9 years following graduation) and follow-up data from Study One completers (one year following graduation). Data from Study Two participants consisted of one recorded work sample for marking, plus a set of self- report questionnaires. Both studies used the same measures.

STUDY ONE: TRAINEE COMPETENCEDURING TRAINING

5.2 Chapter Overview

This chapter presents univariate results for Study One. Study One is presented in two parts: training effects and trainee factors. Training effects were measured using the observer-rated Cognitive Therapy Scale (Young & Beck, 1980). Training effects data were gathered at three time points during training (baseline, mid-training, and post-training). Data gathered 1 year after the end of training (follow-up) are presented as evidence of *training transfer*.

Trainee factors are also reported. These were measured using the Current Practice, Self-confidence, and Organisational Barriers subscales adapted from the Survey of Past Trainees of the Post-Graduate Diploma in Cognitive Behaviour Therapy (Kennedy-Merrick et al., 2008). Measurement of trainee factors also includes the Currently Experienced Growth subscale from the Professional Development Scale (Orlinski&Rønnestad, 2005).

Hypotheses 1.1 and 1.2 are based on univariate data and are therefore addressed within this chapter.

5.3 Preliminary Data Screening

Data for all measures were continuous. Data were screened to ensure that data had been entered accurately, for missing data, for normal distribution of the data and for the presence of outliers.

Missing Data

Table 5.1 shows the percentage of missing data for each assessment period. The highest amount of missing data was for the mid-training assessment of the Current Practice subscale of the Survey of Past Trainees of the PGDipCBT (2.8%), when one trainee accidently missed one page of 23 items. Overall, the remaining missing data was 2.0% or less.

Table *5.1 Percentage of missing data: Study One (N=16)*

Scale	Total no. of Scale items	Baseline	Mid-training	Post-training
PDS	20	0.06%	0.06%	0.03%
AS-PGDipCBT	62	2.0%	*2.8%	0.04%

Note 1: *One participant missed one complete page (23 items) of the AS-PTPGDipCBT. Note 2: PDS- Professional Development Scale, AS-PGDipCBT- Adapted Survey of the Post Graduate Diploma of Cognitive Behaviour Therapy.

Missing data may be ignorable or non-ignorable (Little & Rubin, 1987). Missing data is judged non- ignorable where the probability of an item being missed is dependent upon its value, thus the item is not missing at random (NMAR). Ignorable data is where the probability of an item being missed is *not* dependent upon its value. Ignorable data may be missing completely at random (MCAR), or missing at random (MAR). MAR data is where specific variables are missed by a subset of participants, perhaps missed by more men than women. MCAR data occurs randomly across the whole data set. Both MAR and MCAR data can be imputed allowing analyses to continue relatively unbiased (Hawthorne & Elliott, 2005). Missing data within the present study were judged missing completely at random (MCAR). Eight trainees (50%) missed items but did not miss the same items on consecutive assessments.

Missing items were replaced using the imputation method „average closest match" (ACM: Elliott & Hawthorne, 2005). ACM demonstrated greater efficacy and reliability when compared to imputation methods „last value brought forward", standardised score imputation, and regression imputation in a study specifically designed to test multiple imputation methods using a repeated measures design (N = 804), (Elliott & Hawthorne). ACM is a readily understood technique that involves using the mean score of four other cases whose scores most closely match previous or consequent assessment period scores for the missing case score within the same assessment period (Hawthorne & Elliott).

Description of statistical analyses

Univariate and bivariate analyses for each of the measures were undertaken using the statistical package Predictive Analysis Software (PASW) Statistics 18, release version, 18.0.0 (SPSS, 2009). Visual analyses of individual performance are presented using the PASW igraph function.

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Data were analysed using non-parametric tests due to the small sample size (*N*=16), and the exploratory nature of the study. Small sample sizes are less likely to meet the requirements and assumptions of parametric tests, thus increasing the possibility of both Type 1 and Type II errors (Spicer, 2005). Non-parametric tests have fewer assumptions and sample size requirements thus making them feasible alternatives. The Friedman test, the non-parametric equivalent of the repeated measures ANOVA, was used to assess univariate data. The test is an extension of the Wilcoxon-signed ranks test which requires only that data be continuous, paired (or repeated measures) and independent (Pett, 1997). The Friedman test is an overall, non-directional test, therefore post hoc analyses were performed using the Wilcoxon Signed Ranks test (Siegel & Castellan, 1988; cited in Pett, 1997). The resulting increased probability of a Type 1 error was addressed through the use of Bonferroni"s inequality, with an adjustment of the probability level to $p<.017$. Spearman"s Rank Order correlation coefficient (Spearman"s rho) was used to assess bivariate data. Requirements for Spearman"s rho are that data are continuous with at least an ordinal level of measurement, plus observations of variables are paired. Spearman"s rho is the non-parametric equivalent of the Pearson"s correlation coefficient (*r*).

Assessment of normality and outliers

The use of non-parametric statistics reduces the requirement that data be normally distributed. However, the Wilcoxon Signed Ranks test does assume symmetry about the true median in the population and can be influenced by extreme outliers in small samples (Pett, 1997). Therefore, the distribution of the data is reported for each measure. The cut-off score for substantial departures from normality have been suggested as skew = 2 or greater and kurtosis = 7 or greater (West, Finch, & Curran, 1995). Due to the small sample size within the present study normality of the data is further investigated where the Shapiro-Wilks statistic is greater than $p< .05$ (Coakes, Steed, & Price, 2008). Normality of some data could not be assumed. Assessment of abnormal data was undertaken and is discussed in the relevant sections for each measure. One extreme outlier was found and is discussed in the relevant section.

Multicollinearity at baseline

Spearman‟s rho (r_s) was used to check for multicollinearity which may occur where relationships between independent variables exceed .80 (Dancey&Reidy, 2007), or where correlations are not in the expected direction (Schroeder, 1990). Table 5.2 shows baseline correlations for all variables. The relationship between the CTS total scale and Specific Skills in the present study exceeds .80 (r_s = .97, p< .01) at baseline. There are negative relationships between Current Practice and observed competence (CTS), and Self-Confidence and observed competence. These are small and not in the expected direction, and may be explained by the efforts of some trainees to become more proficient in newly acquired skills. There are also small to moderate, positive and statistically significant relationships between Organisational Barriers and Self-Confidence (r_s = .49, p< .05) and Organisational Barriers and CEGAIN (r_s = .47, p < .05). These relationships were not in the expected direction. Further they may be explained by difficulties encountered by trainees with a strong sense of positive career development, who may be situated in work environments where they feel unable to practice newly acquired CBT skills and competencies.

Table *5.2 Baseline correlations: all variables (Spearman's rho) (N=16)*

	1	*2*	*3*	*4*	*5*	*6*	*7*
1-CTS	*1.00*						
2-CTS General Skills subscale	*.69***	*1.00*					
3- CTS Specific Skills subscale	*.97***	*.68***	*1.00*				
4-Current Practice	*-.16*	*-.31*	*-.13*	*1.00*			
5-Self-Confidence	*-.06*	*-.05*	*-.07*	*.10*	*1.00*		
6-Organisational barriers	*.17*	*-.06*	*.12*	*.19*	*.49**	*1.00*	
7-CEGAIN	*.36*	*.13*	*.34*	*.51**	*.24*	*.47**	*1.00*

Note 1: CTS=Cognitive Therapy Scale. CEGAIN=Currently Experienced Growth. Note 2: * correlations significant at p <.05, ** correlations significant at p <.01.

CHAPTER 5

TRAINING EFFECTS: THERAPIST COMPETENCE DURING AND FOLLOWING TRAINING

In this section descriptive statistics, subscale correlations, and the Friedman test are reported for observed training effects and transfer of training. In addition, visual inspections of single case results are presented using the PASW igraph function (SPSS 18). The inclusion of single case data allows the detection of individual variance that may not be identified through group data analysis. Further discussion of the rationale for using visual analysis within the present study can be found in Chapter Four, *Statistical Analyses, Individual Analyses*, of this thesis.

Observed effects are measured using the Cognitive Therapy Scale (CTS) and subscales.

5.4 Observed Training Effects and Transfer of Training

Normality of data distribution

The CTS scale and subscales were assessed for kurtosis and skewness, and all items were found to be within acceptable range of normality (see Table 5.3). No extreme outliers were detected.

Table *5.3 Skew and kurtosis for the Cognitive Therapy Scale and subscales at baseline*

Item	Skewness (*N*=16)	Kurtosis (*N*=16)
Total scale	-.54 (.56)	.93 (1.09)
General skills	-.35	.76
Specific skills	-.62	.36

Note: Standard errors are in parentheses

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CTS total scale and subscale correlations

Table 5.4 shows correlations between the CTS total scale and subscales across the period of the study using Spearman"s rho. Correlations between subscales and the CTS total score are high at all assessment periods. Within-assessment correlations are in the expected direction and are significant at $p = .001$. Correlations between subscales are also high, ranging from .87 at baseline to .92 at follow-up. As highlighted by Vallis et al. (1986), the strength of subscale relationships within each assessment period suggests the division of the CTS into subscales is unwarranted. However, subscale results are retained for univariate analyses within the present study to enable comparisons of training effects with other studies.

Table *5.4 Correlations for the Cognitive Therapy Scale and subscales: all assessments*

		1	2	3	4	5	6	7	8	9	10	11
Baseline (N=16)	1 CTS total score											
	2 General Skills	.97**										
	3 Specific Skills	.96**	.87**									
Mid-Training (N=16)	4 CTS total score											
	5 General Skills				.97**							
	6 Specific Skills				.95**	.85**						
Post-training (N=16)	7 CTS total score											
	8 General Skills							.94**				
	9 Specific Skills							.91**	.70**			
Follow-up (n=9)	10 CTS total score											
	11General Skills										.98**	
	12 Specific Skills										.98**	.92**

Note 1: **correlation significant at $p<.01$. Note 2: CTS = Cognitive Therapy Scale

CHAPTER 5

Descriptive Statistics

Table 5.5 shows means and standard deviations for the CTS and subscales General and Specific Skills at baseline, mid- and post-training. Greatest gains in competence scores were found between baseline and mid-training. The mean total score is lowest at baseline (*M* = 39.81, *SD* = 8.72) and highest post-training (*M* = 49.37, *SD* = 6.37). This is also the case for General Skills. The mean Specific Skills score was highest mid-training (*M* = 4.33, *SD* = .72) and lowest at follow-up (*M* = 3.33, *SD* = 1.37). Mean scores indicate that a number of trainees were already meeting the cut-off score for competency at the baseline assessment (CTS=40, Dobson & Shaw, 1988). This result is similar to that reported by Mannix et al. (2009), who found some trainees to already possess significant skills at the baseline assessment.

Table *5.5 Means and standard deviations for the Cognitive Therapy Scale and subscales at baseline, mid-training and post-training (N=16).*

Cognitive Therapy Scale	Md	Baseline	Md	Mid-training	Md	Post-training
Total score	40.00	39.81 (8.72)	47.00	47.94 (7.70)	48.00	49.37 (6.37)
General skills	3.75	3.70 (.85)	4.50	4.38 (.73)	4.50	4.65 (.62)
Specific skills	3.50	3.53 (.79)	4.00	4.33 (.72)	4.00	4.29 (.63)

Note 1: Standard deviations in parentheses. Note 2: Total score range 0-66, subscale range 0-6. Note 3: Md = median

Table 5.6 shows mean CTS total scale scores for CBT therapists from the Treatment of Depression Collaborative Research Project (TDCRP, Shaw et al., 1999) and the present study. TDCRP therapist competence was rated as clients entered treatment within the study, and upon completion of treatment. Therapists received weekly, one hour telephone supervision plus extra support if competence dropped below 39 (Shaw et al.). Mean CTS total scale scores for trainee therapists within the present study are lower than TDCRP therapists at the beginning of training and somewhat higher at the end of training.

Table 5.6 *CTS mean comparisonsfor the present study with CBT therapists from the TDCRP (N=8)*

	TDCRP (Shaw et al., 1999)		Present study	
	Beginning of treatment (*n*=8)	Post-treatment (*n*=8)	Baseline (*N*=16)	Post-training (*N*=16)
CBT Total Scale	41.28 (4.24)	42.06 (4.04)	39.81 (8.27)	49.37 (6.37)

Note 1: CBT=cognitive behaviour therapy, CTS=Cognitive Therapy Scale. Note 2: Standard deviations in parentheses

Hypothesis 1.1

Effects of training on observed competence during the practicum year of the PGDipCBT formed the basis of the first hypothesis.

> *1.1 Training effects will present as improvements in trainee observed competence in using CBT skills and competencies. Trainee competence will be greater at the end of training than at the beginning of training.*

CTS total scale

A Friedman test was carried out on the median CTS total-scale scores baseline (40.00), mid-training (47.00) and post-training data (48.00). Results indicated there was a significant difference in median CTS total scores over the three time periods (p <.01). Post hoc analyses using the Wilcoxon Signed Ranks test were performed, adjusting the two-tailed level to p< .017 to accommodate increased Type 1 error. Results indicated that increases in CTS median scores were significant baseline to mid-training, and baseline to post-training. Results confirmed the hypothesis that training in CBT would result in an increase in trainee competence in using CBT skills and competencies.

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CTS General Skills

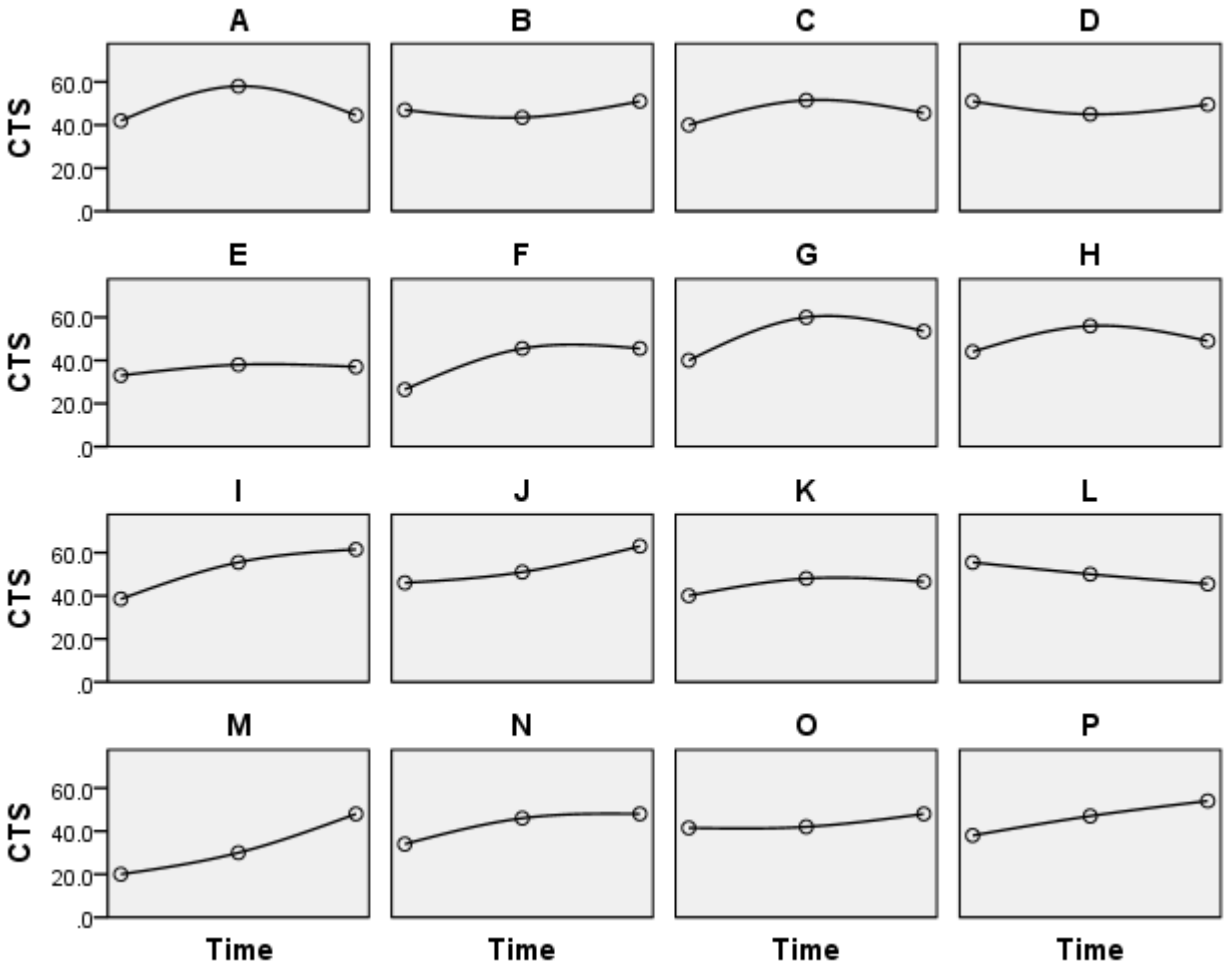
A Friedman test was carried out on median General Skills scores for baseline, mid-training and post-training data.Results showed that there was significant difference in median scores over the three time periods (p = .01). Post hoc analyses indicated that there were significant increases from baseline (Md = 3.75) to mid-training (Md = 4.5), and baseline to post-training (Md = 4.5). Results were significant at p <.01.

CTS Specific Skills

Results of the Friedman test on Specific Skills for baseline, mid-training and post-training scores also showed a significant overall difference between assessment period (p< .01). Post hoc analyses indicated that there were significant increases from baseline (Md = 3.5) to mid-training (Md = 4.0), and baseline to post-training (Md = 4.0). Results were significant at p <.01.

Individual results

The small sample size (N=16) employed in the present study makes visual analysis of data for individual trainees possible. Figure 5.1 shows 38% (n = 6) of trainees (E, F, I, M, N, P) were rated below competence at baseline (CTS=40, Dobson & Shaw, 1988). Ninety four percent of trainees (n = 15) were rated competent at post-training. Mean scores for 25% (n = 4) were highest at the mid-training assessment (trainees A, C, G and H). One trainee consistently rated below the cut off score for competence (E).



Note 1: CTS = Cognitive Therapy Scale. Note 2: Data points indicate Time 1= baseline, Time 2 = mid-training, Time 3= post-training. Note 3: Letters A -P denote individual cases. Note 4: Scale 0 – 66.

*Figure 5.1.*CTS total scale training effects: individual results during training

CHAPTER 5

Summary: Observed competence

In summary, results support the hypothesis that therapist competence would be higher at the end of the practicum year of training than at the beginning. Thirty eight percent of trainees were below competence at baseline, while 94% were rated competent post-training. Median total-scale, General and Specific Skill scores increased significantly between baseline and mid-training as well as baseline and post-training. Probability levels of $p < .017$ indicate that these results are unlikely to have arisen from sampling error alone.

Transfer of training

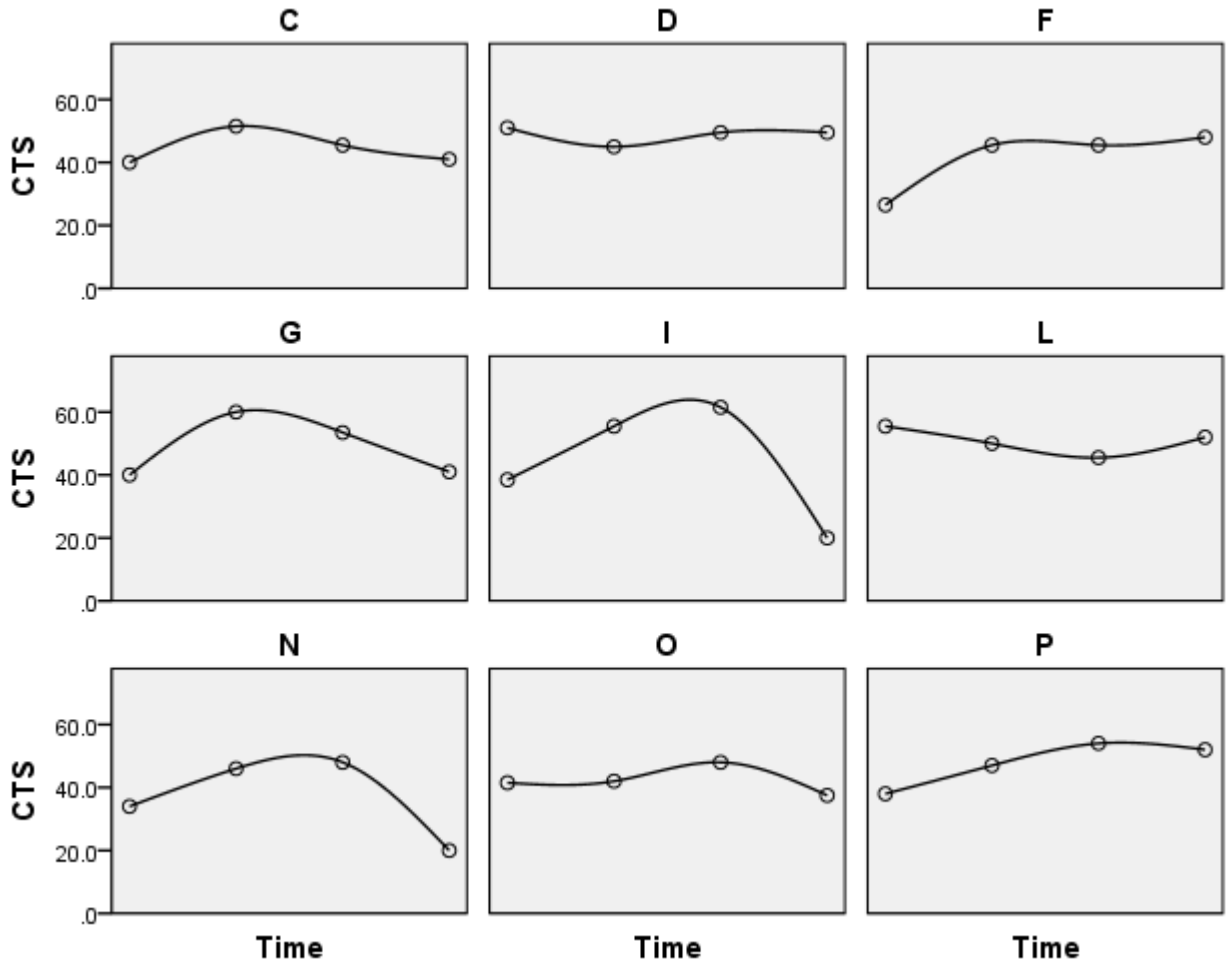
Hypothesis 1.2

Hypothesis 1.2 *Training will have transferred into therapist practice at 1 year following training. Observer-rated competence using the Cognitive Therapy Scale will be higher at follow-up than at the baseline assessment.*

The mean CTS total score for Study One completers (n=9) at follow-up was 40.11 (SD = 12.50) with a median of 41.00. This was .30 higher than the Study One baseline mean (M = 39.81, SD = 8.72) and 1.00 higher than the baseline median (Md = 40). Mean post-training scores were 49.37 (SD = 6.37).

Visual analysis of individual CTS scores from all assessment periods are presented in Figure 5.2. Visual analysis shows 22% of trainees (n = 2) who completed Study One demonstrated transfer of training (F and P). Scores for these trainees were higher at the end of training than at baseline. Scores for D and L were high at baseline and remained close to baseline levels throughout the period of the study. Scores for trainees C, G and O were equal to the competence cut-off score (CTS=40) at baseline, increased during training and returned to baseline levels or lower at follow-up. Similarly, scores for I and N were below competence at baseline, high during training, and very much lower than baseline at the end of training.

CHAPTER 5



Note 1: Data points indicate Time 1=baseline, Time 2=mid-training, Time 3=post-training, Time 4=follow-up.Note 2: CTS=Cognitive Therapy Scale. Note 3: Letters C – P denote individual cases. Note 4: Scale 0 – 66.

Figure5.2.CTS total scale scores at baseline, mid-training, post-training and 1 year follow-up for trainees who completed Study One (n=9)

Summary: transfer of training

Results provided minimal support for the hypothesis that training would have transferred to trainees‟ everyday practice 1 year following the end of PGDipCBT training. Two trainees demonstrated transfer of training in that their CTS scores at follow-up were higher than at baseline. A further 55% of trainees (*n*=5) returned to baseline levels or lower at the follow-up assessment. Sixty six percent of trainees (*n*=6) were rated competent at follow-up.

TRAINEE FACTORS

Trainee factors are measured by using subscales Current Practice(the number of clients with whom trainees report using CBT skills and competencies) and Self-Confidence (a measure of trainee confidence in the use of CBT skills and competencies) from the adapted Survey of Past Trainees of the Post Graduate Diploma in CBT (Kennedy-Merrick et al., 2008).

Trainee factors are also measured by the subscale CEGAIN (currently experienced career growth as a therapist) from the Professional Development Scale (PDS; Orlinsky&Rønnestad, 2005), and Organisational Barriers. Organisational Barriers consists of 7 items from the AS-PGDipCBT subscale External Barriers. Organisational Barrier items relate specifically to trainee perception of the impact of workplace factors on their use of CBT skills and competencies.

5.5 Current Practice and Self-Confidence

Normality of data distribution

The scales were assessed for kurtosis and skewness at baseline. Current Practice and Self-Confidence items were found to be within acceptable range of normality (see Table 5.7).

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Table*5.7 Skew and kurtosis for Current Practice and Self-confidence (N=16)*

Subscale	Skewness	Kurtosis
Current Practice (CP)	1.03 (.56)	1.29 (1.09)
Self-Confidence (SC)	-.28	-.54

Note 1: Standard errors are in parentheses.

Current Practice and Self-Confidence: subscale correlations

Table 5.8 shows subscale correlations between Current Practice and Self - Confidence during training using Spearman‟s rho. A small positive relationship was found between Current Practice and Self-confidence at baseline. Relationships mid-training and post-training were small to moderate, and in the direction expected. Effect sizes increased during the training period and the relationship post-training was statistically significant, r_s= .57, p <.05.

Table *5.8 Current Practice and Self-Confidenceduring training (N=16)*

		1	2	3	4	5	6
Baseline	1-CP	1					
	2-SC	.10	1				
Mid-training	3-CP			1			
	4-SC			.40	1		
Post-training	5-CP					1	
	6-SC					.57*	1

Note 1: *Correlations significant at p <.05. Note 2: CP = Current Practice. SC = Self-Confidence.

Descriptive statistics

Table 5.9 shows means and standard deviations for Current Practice and Self-Confidence during training (*N*=16). Mean scores are high for both subscales at baseline and increase slightly across time. Current Practice at post-training (*M* =

3.70, *SD* = .87) was higher than baseline (*M* = 3.37, *SD* = .64). Self-Confidence increased from a mean of 3.41 (*SD* = .43) at baseline to 3.93 (*SD* = .76) at post-training.

Trainees reported using CBT skills and competencies with approximately 50% of clients at the baseline assessment. This increased to approximately 75% of clients post-training and follow-up. In addition, trainees reported feeling moderately confident in their use of CBT skills and competencies in their practice at baseline. This increased to feeling very confident at post-training.

Table *5.9. Training effects: Current Practice and Self-Confidence during training (N=16)*

AS-PGDipCBT subscales	Md	Mean	Md	Mid-training	Md	Post-training
Current Practice	3.00	3.37 (.64)	4.00	3.63 (.53)	4.00	3.70 (.87)
Self-confidence	3.50	3.41 (.43)	4.00	3.80 (.61)	4.00	3.93 (.76)

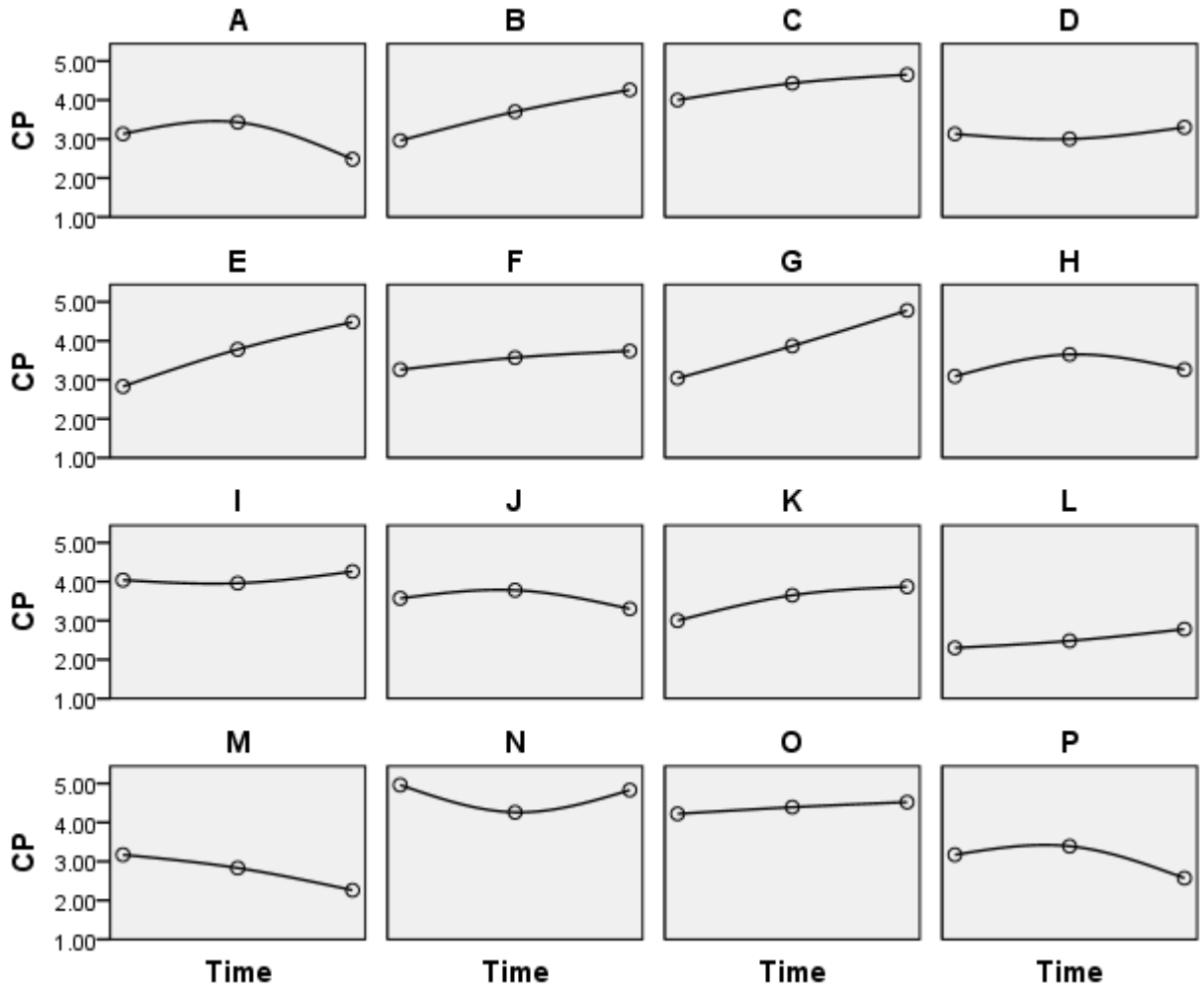
Note 1: Scale range 1-5. Note 2: Higher scores for Current Practice and Self-confidence indicate greater self-reported training effects. Note 3: Md = median

Tests and Visual analyses (*N*=16)

Friedman tests were carried out for median Current Practice and Self-Confidence data at baseline, mid-training and post-training. Results showed there were no significant differences in median Current Practice or Self-Confidence scores over the three time periods.

Figure 5.3 shows a visual analysis of individual trainee mean Current Practice scores during training. Results show that 69% of trainees (*n*=11) reported a small to large increase in use of CBT skills and competencies between baseline and post-training (trainees B, C, D, E, F, G, H, I, K, L and O). The remaining 31% of trainees reported Current Practice post-training as lower than baseline (trainees A, J, M, N and P).

CHAPTER 5

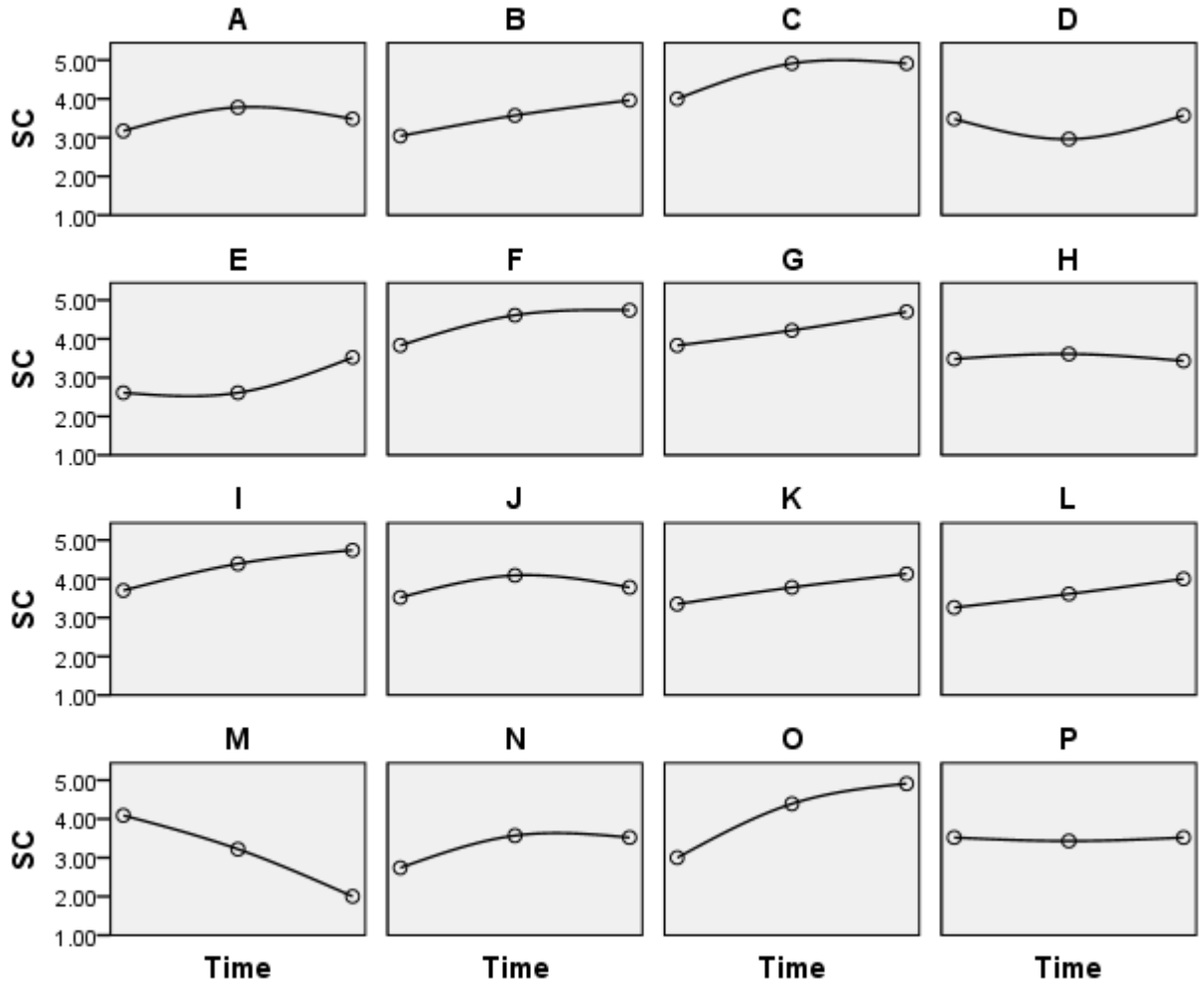


Note 1: CP = Current Practice. Note 2:Data points indicate Time 1 = baseline, Time 2 = mid-training, Time 3 = post-training. Note 3: Letters A - P denote individual cases. Note 4: Range 1-5

Figure 5.3. Individual results for Current Practice (N = 16)

Figure 5.4 allows visual comparisons of individual trainee mean Self-Confidence scores during training. Individual figures show a small to large increase in Self-confidence for 81% of trainees (*n*=13) (trainees A, B, C, D, E, F, G, I, J, K, L, N, O). Self-confidence does not change for two trainees between baseline and post-training (H, P), and decreases markedly for the final trainee across the same period (M). Twenty five percent of trainees (n=4) report a *decrease* in post-training Self-Confidence scores from mid-training (A, H, J and M). In a

similar 12 month CBT diploma study authors found nearly all trainees to report a decrease in self-competenceat some point during the course (Bennett-Levy & Beedie, 2006).



Note 1: SC = Self-Confidence. Note 2: Data points indicate Time 1 = baseline, Time 2 = mid-training, Time 3 = post-training. Note 3: Letters A- P denote individual cases. Note 4: Range 1-5.

*Figure5.4.*Individual results for Self-confidence (N=16)

CHAPTER 5

Summary: Current Practice and Self-Confidence

Results support the hypothesis of a positive relationship between the number of clients with whom trainees report using CBT skills and competencies, and self-confidence in using CBT skills and competencies. Mean scores for both Current Practice and Self-Confidence were high at baseline. Median scores increased over the three time periods but increases were not statistically significant. Visual analysis revealed increases in both Current Practice and Self-confidence for most trainees. Approximately two thirds of trainees reported both Current Practice and Self-Confidence as highest at the end of training. Twenty five percent of trainees reported their use of CBT skills and competencies as lower at the end of training than at the beginning.

5.6 Professional development: Currently Experienced Career Growth

Normality of data distribution

The CEGAIN subscale contains 6 items. The subscale was assessed for kurtosis and skewness (see Table 5.10). The Shapiro-Wilk statistic was significant for CEGAIN (.85, p <.05). Further investigation of the data detected one extreme outlier. Transformation of the score (score plus 1: see Tabachnick&Fiddell, 2007) increased the Shapiro-Wilk statistic (.94, *p* >.05), and increased the mean slightly (.06). The transformation did not substantially alter the shape of the distribution. In addition, the score was indicative of the trainee‟s self-report on other measures. Therefore, further analyses using CEGAIN data were based on original median scores.

Table *5.10.Career Growth:Skew and kurtosis at baseline (N=16)*

Subscale	Skewness	Kurtosis
CEGAIN	-1.59 (.56)	4.49 (1.09)

Note 1: Standard errors are in parentheses. Note 2: CEGAIN= currently experienced career growth

Descriptive statistics

Table 5.11 shows means and standard deviations for CEGAIN during training. Mean gains were greatest between baseline and post-training, and mean scores were highest post-training (*M* = 3.91, *SD* = .95). Baseline mean scores for CEGAIN (*M* = 3.69, *SD* = .86) approximated scores of the „Senior" therapist cohort from the Society for Psychotherapy Research"s Collaborative Research Network study (SPR CRN: see Orlinsky&Rønnestad, 2005) (*M* = 3.50, *SD* = .80, *Md* = 3.70). This study of 4,000 therapists provided the data for the development of the Professional Development Scale and the CEGAIN subscale. Senior therapists within the SPR CRN study were those who reported 25 or more years of experience. Trainee perception of growth as a therapist increased during training within the present study, and remained higher than baseline at the post-training assessment.

Table 5.11 *Means and standard deviations for Career Growth during training (N=16).*

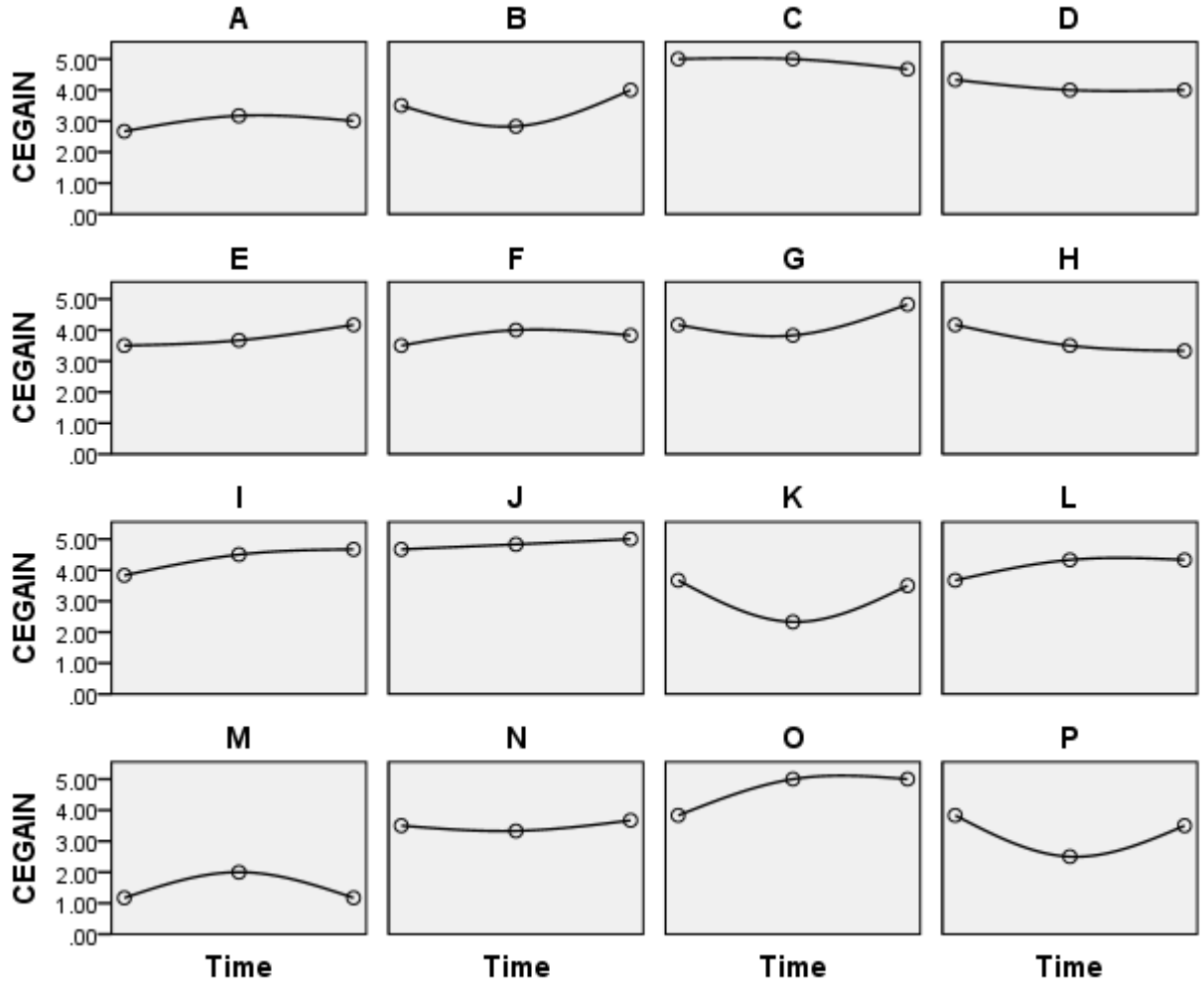
	Baseline		Mid-training		Post-training	
	Md	Mean	Md	Mean	Md	Mean
CEGAIN	4.00	3.69 (.86)	3.75	3.68 (.94)	4.00	3.91 (.95)

Note 1: CEGAIN = Currently Experienced Career Growth. Note 3: Standard deviation in parentheses. Note 3: Range 0-5. Note 4: CEGAIN higher scores = greater growth. Note 5: Md = median

Tests and Visual Analyses (*N*=16)

The Friedman test was carried out for Currently Experienced Growth (CEGAIN) at baseline, mid- training and post-training data. Results showed that there was no significant difference in median CEGAIN scores over the three time periods.

Figure 5.5 shows individual CEGAIN results during training (*N*=16). Small to large increases in CEGAIN are shown for 62% of trainees (*n*=10) between baseline and post-training (A, B, E, F, G, I, J, L, N, O). Scores decrease for 31% of trainees (*n*=5) across the same period (trainees D, C, H, K, and P). Four trainees (B, G, K and P) report a decrease in perception of career growth mid-training.



Note 1: CEGAIN-currently experienced growth. Note 2: Time 1 = baseline, Time 2 = mid-training, Time 3 = post-training. Note 3: Letters A – P denote individual cases. Note 4: Range 0-5

Figure 5.5.Perception of career growth as a therapist during training *(N = 16)*

CHAPTER 5

5.7 Organisational Barriers

Normality of data distribution

The Organisational Barriers subscale was assessed for skewness (1.80, *SE* = .564) and kurtosis (4.21, *SE* = 1.09) at baseline. The data was not expected to have a normal distribution as it related to the measurement of barriers to the use of work-related tasks in work settings. The Shapiro-Wilk statistic was significant (.83, *p*<.05). Further investigation detected no extreme outliers.

Descriptive statistics

Means and standard deviations for Organisational Barriers during training are shown in Table 5.12. Scores were low as expected. Scores increased mid-training before decreasing post-training. Post-training scores are slightly higher than baseline. Overall, mean scores indicate trainees found Organisational Barriers to slightly hinder their use of CBT skills and competencies during training.

Table *5.12. Means and standard deviations forOrganisational Barriers during training(N=16)*

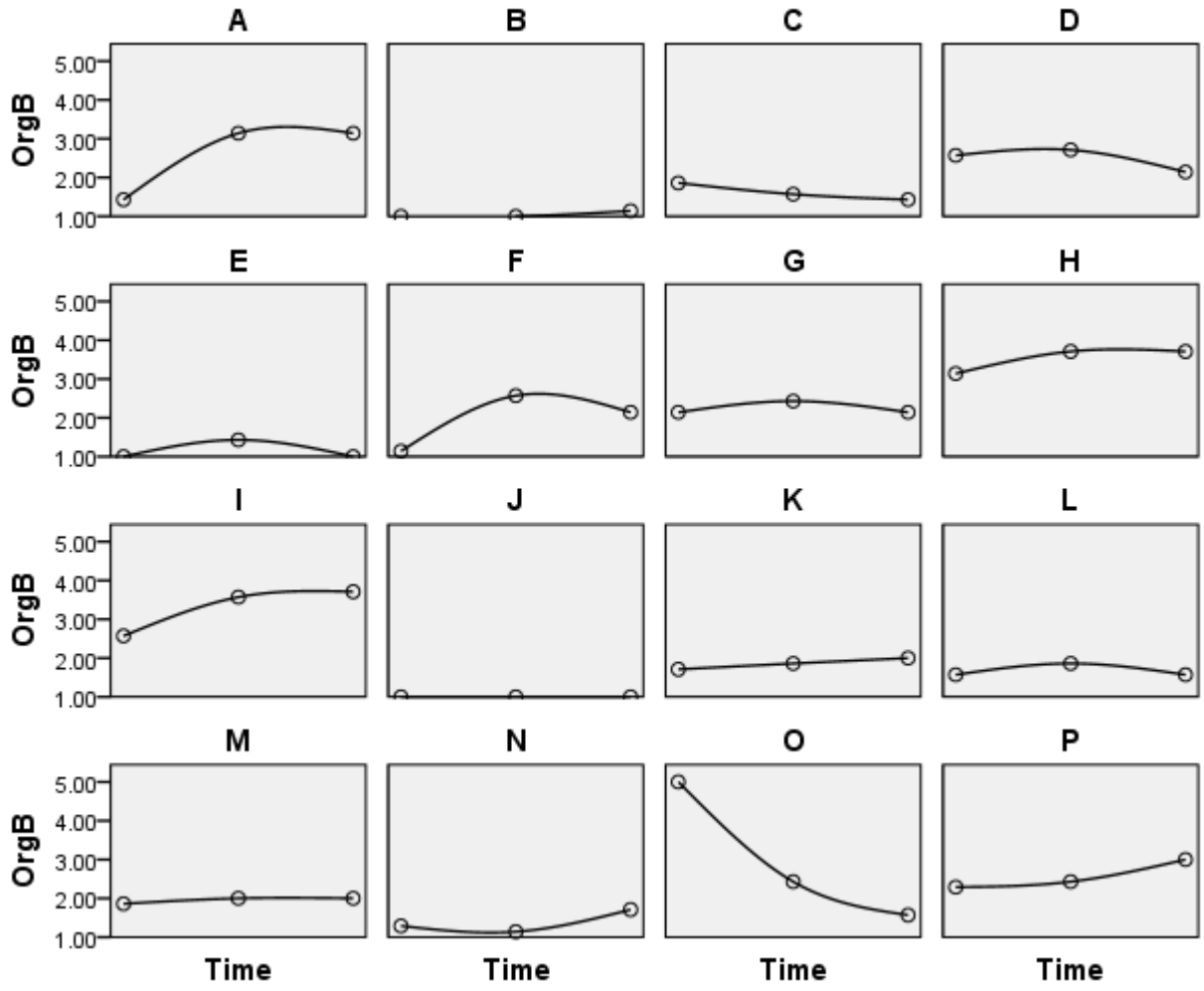
	Md	Baseline	Md	Mid-training	Md	Post-training
Organisational Barriers	2.00	1.97 (1.03)	2.00	2.18 (.85)	2.00	2.12 (.91)

Note 1: Standard deviations in parentheses. Note 2: Scale 1-5

Tests and visual analysis

The Friedman test was conducted for Organisational Barriers using baseline, mid- training, and post-training data. Results showed there were no significant differences in median Organisational Barriers scores over the three time periods during training.

Visual analysis of the data (see Figure 5.6) shows that mean scores increased slightly for 31% of trainees (*n*=5) (B, E, H, M, and N) during training. A further 31% of trainees (*n* = 5) reported larger increases (A, F, H, I, and P). Post-training, 19% of trainees (*n*=3) reported a decrease to below baseline (C, D, and O). The remaining three trainees (G, J and L) reported no change.



Note 1: OrgB=Organisational Barriers. Note 2: Data points indicate Time 1 = baseline, Time 2 = mid-training, Time 3 = post-training. Note 3: Letters A –P denote individual trainees. Note 4: Range 1-5

*Figure 5.6.*Organisational Barriers during training: individual report (N =16)

Item rank across all assessments

The Organisational Barriers scale was also ranked across assessment periods to enable a comparison with existing literature (Kennedy-Merrick et al., 2008). Table 5.13 shows item mean, standard deviation, and rank across all assessments. The highest ranking item was „I lack adequate supervision" at

baseline (*M* = 2.31, *SD* = 1.25) and follow-up (*n* = 9, *M* = 2.33, *SD* = 1.41). This is similar to the results reported by Kennedy-Merrick et al. in which „I lack adequate supervision" ranked third (*M* = 2.07, *SD* = 1.04). Within the Kennedy-Merrick et al. study organisational barriers occupied the top six ranks of the complete 16-item External Factors scale. Items „there are too many clients" and „organisation of client care is too restrictive" also ranked first within the present study at mid- and post-training respectively.

Table *5.13.Organisational Barriers: item means, standard deviations and rank: during training (N=16)*

		Baseline		Mid-training		Post-training
External factors	R	Mean(SD)	R	Mean(SD)	R	Mean(SD)
Lack adequate supervision	1	2.31 (1.25)	5	2.00 (1.21)	5	2.13 (1.20)
Lack CBT colleagues	2	2.13 (1.59)	4	2.06 (1.12)	3	2.31 (1.45)
Too many clients	3	2.06 (1.29)	1	2.63 (1.20)	2	2.38 (1.31)
Organisation of client care too restrictive	4	2.00 (1.10)	3	2.50 (1.37)	1	2.44 (1.31)
Not in job description	5	2.00 (1.41)	6	1.94 (1.24)	4	2.19 (1.38)
Insufficient resources	6	1.94 (1.39)	2	2.56 (1.03)	6	1.88 (.89)
Lack of staff support CBT	7	1.38 (1.09)	8	1.58 (.89)	7	1.56 (.73)

Note 1: R = rank. Note 2: SD = standard deviation. Note 2: lower scores = item perceived less as a barrier. Note 3: Range 1-5

5.8 Summary: Trainee factors

Trainee perception of growth as a therapist was generally high across the period of the study. A visual comparison of trainee responses showed half of the trainees reported an increase in perceived career growth as a therapist during training (50%), with increases greatest between baseline and post-training. However, a further 31% reported a *decrease* in perceived growth during training. Changes in career growth were not statistically significant.

Changes in trainee perception of Organisational Barriers were not significant during training. Most trainees reported a slight to large increase in Organisational Barriers during training. Five trainees reported Organisational Barriers represented a moderate barrier to use of CBT skills and competencies during training. Items „lack of adequate supervision" and „too many clients" featured most frequently as barriers to practice.

5.9 Chapter Summary

Training effects (N=16)

The hypothesis relating to training effects was supported by the data. Sixty six percent of trainees were rated competent at baseline, 88% at mid-training, and 94% post-training. Trainee increase in competence during training was statistically significant for both General and Specific Skill scores. Further, effects were significant between baseline and mid-training as well as baseline and post-training. Visual analysis showed that all trainees improved in competence during training.

Transfer of training (n=9)

Results only partially supported the hypothesis relating to transfer of training. Only two trainees demonstrated an increase in observed competence scores between baseline and 1 year following the end of training. Observed competence scores for 55% of trainees returned to baseline levels at follow-up. Two thirds of trainees were rated competent at follow-up (66%).

Trainee factors

Approximately 80% of trainees reported an increase in Self-Confidence during training. Two thirds of trainees reported an increase in Current Practice, while the remaining third reported a decrease.

Increases in CEGAIN were not statistically significant during training. Therapist currently experienced career growth (CEGAIN) was high at baseline and remained high throughout the period of the study for most trainees. Sixty two percent of trainees reported increases CEGAIN during training. Approximately a third of trainees reported a decrease.

Organisational Barriers

Mean scores for trainee perception of Organisational Barriers were generally low. Although most trainees reported a small to large increase in Organisational Barriers during training, these were not significant. Individual results showed 31% of trainees reported organisational factors as moderate barriers to practice at some point during training.

This chapter presented univariate analyses for Study One. The following chapters (Chapters Six and Seven) address bivariate analyses for Study One and all analyses for Study Two, and thus complete the Results section of the thesis.

Chapter Six

STUDY ONE: BIVARIATE ANALYSES

6.1 Introduction

The previous chapter presented results of univariate analyses and associated hypotheses relating to training effects for observed competence. The present chapter reports results for hypothesized relationships between training effects (observed competence) and trainee factors (Current Practice, Self-Confidence CEGAIN, and Organisational Barriers) during training. Spearman"s rho (r_s)was used to identify the strength and direction of relationships within this chapter.

Baseline relationships are shown in Table 5.2 in the previous chapter. *Mid-training r*elationships are shown in Appendix C.

6.2 The hypotheses

Observed competence, current practice and self-confidence

Hypothesis 2: Self-reported current practice and trainee self- confidence in using CBT skills and competencies will be positively related to observed competence during and following training.

Table 6.1 shows the post-training relationships between observed competence, Current Practice and Self-Confidence in using CBT skills and competencies. The relationship with Current Practice, r_s= -.24, p>.05was not in the expected direction, and slightly larger than at baseline, r_s= -.16, p>.05(see Table 5.2).The relationship mid-training was found to be in the expected direction, r_s = .40, p> .05 (Appendix C), but was not significant. Mixed results suggest that these findings support the hypothesis of a positive relationship between Current Practice and observed competence at mid-training only. Further, the results post-training suggest that as the number of clients with whom trainees reported using CBT skills and competencies increased, the lower their observed competence ratings.

Relationships between Self-Confidence and observed competence were consistently positive during training, with a moderate and significant relationship found mid-training, r_s = .64, p<.01. The result was small and not significant post-training. These results provide support for the hypothesis of a positive relationship with observed competence. The higher trainees rated their self-confidence during training, the higher their observer-rated competence.

Table *6.1. Post-training relationships between training effects and trainee factors(Spearman's rho) (N=16)*

	CTS	CP	SC	CEGAIN	OrgB
CTS	1				
Current Practice (CP)	-.24	1			
Self-Confidence (SC)	.29	.57*	1		
CEGAIN	.49*	.46*	.84**	1	
Organisational Barriers (OrgB)	.39	-.29	-.18	-.26	1

Note 1: CTS = Cognitive Therapy Scale, CEGAIN=currently experienced growth. Note 2: * correlation significant at p< .05, ** correlation significant at p<.01.

Professional development, observed competence, current practice and self-confidence

Hypothesis 3: Professional development as measured by currently experienced growth as a therapist will be positively related to observed competence, current practice and self-confidence in using CBT skills and competencies, during and following training.

Relationships with observed competence were small and in the expected direction at baseline and mid-training, with a moderate and significant relationship post-training, r_s= .49, p<.05 (see Table 6.1). All relationships with Self-Confidence were also in the expected direction, increasing during training

to a large and significant effect post-training, r_s= .84, p <.01. All relationships with Current Practice were positive during training and were significant at baseline,r_s= .51, p <.05, and post-training, r_s= .46, p<.05.

These results support the hypothesis. Greater trainee perception of career growth was associated withhigher observed competence,current practice, andself-confidence during training. This was particularly evident at the end of training. These results also support the findings of the SPR CRN therapist survey, in which therapists reported that practicing directly with clients was one of the three most important factors influencing their professional development (Orlinsky&Rønnestad, 2005).

Organisational Barriers, observed and self-reported competence

Hypothesis 4: Observed competence will be negatively related to the perception of organisational barriers. Further, organisational barriers will be negatively related to current practice and self-confidence in using CBT skills and competencies, and currently experienced growth as a therapist during and following training.

All relationships for Organisational Barriers with observed competence were consistently small and not in the expected direction. Further, the relationship increased steadily during training to r_s= .39, p>.05 post-training, but did not reach significance. These results do not support the hypothesis that organisational barriers to practice would be negatively correlated with observed competence.

Post-training relationships for Organisational Barriers with Current Practice were small and positive at baseline, almost zero at mid-training, and negative at post-training, r_s= -.29, p>.05 (see Table 6.1). Post-training results partially support the hypothesis, suggesting that as trainee perception of Organisational Barriers

decreased, the number of clients with whom trainees reported practicing CBT increased. The baseline relationship with Self-Confidence was moderate and significant, r_s= .49, p<.05, and not in the expected direction. The relationship remained positive at mid-training and was negative post-training. Both mid- and post-training effects were small and not significant.

Finally, the relationship between Organisational Barriers and CEGAIN was positive at baseline, r_s= .47, p<.05, and mid-training, but was in the expected direction post-training. Both the mid- and post-training results were not significant.

Overall, these results provide mixed support for the hypothesis relating to Organisational Barriers during training. Results at baseline suggested that as perception of barriers increased observed competence, self-confidence, current practice, and perception of career growth also increased, thus relationships were not in the expected direction. At post-training the relationships were as expected for self-reported variables.As perception of Organisational Barriers increased self-confidence, current practice, and perception of career growth decreased. However, the consistently positive relationship with observed competence during training, suggested that trainees with higher CTS scores were more likely to report organisational factors as barriers to practicing CBT skills and competencies in the workplace.

6.3 Study One: Overall Conclusions

Training Effects

Hypotheses relating to *training effects* were supported by the data. Percentages of trainees rated competent across the three assessment periods during training were 66% at baseline, 87% mid-training, and 94% post-training. Increases in observed competence during training were statistically significant for both General and Specific Skill scores.

CHAPTER 6

Trainee factors

Results also showed increases in traineecurrent practice and self-confidence. Two thirds of trainees reported an increase in Current Practice, and 81% reported an increase in Self-Confidence during training. Self-confidence in using CBT skills and competencies was rated highest at the end of training by most trainees. Almost a third of trainees reported Current Practice as below baseline levels at the end of training. Changes in Current Practice and Self-Confidenceduring training were not statistically significant.

Therapist currently experienced growth (CEGAIN) was high at baseline and remained high for most trainees. Two thirds of trainees reported an increase in CEGAIN during training, with the remainder reporting a decrease during the same period. Changes in CEGAIN were not statistically significant. Median scores indicated trainee perception of Organisational Barriers was slight and this did not change significantly during training. Individual results showed most trainees reported small to large increases in their perception of Organisational Barriers during training. Further, more than half of trainees reported workplace factors as representing moderate barriers to practice at some point during training.

Post-training results provided mixed support for the hypothesised relationships between observed competence, current practice and self-confidence.The relationshipwith trainee self-confidence was in the expected direction at all assessments, but significant at mid-training only. The finding of otherwise small and non-significant effects was similar to that reported by Mathieson et al. (2006). Results for current practice of CBT at baseline and at the end of training were not in the expected direction. These results suggested that trainees with higher CTS scores were more likely to report using CBT skills and competencies with fewer clients. Further, positive relationships found between observed competence and organisational barriers suggested that trainees with

higher CTS scores were also more likely to report organisational factors as barriers to practice.

Results provide moderate support for hypothesised relationships between currently experienced career growth (CEGAIN) and observer-rated competence. The direction of the relationship between CEGAIN and the CTS at baseline and post-training, suggests that increased perception of career gain as a therapist was associated with greater observed competence in using CBT skills and competencies during training. This relationship was stronger than that found between observed competence and trainee self-confidence. Results at the end of training also suggested that trainee self-confidence was significantly higher for those traineeswho perceived themselves as gaining in their career as a therapist.

Chapter Seven

STUDY TWO: GRADUATE COMPETENCEFOLLOWING TRAINING

7.1 Introduction

Study Two details results for graduate participants. Data from graduates of the PGDipCBT were investigated to further understand relationships between therapist factors and the generalization of CBT skills and competencies into everyday practice over time (transfer of training).

The Graduate group was comprised of past trainees who had graduated 2-9 years prior to submitting data for the study (*n*=11), plus those trainees from Study One who submitted follow-up data 1 year following graduation from the PGDipCBT (Study One completers, *n*=9), giving a total sample size of 20. The remainder of this chapter presents univariate and bivariate data for this composite graduate group at 1 to 9 years following training.

7.2 Preliminary Data Screening: Graduates (*N*=20)

All data for the measures were continuous. Data were screened to ensure that data had been entered accurately, for missing data, for normal distribution of the data and for the presence of outliers.

Sample

Graduates were three clinical psychologists, two registered psychologists, two counsellors, one psychotherapist, two occupational therapists, three psychiatrists, five psychiatric nurses and two social workers. Females comprised 85% of the sample (n=17), 75% were aged between 40-59 years, and 60% (n=12) were employed by District Health Boards.

Missing data

One questionnaire (The Professional Development Scale, 22 items) was missed completely at random by one graduate. The questionnaire was completed and re-submitted by the graduate electronically (email) within one week. There were two further items missed, also completely at random. These items were completed by the graduates concerned by telephone and electronically.

7.3 Univariate analyses

In this section within-measure subscale correlations and descriptive statistics are reported for measures of observed and self-reported transfer of training. *Observed* transfer of training is measured using the Cognitive Therapy Scale (CTS) and subscales. *Self-reported* transfer of training is reported using the Current Practice and Self-Confidence subscales of the Adapted Survey of the PGDipCBT (AS-PGDipCBT).

7.4 Observed transfer of training

CTS total scale and subscale correlations

Table 7.1 shows correlations between the CTS total scale and General and Specific Skill subscales 1 - 9 years following training. Relationships between the total scale and subscales are large, statistically significant at p <.01, and in the expected direction. Further, the relationship between the subscales is also large, (r_s= .94, p<.01). As noted in Study One, the strength of these relationships implies that the division of the CTS into subscales is unwarranted (Vallis et al., 1986).

CHAPTER 7

Table *7.1. Graduate CTS total scale and subscale relationships (N=20)*

	CTS total scale	General Skills	Specific Skills
CTS total scale	1		
General Skills	.98**	1	
Specific Skills	.99**	.94**	1

Note 1: CTS=Cognitive Therapy Scale. Note 2: ** Correlation significant at p <.01.

Descriptive statistics

Table 7.2 shows means and standard deviations for CTS total scale and subscales for the graduate group 1-9 years following training (N=20). The mean total scale score following training was lower at 43.35 (*SD* = 14.06) than for Study One trainees at the end of training (*M* = 49.37, *SD* = 6.37). Median scores were 46 and 48 respectively.

Graduate mean scores 1-9 years following training were slightly higher than mean *post-treatment* scores (42.06, *n*=8, *SD* = 4.04) for therapists engaged in the Treatment of Depression Collaborative Research Project (TDCRP). TDCRP therapists were monitored for competence during the period of the research trial (Shaw et al., 1999). The large differences in standard deviations between the TDCRP results and the present study may reflect the level of monitoring associated with clinical trials such as the TDCRP.

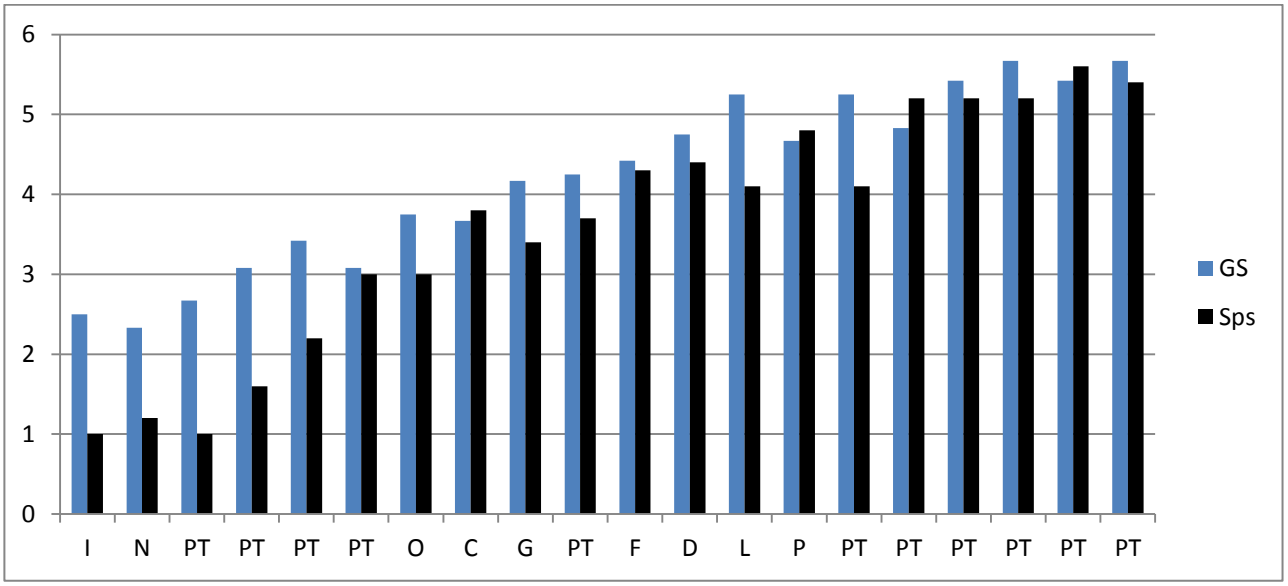
Table *7.2. CTS total scale and subscale means and standard deviations following training (N=20)*

	Median	Mean	Standard deviation
CTS total scale	46.00	43.35	14.06
General Skills	4.37	4.21	1.09
Specific Skills	4.00	3.61	1.52

Note 1: CTS=Cognitive Therapy Scale.

STUDY TWO: GRADUATE COMPETENCE FOLLOWING TRAINING

Sixty percent of graduates were rated as competent (*n*=12) at 1-9 years following graduation as a cognitive therapist (CTS cut-off score = 40, Dobson & Shaw, 1988). Figure 7.1 shows individual General and Specific Skill subscale results. Forty percent of graduates performed below the cut-off score for competence. Total scale scores for this group ranged from 20 to 37. Both Miller et al. (2004) and Brosnan et al. (2006) noted a number of therapists as performing below competence, despite having been rated as competent following training or accreditation in the use of CBT skills and competencies. The relationship between General and Specific Skill scores tended to be stronger for those with higher scores. Graduates with the lowest CTS total scale scores rated more than 1point higher on General Skills.



Note 1: GS=General Skills, SpS=Specific Skills. Note 2: PT = Past Trainee. Letters C-P = Study One completers. Note 3: Range 0-6.

*Figure 7.1.*Graduate individual General and Specific Skills (N=20): data ranked by CTS mean total scale scores.

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7.5 Self-reported transfer of training

Self-reported transfer of training was measured using the Current Practice and Self-Confidence subscales from the Adapted Survey of the PGDipCBT (Kennedy-Merrick et al., 2008).

Subscale correlations and descriptive statistics

The relationship between Current Practice and Self-Confidence was small to moderate and in the expected direction, r_s = .46, p<.05. The relationship was statistically significant.

Table 7.3 shows means and standard deviations for graduate self-reported transfer of training. Graduates reported using CBT skills and competencies with approximately 75% of clients and felt very confident in their use of CBT skills and competencies. Results are similar to those reported by Kennedy-Merrick et al. (2008) who found graduates to report that they used „the majority" of CBT skills and competencies with between 50% and 75% of clients, and were also very confident in their use of CBT skills and competencies.

Table *7.3. Means and standard deviations: Current Practice and Self-Confidence following training (N=20)*

Subscale	Median	Mean	Standard deviation
Current Practice	4.00	4.00	.74
Self-confidence	4.50	4.10	.67

Note 1: Scale range 1-5. Note 2: Higher scores = greater self-reported transfer of training.

7.6 Therapist Development: Currently Experienced Career Growth

Self-perceived therapist development is measured by the CEGAIN subscale from the Professional Development Scale (PDS).

Descriptive statistics

The median score for CEGAIN was 4.00. The mean score (*M* = 3.56, *SD* = .75) was equal to mean scores reported for „apprentice" (1.5 to 3.5 years experience), „graduate" (3.5 to < 7 years experience), „seasoned" (15 to < 25 years experience) and „senior" (25 to 53 years experience) therapist cohorts from the Society for Psychotherapy Research's Collaborative Research Network study (Orlinsky&Rønnestad, 2005).

7.7 Organisational Barriers

The Organisational Barriers subscale measure was used to assess perception of workplace factors as barriers to CBT practice. Organisational Barriers represents workplace specific items (7 items) from the External Factors subscale of the Adapted Survey of the PGDipCBT (Kennedy-Merrick et al., 2008).

Descriptive statistics

The median score for Organisational Barriers was 1.00 (*M* = 1.75, *SD* = .67). Graduates reported Organisational Barriers as nil to slight. This was slightly lower than Study One post-training (*Md* = 2.00, *M* = 2.12, *SD* = .91). Graduates rated "lack of supervision", "lack of colleagues also practicing CBT", and "organisational care is too restrictive", as thethree highest organisational barriers to practice.

7.8 Summary: univariate analyses for graduates

Sixty five percent (*n*=7) of the graduate group were rated competent 1 to 9 years following graduation. In the absence of baseline data it is not possible to speculate on whether Study Two results support the hypothesis relating to transfer of training. Graduates self-reported competence was similar to that reported in an earlier study using the same measure (Kennedy-Merrick et al.,

2008). Graduates in the present study reported using CBT skills and competencies with 75% of clients, and being very confident in using CBT skills and competencies. Currently experienced career growth as a therapist was high and equal to scores for most therapist cohorts from the Society for Psychotherapy Research‟s Collaborative Research Network study (Orlinsky&Rønnestad, 2005). Median scores suggest that perception of organisational barriers was zero to slight following training.

STUDY TWO: BIVARIATE ANALYSESOF GRADUATE DATA

This section reports study results for hypothesized relationships between graduate observed competence, current practice and self-confidence, professional development and perceived organisational barriers to practice.

Figures are presented using standardized scores. The decision to present individual data as standardised scores allows the comparison of results from different instruments using different units of measurement (Dancey, 2007; Gackenbach, 2006; Spicer, 2005).

7.9 Observed and self-reported competence and therapist factors

Hypothesis 2: Observed competence, Current Practice and Self-Confidence

Table 7.4 shows that Study Two results did not support the hypothesized relationships between current practice, self-confidence and observed competence. All relationships between current practice and self-confidence with observed competence were small and not in the expected direction. As graduate self-confidence and current practice of CBT skills and competencies increased, observed competence decreased.

Table *7.4.Relationships between observed competence, current practice, self-confidence, organisational barriers and career growth 1-9 years following training (N=20).*

	1	2	3	4	5
1-CTS	1				
2-Current Practice	-.17	1			
3-Self-confidence	-.18	.46*	1		
4-CEGAIN	-.54**	.38*	.38*	1	
5-Organisational Barriers	-.01	-.13	-.33*	-.14.	1

Note 1: *correlation significant at p <.05, ** correlation significant at p <.01. Note 3: CTS = Cognitive Therapy Scale. CEGAIN= currently experienced growth.

Hypothesis 3: Professional Development and Therapist Competence

Study Two results did not support the hypothesis that there would be a positive relationship between CEGAIN and observed competence (see Table 7.4). Instead the relationship was moderate, statistically significant and not in the expected direction. These results were not consistent with results found at the end of training in Study One when the relationship between CEGAIN with the CTS was moderate and positive. Results did support the hypotheses that CEGAIN would be positively correlated with Self-Confidence and Current Practice. All graduate relationships for CEGAIN with Current Practice and Self-confidence were statistically significant, and in the expected direction. Relationships were smaller than those found post-training in Study One.

As graduate perception of currently experienced growth as a therapist increased, observer-rated competence decreased. Relationships for CEGAIN, Current Practice and Self-Confidence however, indicated that as perception of currently experienced growth as a therapist increased, both Current Practice and Self-Confidence also increased. These latter results further support Study One findings, where similar and slightly larger relationships were observed.

Hypothesis 4: Organisational Barriers

Results did not support the hypothesis of a negative relationship between graduate perception of Organisational Barriers and observed competence. Table 7.4 shows the relationship is almost nil at 1-9 years following graduation. The relationshipsbetween Organisational Barriers, Current Practice and Self-Confidence supported the hypothesis. In particular, as perception of Organisational Barriers increased, Self-Confidence in using CBT skills and competencies decreased.

7.10 Summary: Bivariate analyses for graduate data

Graduate results do not support the hypotheses of positive relationships between CBT observed competence, current practice and self-confidence, professional development or organisational barriers 1-9 years following graduation. Relationships were not in the expected direction, and were small and non-significant with the exception of CEGAIN. The relationship between observed competence and CEGAIN was negative, moderate and statistically significant. As perception of currently experienced growth as a therapist (CEGAIN) increased, observed competence decreased. This result was not consistent with results found during training in Study One. Also, results did not support the hypothesis that there would be a negative relationship between observed competence and Organisational Barriers. This relationship was almost zero. Results, however, did support hypothesised relationships between Current Practice, Self-Confidence , CEGAIN and Organisational Barriers. Results were statistically significant between CEGAIN, Self-Confidence and Current Practice in particular.

7.11 Post Hoc Analyses

Rationale

A major aim of the present study was to investigate relationships between therapist observed competence and therapist current practice, self-confidence, and professional development. Two studies were undertaken. Study One

employed a trainee sample during and following training in CBT skills and competencies. Study Two employed past trainees who had graduated from the same training programme. It was expected that results would show that as observed competence increased,current practice, self confidence and therapists‟ perception of career growth would also increase. Further, it was expected that as observed competence, self-confidence, current practice and perception of career growth increased, perceived organisational barriers would decrease.

However, relationshipsbetween observed competence, Current Practice and Organisational Barriers found at the *end of training* in Study One suggested that trainees who were rated as more competent were more likely to reportcurrent practice with *fewer*clients than trainees rated as less competent.Further, more competent trainees were also likely to report a greater perception of organisational factors as barriers to practice.

In addition, negative relationships found between observed competence,self-confidence and currently experienced growthat the follow-up assessment were opposite to those found for trainees in Study One, and suggested that more competent practitioners reported lower self-confidence and perceived career gain than less competent practitioners following training. The result with currently experienced career growth, in particular, was statistically significant. To further understand the extent of these unexpected findings, visual analyses of relationships for observed competence with self-confidence, current practice, organisational barriers and currently experienced growth were undertaken. Visual data are presented using standardised scores to enable the comparison of scales that use different units of measurement.

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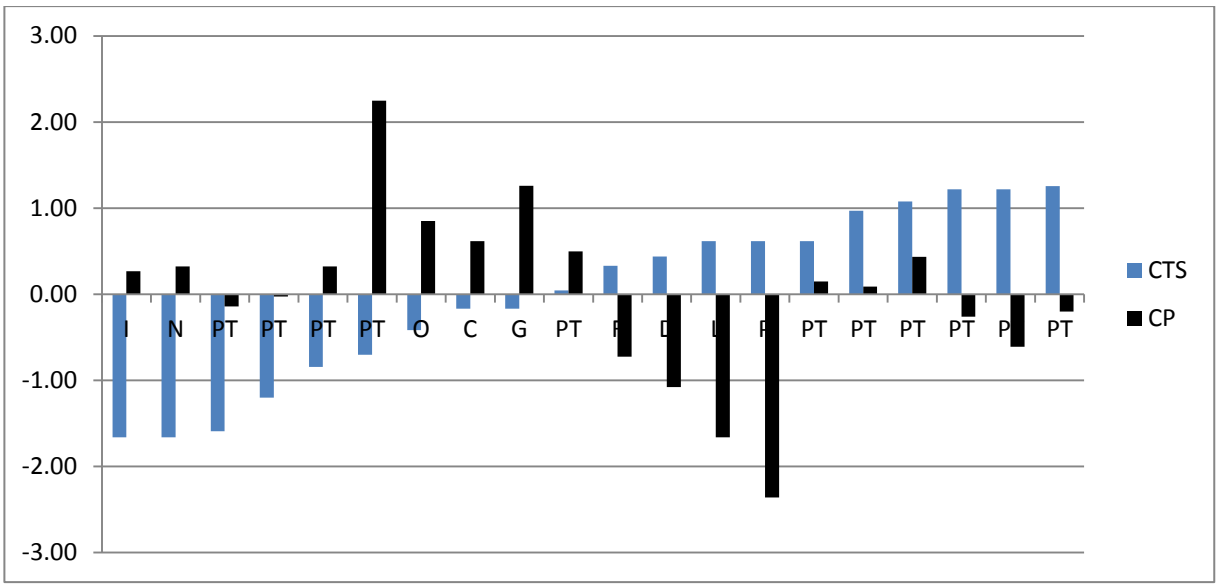
Observed competence and Current Practice

Figure 7.2 shows Study Two relationships between observed competence and Current Practice for individual graduates. Negative relationships can be observed for graduates with CTS scores closer to the mean, most of whom were also Study One participants (as identified by letters C –P). Further, those who were rated below the mean for observed competence tended to report higher numbers of clients with whom they were practicing CBT skills and competencies. Those who were rated above the mean for observed competence tended to report lower numbers of clients with whom they were practicing CBT. Results for graduates who were past trainees (PT), tended to show small, mixed relationships between observed competence and Current Practice.

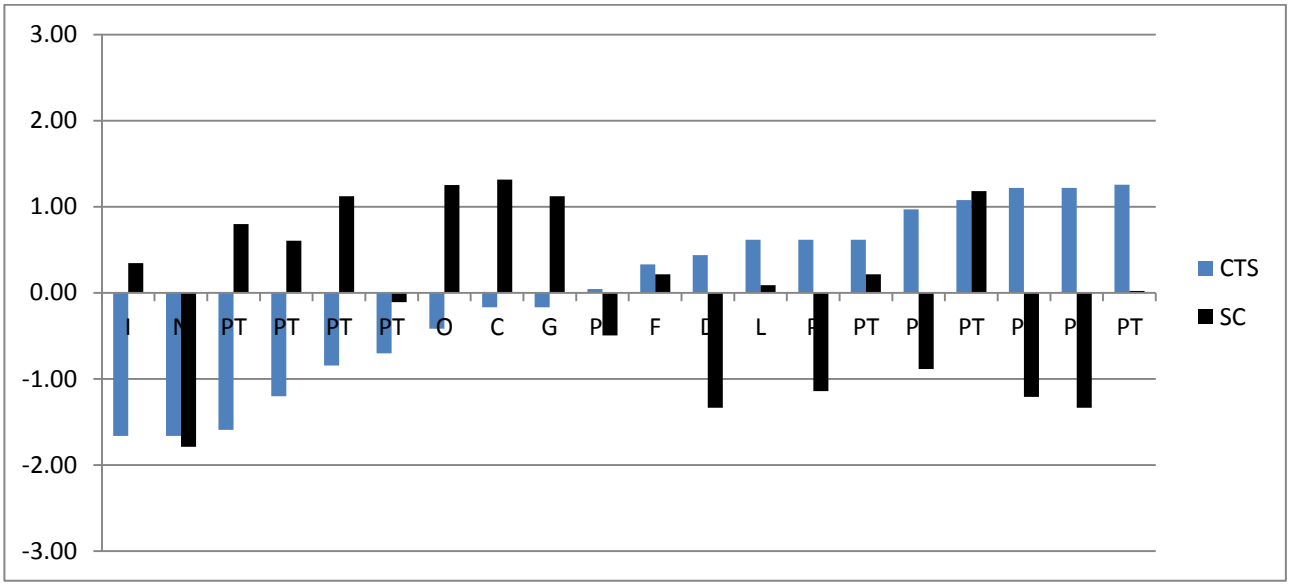


Note 1: CP = Current Practice, CTS = Cognitive Therapy Scale (observed competence). Note 2: PT =Past Trainee, letters C-P = Study One completers.

*Figure 7.2.*Individual results for Study Two: observed competence and Current Practice 1-9 years following training using standardised scores (N=20)

Observed Competence and Self-Confidence

Study One results found a consistently positive relationship between observed competence and trainee self-confidence. This relationship was not found for post-graduates 1-9 years following training. Figure 7.3 shows the relationship between observed competence and self-confidence using standardised scores. Negative relationships can be seen between observed competence and self-confidence for most participants. Graduates rated as more competent were inclined to rate themselves lower on Self-Confidence, while for those rated as less competent the opposite applied. This was not limited to Study One completers.



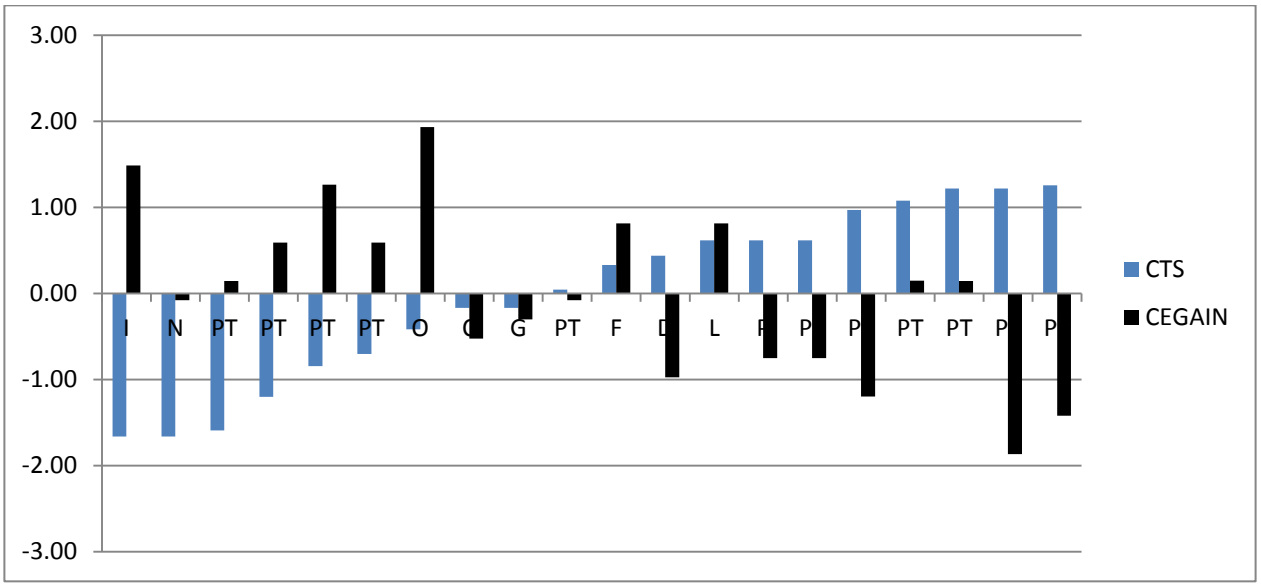
Note 1: SC=Self-Confidence, CTS = Cognitive Therapy Scale (observed competence).
Note 2: PT =Past Trainee, letters C-P = Study One completers.

*Figure 7.3.*Individual results for Study Two: observed competence and Self-Confidence 1-9 years following training using standardised scores (N=20)

Observed Competence and Currently Experienced Career Growth

Study One results indicated a moderate and positive relationship between trainee perception of currently experienced career growth and observed

competence, as hypothesised. However the relationship between CEGAIN and observed competence was not in the expected direction for graduates 1-9 years following training. Figure 7.4 shows the relationship between CEGAIN and observed competence for individual graduates. Higher observed competence is associated with lower CEGAIN scores, and lower observed competence is associated with higher CEGAIN scores. Graduates who were rated as less competent tended to report higher perceived career growth while graduates who were rated as more competent rated their perceived career growth lower.



Note 1: CEGAIN= currently experienced career growth, CTS = Cognitive Therapy Scale (observed competence). Note 2: PT =Past Trainee, letters C-P = Study One trainees.

Figure 7.4.Individual results for Study Two: observed competence and career growth1-9 years following training using standardised scores (N=20)

7.12 Summary: Post hoc visual analyses

Individual graduates who were rated as more competent following training reported using CBT skills and competencies with fewer clients than those who were rated as less competent following training. This result was consistent with group results found at the end of training in Study One. Further, graduate results

were largely confined to those participants who had also participated in Study One. That is, results for past trainees (PT), who had graduated for 2-9 years earlier tended not to show clear relationships between Current Practice and observed competence.

Further, graduates who were rated as less competent tended to report higher levels of self-confidence and higher perceived career growth (CEGAIN) 1-9 years following training, while graduates who were rated as more competent reported their self-confidence and perceived career growth as low.

In these two chapters results for training and trainee factors were presented in two studies. Study One: Trainee Competence during Training, and Study Two: Graduate Competence following Training. Results were presented as bivariate analyses with post hoc visual analyses undertaken to clarify unexpected results. The following chapter presents a discussion of results for both studies and the post hoc analyses.

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Chapter Eight

DISCUSSION

Previous chapters have addressed the rationale, methodology and results of statistical analyses for the present study. This chapter will discuss hypotheses for Studies One and Two. Unexpected findings and implications are considered. Limitations of the study and directions for future research are also presented. Finally, conclusions from the study are drawn.

8.1 Therapist Competence and Training Effects in CBT

Hypothesis 1.1 Training effects will present as improvements in trainee observed competence in using CBT skills and competencies. Trainee competencewill be greater at the end of training than at the beginning of training.

Competence improved for all trainees during training. Gains were greatest between the beginning and middle of training, as well as the beginning and end of training. A small increase between the middle and the end of training was also noted by Simons et al. (2010), who similarly reported the greatest gains were found within the first six months of a 12 month study. The gradual increase in the percentage of trainees rated competent at each assessment period adds further support for the effects of training across time, with 66% of trainees rated competent at baseline, 87% mid-training, and 94% at the end of training. While a number of variables may contribute to change in competence, increases noted in the present study are likely a result of trainee and supervisor efforts to improve trainee competence throughout the year.

It is of note that two thirds of trainees were already competent at the beginning of training, with individual results suggesting that these trainees were competent in both General and Specific Skill areas. This finding may be explained by aspects of the study design. Trainees were requested to submit the first set of

questionnaires when they submitted their first tape for assessment within the course, by which time they would already have attended a number of supervision sessions. Also, during the initial year of the diploma trainees were exposed to workshops, roleplays and group discussions, resulting in practice of CBT skills and competencies prior to enrolment in the practicum. It may have been of more value to assess trainees prior to the beginning of the diploma, in order to gain a more accurate assessment of pre-training competence in CBT. However, trainee baseline competence was similarly noted by Mannix et al. (2006) who reported some trainees demonstrated competence in a number of CBT skill areas pre-training.Further, the improvement in competence found during training in the present study suggests that practicum training adds significantly to trainee competence, despite prior CBT learning.

Other studies have reported minimal change in competence at the end of training (Beidas & Kendall, 2010). However, improvements such as those found in the present study (mean pre-/ post difference = 9.56) are frequently reported in research where CBT training has also been provided through a postgraduate diploma course (Barnfield, Mathieson, & Beaumont, 2007; Bennett-Levy & Beedie, 2007, James et al., 2001; Milne et al., 1999). While the use of different versions of the CTS in these studies precludes direct comparisons, mean differences in pre- post total scale scores using the CTS-R have been reported as similar to those found in the present study which used an earlier version of the CTS, 8.6 (Barnfield et al.) and 9.87 (James et al.).

The postgraduate setting for the present study shares many characteristics with other postgraduate CBT courses. Common features include extended training duration, multiple training strategies, case studies, case presentations, and extensive supervision using taped work samples. Extended training duration (Rakovshik & McManus, 2010) and the use of multiple training strategies (Herschell et al., 2010), in particular,have been associated with increases in therapist competence.

8.2 Transfer of Training

Hypothesis 1.2 Training will have transferred into therapist practice at 1 year following training. Observer-rated competence using the Cognitive Therapy Scale will be higher at follow-up than at the baseline assessment.

There was minimal evidence of training transfer into therapist everyday practice following training. Two of the nine trainees who completed Study One demonstrated evidence of training transfer at 12 months follow-up. For these trainees, ratings of observed competence at the end of training were considerably higher than at baseline, and were maintained at follow-up. Competence for the remaining trainees was also high at the end of training but returned to approximate baseline levels (n = 1) or lower (n =6) at follow-up, showing little evidence of transfer. Thus, more than three quarters of the trainees who completed Study One were unable to demonstrate transfer of the diploma training.

Again, the low rate of apparent transfer may relate to the timing of the baseline assessment. This initial assessment was undertaken following the first year of the diploma, a year of theoretical and experiential instruction in CBT, and prior to the intensively supervised practicum year. The finding that 66% of trainees were already competent at the baseline assessment suggests that training during the theoretical year impacted on competence levels. If the assessment had been undertaken at the beginning of the first year of thediploma then it is possible that baseline scores would have been lower, and more trainees may have demonstrated transfer of training. Of greater importance, however, must be the significant increase in observed competence for all trainees during the practicum year of training which suggests that trainees made major gains in CBT knowledge, skills and competenciesduring supervised training. Of equal importance is that these gains were not maintained following the end of training.

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As baseline data were not available for half of the graduate sample it is not possible to determine levels of training transfer for the graduate group. However, more than one third of 20 postgraduate practitioners (35%, *n* = 7)assessed within Study Two were rated as being below the cut-off score for competence (CTS = 40)1 -9 years following formal training in CBT.The median CTS score for the group was 26 (*M* = 27.14, *SD* = 7.15) and therapists rated equally poorly on general therapeutic skills and specific CBT skills. These findings are well below the low range (CTS= 38) as identified by Vallis et al. (1986) when investigating the psychometric properties of the Cognitive Therapy Scale.

It might be argued that these results present a snapshot of therapist competence as rated from a single work sample. Certainly, it has been suggested that the rating of as many as 19 tapes are necessary in order to make judgements about therapist competence, and that factors such as severity of a client‟s presentation may influence a therapist‟s performanceon a single tape (Rakovshik & McManus, 2010). However, the rater employed to rate work samples in the present study had both the skills and the experience to detect therapist competence within the constraints of factors such as client presentation. In addition, all participants were aware that the study pertained to therapist competence and all work samples were self-selected for assessment. Thus, results imply that these therapists may not have been aware that they were no longer routinely using CBT.

The absence of relevant literature with which to compare transfer results from the present study means that these findings must be treated with caution. Attempts to generalise outcomes to the general population of CBT postgraduate practitioners would be unwise while there remains a lack of empirical evidence corroborating the lack of transfer of CBT training found here. There is, however, some validation of these results to be found in the literature relating to therapist competence in CBT generally, with concerns about the moderate degree of

transfer observed in this area increasingly highlighted as evidence of the frequency of poor training transfer. (Andrews, et al., 2000; Beidas & Kendall, 2010; Cahill et al, 2006; Carroll et al., 2010; Milne & Reiser, 2011; Roth & Pilling, 2008; Wells, 1999).

There are additional implications from these results. Results from Study One completers (*n*=9) imply transfer did not occur for a large number of new postgraduates, while Study Two results imply that transfer may have occurred but was followed by therapist drift (Milne, 2008; Waller, 2009). While transfer of training is understood as new learning that transfers to everyday practice, therapist drift may be understood as low fidelity in the implementation of a therapy (Milne &Resier, 2011). Therapist drift from delivery of CBT skills and competencies is often a reaction to an immediate issue, and frequently occurs without a plan of how to return to the core model. Drifthas been noted to occur when therapists encounter crises during therapy ,and/or are less experienced practitioners (Waller, 2009), and/ or lack support from peers and supervision.

Results of the resent study provide some support for therapist drift as identified in Brosnan et al. (2006) in a cross-sectional study of therapist competence in CBT. Competence was measured using the Cognitive Therapy Scale (Young & Beck, 1980) to assess a single self-selected work sample. The work sample was also self-assessed by therapists as well as independent raters. Participants (*N* = 24) were divided into two groups: those with formal post-qualification training in CBT, and those with only basic CBT training undertaken as part of pre-qualification or university professional training. Overall results found 23% of therapists with formal post-qualification training did not reach competence (n = 3), compared to 90% in the non-postgraduate training group (*n* = 9). These authors found no differences between the two groups for age, profession, experience, type of supervision, or accreditation.

Nevertheless, differences in therapist age may account for differences in the percentage of therapists rated competent between Brosnan et al. (2006) and the present study.Age has been associated with competence in at least one postgraduate diploma study (McManus et al., 2010), where older trainees were found to be less competent. Therapists in Brosnan et al. reported a mean age of 38 (*SD* = 6.5), and the median age from similar CBT postgraduate studies has ranged from 35 to 39 years (Bennett-Levy & Beedie, 2007; Blackburn et al., 2001; McManus et al., 2010). Therapists in the present study were somewhat older, with45% above the age of 50 and 59 years (*n*=9), and a further 10% between 60 and 69 years. Thus, the greater number of older therapists in the present study may have had an impact on differences in the number of therapists rated below the cut-off score,compared to figures reported elsewhere.

The implications of poor training transfer are likely to include suggestions that the investment in practitioners who fail to transfer CBT training may have been a poor use of resources. However, it is important to remember that all participants in the present study had completed two intensive years of training and were rated competent at the end of training. Further, in New Zealand alone, estimates for anxiety and mood disorders (24.9% and 20.2% respectively: Oakley-Browne et al., 2006) indicate that there is a great need for CBT therapists who are competent and in a position to practice. A more useful solution, therefore, must be to ensure maintenance of therapist competence following training. This, in itself, would seem a better use of resources than trying to identify those trainees whose competence may decline below acceptable levels across time.

Supervision is generally recognized as the major means of maintaining competence following training. Within the general literature it is also understood to be an organisational responsibility (Burke & Hutchins, 2007). Within the New Zealand context postgraduate CBT practitioners have rated supervisor support as the most important factor for improvement in knowledge and skill development, despite also reporting limited access to on-going supervision

(Mathieson et al., 2010). However, although one of the major purposes of supervision is to maintain competence, issues with the transfer of training into practice still persist. This suggests that supervision alone may be insufficient to maintain competence, or that supervision accessed by many practitioners is not used to maintain competence in CBT.

There is some support for the latter suggestion. A small number of studies employing supervision as part of the study protocol have reported the maintenance of some gains following training (Mannix et al., 2006; Sholomskas et al., 2005; Schafer et al., 2004; Simons, 2011; Smith et al., 2007). While the settings for these studies were not postgraduate courses in CBT, they each included on-going supervision as part of the study protocol following training completion. That is, trainees continued to receive training-specific supervision from study trainers and supervisors from the end of training to the follow-up assessment (4-12 months in the studies mentioned here), or from independent supervisors who adhered closely to the CBT model.

Poor supervisor fidelity to the CBT model (poor adherence to strategies such as agenda setting, homework, eliciting feedback, roleplays, and low use of taped sessions) has been noted (Milne, 2008), and direct evidence of supervisor effects were found in Henry et al. (1993).Within the latter study, group supervision using taped sessions revealed significant differences in trainer style. Trainees receiving training-focused, content-specificsupervision performed significantly better than trainees who were invited to discuss taped sessions in a less directive manner.

Within the present study 90% of graduate participants reported receiving regular supervision following training (n = 18), with 65% reporting supervision with CBT or mixed model supervisors. However, the adherence of these supervisors to the CBT model is unknown.Further, the lack of transfer noted in the present study lends support to the suggestion that it may not be the availability of

supervision that limits training transfer, but rather the content and structure of supervision sessions. If this were the case then it may be insufficient for trainees to engage with supervisors who are simply familiar with CBTfor training to transfer into practice. Instead trainees and employers may need to seek clinical supervisors who are able to focus specifically on the effective delivery of CBT skills and competencies as taught during training.

With the efforts of researchers to develop a model for CBT supervision now underway (Reiser & Milne, 2011), and given the likelihood that transfer of training in CBT is somewhat less than optimal, the onus may now be on supervisors and organisations, as well as practitioners, to take the appropriate steps to optimize the contribution made by the supervision process.Theories of accountability provide some support for this suggestion. Accountability was identified by Burke and Saks (2009) as conceptually having a pivotal role in the transfer of training into the workplace. Based on Schlenker"s Model of Responsibility (Schlenker, Britt, Pennington, Murphy, & Doherty, 1997) the levels of accountability require: 1) clear prescriptions (expectations, goals) for stakeholders involved in learning, training and transfer processes, 2) stakeholders to have personal control over their actions and expected outcomes of their actions relating to learning, training and transfer, and 3) stakeholders to have a sense of obligation relating to their role in the learning and transfer process.

During training, levels of accountability within CBT postgraduate courses would seem to be adequately addressed. Trainers at the postgraduate level have responsibility to incorporate prescribed content into course designs (in this instance CBT knowledge, skills and competencies), and to employ effective training strategies. Managers generally have prescribed policies and guidelines regarding organisational obligations to foster staff training and development. Trainees have a clear description of the course requirements for graduation, as outlined in course materials. That is, all stakeholders at the post-graduate level

of CBT training (trainers, trainees and managers) have both tacit and written understandings of their roles and responsibilities in the training process.

However, while a major goal of training is to improve knowledge, skills, attitudes and competencies within a workforce, much of what is understood about training transfer currently seems focused almost exclusively on the training process. While trainers may include a session addressing relapse prevention toward the end of a course, and organisations may attempt to contractually retain staff following training, it seems that trainees alone are charged with ensuring that transfer*following training* occurs. If this is the case, it would be an understandably daunting task for newly trained therapists to assume responsibility for organising opportunities and cues to practice, engage managerial and peer support, and access training oriented supervisionin addition to any pre-training responsibilities. Within the present study, the failure of nearly three quarters of trainees to transfer training, and one third of graduate participants to maintain competence following training, appears to be an example of how such expectations mightfail to be realised.

Thus, results of the present study relating to training transfer suggest that currently therapist supervision may not be focusing on the maintenance of CBT competencies. Further, the responsibility for addressing this issue may lie not only with trainees, but also with trainers, supervisors and employer organisations.

8.3 Therapist factors during Training

Current Practice and Self Confidence

Hypothesis 2: Self-reported current practice and trainee self- confidence in using CBT skills and competencies will be positively related to observed competence during and following training.

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During training relationships between observed competence and self confidencewere found as hypothesised. While the relationship was significant mid-training only, it was consistently positive throughout the practicum.This finding adds further support for similar outcomes whereby it has been suggested that extended training with multiple training strategies(as found in CBT postgraduate diploma training) may facilitate traineeself awareness of their level of competence as observed by others(Bennett-Levy & Beedie, 2007; Mathieson et al., 2009).

The positive association between *self-confidence* and observed competence in the present study was strongest at mid-training, and was much reduced and no longer significant at the end of training. Lack of a significant positive association between the two measures of competence has been attributed to therapists who over-rate their ability to deliver CBT (Brosnan et al., 2006; Mathieson et al., 2009). However, the opposite might also apply, in that some trainees may have experienced a lack of confidence towards the end of training despite their ability. The decrease in self-confidence for nearly one third of trainees between the middle and the end of the practicum year provides some support for this explanation, as does the research model of Bennett-Levy and Beedie (2007). These authors reported two thirds of all decreases in self-perceived competence were associated with trainee comments indicating an increased awareness of the standards required to be a competent CBT therapist. This awareness was posited as increasing toward the end of training, as trainees became progressively aware that they were not yet as competent as more experienced CBT practitioners. Thus, while results between mid-training and the end of training for the present study may indicate over-confidence in trainees with lower observed competence, they may also indicate a lack of confidence in more competent trainees. Further, both of these explanations reflect a lack of trainee awareness at the end of training that was irrespective of actual levels of competence.

The relationship between observed competence and*current practice* wasfound as hypothesised in the middle of the practicum year only, when self-confidence was also highest. The negative relationship found between observed competence and practice at baseline was attributed to less competent practitioners practicing more in order to increase competence. However, the relationship was again negative at the end of training, with resultssuggesting that more competent practitioners were practicing with fewer clients than less competent practitioners.

These results were not expected. Relationships between practice and transfer of training have been positive in the previous literature, particularly where training-focused feedback was also provided (Burke & Hutchins, 2007; Mannix et al., 2006). The relationship between practice and competence in the present study may have arisen from trainee factors, in that more competent therapists simply practiced with fewer clients. Or, the relationship may have arisen from learning effects, whereby trainees who limited their practice to few clients were subsequently rated as more competent.

If this were the case, trainees who reported practicing with fewer clients may have been trying to replicate their experience with their supervised practicum cases, in which they selected clients specifically to practice the CBT model. That is, they may have sought suitable clients with „textbook" presentations of depression or anxiety who did not demonstrate the complications associated with complex diagnoses or co-morbidity (for example depression, and/or anxiety, and/or substance use issue). Having engaged a small number of clients they may then have proceeded to select and useappropriate CBT skills and competencies as taught. The additional opportunities to practice CBT as a treatment in this way may have further increased their exposure to the therapy process during training, being a time when they were also receiving frequent supervision that was not only compulsory but also intensively focused on the CBT model. If this were the case it could suggest that practicing CBT as a

treatment may be more effective in increasing competence during training than practicing separate CBT strategies (see Proctor, Lansverk, Aarons, Chambers, Glisson, &Mittman, 2009) with many clients. That is, it may be the quality of practice that is of importance, as opposed to the number of clients who receive a particular strategy.

It is also of note that the greatest increases in all three measures of competence (observed competence, self-reported confidence and current practice) were found between the baseline and mid-training assessments when relationships between them were also strongest. This suggests that trainee self awareness of competence was at its most robust by the mid-training assessment.An explanation of this finding is that mid-training may be seen as a time when trainees began to experience increasing competence and self-confidence in their practice of skills and competencies with their practicum clients, as determined by feedback from both clients and supervisors. This is consistent with the Bennett-Levy and Beedie (2007) model of factors that contribute to trainee self-perception of competence. Within this model the acquiring of knowledge, the opportunity to implement that knowledge through experiences with clients, and feedback from supervisors and peers, leads to self-reflection on performance as a CBT therapist. Self-reflection of performance may then lead directly to self-perception of competence.

Thus, findings from the present study suggest that relationships between observed and self-reported competence were as hypothesised, and strongest when trainees were beginning to achieve success in their use of CBT at mid-training. At the end of training, trainees rated as higher in competence reported practicing CBT with fewer clients which may have been as a result of efforts to replicate the learning gains experienced during the supervision process as suggested earlier. Trainees also reported experiencing a reduction in self-confidence at the end of training that may have been attributable to a perceived

lack of competence as CBT therapists (as compared to others) as the end of the course drew near (see Bennett-Levy & Beedie, 2007).

Professional Development

Professional development reflected trainee perception of their current career growth, including a sense of improvement, becoming more skilful, overcoming past limitations, and gaining both a deeper understanding and growing sense of enthusiasm about doing therapy.

Hypothesis 3: Professional development as measured by currently experienced growth as a therapist will be positively related to observed competence, current practice and self-confidence in using CBT skills and competencies during and following training.

Relationships between perception of career growth and all measures of competence were as hypothesised during training. The relationship was consistent during the practicum and significant at the end of training, when trainees reported the greatest gains in their perception of career growth. This is in direct contrast to overall changes for measures of competence, where the greatest gains and strongest relationships were all found between the beginning and the middle of training. Further, associations between trainee perception of career growth and all measures of competence were significant *at the end of training*, and were particularly strong with self-confidence.

Taken together, these findings suggest that some trainees may have viewed finishing the diploma as greater evidence of career growth as a therapist than their achievements with supervised clients throughout the year. That is, their focus at the end of training may have been on the benefits of the diploma to their professional development, as opposed to improvements in their therapeutic

practice achieved throughout the training. While the strong relationship with Self-confidence may be interpreted as an indication that trainees were also focused on improvements to their practice, the relationship might instead represent a belief that „if I have the diploma it means I am now competent to deliver these skills". As such these results support the suggestion that trainees may undertake training with the goal of developing knowledge and skills for personal development (Clarke, 2002; Nikandrou et al., 2008). In particular, Clarke also noted that trainee use of in-service training for personal development acted to inhibit transfer of training back in the workplace. When trainees intend to use training at a future date, they may lose competence in the interim. This possibility is supported by the suggestion that training may need to be implemented within the month following training for transfer to occur (Axtell &Maitliss, 1997).

Perception of organisational barriers

Hypothesis 4: Observed competence will be negatively related to perception of organisational barriers. Further, organisational barriers will be negatively related to current practice and self-confidence in using CBT skills and competencies, and currently experienced growth as a therapist during and following training.

At the end of training the highest ranking barriers were: organisation of client care is too restrictive, too many clients, lack of colleagues also practicing CBT, and not in my job description. These results are similar to those reported by Mathieson et al. (2010), Kennedy-Merrick et al. (2008), and Lewis and Simons (2011). Lack of supervision featured as the major barrier for trainees at the beginning of training in the present study, but was rated fifth of seven items during training when CBT supervision was mandatory.

As trainee observed competence increased during training, so too did theirperception of organisational factors as barriers to practice. The relationship was consistent and greatest at the end of training. This finding was unexpected as numerous studies report trainees as identifying organisational issues to be the major reasons for not using training materials in the workplace (Fadden, 1997; Kavanagh et al.; 1993; Mathieson et al., 2010).

However, again, the opposite may apply, in that as trainee perception of organisational barriers decreased, so did observed competence. This might occur where trainees perceived that the intensive and structured CBT processes of client engagement and treatment would not be successful in their workplace environment if delivered as taught during the practicum. This is a somewhat different understanding than the perception that the working environment is flawed in some way and presents barriers to the use of the CBT model. Thus, instead oftrying to practice CBT as a structured process with specific clients, these trainees may instead choose to practice individual strategies to meet the immediate needs of numerous clients. The high levels of self-confidence noted for trainees rated low in competence and perception of organisational barriers, would support this suggestion, in that trainees would likely believe that use of CBT in this way representedadequate use of the intervention. Further, given the focus on practicum cases during supervision, it is unlikely that these behaviours would be detected and addressed by supervisors.

This section has focused on a discussion of the results relating to postgraduate diploma trainees during training. Findings were largely as hypothesized for some relationships with observed competence and for most relationships with self-reported competence. However, a number of findings were unexpected. For example, trainees with higher observed competence reportedpracticing CBT skills and competencies with fewer clients as well as an increased perception of organisational barriers, while the opposite applied to trainees with low observed

competence. The following section further discusses Study Two results as these apply to competence and CBT practice behaviours.

8.4 Therapist factors following Training

Group results show that none of the relationships between therapist factors and observed competence were as hypothesised one to nine years following training.Individual results indicated that postgraduate practitioners rated as no longer competent tended to reportgreaterself-confidence, career growth, and practice with a greater numbers of clients than therapists rated competent. In addition, results also suggested that practitioners were unaware of these relationships irrespective of levels of observed competence.

The tendency for practitioners rated as more competent to report less confidence in their abilities as CBT therapists supports a similar result found during training by Bennett-Levy and Beedie (2007). A lack of therapist self awareness of competenceamongst therapists with low observed competence is of major concern, given the likelihood that these therapists may make poor therapy decisions, for example engaging clients with presentations that are too difficult for them to treat successfully. They may also be less likely to pursue support and supervision (Mathieson et al., 2010), andbe at risk of subsequent therapist drift (Brosnan et al., 2006; Milne & Reiser, 2011).

One method of addressing poor self-awareness of competence may be offered by the practice of formal self-practice/self-reflection behaviours outlined in Bennett-Levy and Beedie (2007).Within their study postgraduate diploma trainees were required to self-assess taped work samples at regular intervals throughout the training. Trainees were required to record changes in self-ratings, and to reflect on reasons for these following each assessment. As a result the authors reported self-ratings of competence that were „broadly consistent‟ (p.72) with supervisor ratings. As noted by these authors, it would

be very surprising if the practice of formally recording and reflecting on progress following such intensive self assessment did not facilitate therapist self-awareness. Further, whileself practice/self reflectionstrategies might be introduced as part of a training programme, ensuring that it occurs following training is clearly more difficult. It is likely that only through the efforts of professional therapist and supervisor organisations could such support for therapists become a mandatory requirement of accreditation and re-accreditation processes.

Postgraduate CBT practice behaviours

Group results for current practice behaviours noted in Study One were also found in Study Two results *1-9 years* following training, suggesting that more competent practitioners were more likely to report practicing with fewer clients. However, individual analysis of the results showed this relationship was almost exclusively limited to postgraduates who had completed training 12 months earlier (Study One completers), with mixed results for those who had completed training *2-9 years* earlier. This suggests that practice behaviours developed during CBT training continued to have a relationship with competence in the 12 months following training.

It is not known whether the intention of less competent practitioners was to undertake CBT with as many clients as possible (treatment driven), or to practice as many CBT skills and competencies as possible (practice driven). However, for postgraduates rated high in observed competence the tendency to report practicing CBT with few clients may reflect attempts to increase competence through replication of the practicum supervision experience. Supervised CBT practice during the practicum was limited to two clients. Further, supervision was process oriented. Trainees were expected to follow the CBT protocol including structured assessments, case conceptualisation, treatment using appropriate skills and competencies, relapse prevention and

planned disengagement.Thus, as mentioned earlier,the relationship between current practice and competence may reflect effective versus less effective decisions by therapists in their efforts to become more experienced, with those who chose to practice with fewer clients gaining more in competence, and those practicing with more clients gaining less.

The direction of the relationship between practice and competence was not expected, and caution is called for in the interpretation of this result due to the low sample size and the bi-directional nature of correlations. However, it is an important finding in that it may help to explain the poor therapist competence found during and following training. At the time when practice was most important in order to facilitate transfer, a number of therapists in this sample seemed to be practicing less effectively and, given the direction of the relationships found between observed competence, self-confidence, and career growth, would appear to have been unaware of this.

Practice of training materials is generally accepted as being associated with increases in competence, as per the adage “practice makes perfect”. The experiential component of practice was found to be the major contributing factor in the development of competence in a longitudinal nursing study (Maynard, 1996), and Mannix et al. (2006) reported positive relationships between therapist practice and observed competence in a group that received training-focused CBT supervision for six months following training. This latter example highlights the importance of feedback relating to the practice of new skills. As suggested by Barassi (cited in Grey & Webster, 2000) (p.107), perhaps “*Practice does not make perfect. Perfect practice makes perfect*”.Further, practice of training materials has been associated with increased professional development in both Lewis and Simons (2011) and Orlinsky and Rønnestad (2005).Otherwise, however, there is surprisingly little research relating to the issue of workplace practice and competence in CBT.While further research is required to support results found in the present study, the relationship between

current practice and competence was already apparent at the end of training. Thus, it is likely that these behaviorsdeveloped during training, which is also when they could be readily detected and addressed if necessary.

Postgraduate professional development

Postgraduate perception of career growth 1-9 years following training followed the same patterns of response found with self-confidence and current practice, withindividual results showing that those who were observed to be less competent reporting their career development as high. These results suggest that some postgraduate practitioners experienced a sense of improvement, of becoming more skilful, of overcoming past limitations, and gaining both a deeper understanding and growing sense of enthusiasm about doing therapy, at a time when they were significantly over-estimating their actual levels of competence.It is possible that postgraduate practitionersin this group may have viewed the training largely as a means furthering their professional development, hence their poorer performance (as also noted by Clarke, 2002).

Individual resultsalso revealed that those who were rated as more competent tended to report their career development as low. One explanation of this finding could be that some postgraduates continue to under-estimate their competence, and never quite feel as experienced as others in the field. Although Bennett-Levy and Beedie (2007) found this to occur for trainee therapists, it may persist into the careers of this particular group of practitioners.

The work of Orlinsky and Rønnestad (2005) suggested that therapists identify their psychotherapy practice with clients as a major factor in their development as therapists. Relationships between career growth and other self-reported factors (current practice and self-confidence) supported this suggestion, both at the end of training and following training. However, as the relationship between career growth and observed competence was significantly negative 1-9 years

following training, this finding provides further support for the suggestion of low self-awareness in postgraduate practitioners in the present study.

Postgraduate perception of organisational barriers

Postgraduate practitioners rated a lack of supervision, lack of colleagues also practicing CBT, and organisational care is too restrictive as the greatest barriers to practice. However, the relationship betweenpostgraduate perception of organisational barriers and observed competence was almost nil following training.These findings arein contrast to results for trainees at the end of training which suggested organisation of client care and too many clients as the greatest barriers to practice, and that more competent trainees were more likely to identify workplace factors as hindering their CBT practice.Taken togetherthese differences suggest that in the years following training postgraduate practitionersmay have pursued a number of options in order to practice CBT. That is, some may have sought workplaces with few barriers in order to continue practicing CBT,others may have found themselves compromising their CBT practice in an effort to manage barriers in their current workplace,while yet others may have found ways to manage workplace barriers in order to practice.It is also of note thatrelationships between therapist factors were as hypothesised for postgraduate practitioners. That is, practitioners who reported experiencing fewer barriers were also self-confident in their use of CBT, reportedgreater career growth, and reported practicing CBT with greater numbers of clients.

Thus,findings from Study Two suggested that postgraduate practitioners with high observed competence had low self-awareness of their competence and of their developmentas CBT therapists. In addition, those with low observed competence also demonstrated low awareness of competence, as they reportedlevels of self-confidence in their practice and developmentas therapists that were not matched by their observed abilities.Therefore,low self-awareness

of competence was found following training irrespective of levels of observed competence.Further, current practice was also inversely related to observed competence, but this was largely restricted to practitioners who had graduated within the previous 12 months (Study One completers) Finally,although therapists high in self-confidence and career growth reported few organisational factors as barriers to their practice, the relationship between postgraduate perception of organisational barriers and actual competence was almost nil.

8.5 Implications of the Research

There are a number of implications that can be drawn from these findings. Results indicate that postgraduate diploma training in CBT increases practitioner competence during training. However, transfer of CBT skills and competencies into therapist everyday practice may not occur automatically, even when training is optimally delivered. In addition,results suggest that as many as one third of therapists may be at risk of therapist drift following training.

Results also imply that *during* training support and supervision processes intrinsic to the training environment may act to facilitate trainee self-awareness of actual competence and perception of professional development. However, *following* training when intensive levels of support are less available and supervision is no longer mandatory, practitioners may become less aware of their competence. Further, this loss of awareness may occur for therapists irrespective of levels of competence.A second implication is that those therapists with low observed competence and low self-awareness of actual competence may not seek support and supervision for their CBT practice, thus placing themselves and their clients at risk.

Study results relating to CBT practice and competence also implythat trainees rated as higher in competence find organisation factors to restrict their CBT practice at the end of training, thus reducing the number of clients with whom

they are able to practice CBT in the workplace. As these relationships were not found for postgraduates who had been graduated for two to nine years at the time of the present study,results suggest that more experienced therapists find either a means of managing organisational factors so that these do not impede their practice of CBT skills and competencies, or may compromise their practice in order to manage the effects of organisational barriers.

Theunexpected relationships between practice and competencefound *at the end* of training (whereby more competent therapists reported practicing with few clients and less competent therapists reported practicing with greater numbers of clients),was also found for postgraduates up to one year *following* training. While the direction of the relationship is not known these results imply that the choices made by new graduates relating to their practice of CBT in the workplace may also influence their CBT competence.That is, therapists may become more competent if they choose to practice with fewer clients, or more competent therapists may choose to practice with fewer clients. Further, the absence of relationshipsfor organisational barriers with practice and competence up to one year following training implies that new graduates did not associate their workplace practice behaviours with organisational constraints. There may be numerous explanations for these findings (see Postgraduate CBT practice behaviours, this section), however the data obtained in the present study simply highlight the relationship, and do not allow for more than speculation.

Therefore,study recommendations include further research investigating CBT practice behaviours in the workplace during and following training, in order to clarify this relationship in particular. Further research might include a more comprehensive measurement of practice behaviours than that used in the present study. At the very least, however,it may be useful for trainers and supervisors to encourage additional practice based on client conceptualisations or treatment plans, as occurs with supervised practicum cases. This means of

embedding new knowledge, skills and competencies has already demonstrated an association with increased competence in postgraduate CBT diploma courses (see McManus et al., 2010; Rakovshik et al, 2010).

A further recommendation is that the process of ensuring therapist access to CBT-focused clinical supervision following training needs to begin as soon as practicable,as suggested by Reiser & Milne (2008). Ensuring access to clinical supervisors *who adhere to the CBT model* may address issues with training transfer and therapist drift, as well as providing on-going support for those practitioners who over or underestimate their competence. Nearly all postgraduates indicated having regular supervision, however, the research in this area suggests that clinical supervision for therapists needs to focus quite specifically on aspects of the CBT model as taught during training in order to maintain competence (Mannix et al., 2006; Sholomskas et al., 2005; Schafer et al., 2004; Simons, 2011; Smith et al., 2007). Guidelines for clinical supervision of CBT are currently available within the IAPT initiative (Department of Health, 2011). Formal adoption of these by professional organisations is one first step toward facilitating the availability of optimal supervision and support for postgraduate CBT practitioners.

Further, due to the small sample size, additional research is also required to clarify relationships between self-confidence, organisational barriers, and observed competence, both during and following postgraduate training in CBT. It is understood that the process of engaging and maintaining therapists in longitudinal research is somewhat difficult. However, unless attempts are made to do so, the knowledge required to prompt necessary changes are less likely to occur. In addition, trainees may benefit from the inclusion ofself practice/ self reflection activities as standard training strategies within postgraduate CBT training programmes. The use of these strategies has indicated that trainees are able to develop a more realistic awareness of the associations between their

self-perception of competence and their levels of competence as rated by others (Bennett-Levy & Beedie, 2007). Regular self-monitoring would provide therapists with a rationale for seeking on-going CBT-focused supervision, as well as a prompt to seek support following within-session crises, and a plan of how to return to the use of CBT skills and competencies if they should drift (Waller, 2009).

Finally, recommendations from the present study include the need to shift the responsibility for transfer of training from resting solely with trainees. The expectation that trainees should carry all the responsibilities and obligations for transfer virtually ensures that transfer is less likely to occur for the bulk of trainees employed in community mental health in New Zealand alone, where case management roles are currently standard for most front line staff including those with specialist skills (see Mathieson et al., 2010, for a further discussion of this issue). Thus, trainers, trainees and managers must at some point begin to share this responsibility in order to maximise training benefits in the workplace (Burke & Saks, 2009), and to maintain the availability of appropriate supervision.

8.6 Study Limitations

There are a number of limitations to the present study. The small sample size means only cautious conclusions can be drawn and further effects and relationships may have been missed. However, sample size was typical of similar studies (Bennett-Levy & Beedie, 2007; Brosnan et al., 2006; Mannix et al., 2006; Milne et al; 1999). In addition, the principal rater was not blind to trainee stage of training. As suggested by Rakovshik et al. (2010), raters aware of stage of training may have higher expectations as training progresses and be less generous in their assessment of competence, or may be more generous towards the end of training assuming that trainees are on track to pass the

course. Inter-rater reliability with the second rater who was blind to the stage of training, however, confirmed that CTS ratings in the present study were reliable. A further issue is that the measurement of observed competence at each time period was limited to a single measure, the earlier version of the CTS (Young & Beck, 1980). Although multiple measures of competence would be preferable (James et al., 2001), this may have reduced the sample size even further, as it was difficult to engage participants within the protocol requirements of the existing methodology without further additions. Also, the CTS has been used as the sole measure of observed competence in a similar study conducted through a postgraduate diploma course (Bennett-Levy & Beedie, 2007). Finally, work samples were self-selected and not randomly selected. This methodology was chosen as self-selected tapes would most likely reflect trainee levels of both observed and self-reported competence through the sifting out of poorer performances (Brosnan et al., 2006; McManus et al., 2010).The repeated measures design employed in the present study may have resulted in practice effects in trainees from repeated administrations of the same measures across time. However, the period between assessment periods was such that it was unlikely that participants would remember previous responses.

8.7 Conclusions and Future Research

The present study was an exploratory investigation of therapist competence and therapist factors during and following extended diploma training in CBT. Results of the study suggested that there wasa lack of training transferfor trainees at the one year follow-up,despite the use of optimal training methods.However, two thirds of therapists were rated competent at one to nine years following completion of the diploma.Similar results relating to therapist competence following training have been noted elsewhere (Brosnan et al., 2006; Roth & Pilling, 2008).

In addition, the study found that therapists had some awareness of their CBT competence during training, but an overall lack of therapist self-awareness of competencewas found in postgraduates one to nine years following training. This finding was observed irrespective of observed levels of competence. Finally,a link between workplace practice of CBT and competence in CBT was found for trainees at the end of training, and for new graduates one year following training. Further investigation of these findings may provide further information about the relationship between therapist practice behaviours and competence in the months following training.

Many results were not as hypothesised, and the small sample size usedwithin the present study suggests caution in the interpretation of these findings.However, issues associated with poor self-awareness have been raised by Mathieson et al. (2009), who suggest that therapists are unlikely to seek support from supervisors or peers where they have little awareness that anything is amiss with their practice. Further, lack of awareness may expose both clients and therapists to the consequences of poor therapy decisions, including therapists accepting cases which may be beyond their abilities.

These results imply that efforts to train CBT practitioners to a level of competence and self awarenessin their postgraduate studies can be successful. They also suggest that practitioners may need a level of support equal to that received during training, in order to maintain competence and self-awareness of competencefollowing training.

Therefore, study results prompt three major recommendations. The first is for more research relating to therapist behaviours during and following training. Assessment of therapist CBT practice behaviours in the workplace, perception of competence and organisational barriers during and also following training may help to clarify the findings of the present study. The second is for mandatory CBT-focused supervision for those trainees and postgraduates who

wish to practice as CBT therapists. This second recommendation would appear to be essential if the opportunities offered by the CBT training process are to be realised and maintained. The small number of practitioners qualified to undertake supervisor roles in New Zealand may meana mandate for supervision can be readily implemented based on the newly developed IAPT design. The recent emergence of the Aotearoa New Zealand Association of CBT (AnzaCBT) suggests this or a similar organisation would make an appropriate vehicle to manage the administration, funding, training, and registration processes that would be involved in ensuring CBT focused supervision is readily available.

The final recommendation arising from the results of the present study is for therapists, trainees and organisationsto share the responsibility for training transfer in CBT. To date the major responsibility for ensuring that transfer occurs has tacitly fallen to trainees alone. Sharing the responsibility for CBT transfer will help to ensure that challenges to transfer can be identified and addressed by parties able to effect the necessary changes required for transfer to occur.

Finally, although the need to address therapist competence and transfer of CBT training is widely acknowledged, there remains the strong temptation to postpone changes until more is understood about the issues affecting transfer.Technologies designed to improve the implementation, uptake, and sustainability of evidence-based treatments would likely address the roles, obligations, and responsibilities of all stakeholders both during and following training. However, implementation research remains in its infancy (Proctor et al, 2009), and it may be counterproductive to wait until policy changes addressingtherapist competence and transfer of training are introduced. A large proportion of the population requires treatment for severe mental illness at this very point in time. Effective treatments for these illnesses have been developed and continue to evolve into increasingly specialised interventions. What now

remains to be achieved are sufficient numbers of competent therapists to ensure that everyone who needs such a treatment is able to access it.

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APPENDIX A

Massey University Human Ethics Committee Approval

Massey University
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17 December 2008

Robyn Gedye
c/- Dr N Kazantzis
College of Humanities and Social Sciences
Massey University
Albany

Dear Robyn

HUMAN ETHICS APPROVAL APPLICATION – MUHECN 08/070
"Transfer of training and therapist development in cognitive behaviour therapy"

Thank you for your application. It has been fully considered, and approved by the Massey University Human Ethics Committee: Northern.

Approval is for three years. If this project has not been completed within three years from the date of this letter, a reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Denise Wilson
Chair
Human Ethics Committee: Northern

cc: Dr N Kazantzis, Ms B Haarhoff
College of Humanities and Social Sciences

APPENDIX A-1

Information sheet and consent form: Trainee and Graduate participants

MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKENGA TANGATA

Transfer of training and therapist development in cognitive behaviour therapy. Assessing current trainees and graduates of the Massey University PGDipCBT

INFORMATION SHEET

Researcher(s) Introduction
Researcher: Robyn Gedye (MSocSc).
I am conducting this study as research for my PhD

Project Description and Invitation
I am doing a study that is designed to investigate the impact that training in cognitive behaviour therapy has on actual therapist practice with their clients. I am inviting you to take part in this study as you are either a current trainee, or a graduate, of the Post Graduate Diploma in Cognitive Behaviour Therapy (PGDipCBT), Massey University, Albany.

Participant Identification and Recruitment
I will be approaching all 2009 trainees completing the second year of the PGDipCBT as well as all graduate therapists who completed the PGDipCBT. I will be contacting everyone by post. This will be a total of approximately 100 trainees and graduate participants. In addition, I will also ask those who agree to take part in the study to each engage four client participants for the purposes of the study. There will be no additional risks associated with the study to any participants (yourself or your clients), as the methods of the study will in no way differ from usual practice during your therapy sessions.

Project Procedures
As you are aware the second year of the PGDipCBT is a clinical practicum which requires you to deliver CBT to at least two clients/patients over a period of 30 clinically supervised psychotherapy sessions, which are assessed for competency using the Cognitive Therapy Scale (Young & Beck, 1980). If you are a current **trainee** who agrees to participate then the above will be part of your normal practicum requirements, and I will be asking you to give consent for me to have access to four of your DVD/videotape ratings during the course of 2009. I will also be asking you to DVD/videotape one session with each of two clients at follow-up, which will be 6 months after you have completed the clinical practicum.
If you are a **graduate** who agrees to participate then I will be asking you to DVD/videotape one therapy session with each of four clients, two at the beginning of the study, and two 12 months later. As you also know, each recording will show both you and your client. There will be no conflict of interest in that you will have been trained during the Diploma to approach clients to participate in recording sessions, as well as to continue to offer the appropriate treatment if any client should decline to participate.

In addition to the DVD/videotaping I will be asking you to complete questionnaires two to four times across the period of the study. These questionnaires will take approximately 30 minutes to complete on each occasion.
If you should experience any distress as a result of conducting therapy you will have the same options as you do now (that is, to discuss the situation with your Massey University supervisor, and/or service manager). This study will last 18 months overall.

Data Management
Each DVD/videotape will be of one 60 minute therapy session. These recordings will be assessed and rated, as usual, by Massey University CBT supervisors who will focus solely on your performance using the Cognitive Therapy Rating Scale (Young & Beck, 1980). That is, although information about your clients is being recorded, none of this content will be used. The rating obtained on the Cognitive Therapy Scale applies only to your competency in using the CBT skills and it is only this rating that will be used in the study. Recordings will be returned to you as usual with feedback once they have been rated. Ratings will coded for confidentiality before being entered into a secure database for statistical analysis. All raters have signed confidentiality agreements and will not disclose any information about you or your clients to others. Questionnaire data will also be coded before being entered onto a secure database.

Participant's Rights
You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any time
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded.

Project Contacts
If you have any concerns that you wish to discuss please do not hesitate to contact the researcher, Robyn Gedye, on 021 261 2580, or her supervisor for this project, Bev Haarhoff, on 09 414 0800, extn 41223.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application __08/070. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

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Transfer of training and therapist development in cognitive behaviour therapy

PARTICIPANT CONSENT FORM –trainees and graduates

This consent form will be held for a period of five (5) years

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to therapy sessions being video taped for research purposes.

I agree/do not agree to my 2009-2010 videotaped therapy sessions ratings being made available to the researcher (Robyn Gedye).

I wish/do not wish to have my tapes returned to me

I wish/do not wish to have data placed in an official archive.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: ..... **Date:** .....

Full Name - printed .....

Contact details:

Email address .....

Phone no. .....

APPENDIX A-2

Information sheet and consent form: Client participants

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Transfer of training and therapist development in cognitive behaviour therapy

INFORMATION SHEET: Client participants

Researcher(s) Introduction
Researcher: Robyn Gedye (MSocSc).
Robyn is conducting the study as research for her PhD
Hi, I am inviting you to take part in this study as you are a client of either a student, or a graduate, of the Post Graduate Diploma in Cognitive Behaviour Therapy (PGDipCBT), Massey University, Albany. I am doing this study to find out how much your therapist is using some of the information that they were taught during the Diploma.

I will be approaching all of the students completing the second year of the PGDipCBT as well as all of the graduate therapists who completed the PGDipCBT. I will be contacting them by post. This is a total of approximately 100 student and graduate participants. In addition, I will also be asking them to engage four client participants each for the purposes of the study. There will be no risks associated with the study to any of the participants (you or your therapist), as the methods of the study will in no way be different from your usual sessions with your therapist.

To determine how your therapist is using the skills he or she was taught during the PGDipCBT we need them to videotape a small number (1-4) of therapy sessions with each of four different clients. Videotaping sessions with clients is a normal practice for students and graduates of the PGDipCBT and is used for supervision purposes. The videotapes will show both yourself and the therapist if you decide to participate. If you decide not to participate your therapist will still work with you in the normal way. If you feel concerned as a result of seeing your therapist at any time you should discuss the situation with both your therapist, a family member or carer, and/or your client advocate. The study will last 18 months overall.

Each of the videotapes will each be of one 60 minute therapy session with you and your therapist. These videotapes will be assessed and rated by trained raters who will focus only on what the therapist says to you during the session. That is, although you are being recorded none of the content you discuss with your therapist will be used in the study. Instead, only the rating score of the therapist's performance will be used in the study. Tapes will be returned to therapists as usual once they have been rated, and the scores will be entered into a secure database for statistical analysis. All raters have signed confidentiality agreements and will not disclose any information about you to anyone.

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- withdraw from the study at any time
- ask any questions about the study at any time during participation;
- be given access to a summary of the project findings when it is concluded.
- ask for the video recorder to be turned off at any time during the interview.

Project Contacts

If you have any concerns that you wish to discuss please do not hesitate to contact the researcher, Robyn Gedye, on 021 261 2580, or her supervisor for this project, Bev Haarhoff, on 09 414 0800, extn 41223..

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application _08_/ 070. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

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Transfer of training and therapist development in cognitive behaviour therapy

PARTICIPANT CONSENT FORM – CLIENT PARTICIPANT

This consent form will be held for a period of five (5) years

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to therapy sessions being video taped for research purposes.

I wish/do not wish to have my tapes returned to me

I wish/do not wish to have data placed in an official archive.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: ..... **Date:** .....

Full Name - printed .....

APPENDIX A-3

Information sheet and consent form: Workplace

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Dear Sir/Madam,

Re :transfer of training and therapist development in cognitive behaviour therapy

I am doing a study that is designed to investigate the impact that training in cognitive behaviour therapy has on actual therapist practice with their clients. I am doing this as research for my PhD.

I am inviting your employee to take part in this study as they are either a student, or a graduate, of the Post Graduate Diploma in Cognitive Behaviour Therapy (PGDipCBT), Massey University, Albany. However, in order for them to participate, I also need your agreement that this research can be undertaken in your workplace.

I am interested in understanding how students and graduates are using the specific skills taught during the PGDipCBT. The study method involves each therapist videotaping 1xsession with each of two clients on up to two occasions during the 18 month period of the study. This is an activity that each student of the PGDipCBT is required to complete many times during the practicum year of the Diploma, and so therapists are very familiar with what is required. There will be no risks associated with the study to any participants, as the methods of the study will in no way differ from usual practice for client or therapist participants during their usual therapy sessions. In addition, although client data are recorded on the videotape, none of the issues discussed or the content of what is discussed is used for the purposes of the study. Instead each videotaped session is rated by a trained rater and only the score of the therapist's performance will be used in the study.

Videotapes will each be of one 60 minute therapy session. Tapes will be returned to therapists as usual with feedback once they have been rated. Ratings will coded for confidentiality before being entered into a secure database for statistical analysis. All raters have signed a confidentiality agreement and will not disclose any information about clients to others. Again, no information relating to clients will be used in any way for the purposes of the study.

If you agree that the study can proceed in your workplace please complete the attached Consent Form. Your employee will then return this to me.

If you have any concerns that you wish to discuss please do not hesitate to contact me, Robyn Gedye, on 021 261 2580, or my supervisor for this project, Bev Haarhoff, on 09 414 0800, extn 41223.

Thank you,

Robyn Gedye MSocSc
09 233 6556

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application _08_/070. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

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Transfer of training and therapist development in cognitive behaviour therapy

PARTICIPANT CONSENT FORM – Workplace

This consent form will be held for a period of five (5) years

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to therapy sessions being video taped for research purposes.

I agree/do not agree to my employee's 2009 videotaped therapy sessions ratings only being made available to the researcher (Robyn Gedye).

I wish/do not wish to have my tapes returned to me

I wish/do not wish to have data placed in an official archive.

I agree to participate in this study under the conditions set out in the Information Sheet

Signature: ..... **Date:** .....

Full Name - printed

Designation .....

Full name of therapist participant

.....

APPENDIX A-4

Information sheet and consent form: Client participants under 16

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Transfer of training and therapist development in cognitive behaviour therapy

INFORMATION SHEET: ***Client participants (under 16)***

Researcher(s) Introduction
Researcher: Robyn Gedye (MSocSc).

Hi, I am doing some research so that I can complete my PhD, and I would be really pleased if you would be a part of that study. I am asking you because your therapist is either a student or a graduate of the Post Graduate Diploma in Cognitive Behaviour Therapy (PGDipCBT) and I want to find out how much people like your therapist use their training with their clients.

If you decide to participate there will be no risks associated with participation for you or your therapist, because the study doesn't involve doing anything different from what you already do in your therapy sessions.

To find out how student and graduate therapists are using what they were taught I need to videotape up to four therapy sessions with clients. This is a normal practice as it helps the therapists find out how well they are using what they were taught during the Diploma. If you agree to be a part of the study then the videotapes will show both you and your therapist. If you should decide not to participate there will be no problem because your therapist will continue to see you, just as they have always done. If you get worried as a result of the sessions with your therapist, you still have the same rights as always (that is, you can talk about your worries with your family, carers, therapist and/or client advocate).

Your therapist will set up the videotape and no one else will be involved. The tape will be watched and rated (scored) by people who are trained especially to look at what the therapist does. In other words, although your session is recorded, none of the content of the session or the issues that are discussed will be used in the study. Only the score given by the raters will be used in the study. All of the raters have signed agreements that mean that they cannot talk about you to anybody else.

You don't have to accept this invitation. But if you decide to participate, you have the right to ask any questions about the study at any time, and you will get a summary about the study when it is finished.

You can also ask for the video recorder to be turned off at any time during your sessions.

If you have any concerns that you wish to discuss please do not hesitate to contact the researcher, Robyn Gedye, on 021 261 2580, or her supervisor for this project, Bev Haarhoff, on 09 414 0800, extn 41223..

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application __08/ 070. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

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Transfer of training and therapist development in cognitive behaviour therapy

PARTICIPANT CONSENT FORM – CLIENTS UNDER 16

This consent form will be held for a period of five (5) years

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the therapy sessions being video taped for research purposes.

I wish/do not wish to have my tapes returned to me

I wish/do not wish to have data placed in an official archive.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: ..... **Date:** .....

Full Name - printed

Name of consenting parent/caregiver .....

APPENDIX A-5

Information sheet and consent form: Parental consent for client participants under 16

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Transfer of training and therapist development in cognitive behaviour therapy

INFORMATION SHEET: Parental consent for client participants (under 16)

Researcher(s) Introduction
Researcher: Robyn Gedye (MSocSc).
Robyn is conducting this study as research for her PhD

Project Description and Invitation
I am doing a study that is designed to investigate the impact that training in cognitive behaviour therapy has on actual therapist practice with their clients. I would like your relative to be a part of this study as he or she is a client of either a student, or a graduate, of the Post Graduate Diploma in Cognitive Behaviour Therapy (PGDipCBT), Massey University, Albany.

Participant Identification and Recruitment
I will be approaching all 2009 students completing the second year of the PGDipCBT as well as all graduate therapists who have already completed the PGDipCBT. This will be approximately 100 student and graduate participants. In addition, I will also ask them to each engage two client participants for the purposes of the study. There will be no risks associated with the study to any participants, as the methods of the study will in no way differ from usual practice for your relative or his or her therapist during their usual therapy sessions.

Project Procedures
To determine how students and graduates are using the specific skills taught during the PGDipCBT we need to rate the videotapes of two to four therapy sessions with clients such as your relative. This is a usual practice for students and graduates of the PGDipCBT and is used for supervision purposes so that they can continue to develop their therapy skills. The videotapes will show both your relative and his or her therapist. There will be no conflict of interest because your relative's therapist will continue to offer the appropriate treatment if you should decline permission for them to participate. If your relative should experience any distress as a result of usual therapy, then they will continue to have the same rights as usual (that is to discuss the situation with you, their

therapist, other family member/caregivers, and/or client advocate).This study will last 18 months overall.

Data Management

Videotapes will each be of one 60 minute therapy session. These videotapes will be assessed and rated by trained raters who will focus solely on therapist performance. That is, although client data is being recorded, Robyn will not use any information relating to your relative's issues or the contents of the therapy session. Instead raters will assign a rating (a score) to each tape that is based on the therapists' performance and Robyn will use this to assess therapists' performance in using specific therapy skills. Tapes will be returned to therapists as usual with feedback once they have been rated. Ratings will be entered into a secure database for statistical analysis. All raters have signed confidentiality agreements and will not disclose any information about clients to others. No information relating to clients will be gathered in any way for the purposes of the study

Participant's Rights

You are under no obligation to accept this invitation on behalf of your relative. If you decide that your relative may participate, he or she has the right to:

- withdraw from the study at any time
- ask any questions about the study at any time during participation;
- be given access to a summary of the project findings when it is concluded.
- ask for the video recorder to be turned off at any time during the interview.

Project Contacts

If you have any concerns that you wish to discuss please do not hesitate to contact the researcher, Robyn Gedye, on 021 261 2580, or her supervisor for this project, Bev Haarhoff, on 09 414 0800, extn 41223.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application _08_/ 070. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

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Transfer of training and therapist development in cognitive behaviour therapy

PARTICIPANT CONSENT FORM – PARENTAL CONSENT (CLIENTS UNDER 16)

This consent form will be held for a period of five (5) years

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to therapy sessions with my relative being video taped for research purposes.

I wish/do not wish to have the tapes returned to me

I wish/do not wish to have data placed in an official archive.

I agree for my relative to participate in this study under the conditions set out in the Information Sheet.

Signature: ..... **Date:** .....

Full Name - printed

Relative's Name .....

APPENDIX B-1

The Cognitive Therapy Scale

Cognitive Therapy Scale

Therapist:_____ Patient:_____ Date of Session:_____

Tape ID#:_____ Rater:_____ Date of Rating:_____

Session#_____ ( ) Videotape ( ) Audiotape ( ) Live Observation

Directions: For each time, assess the therapist on a scale from 0 to 6, and record the rating on the line next to the item number. Descriptions are provided for even-numbered scale points. If you believe the therapist falls between two of the descriptors, select the intervening odd number (1, 3, 5). For example, if the therapist set a very good agenda but did not establish priorities, assign a rating of a 5 rather than a 4 or 6.

If the descriptions for a given item occasionally do not seem to apply to the session you are rating, feel free to disregard them and use the more general scale below:

0	1	2	3	4	5	6
Poor	Barely Adequate	Mediocre	Satisfactory	Good	Very Good	Excellent

Please do not leave any item blank. For all items, focus on the skill of the therapist, taking into account how difficult the patient seems to be.

Part I. GENERAL THERAPEUTIC SKILLS

___1. AGENDA

0 Therapist did not set agenda.

2 Therapist set agenda that was vague or incomplete.

4 Therapist worked with patient to set a mutually satisfactory agenda that included specific target problems (e.g., anxiety at work, dissatisfaction with marriage.)

6 Therapist worked with patient to set an appropriate agenda with target problems, suitable for the available time. Established priorities and then followed agenda.

___2. FEEDBACK

0 Therapist did not ask for feedback to determine patient's understanding of, or response to, the session.

2 Therapist elicited some feedback from the patient, but did not ask enough questions to be sure the patient understood the therapist's line of reasoning during the session or to ascertain whether the patient was satisfied with the session.

4 Therapist asked enough questions to be sure that the patient understood the therapist's line of reasoning throughout the session and to determine the patient's reactions to the session. The therapist adjusted his/her behavior in response to the feedback, when appropriate.

6 Therapist was especially adept at eliciting and responding to verbal and non-verbal feedback throughout the session (e.g., elicited reactions to session, regularly checked for understanding, helped summarize main points at end of session.

Cognitive Therapy Scale (copyright © 1980, J.E. Young & A. T. Beck)

___3. UNDERSTANDING

0 Therapist repeatedly failed to understand what the patient explicitly said and thus consistently missed the point. Poor empathic skills.

2 Therapist was usually able to reflect or rephrase what the patient explicitly said, but repeatedly failed to respond to more subtle communication. Limited ability to listen and empathize.

4 Therapist generally seemed to grasp the patient's "internal reality" as reflected by both what the explicitly said and what the patient communicated in more subtle ways. Good ability to listen and empathize.

6 Therapist seemed to understand the patient's "internal reality" thoroughly and was adept at communicating this understanding through appropriate verbal and non-verbal responses to the patient (e.g., the tone of the therapist's response conveyed a sympathetic understanding of the patient's "message"). Excellent listening and empathic skills.

___4. INTERPERSONAL EFFECTIVENESS

0 Therapist had poor interpersonal skills. Seemed hostile, demeaning, or in some other way destructive to the patient.

2 Therapist did not seem destructive, but had significant interpersonal problems. At times, therapist appeared unnecessarily impatient, aloof, insincere or had difficulty conveying confidence and competence.

4 Therapist displayed a satisfactory degree of warmth, concern, confidence, genuineness, and professionalism. No significant interpersonal problems.

6 Therapist displayed optimal levels of warmth, concern, confidence, genuineness, and professionalism, appropriate for this particular patient in this session.

___5. COLLABORATION

0 Therapist did not attempt to set up a collaboration with patient.

2 Therapist attempted to collaborate with patient, but had difficulty either defining a problem that the patient considered important or establishing rapport.

4 Therapist was able to collaborate with patient, focus on a problem that both patient and therapist considered important, and establish rapport.

6 Collaboration seemed excellent; therapist encouraged patient as much as possible to take an active role during the session (e.g., by offering choices) so they could function as a "team".

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___6. PACING AND EFFICIENT USE OF TIME

0 Therapist made no attempt to structure therapy time. Session seemed aimless.

2 Session had some direction, but the therapist had significant problems with structuring or pacing (e.g., too little structure, inflexible about structure, too slowly paced, too rapidly paced).

4 Therapist was reasonably successful at using time efficiently. Therapist maintained appropriate control over flow of discussion and pacing.

6 Therapist used time efficiently by tactfully limiting peripheral and unproductive discussion and by pacing the session as rapidly as was appropriate for the patient.

Part II. CONCEPTUALIZATION, STRATEGY, AND TECHNIQUE

___7. GUIDED DISCOVERY

0 Therapist relied primarily on debate, persuasion, or "lecturing". Therapist seemed to be "cross-examining" patient, putting the patient on the defensive, or forcing his/her point of view on the patient.

2 Therapist relied too heavily on persuasion and debate, rather than guided discovery. However, therapist's style was supportive enough that patient did not seem to feel attacked or defensive.

4 Therapist, for the most part, helped patient see new perspectives through guided discovery (e.g., examining evidence, considering alternatives, weighing advantages and disadvantages) rather than through debate. Used questioning appropriately.

6 Therapist was especially adept at using guided discovery during the session to explore problems and help patient draw his/her own conclusions. Achieved an excellent balance between skillful questioning and other modes of intervention.

___8. FOCUSING ON KEY COGNITIONS OR BEHAVIORS

0 Therapist did not attempt to elicit specific thoughts, assumptions, images, meanings, or behaviors.

2 Therapist used appropriate techniques to elicit cognitions or behaviors; however, therapist had difficulty finding a focus or focused on cognitions/behaviors that were irrelevant to the patient's key problems.

4 Therapist focused on specific cognitions or behaviors relevant to the target problem. However, therapist could have focused on more central cognitions or behaviors that offered greater promise for progress.

6 Therapist very skillfully focused on key thoughts, assumptions, behaviors, etc. that were most relevant to the problem area and offered considerable promise for progress.

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___9. STRATEGY FOR CHANGE (Note: For this item, focus on the quality of the therapist's strategy for change, not on how effectively the strategy was implemented or whether change actually occurred.)

0 Therapist did not select cognitive-behavioral techniques.

2 Therapist selected cognitive-behavioral techniques; however, either the overall strategy for bringing about change seemed vague or did not seem promising in helping the patient.

4 Therapist seemed to have a generally coherent strategy for change that showed reasonable promise and incorporated cognitive-behavioral techniques.

6 Therapist followed a consistent strategy for change that seemed very promising and incorporated the most appropriate cognitive-behavioral techniques.

___10. APPLICATION OF COGNITIVE-BEHAVIORAL TECHNIQUES (Note: For this item, focus on how skillfully the techniques were applied, not on how appropriate they were for the target problem or whether change actually occurred.)

0 Therapist did not apply any cognitive-behavioral techniques.

2 Therapist used cognitive-behavioral techniques, but there were significant flaws in the way they were applied.

4 Therapist applied cognitive-behavioral techniques with moderate skill.

6 Therapist very skillfully and resourcefully employed cognitive-behavioral techniques.

___11. HOMEWORK

0 Therapist did not attempt to incorporate homework relevant to cognitive therapy.

2 Therapist had significant difficulties incorporating homework (e.g., did not review previous homework, did not explain homework in sufficient detail, assigned inappropriate homework).

4 Therapist reviewed previous homework and assigned "standard" cognitive therapy homework generally relevant to issues dealt with in session. Homework was explained in sufficient detail.

6 Therapist reviewed previous homework and carefully assigned homework drawn from cognitive therapy for the coming week. Assignment seemed "custom tailored" to help patient incorporate new perspectives, test hypotheses, experiment with new behaviors discussed during session, etc.

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APPENDIX B-2

The Adapted Survey of the Post Graduate Diploma of Cognitive Behaviour Therapy: demographic data and subscales-Current Practice, Self-Confidence, and Organisational Barriers

ADAPTED SURVEY OF PAST TRAINEES OF THE POST GRADUATE DIPLOMA IN COGNITIVE BEHAVIOUR THERAPY

GENERAL INFORMATION

NAME.....

1 Today's date ____/____/____. **{ Code:** _____ For office use only}

2. Gender **Male Female**

3. Age (please tick the appropriate age band)

- ☐ 20 - 29
- ☐ 30 - 39
- ☐ 40 - 49
- ☐ 50 - 59
- ☐ 60 - 69
- ☐ 70 >

4. Which professional group do you most strongly identify with currently?

- ☐ Clinical psychologist
- ☐ Registered psychologist (non-clinical)
- ☐ Counsellor
- ☐ School counsellor
- ☐ Psychotherapist
- ☐ Occupational Therapist
- ☐ General Practitioner
- ☐ Psychiatrist/Psychiatric Registrar
- ☐ Psychiatric Nurse
- ☐ Social Worker
- ☐ Community mental health worker
- ☐ Other (please specify): _____

5. What is your main employment setting?

- ☐ District Health Board / Hospital & health service
- ☐ Private practice (self-employed)
- ☐ Private practice (employed)
- ☐ University/polytechnic
- ☐ School
- ☐ Other (please specify) _____
- ☐ Child, Youth and Family
- ☐ Department of Corrections
- ☐ Commercial/industrial organisation
- ☐ Non-government organisation (e.g., community organisation)

6. What is the main age group of your clients? (Please tick one option only)

- ☐ Child (0-12)
- ☐ Adolescent (13-19)
- ☐ Adult (20-64)
- ☐ Older adults (65+)

7. What is your main therapy format? (Please tick one option only)

☐ Individual ☐ Couple ☐ Family ☐ Group

Other (please specify) _____

8. How many clients are you currently treating in some form of therapy?

- ☐ None
- ☐ 1-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ More than 20

9. Please list your academic or professional degrees.

Diplomas/Certificates: _____

Bachelors' degrees: _____

Master's degrees: _____

Doctorates: _____

Other: _____

10. What is your predominant therapeutic approach? [Tick one option only]

- ☐ Cognitive
- ☐ Behavioural
- ☐ Cognitive-behavioural
- ☐ Psychodynamic/analytic
- ☐ Client-centred/ Rogerian
- ☐ Eclectic/Integrative. Please specify the therapeutic approaches you draw on:

_____

- ☐ Other (please specify):

_____

11. Since completing formal training, how many years have you been practicing in mental health? (Exclude periods where you did not practice, e.g., during parental leave or extended travel)

_____ **years**

12. If you have already graduated from the PGDipCBT, in what year did you graduate?

_____

13. To what extent do you do the following in your current practice?

1 = I **never** do this (with 0% of my clients)
2 = I **rarely** do this (with around 25% of my clients)
3 = I **sometimes** do this (with around half my clients)
4 = I **often** do this (with around 75% of my clients)
5 = I **almost** always do this (with almost 100% of my clients)

	Never (0%)	Rarely (25%)	Sometimes (50%)	Often (75%)	Almost Always (100%)
Use a cognitive behavioural formulation/conceptualisation	1	2	3	4	5
Use validated measures (e.g. BDI, STAI, HS, DAS)	1	2	3	4	5
Set an agenda for therapy sessions	1	2	3	4	5
Use the 5 part model	1	2	3	4	5
Use a Visual Analogue Scale (i.e. VAS)	1	2	3	4	5
Use an activity schedule	1	2	3	4	5
Use graded hierarchy/graded task assignments	1	2	3	4	5
Ask clients to use a thought record	1	2	3	4	5
Use Socratic questioning and guided discovery	1	2	3	4	5
Identify underlying/core beliefs using cognitive strategies	1	2	3	4	5
Devise and use behavioural experiments	1	2	3	4	5
Use cognitive continuum	1	2	3	4	5
Use the responsibility pie	1	2	3	4	5
Use the core belief worksheet	1	2	3	4	5
Ask clients for feedback on therapy sessions	1	2	3	4	5
Design / choose homework	1	2	3	4	5
Assigning clients' homework (where, when, how long etc.)	1	2	3	4	5
Review homework	1	2	3	4	5
Use relapse prevention strategies	1	2	3	4	5
Encourage clients to take an active role by offering choices	1	2	3	4	5
Focus on appropriate pace of session and limit discussion about peripheral issues	1	2	3	4	5
Use active listening and empathy skills (verbal & non-verbal)	1	2	3	4	5
Use language that reflects genuineness and professionalism	1	2	3	4	5

14. Please rate your confidence in using the following concepts in your current practice:

1 = I **do not feel at all confident** about using this concept in practice
2 = I **feel slightly confident** about using this concept in practice
3 = I **feel moderately confident** about using this concept in practice
4 = I **feel very confident** about using this concept in practice
5 = I **feel completely confident** about using this concept in practice

	Not at all confident	Slightly confident	Moderately confident	Very confident	Completely confident
Use a cognitive behavioural formulation/conceptualisation	1	2	3	4	5
Use validated measures (e.g. BDI, STAI, HS, DAS)	1	2	3	4	5
Set an agenda for therapy sessions	1	2	3	4	5
Use the 5 part model	1	2	3	4	5
Use a Visual Analogue Scale (i.e. VAS)	1	2	3	4	5
Use an activity schedule	1	2	3	4	5
Use graded hierarchy/graded task assignments	1	2	3	4	5
Ask clients to use a thought record	1	2	3	4	5
Use Socratic questioning and guided discovery	1	2	3	4	5
Identify underlying/core beliefs using cognitive strategies	1	2	3	4	5
Devise and use behavioural experiments	1	2	3	4	5
Use cognitive continuum	1	2	3	4	5
Use the responsibility pie	1	2	3	4	5
Use the core belief worksheet	1	2	3	4	5
Ask clients for feedback on therapy sessions	1	2	3	4	5
Design / choose homework	1	2	3	4	5
Assigning clients' homework (where, when, how long etc.)	1	2	3	4	5
Review homework	1	2	3	4	5
Use relapse prevention strategies	1	2	3	4	5
Encourage clients to take an active role by offering choices	1	2	3	4	5
Focus on appropriate pace of session and limit discussion about peripheral issues	1	2	3	4	5
Use active listening and empathy skills (verbal & non-verbal)	1	2	3	4	5
Use language that reflects genuineness and professionalism	1	2	3	4	5

BARRIERS TO GENERALISATION

16. To what extent do the following limit your ability to introduce cognitive-behavioural techniques, concepts and skills into your practice?

1 = Not a barrier at all
2 = A slight barrier
3 = A moderate barrier
4 = A large barrier
5 = An insurmountable barrier

	Not a barrier	Slight barrier	Moderate barrier	Large barrier	Insurmountable barrier
There are too many clients	1	2	3	4	5
There are insufficient resources to help clients	1	2	3	4	5
The way that client care is organised is too restrictive (e.g., bureaucracy – forms and procedures)	1	2	3	4	5
Using CBT does not fit with my job description	1	2	3	4	5
Other staff won't support me if I use CBT with clients	1	2	3	4	5
I lack adequate supervision	1	2	3	4	5
I lack colleagues who also practice CBT	1	2	3	4	5
I don't believe CBT is appropriate for my clients	1	2	3	4	5
Past attempts to use CBT with clients have been unsuccessful/dissatisfactory	1	2	3	4	5
The approach is unethical	1	2	3	4	5
My clients do not favour CBT (i.e., clients do not like/want CBT)	1	2	3	4	5
My clients do not understand CBT	1	2	3	4	5
Clients' whanau/family or friends do not favour CBT	1	2	3	4	5
Clients' whanau/family or friends interfere with the delivery of CBT	1	2	3	4	5
Other clients in contact with my clients interfere with the delivery of CBT	1	2	3	4	5
My CBT knowledge and skills have declined since the PGDipCBT	1	2	3	4	5

(PLEASE COMPLETE THE LAST SECTION ONLY IF YOU HAVE GRADUATED FROM THE PGDIPCBT)

PROFESSIONAL DEVELOPMENT FOLLOWING THE PGDIPCBT

17. How many days of workshops or conferences specific to CBT have you attended?

☐ None ☐ 1 day ☐ 2 days

☐ 3-5 days

☐ 6 or more days

18. Approximately how often do you receive supervision?

☐ Not currently receiving supervision

☐ Weekly or more

☐ Fortnightly

☐ Less than monthly

☐ Monthly

19. If you wished to, would you be able to access a supervisor specialising in CBT?

☐ Y ☐ N

es o

20. Answer the following only if you are currently in supervision.

20a. Does your supervisor use a cognitive behavioural model for supervision?

☐ Yes

☐ No

☐ Supervision model is mixed but incorporates CBT

20b. Has your supervisor had formal CBT training?

Yes No

APPENDIX B-3

The Professional Development Scale

PSYCHOTHERAPISTS' PROFESSIONAL DEVELOPMENT SCALE

Name.....

Identification Code: ..... Date: .....

1. How long is it since you first began to practice psychotherapy? _____ years _____months
[Count practice during and after training but exclude periods when you did not practice]

Since you began working as a therapist ...	**[0 = Not at all**				**5 = Very much]**
2. How much have you changed overall as a therapist?	0	1	2	3	4	5
3. How much do you regard this overall change as progress or improvement?	0	1	2	3	4	5
4. How much have you succeeded in overcoming past limitations as a therapist?	0	1	2	3	4	5
5. How much have you realized your full potential as a therapist?	0	1	2	3	4	5

Overall, at the *present* time ...	**[0 = Not at all**				**5 = Very much]**
6. How much mastery do you have of the techniques and strategies involved in practising therapy?	0	1	2	3	4	5
7. How well do you understand what happens moment-by-moment during therapy sessons?	0	1	2	3	4	5
8. How well are you able to detect and deal with your patients' reactions to you?	0	1	2	3	4	5
9. How good are you at making contructive use of your personal reactions to patients?	0	1	2	3	4	5
10. How much precision, subtlety and finesse have you attained in your therapeutic work?	0	1	2	3	4	5
11. How capable to you feel to guide the development of other therapists?	0	1	2	3	4	5

In your *recent* therapeutic work, how much ...	**[0 = Not at all**				**5 = Very much]**
12. Do you feel you are changing as a therapist?	0	1	2	3	4	5
13. Does this change feel like progress or improvement?	0	1	2	3	4	5
14. Does this change feel like decline or impairment?	0	1	2	3	4	5
15. Do you feel you are overcoming past limitations as a therapist?	0	1	2	3	4	5
16. Do you feel you are becoming more skilful in practicing therapy?	0	1	2	3	4	5
17. Do you feel you are deepening your understanding of therapy?	0	1	2	3	4	5
18. Do you feel a growing sense of enthusiasm about doing therapy?	0	1	2	3	4	5
19. Do you feel you are becoming disillusioned about therapy?	0	1	2	3	4	5
20. Do you feel you are losing your capacity to respond empathically?	0	1	2	3	4	5
21. Do you feel your performance is becoming mainly routine?	0	1	2	3	4	5
22. How important to you is your further development as a therapist?	0	1	2	3	4	5

APPENDIX E

Confidentiality agreement with independent rater

MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKENGA TANGATA

Format for Confidentiality Agreement

Researchers must obtain a signed confidentiality agreement from anyone, such as research assistants, who will process any data which contains personal information. This should cover agreement to not disclose, retain or copy information.

Prepare your Confidentiality Agreement for persons other than the researcher/participants who have access to project data, based on the format below.

[Print on Massey University departmental letterhead]
[Logo, name and address of Department/School/Institute/Section]

Project Title

CONFIDENTIALITY AGREEMENT

I NATASHA DE FARIA (Full Name - printed)

agree to keep confidential all information concerning the project: Therapist Competence and Therapist Development Following Post GraduateTraining in Cognitive Behaviour Therapy..... (Title of Project).

I will not retain or copy any information involving the project.

Signature:  **Date:** 19/12/11

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